

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

Construction Phase Monthly EM&A  
Report No. 78  
(For June 2022)

July 2022

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**This Monthly EM&A Report No. 78 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 July 2022



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**By Email**

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

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

14 July 2022

Dear Sir,

**Contract No. 3102**  
**3RS Independent Environmental Checker Consultancy Services**

**Submission of Monthly EM&A Report No. 78 (June 2022)**

Reference is made to the Environmental Team's submission of the Monthly EM&A Report No. 78 under Condition 3.5 of the Environmental Permit No. EP-489/2014 certified by the ET Leader on 14 July 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
<b>1 Introduction</b>	<b>8</b>
1.1 Background	8
1.2 Scope of this Report	8
1.3 Project Organisation	8
1.4 Summary of Construction Works	12
1.5 Summary of EM&A Programme Requirements	12
<b>2 Air Quality Monitoring</b>	<b>15</b>
2.1 Action and Limit Levels	15
2.2 Monitoring Equipment	15
2.3 Monitoring Methodology	15
2.3.1 Measuring Procedure	15
2.3.2 Maintenance and Calibration	16
2.4 Summary of Monitoring Results	16
2.5 Conclusion	16
<b>3 Noise Monitoring</b>	<b>17</b>
3.1 Action and Limit Levels	17
3.2 Monitoring Equipment	17
3.3 Monitoring Methodology	18
3.3.1 Monitoring Procedure	18
3.3.2 Maintenance and Calibration	18
3.4 Summary of Monitoring Results	18
3.5 Conclusion	19
<b>4 Water Quality Monitoring</b>	<b>20</b>
4.1 Action and Limit Levels	21
4.2 Monitoring Equipment	21
4.3 Monitoring Methodology	22
4.3.1 Measuring Procedure	22
4.3.2 Maintenance and Calibration	22
4.3.3 Laboratory Measurement / Analysis	23
4.4 Summary of Monitoring Results	23
4.5 Conclusion	25
<b>5 Waste Management</b>	<b>26</b>
5.1 Action and Limit Levels	26

5.2	Waste Management Status	26
5.3	Marine Sediment Management	27
<b>6</b>	<b>Chinese White Dolphin Monitoring</b>	<b>28</b>
6.1	Action and Limit Levels	28
6.2	CWD Monitoring Transects and Stations	28
6.2.1	Small Vessel Line-transect Survey	28
6.2.2	Land-based Theodolite Tracking Survey	30
6.3	CWD Monitoring Methodology	30
6.3.1	Small Vessel Line-transect Survey	30
6.3.2	Photo Identification	31
6.3.3	Land-based Theodolite Tracking Survey	31
6.4	Monitoring Results and Observations	32
6.4.1	Small Vessel Line-transect Survey	32
6.4.2	Photo Identification	35
6.4.3	Land-based Theodolite Tracking Survey	35
6.5	Progress Update on Passive Acoustic Monitoring	36
6.6	Site Audit for CWD-related Mitigation Measures	36
6.7	Timing of reporting CWD Monitoring Results	36
6.8	Summary of CWD Monitoring	36
<b>7</b>	<b>Environmental Site Inspection and Audit</b>	<b>37</b>
7.1	Environmental Site Inspection	37
7.2	Landscape and Visual Mitigation Measures	37
7.3	Land Contamination Assessment	43
7.4	Audit of SkyPier High Speed Ferries	43
7.5	Audit of Construction and Associated Vessels	44
7.6	Implementation of Dolphin Exclusion Zone	45
7.7	Status of Submissions under Environmental Permits	45
7.8	Compliance with Other Statutory Environmental Requirements	45
7.9	Analysis and Interpretation of Complaints, Notification of Summons and Status of Prosecutions	46
7.9.1	Complaints	46
7.9.2	Notifications of Summons or Status of Prosecution	46
7.9.3	Cumulative Statistics	46
<b>8</b>	<b>Future Key Issues and Other EIA &amp; EM&amp;A Issues</b>	<b>47</b>
8.1	Construction Programme for the Coming Reporting Period	47
8.2	Key Environmental Issues for the Coming Reporting Period	49
8.3	Monitoring Schedule for the Coming Reporting Period	49
8.4	Review of the Key Assumptions Adopted in the EIA Report	49
<b>9</b>	<b>Conclusion and Recommendation</b>	<b>50</b>

## Tables

Table 1.1: Contact Information of Key Personnel	8
Table 1.2: Summary of Status of All Environmental Aspects under the Updated EM&A Manual	12
Table 2.1: Locations of Impact Air Quality Monitoring Stations	15
Table 2.2: Action and Limit Levels of Air Quality Monitoring	15
Table 2.3: Air Quality Monitoring Equipment	15
Table 2.4: Summary of Air Quality Monitoring Results	16
Table 3.1: Locations of Impact Noise Monitoring Stations	17
Table 3.2: Action and Limit Levels for Noise Monitoring	17
Table 3.3: Noise Monitoring Equipment	18
Table 3.4: Summary of Construction Noise Monitoring Results	19
Table 4.1: Monitoring Locations of Impact Water Quality Monitoring	20
Table 4.2: Action and Limit Levels for General Water Quality Monitoring	21
Table 4.3: The Control and Impact Stations during Flood Tide and Ebb Tide for General Water Quality Monitoring	21
Table 4.4: Water Quality Monitoring Equipment	22
Table 4.5: Other Monitoring Equipment	22
Table 4.6: Laboratory Measurement/ Analysis of SS	23
Table 4.7: Summary of DO (Bottom) Compliance Status (Mid-Ebb Tide)	23
Table 4.8: Summary of SS Compliance Status (Mid-Flood Tide)	24
Table 4.9: Summary of Findings from Investigation of DO Monitoring Results	24
Table 4.10: Summary of Findings from Investigation of SS Monitoring Results	25
Table 5.1: Action and Limit Levels for Construction Waste	26
Table 5.2: Construction Waste Statistics	26
Table 6.1: Derived Values of Action and Limit Levels for Chinese White Dolphin Monitoring	28
Table 6.2: Coordinates of Transect Lines in NEL, NWL, AW, WL and SWL Survey Areas	29
Table 6.3: Land-based Theodolite Survey Station Details	30
Table 6.4: Comparison of CWD Encounter Rates of the Whole Survey Area with Action Levels	34
Table 6.5: Summary of Photo Identification	35
Table 6.6: Summary of Survey Effort and CWD Group of Land-based Theodolite Tracking	35
Table 7.1: Landscape and Visual – Construction Phase Audit Summary	38
Table 7.2: Examples of Landscape and Visual Mitigation Measures in the Reporting Period	39
Table 7.3: Monitoring Programme for Landscape and Visual	40
Table 7.4: Event and Action Plan for Landscape and Visual	40
Table 7.5: Summary of the Number of Retained, Transplanted and To-be-transplanted Trees in the Reporting Period	41
Table 7.6: Summary of the Transplanted Trees Updated in the Reporting Period	42
Table 7.7: Summary of Key Audit Findings against the SkyPier Plan	44
Table 7.8: Status of Submissions under Environmental Permit	45

## Figures

- Figure 1.1 Locations of Key Construction Activities
- Figure 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 6.4 Location for Autonomous Passive Acoustic Monitoring

## Appendices

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



# Abbreviations

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

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

## Executive summary

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

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

This is the 78<sup>th</sup> Construction Phase Monthly EM&A Report for the Project which summarises the monitoring results and audit findings of the EM&A programme during the reporting period from 1 to 30 June 2022.

### **Key Activities in the Reporting Period**

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




### **EM&A Activities Conducted in the Reporting Period**

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

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

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

### **Snapshots of EM&A Activities in the Reporting Period**

		
<p>Impact Air Quality Monitoring conducted by ET at Tin Sum Village House</p>	<p>Checking of Daily Water Quality Monitoring Record for Wastewater Treatment Facility</p>	<p>Automatic Dust Suppression System implemented by Contractor</p>

### **Results of Impact Monitoring**

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

Monitoring results of construction dust, construction noise, 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 dissolved oxygen (DO) and 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 DO and SS, some of the testing results triggered the relevant Action Levels, and corresponding investigations were conducted accordingly. The investigation findings revealed that the cases were 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 3302 Eastern Vehicular Tunnel Advance Works**

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

##### **Contract 3303 Third Runway and Associated Works**

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

##### **Contract 3305 Airfield Ground Lighting System**

- Modification works.

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

- Equipment installation.

#### **Contract 3307 Fire Training Facility**

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

#### **Contract 3308 Foreign Object Debris Detection System**

- Site acceptance test for foreign object debris detection sensor.

#### **Contract 3310 North Runway Modification Works**

- Seawall construction;
- Construction of columns, walls and slabs;
- Installation of pipe piles;
- Land-based ground improvement works; and
- Backfilling works.

#### **Third Runway Concourse:**

#### **Contract 3403 New Integrated Airport Centres Building and Civil Works**

- Architectural, Builder's Work and Finishing works; and
- Defects and outstanding works.

#### **Contract 3404 Integrated Airport Control System**

- System maintenance.

#### **Contract 3405 Third Runway Concourse Foundation and Substructure Works**

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

#### **Contract 3408 Third Runway Concourse and Apron Works**

- Reinforced concrete works;
- Site setup works; and
- Excavation.

#### **Terminal 2 Expansion:**

#### **Contract 3508 Terminal 2 Expansion Works**

- Excavation and footing construction;
- Block wall construction;
- Drainage works;
- Bridge demolition;
- Piling works;
- Backfilling;
- Temporary road construction; and
- Architectural, Builder's Work and Finishing works.

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

#### **Contract 3601 New Automated People Mover System (TRC Line)**

- Guidebeam installation.

### **Contract 3602 Existing APM System Modification Works**

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

### **Contract 3603 Baggage Handling System (BHS)**

- BHS installation.

### **Construction Support (Facilities):**

#### **Contract 3721 Construction Support Infrastructure Works**

- Laying of drainage pipes and water mains;
- Paving works; and
- Road works.

#### **Contract 3723 Construction Support Facilities**

- Clearance works; and
- E&M installation.

### **Airport Support Infrastructure:**

#### **Contract 3801 APM and BHS Tunnels on Existing Airport Island**

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

#### **Contract 3802 APM and BHS Tunnels and Related Works**

- Installation of dewatering well; and
- Excavation works.

### **Construction Support (Services / Licences):**

#### **Contract 3901A Concrete Batching Facility**

- Operation of concrete batching plant and material conveyor belt.

#### **Contract 3901B Concrete Batching Facility**

- Operation of concrete batching plant.

## **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 <sup>^</sup>		√	No breach of Limit Level was recorded.	Nil
Breach of Action Level <sup>^</sup>		√	No breach of Action Level was recorded.	Nil
Complaint Received	√		A complaint regarding dust issue at 3RS construction site was received on 28 June 2022.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
			A complaint regarding dust issue at 3RS construction site was received on 28 June 2022.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
			A complaint regarding dust issue at 3RS construction site was received on 30 June 2022.	The complaint is under investigation. Findings will be reported in the next Monthly EM&A Report.
Notification of any summons and status of prosecutions		√	No notification of summons nor prosecution was received.	Nil
Change that affect the EM&A		√	There was no change to the construction works that may affect the EM&A.	Nil

Note:

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

# 1 Introduction

## 1.1 Background

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

Airport Authority Hong Kong (AAHK) commissioned Mott MacDonald Hong Kong Limited (MMHK) to undertake the role of Environmental Team (ET) for carrying out the Environmental Monitoring & Audit (EM&A) works during the construction phase of the Project in accordance with the Updated EM&A Manual (the Manual) submitted under EP Condition 3.1<sup>1</sup>. 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 78<sup>th</sup> Construction Phase Monthly EM&A Report for the Project which summarises the key findings of the EM&A programme during the reporting period from 1 to 30 June 2022.

## 1.3 Project Organisation

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

**Table 1.1: Contact Information of Key Personnel**

Party	Position	Name	Telephone
Project Manager’s Representative (Airport Authority Hong Kong)	Principal Manager, Environmental Compliance, Sustainability	Lawrence Tsui	2183 2734
Environmental Team (ET) (Mott MacDonald Hong Kong Limited)	Environmental Team Leader	Terence Kong	2828 5919
	Deputy Environmental Team Leaders	Heidi Yu	2828 5704
		Ken Wong	2828 5817

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



Party	Position	Name	Telephone
Independent Environmental Checker (IEC) (AECOM Asia Company Limited)	Independent Environmental Checker	Jackel Law	3922 9376
	Deputy Independent Environmental Checker	Roy Man	3922 9141

### Reclamation Works:

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

### Airfield Works:

Party	Position	Name	Telephone
Contract 3301 North Runway Crossover Taxiway (FJT-CHEC-ZHEC Joint Venture)	Deputy Project Director	Kin Hang Chung	9800 0048
	Environmental Officer	Joe Wong	6182 0351
Contract 3302 Eastern Vehicular Tunnel Advance Works (China Road and Bridge Corporation)	Project Manager	Dickey Yau	5699 4503
	Environmental Officer	Dennis Ho	5645 0563
Contract 3303 Third Runway and Associated Works (SAPR Joint Venture)	Project Manager	Andrew Keung	6277 6628
	Environmental Officer	Gabriel Wong	6114 9590
Contract 3305 Airfield Ground Lighting System (ADB Safegate Hong Kong Limited)	Project Manager	Allam Al-Turk	2944 9725
	Environmental Officer	Calvin Sze	9205 9277
Contract 3306 Observation Facility Control System Supporting Interim 2RS and 3RS (Chinney Alliance Engineering Limited)	Project Director	Dennis Yam	9551 9920
	Environmental Officer	Richard Liu	9216 8990
Contract 3307 Fire Training Facility (Paul Y. Construction Company Limited)	Project Manager	Ken Tang	9640 5397
	Environmental Officer	Albert Chan	9700 1083
Contract 3308 Foreign Object Debris Detection System (DAS Aviation Services Group)	Project Manager	Jeffrey Yau	9873 7422
Contract 3310 North Runway Modification Works (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Kingsley Chiang	9424 8437
	Environmental Officer	Federick Wong	9842 2703

### Third Runway Concourse:

Party	Position	Name	Telephone
Contract 3403 New Integrated Airport Centres Building and Civil Works (Sun Fook Kong Construction Limited)	Project Manager	Alice Leung	9220 3162
	Environmental Officer	Ray Cheung	9785 1566
Contract 3404 Integrated Airport Control System (Shun Hing Systems Integration Co., Ltd.)	Project Manager	Andy Ng	9102 2739
	Environmental Officer	Richard Ng	9802 9577
Contract 3405 Third Runway Concourse Foundation and Substructure Works (China Road and Bridge Corporation – Bachy Soletanche Group Limited – LT Sambo Co., Ltd. Joint Venture)	Project Manager	Francis Choi	9423 3469
	Environmental Officer	Jacky Lai	9028 8975
Contract 3408 Third Runway Concourse and Apron Works (Beijing Urban Construction Group Company Limited and Chevalier (Construction) Company Limited Joint Venture)	Assistant Project Manager	Qian Zhang	5377 7976
	Environmental Officer	Malcolm Leung	7073 7559

### Terminal 2 (T2) Expansion:

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

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

Party	Position	Name	Telephone
Contract 3601 New Automated People Mover System (TRC Line) (CRRRC Puzhen Bombardier Transportation Systems Limited and CRRRC Nanjing Puzhen Co., Ltd. Joint Venture)	Project Manager	Hongdan Wei	158 6180 9450
	Environmental Officer	H Y Yue	9185 8186
Contract 3602 Existing APM System Modification Works (Niigata Transys Co., Ltd.)	Project Manager	Kunihiro Tatecho	9755 0351
	Environmental Officer	Y M Tong	5316 9801

Party	Position	Name	Telephone
Contract 3603 3RS Baggage Handling System (VISH Consortium)	Project Manager	K C Ho	9272 9626
	Environmental Officer	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	John Mak	6273 8703
Contract 3723 Eastern Support Area – Construction Support Facilities (Tapbo Construction Company Limited and Konwo Modular House Ltd. Joint Venture.)	Deputy Project Director	Philip Kong	9337 8700
	Environmental Officer	Eddie Suen	6338 8862
Contract 3728 Minor Site Works (Shun Yuen Construction Company Limited)	Contract Manager	C K Liu	9194 8739
	Environmental Officer	Dan Leung	6856 5899
Contract 3733 Emergency Repair Service (Wing Hing Construction Co., Ltd.)	Project Manager	Michael Kan	9206 0550
	SHE Manager	Mike Leung	6625 2550

### Airport Support Infrastructure:

Party	Position	Name	Telephone
Contract 3801 APM and BHS Tunnels on Existing Airport Island (China State Construction Engineering (Hong Kong) Ltd.)	Project Manager	Kingsley Chiang	9424 8437
	Environmental Officer	Eunice Kwok	9243 1331
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)	General Manager	Gabriel Chan	2435 3260
	Environmental Officer	Rex Wong	2695 6319

### 1.4 Summary of Construction Works

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

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

### 1.5 Summary of EM&A Programme Requirements

The status for all environmental aspects are presented in **Table 1.2**. The EM&A requirements remained unchanged during the reporting period. **Figure 1.2** presents the latest layout of enhanced silt curtain deployed.

**Table 1.2: Summary of Status of All Environmental Aspects under the Updated EM&A Manual**

Parameters	EM&A Requirements	Status
<b>Air Quality</b>		
Baseline Monitoring	At least 14 consecutive days before commencement of construction work	The baseline air quality monitoring result was reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	At least 3 times every 6 days	On-going
<b>Noise</b>		
Baseline Monitoring	Daily for a period of at least two weeks prior to the commencement of construction works	The baseline noise monitoring result was reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
<b>Water Quality</b>		
General Baseline Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides, for at least four weeks prior to the commencement of marine works.	The baseline water quality monitoring result was reported in Baseline Water Quality Monitoring Report and submitted to EPD under EP Condition 3.4.
General Impact Water Quality Monitoring for reclamation, water jetting and field joint works	Three days per week, at mid-flood and mid-ebb tides.	On-going for reclamation works. General impact water quality monitoring for water jetting works was completed on 23 May 2017.
Initial Intensive Deep Cement Mixing (DCM) Water Quality Monitoring	At least four weeks	The Initial Intensive DCM Monitoring Report was submitted and approved by EPD in accordance with the Detailed Plan on DCM.

Parameters	EM&A Requirements	Status
Regular DCM Water Quality Monitoring	Three times per week until completion of DCM works.	Due to the completion of all marine-based DCM works within April 2022, regular DCM monitoring was ceased at all monitoring stations starting from 28 April 2022 and would be resumed if there are marine-based DCM works in the coming future.
<b>Sewerage and Sewage Treatment</b>		
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 <sub>2</sub> 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 <sub>2</sub> S monitoring system will be prepared and submitted to EPD at least one year before commencement of operation of 3RS.
<b>Waste Management</b>		
Waste Monitoring	At least weekly	On-going
<b>Land Contamination</b>		
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.
<b>Terrestrial Ecology</b>		
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.
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.
<b>Marine Ecology</b>		
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.
<b>Chinese White Dolphins (CWD)</b>		
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;	On-going

Parameters	EM&A Requirements	Status
	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.	
<b>Landscape &amp; Visual</b>		
Landscape & Visual Plan	At least 3 months before the commencement of construction works on the formed land of the Project.	The Landscape & Visual Plan was submitted and approved by EPD under EP Condition 2.18
Baseline Monitoring	One-off survey within the Project site boundary prior to commencement of any construction works	The baseline landscape & visual monitoring result was reported in Baseline Monitoring Report and submitted to EPD under EP Condition 3.4.
Impact Monitoring	Weekly	On-going
<b>Environmental Auditing</b>		
Regular site inspection	Weekly	On-going
Marine Mammal Watching Plan (MMWP) implementation measures	Monitor and check	On-going
Dolphin Exclusion Zone (DEZ) Plan implementation measures	Monitor and check	On-going
SkyPier High Speed Ferries (HSF) implementation measures	Monitor and check	On-going
Construction and Associated Vessels Implementation measures	Monitor and check	On-going
Silt Curtain Deployment Plan implementation measures	Monitor and check	On-going
Spill Response Plan implementation measures	Monitor and check	On-going
Complaint Hotline and Email channel	Construction phase	On-going
Environmental Log Book	Construction phase	On-going

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

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

- One skipper training session provided by ET: 15 June 2022.
- Seventeen environmental management meetings for EM&A review with works contracts: 2, 9, 10, 16, 17, 22, 23, 24, 27, 28 and 29 June 2022.

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

## 2 Air Quality Monitoring

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

**Table 2.1: Locations of Impact Air Quality Monitoring Stations**

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

### 2.1 Action and Limit Levels

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

**Table 2.2: Action and Limit Levels of Air Quality Monitoring**

Monitoring Station	Action Level ( $\mu\text{g}/\text{m}^3$ )	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)	11 May 2022	Monthly EM&A Report No. 77, 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**, 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**. Monitoring session on 10 June 2022 was rescheduled to 11 June 2022 due to adverse weather.

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	19 - 68	306	500
AR2	14 - 82	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 <sup>(1)</sup>	Tung Chung West Development	To be determined
NM3A <sup>(2)</sup>	Site Office	Facade
NM4	Ching Chung Hau Po Woon Primary School	Free field
NM5	Village House in Tin Sum	Free field
NM6	House No. 1, Sha Lo Wan	Free field

Notes:

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

### 3.1 Action and Limit Levels

In accordance with the Manual, baseline noise levels at the noise monitoring stations were established as presented in the Baseline Monitoring Report. The Action and Limit Levels of the noise monitoring stipulated in the EM&A programme for triggering the relevant investigation and follow-up procedures under the programme are provided in **Table 3.2**.

**Table 3.2: Action and Limit Levels for Noise Monitoring**

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

Note:

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

### 3.2 Monitoring Equipment

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

**Table 3.3: Noise Monitoring Equipment**

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Integrated Sound Level Meter	Rion NL-52 (Serial No. 00998505)	22 Mar 2022	Monthly EM&A Report No. 75, Appendix D
	Rion NL-52 (Serial No. 01287679)	20 Jun 2021 <sup>1</sup>	Monthly EM&A Report No. 66, Appendix D
Acoustic Calibrator	Casella CEL-120/1 (Serial No. 2383737)	20 Jun 2021 <sup>1</sup>	Monthly EM&A Report No. 66, Appendix D
	Castle GA607 (Serial No. 040162)	22 Mar 2022	Monthly EM&A Report No. 75, Appendix D

Note:

1. The monitoring equipment was not used after the expiration of calibration certificate (i.e. 19 June 2022).

### 3.3 Monitoring Methodology

#### 3.3.1 Monitoring Procedure

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

- 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.
- Façade measurements were made at the monitoring station NM3A.
- Parameters such as frequency weighting, time weighting and measurement time were set.
- 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.
- 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.
- Noise measurement results, when higher than the baseline monitoring levels, were corrected with reference to the baseline monitoring levels.
- 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:

- The microphone head of the sound level meter was cleaned with soft cloth at regular intervals.
- 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**. Due to Red Rainstorm Warning Signal on 8 June 2022, the monitoring session for NM4 and NM6 was

rescheduled to 10 June 2022 and the monitoring session on 10 June 22 for NM1A and NM5 was rescheduled to 11 June 2022.

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)
	Leq (30mins)	Leq (30mins)
NM1A <sup>(1) (3)</sup>	64 - 70	75
NM4 <sup>(1)</sup>	61 - 63	70 <sup>(2)</sup>
NM5 <sup>(1) (3)</sup>	56 - 61	75
NM6 <sup>(1) (3)</sup>	62 - 68	75

Notes:

- (1) +3dB(A) Façade correction included;
- (2) The limit level will be reduced to 65dB(A) during school examination periods at NM4. School examination took place from 23 to 29 June 2022 during this reporting period.
- (3) Some of the noise measurement results were higher than the baseline monitoring levels. In order to reduce the influence of non-Project related noise on the monitoring results, these measurement results were corrected with reference to the baseline monitoring results.

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

### 3.5 Conclusion

As the construction activities were far away from the monitoring stations, major sources of noise dominating the monitoring stations observed during the construction noise impact monitoring were traffic noise near NM1A and aircraft noise near NM6 during this reporting period. It is considered that the monitoring work during the reporting period was effective and there was no adverse impact attributable to the Project activities.

## 4 Water Quality Monitoring

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

**Table 4.1: Monitoring Locations of Impact Water Quality Monitoring**

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

Notes:

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

## 4.1 Action and Limit Levels

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

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

Parameters	Action Level (AL)		Limit Level (LL)	
<b>Action and Limit Levels for general water quality monitoring (excluding SR1A &amp; SR8)</b>				
General Water Quality Monitoring	DO in mg/l (Surface, Middle & Bottom)	Surface and Middle	Surface and Middle	
		4.5mg/l	4.1mg/l	
	Suspended Solids (SS) in mg/l	Bottom	Bottom	
		3.4mg/l	2.7mg/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	
<b>Action and Limit Levels SR1A</b>				
	SS (mg/l)	33	42	
<b>Action and Limit Levels SR8</b>				
	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
<b>Flood Tide</b>	
C1	IM1, IM2, IM7, SR3
SR2 <sup>(1)</sup>	IM7, IM10, IM11, IM12, SR1A, SR3, SR4A, SR8
<b>Ebb Tide</b>	
C1	SR4A
C2	IM1, IM2, IM7, IM10, IM11, IM12, SR1A, SR2, SR3, SR8

Note:

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

## 4.2 Monitoring Equipment

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

**Table 4.4: Water Quality Monitoring Equipment**

Equipment	Brand and Model	Last Calibration Date	Calibration Certificate Provided in
Multifunctional Meter (measurement of DO, pH, temperature, salinity and turbidity)	YSI ProDSS (Serial No. 21G105356)	08 Apr 2022	Monthly EM&A Report No. 76, Appendix D
	YSI ProDSS (Serial No. 16H104233)	10 Jun 2022	<b>Appendix D</b>
	YSI ProDSS (Serial No. 16H104234) <sup>(1)</sup>	18 Mar 2022	Monthly EM&A Report No. 75, Appendix D
	YSI ProDSS (Serial No. 17E100747)	10 Jun 2022	<b>Appendix D</b>

Note:

- (1) The monitoring equipment was not used in the reporting period after the expiry date of the calibration certificate. (i.e. 17 Jun 2022)

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 22<sup>nd</sup> 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 DO and SS, obtained during the reporting period were within their corresponding Action and Limit Levels. The detailed monitoring results are presented in **Appendix C**.

For DO and SS, some of the testing results triggered the corresponding Action Levels, and investigations were conducted accordingly.

**Table 4.7** to **Table 4.8** present the summary of the DO and SS compliance status at IM and SR stations during mid-ebb and mid-flood tides for the reporting period.

**Table 4.7: Summary of DO (Bottom) Compliance Status (Mid-Ebb Tide)**

	IM1	IM2	IM7	IM10	IM11	IM12	SR2	SR3	SR4A
02/06/2022									
04/06/2022									
07/06/2022									
09/06/2022									
11/06/2022									
14/06/2022									
16/06/2022									
18/06/2022									
21/06/2022									
23/06/2022									
25/06/2022									D
28/06/2022									
30/06/2022									
No. of result triggering Action or Limit Level	0	0	1	0	0	0	0	1	1

**Table 4.8: Summary of SS Compliance Status (Mid-Flood Tide)**

	IM1	IM2	IM7	IM10	IM11	IM12	SR1A	SR3	SR4A	SR8
02/06/2022										
04/06/2022										
07/06/2022										
09/06/2022										
11/06/2022										
14/06/2022										
16/06/2022										
18/06/2022										
21/06/2022										
23/06/2022										
25/06/2022										
28/06/2022										
30/06/2022										
No. of result triggering Action or Limit Level	0	0	0	0	0	1	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
D	Monitoring result triggered the Action Level at monitoring station located downstream of the Project based on dominant tidal flow
	Upstream station with respect to the Project during the respective tide based on dominant tidal flow

Monitoring results triggered the corresponding Action Levels on two monitoring days. Some cases occurred at monitoring stations upstream of the Project during ebb and flood tide and would unlikely be affected by the Project.

In accordance with Event and Action Plan stipulated in the Manual, IEC and Contractors were informed when the corresponding Action Levels were triggered. Repeat in-situ measurement was conducted on 26 June 2022 according to the requirements as stipulated in the Manual.

Investigation focusing on the cases which occurred at monitoring stations located downstream of the Project was carried out. Details of the Project's marine construction activities and site observations of the concerned monitoring days were collected. Findings were summarised in **Table 4.9** and **Table 4.10**.

**Table 4.9: Summary of Findings from Investigation of DO Monitoring Results**

Date	Marine construction works nearby	Approximate distance from marine construction works	Status of water quality measures (if applicable)	Construction vessels in the vicinity	Turbidity / Silt plume observed near the monitoring station	Action or Limit Level triggered due to Project
25/06/2022	Seawall construction	At least 2 km	Silt curtain deployed	No	No	No



**Table 4.10: Summary of Findings from Investigation of SS Monitoring Results**

Date	Marine construction works nearby	Approximate distance from marine construction works	Status of water quality measures (if applicable)	Construction vessels in the vicinity	Turbidity / Silt plume observed near the monitoring station	Action or Limit Level triggered due to Project
14/06/2022	Underwater cutting of steel pile	At least 5 km	Silt curtain deployed	No	No	No

The investigation confirmed that marine construction works were conducted with silt curtains deployed during the concerned monitoring days. The silt curtains were maintained properly and checked by ET regularly. No muddy water discharges from outfalls of the reclaimed land were observed. The repeat measurement results were within the corresponding Action or Limit Levels.

For the DO result recorded at SR4A on 25 June 2022 triggering Action Level, it is noted that the DO concentrations at other downstream stations closer to the marine works area (e.g. IM1 and IM2) were within the corresponding Action or Limit Levels, implying that the case might be due to external factors out of the Project Area. No silt plume, construction vessel, spillage incident or specific observation at outfalls were observed in the vicinity when monitoring was undertaken at the monitoring station. Therefore, the case was considered unlikely due to 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 some DO measurement results and one SS measurement result triggered the corresponding Action Levels, investigations were conducted accordingly.

Based on the investigation findings, all results that triggered the corresponding Action Levels were 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. These cases 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 contractors' information, construction waste generated in the reporting period is summarised in **Table 5.2**. ET and IEC have carried out site audits regularly and reviewed the trip ticket system. Dedicated areas for sorting of materials are established on site. Recyclable materials such as steel, reinforcement bar, structural steel, aluminium, copper, other metals, paper and plastic are sorted on-site and transported off-site for recycling during this reporting period.

**Table 5.2: Construction Waste Statistics**

	C&D Material Stockpiled for Reuse or Recycle <sup>(1)</sup> (m <sup>3</sup> )	C&D Material Reused in the Project (m <sup>3</sup> )	C&D Material Reused in other Projects (m <sup>3</sup> )	C&D Material Transferred to Public Fill (m <sup>3</sup> )	Chemical Waste (kg)	Chemical Waste (l)	General Refuse (tonne)
May 2022 <sup>(2)</sup>	73,565	3,354	22,306	8,313*	20	0	3,358
June 2022 <sup>(3)</sup>	34,177	3,209	40,825	10,305	1,000	0	2,679

Notes:

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

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

### **5.3 Marine Sediment Management**

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

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

## 6 Chinese White Dolphin Monitoring

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

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

### 6.1 Action and Limit Levels

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

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

NEL, NWL, AW, WL and SWL as a Whole	
Action Level <sup>(3)</sup>	Running quarterly <sup>(1)</sup> STG < 1.86 & ANI < 9.35
Limit Level <sup>(3)</sup>	Two consecutive running quarterly <sup>(2)</sup> (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
<b>NEL</b>					
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
<b>NWL</b>					
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
<b>AW</b>					
1W	804733	818205	2W	805045	816912
1E	806708	818017	2E	805960	816633
<b>WL</b>					
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			
<b>SWL</b>					
1S	802494	803961	6S	807467	801137
1N	802494	806174	6N	807467	808458
2S	803489	803280	7S	808553	800329
2N	803489	806720	7N	808553	807377
3S	804484	802509	8S	809547	800338
3N	804484	807048	8N	809547	807396
4S	805478	802105	9S	810542	800423
4N	805478	807556	9N	810542	807462
5S	806473	801250	10S	811446	801335
5N	806473	808458	10N	811446	809436

### 6.2.2 Land-based Theodolite Tracking Survey

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

**Table 6.3: Land-based Theodolite Survey Station Details**

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

## 6.3 CWD Monitoring Methodology

### 6.3.1 Small Vessel Line-transect Survey

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

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

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

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

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

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

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

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

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

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

### 6.3.2 Photo Identification

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

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

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

### 6.3.3 Land-based Theodolite Tracking Survey

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

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

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

## 6.4 Monitoring Results and Observations

### 6.4.1 Small Vessel Line-transect Survey

#### Survey Effort

Within this reporting period, two complete sets of small vessel line-transect surveys were conducted on the 8, 10, 13, 16, 21, 22, 23 and 24 June 2022 covering all transects in NEL, NWL, AW, WL and SWL survey areas for twice.

A total of around 448.78 km of survey effort was collected from these surveys and 420.85 km of the survey effort was being conducted under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of the survey effort are given in **Appendix C**.

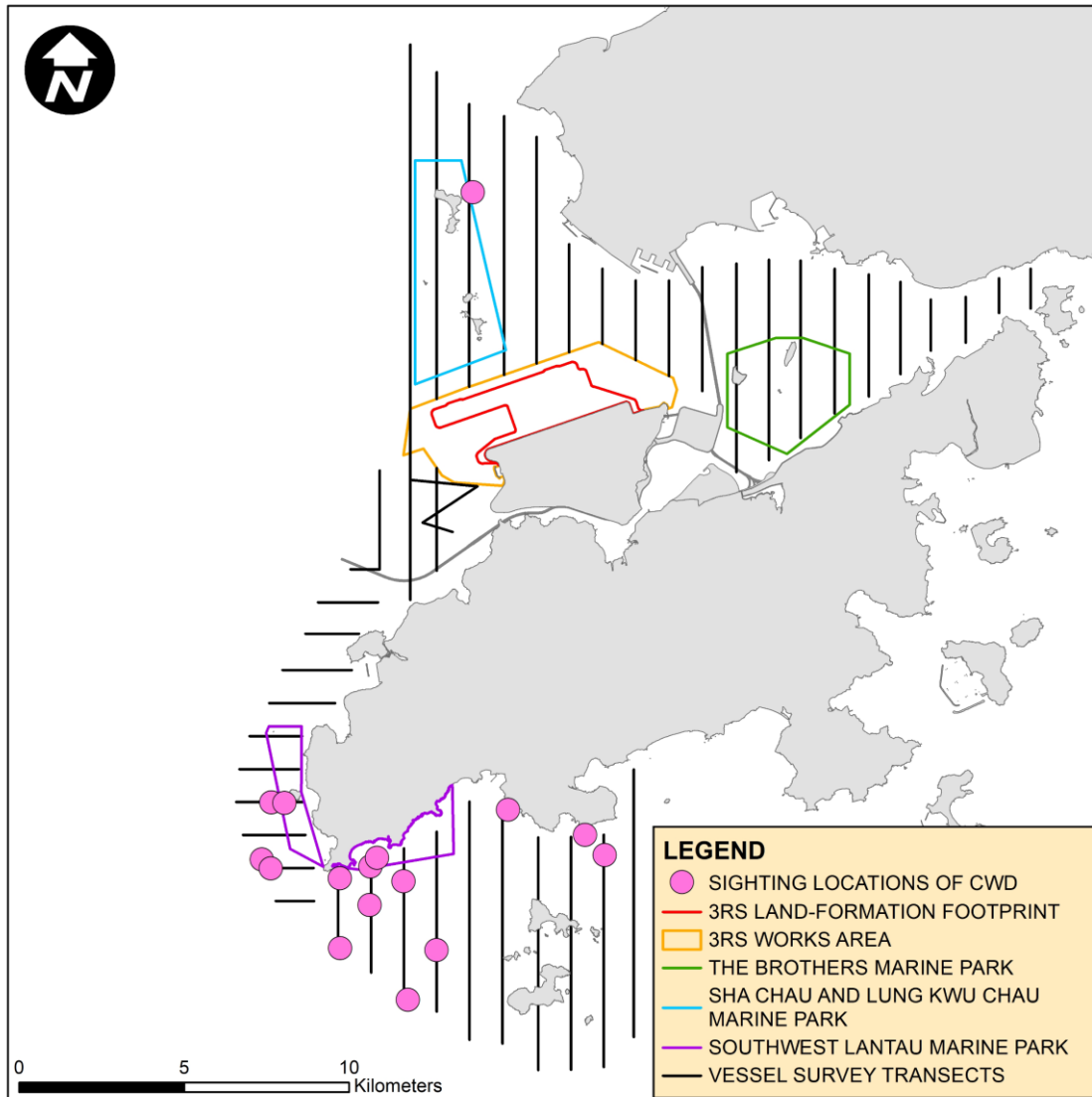
#### Sighting Distribution

In the current reporting period, 16 sightings with 68 dolphins were sighted. All these sightings were on-effort records under favourable weather condition (i.e. Beaufort Sea State 3 or below with favourable visibility). Details of cetacean sightings are presented in **Appendix C**.

Distribution of all CWD sightings recorded in the current reporting period is illustrated in **Figure 6.3**. In NWL, a CWD group was observed at the east of Lung Kwu Chau. CWD groups in WL were observed at waters near Peaked Hill and Fan Lau. In SWL, there was a cluster of CWD groups recorded off Fan Lau. There were also a few CWD sightings recorded at the southwestern part of survey area away from shore, as well as at the waters around Lo Kei Wan. 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 16 pink circles on the map indicating the sighting locations of CWDs. Some of them were very close to each other and therefore may appear overlapped on this distribution map. (2) Marine park excludes land area and the landward boundary generally follows the high water mark along the coastline.

**Encounter Rate**

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

Encounter Rate by Number of Dolphin Sightings (STG)

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

Encounter Rate by Number of Dolphins (ANI)

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

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

In this reporting period, a total of around 420.85 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 16 on-effort sightings with 68 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 April to June 2022), a total of around 1284.24 km of survey effort were conducted under Beaufort Sea State 3 or below with favourable visibility, whilst a total number of 45 on-effort sightings and a total number of 166 dolphins from on-effort sightings were obtained under such condition. Calculation of the running quarterly encounter rates are shown in **Appendix C**.

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

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

	Encounter Rate (STG)	Encounter Rate (ANI)
June 2022	3.80	16.16
Running Quarter from April to June 2022 <sup>(1)</sup>	3.50	12.93
Action Level	Running quarterly <sup>(1)</sup> STG < 1.86 & ANI < 9.35	

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

**Group Size**

In the current reporting period, 16 groups of 68 dolphins in total were sighted, and the average group size of CWDs was 4.3 dolphins per group. Over half of the CWD sightings were with small group size (i.e. 1-2 dolphins). There were two CWD sightings with large group size (i.e. 10 or more dolphins) recorded in SWL and WL survey areas.

**Activities and Association with Fishing Boats**

There were five CWD sightings recorded engaging in foraging activities in the current reporting period. No association with operating fishing boat was recorded.

## Mother-calf Pair

In this reporting period, there were four CWD sightings recorded with mother-and-unspotted juvenile pair(s) and/or mother-and-unspotted calf pair(s) in NWL, WL and SWL survey areas.

### 6.4.2 Photo Identification

In the current reporting period, a total number of 30 different CWD individuals were identified for totally 34 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
NLMM009	13-Jun-22	1	NWL	SLMM075	24-Jun-22	7	SWL
NLMM015	13-Jun-22	1	NWL	SLMM076	24-Jun-22	7	SWL
NLMM027	24-Jun-22	7	SWL	WLMM003	23-Jun-22	1	SWL
NLMM040	24-Jun-22	7	SWL	WLMM013	24-Jun-22	2	WL
NLMM069	24-Jun-22	4	WL			4	WL
NLMM085	24-Jun-22	7	SWL	WLMM019	23-Jun-22	5	SWL
SLMM002	24-Jun-22	5	SWL	WLMM049	23-Jun-22	5	SWL
SLMM012	22-Jun-22	8	SWL		24-Jun-22	7	SWL
	24-Jun-22	5	SWL	WLMM052	24-Jun-22	4	WL
SLMM014	23-Jun-22	3	SWL	WLMM056	24-Jun-22	5	SWL
SLMM025	23-Jun-22	2	SWL	WLMM071	23-Jun-22	5	SWL
SLMM034	24-Jun-22	5	SWL	WLMM079	23-Jun-22	5	SWL
SLMM037	22-Jun-22	8	SWL	WLMM131	22-Jun-22	7	SWL
	24-Jun-22	5	SWL	WLMM147	23-Jun-22	5	SWL
SLMM050	23-Jun-22	5	SWL	WLMM163	23-Jun-22	5	SWL
SLMM060	22-Jun-22	9	SWL	WLMM164	13-Jun-22	1	NWL
SLMM074	24-Jun-22	7	SWL	WLMM176	24-Jun-22	4	WL

### 6.4.3 Land-based Theodolite Tracking Survey

#### Survey Effort

Land-based theodolite tracking surveys were conducted at LKC on 22 June 2022 and at SC on 24 June 2022, with a total of two days of land-based theodolite tracking survey effort accomplished in this reporting period. No CWD group was tracked off LKC or SC stations during the reporting period. Information of survey effort and CWD groups are presented in **Table 6.6**. Details of the survey effort are presented in **Appendix C**.

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

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

## 6.5 Progress Update on Passive Acoustic Monitoring

Underwater acoustic monitoring using Passive Acoustic Monitoring (PAM) should be undertaken during land formation related construction works. Both C-POD and F-POD are considered as effective PAM devices in detecting CWD occurrence, and F-POD was the main PAM device deployed where feasible. During this reporting period, the F-POD was remained underwater and positioned at south of Sha Chau Island inside the SCLKCMP (**Figure 6.4**). The F-POD was last deployed on 16 May 2022 and the next retrieval is scheduled in late-July 2022. Acoustic data would be reviewed to give an indication of CWD occurrence patterns and anthropogenic noise information. Analysis would involve use of proprietary software for objective automated data analyses and experienced analysts to perform visual validation for assessment of dolphin detection. As the period of data collection and analysis takes about four months, PAM results could not be reported in monthly intervals but report for supplementing the annual CWD monitoring analysis.

## 6.6 Site Audit for CWD-related Mitigation Measures

During the reporting period, silt curtains were provided by the contractor for marine filling works, in which dolphin observers were also deployed by the contractor in accordance with the MMWP. Overall, 1 to 3 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 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' MMWP and DEZ monitoring records, no dolphin or other marine mammals were observed within or around the silt curtain or DEZ during this reporting month. These contractors' records were also audited by the ET during site inspection.

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

## 6.7 Timing of reporting CWD Monitoring Results

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

## 6.8 Summary of CWD Monitoring

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

## 7 Environmental Site Inspection and Audit

### 7.1 Environmental Site Inspection

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

During site inspections, environmental situation, status of implementation of pollution control and mitigation measures were observed. Environmental documents and site records, including waste disposal record, maintenance record of environmental equipment, and relevant environmental permit and licences, were also checked on site. Observations were recorded in the site inspection checklist and passed to the contractor together with the recommended mitigation measures where necessary in order to advise contractors on environmental improvement, awareness and on-site enhancement measures. The observations were made with reference to the following information during the site inspections:

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

Good site practices were observed in site inspections during the reporting period. Advice was given when necessary to ensure the construction workforce were familiar with relevant procedures, and to maintain good environmental performance on site. Regular toolbox talks on environmental issues were organised for the construction workforce by the contractors to ensure understanding and proper implementation of environmental protection and pollution control mitigation measures.

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

### 7.2 Landscape and Visual Mitigation Measures

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

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







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

**Table 7.1: Landscape and Visual – Construction Phase Audit Summary**

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

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

**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 using light hooding and minimisation of night working period (CM7)</p>
		
<p>General view of tree protection zone for retained tree (CM8)</p>	<p>General view of a transplanted tree (CM9)</p>	<p>General view of advanced hydroseeding around taxiways and runways (CM10)</p>

In accordance with the Updated EM&A Manual, all existing trees shall be protected carefully during construction. Trees unavoidably affected by the works shall be transplanted where practical. In this reporting period, the cumulative total number of retained trees and transplanted trees under the Project were 45 and 26, and it is confirmed that 2 retained trees outside the site hoarding of C3602 were felled. Details of the retained trees, transplanted trees and to-be-transplanted trees under the Project are summarized in **Table 7.5**.

Details of the retained trees are to be discussed in the Quarterly EM&A reports.

**Table 7.3: Monitoring Programme for Landscape and Visual**

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

**Table 7.4: Event and Action Plan for Landscape and Visual**

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



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

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

Existing				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
		Establishment Period	Maintenance Period	
3302	9	0	0	0
3503	0	0	9	0
3508 <sup>(1)</sup>	24	12	0	0
3602	0	0	0	0
3801	12	0	5 <sup>(2)</sup>	0
Sub-total	45	12	14	0
Provisional				
Contract	Retain (nos.)	Transplanted (nos.)		To-be-transplanted (nos.)
3508 <sup>(1)</sup>	50	0		10
Sub-total	50	0		10
<b>Grand Total</b>	<b>97</b>	<b>26</b>		<b>10</b>

Notes:

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

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

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

Tree ID	Transplant Date	Management Stage	Management Agency	Remarks	
CT276	3 May 2018	<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station	Establishment Period was completed. Next inspection will be conducted in February 2023. Photos of the last inspection in February 2022 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.74.	
CT1253	4 May 2018	<u>Long Term Management period</u> Jun 2019 – May 2028	Southern Landside Petrol Filling Station		
T835	22 Jan 2020	<u>Long Term Management period</u> Feb 2021 – Jan 2030	AAHK	Establishment Period was completed. Next inspection will be conducted in February 2023. Photos of the last inspection in February 2022 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.74.	
T836	13 Dec 2019	<u>Long Term Management period</u> Feb 2021 – Jan 2030	AAHK		
T838	22 Jan 2020	<u>Long Term Management period</u> Feb 2021 – Jan 2030	AAHK		
T812	21 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK		
T814	20 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK	Establishment Period was completed. Next inspection will be conducted in December 2022. Photos of the last inspection in December 2021 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.72.	
T815	15 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK		
T829	18 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK		
T830	14 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK		
T831	19 Dec 2020	<u>Long Term Management period</u> Jan 2022 – Dec 2031	AAHK		
T1493	6 Jul 2021	<u>Establishment period</u> 7 Jul 2021 – Jul 2022	Contract 3508		Next inspection will be conducted in July 2022. Photos of the last inspection in May 2022 can be referred to Table 7.7 of the Construction Phase Monthly EM&A Report No.77.
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		
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		

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

### 7.3 Land Contamination Assessment

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

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

### 7.4 Audit of SkyPier High Speed Ferries

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

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 May 2022. Key audit findings for the SkyPier HSFs travelling to/from Zhuhai and Macau against the requirements of the SkyPier Plan during the reporting period are summarised in **Table 7.7**.

The daily movement of all SkyPier HSFs, including those not using the diverted route, in this reporting period (i.e., 3 daily movements) were within the maximum daily cap of 125 daily movements. Status of compliance with the annual daily average of 99 movements will be further reviewed in the Annual EM&A Report.

As updated by CLP Power, the construction works of the Hong Kong Offshore LNG Terminal Project may affect the route diversion operation of the SkyPier HSFs from Q1 to Q3 2022. The captains were informed on the issue and ET will continue to closely monitor the implementation of the SkyPier Plan in the period.

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

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

## 7.5 Audit of Construction and Associated Vessels

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

ET carried out the following actions during the reporting period:

- One skipper training session was held for contractor’s concerned skipper 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.
- Two 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, 1 skipper was trained by ET and 3 skippers were trained by contractor’s Environmental Officers. In total, 1863 skippers were trained from August 2016 to June 2022.
- The MSS automatically recorded deviation cases such as speeding, entering no entry zone and not travelling through the designated gate. ET conducted checking to ensure the MSS records deviation cases accurately.
- Deviations such as speeding in the works area, entered no entry zone, and entering from non-designated gates were identified. All the concerned contractors were reminded to comply with the requirements of the MTRMP-CAV during the bi-weekly Construction Traffic Control Centre (CTCC) audit.

- Three-month rolling programmes (one month record and three months forecast) for construction vessel activities were received from the contractors in order to help maintain the number of construction and associated vessels on site to a practicable minimal level.

## 7.6 Implementation of Dolphin Exclusion Zone

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

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

## 7.7 Status of Submissions under Environmental Permits

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

**Table 7.8: Status of Submissions under Environmental Permit**

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

Two complaints regarding dust issue at 3RS construction site were received on 28 June 2022 and a complaint on dust issue was received on 30 June 2022. The cases are under investigation and findings will be reported in the next Monthly EM&A Report.

### 7.9.2 Notifications of Summons or Status of Prosecution

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

### 7.9.3 Cumulative Statistics

Cumulative statistics on complaints, notifications of summons and status of prosecutions are summarised in **Appendix 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 3302 Eastern Vehicular Tunnel Advance Works**

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

##### **Contract 3303 Third Runway and Associated Works**

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

##### **Contract 3305 Airfield Ground Lighting System**

- Modification works.

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

- Equipment installation.

##### **Contract 3307 Fire Training Facility**

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

##### **Contract 3308 Foreign Object Debris Detection System**

- Site acceptance test for foreign object debris detection sensor.

##### **Contract 3310 North Runway Modification Works**

- Seawall construction;
- Construction of columns, slabs and walls;
- Installation of pipe piles;
- Land-based ground improvement works; and
- Backfilling works.

### **Third Runway Concourse**

#### **Contract 3403 New Integrated Airport Centres Building and Civil Works**

- Architectural, Builder's Work and Finishing works; and
- Defects and outstanding works.

#### **Contract 3404 Integrated Airport Control System**

- System maintenance.

#### **Contract 3405 Third Runway Concourse Foundation and Substructure Works**

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

#### **Contract 3408 Third Runway Concourse and Apron Works**

- Reinforced concrete works;
- Site setup works; and
- Excavation.

### **Terminal 2 Expansion:**

#### **Contract 3508 Terminal 2 Expansion Works**

- Excavation and footing construction;
- Block wall construction;
- Drainage works;
- Bridge demolition;
- Piling works;
- Backfilling;
- Temporary road construction; and
- Architectural, Builder's Work and Finishing works.

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

#### **Contract 3601 New Automated People Mover System (TRC Line)**

- Guidebeam installation.

#### **Contract 3602 Existing APM System Modification Works**

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

#### **Contract 3603 Baggage Handling System (BHS)**

- BHS installation.

### **Construction Support (Facilities):**

#### **Contract 3721 Construction Support Infrastructure Works**

- Laying of drainage pipes and water mains;
- Paving works; and
- Road works.

#### **Contract 3723 Construction Support Facilities**

- Clearance works; and
- E&M installation.

### **Airport Support Infrastructure:**



### **Contract 3801 APM and BHS Tunnels on Existing Airport Island**

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

### **Contract 3802 APM and BHS Tunnels and Related Works**

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

### **Construction Support (Services / Licenses):**

#### **Contract 3901A Concrete Batching Facility**

- Operation of concrete batching plant and material conveyor belt.

#### **Contract 3901B Concrete Batching Facility**

- Operation of concrete batching plant.

## **8.2 Key Environmental Issues for the Coming Reporting Period**

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

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

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

## **8.3 Monitoring Schedule for the Coming Reporting Period**

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

## **8.4 Review of the Key Assumptions Adopted in the EIA Report**

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

## 9 Conclusion and Recommendation

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

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

Monitoring results of construction dust, construction noise, 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 DO and 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 DO and SS, some of the testing results triggered the relevant Action Levels, and the corresponding investigations were conducted accordingly. The investigation findings concluded that the cases were 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 3 daily movements, which are within the maximum daily cap of 125 daily movements.

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

# Figures

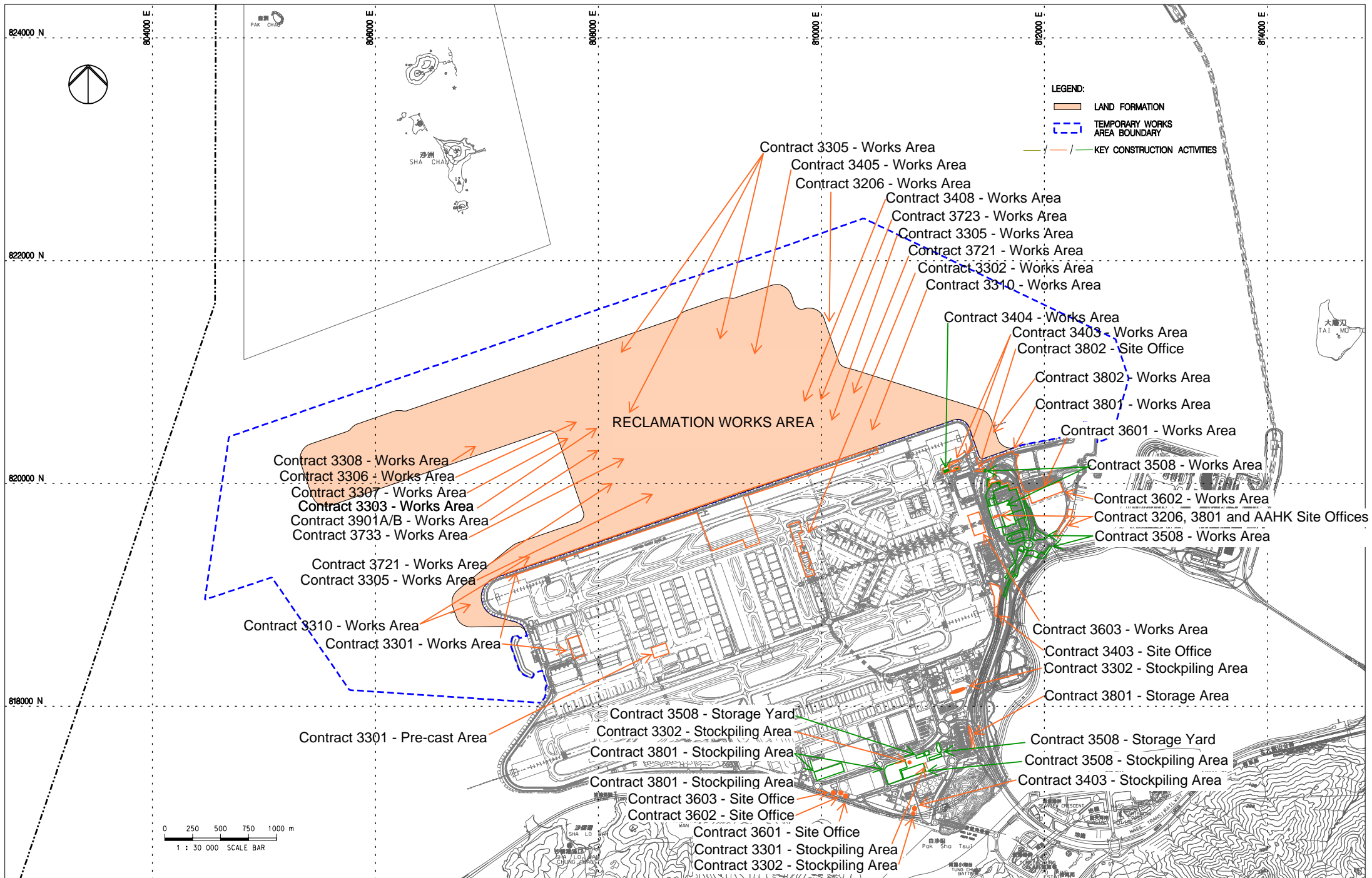
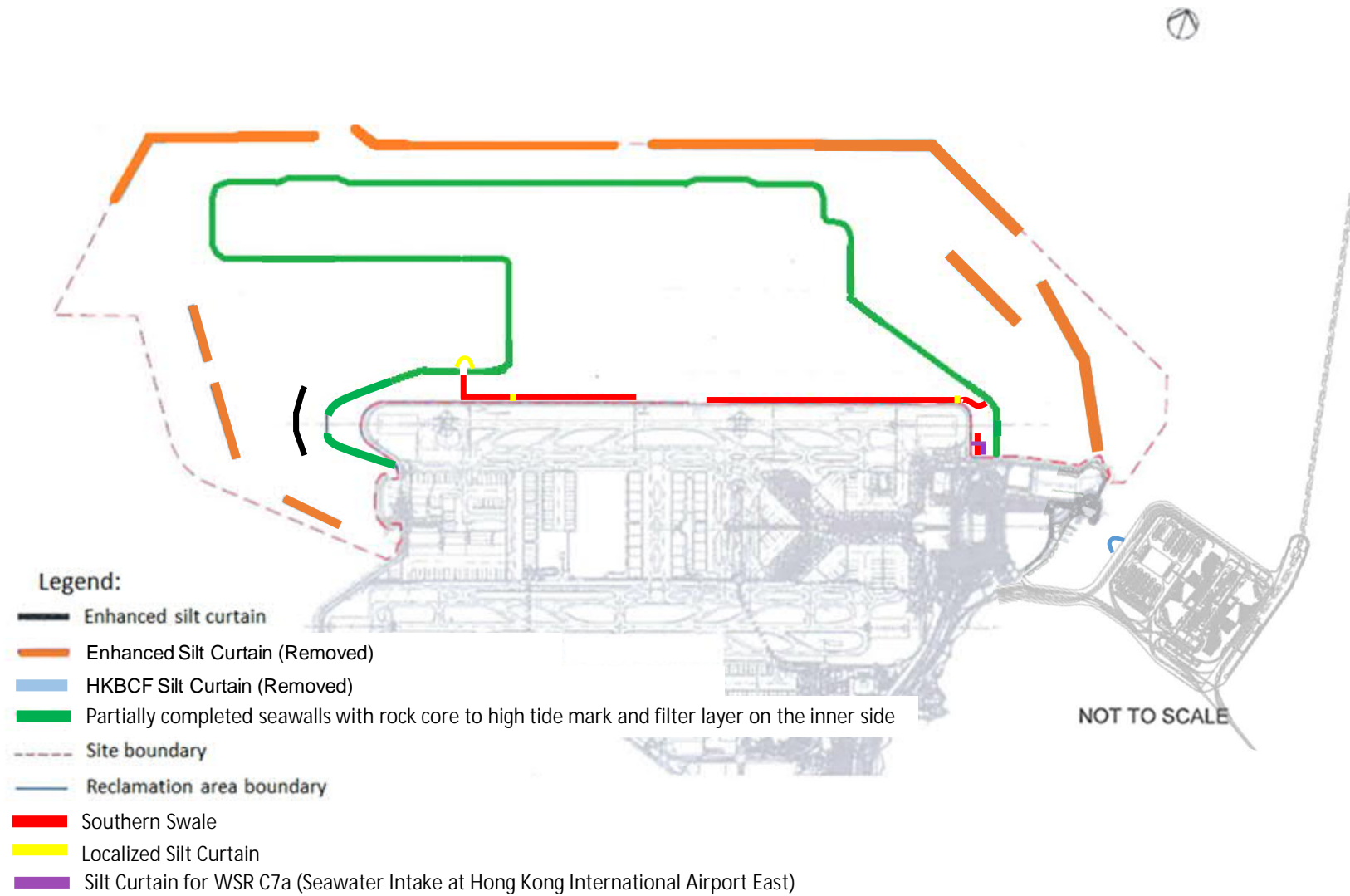


FIGURE 1.1 LOCATIONS OF KEY CONSTRUCTION ACTIVITIES

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

Figure 1.2  
Latest layout of the silt curtain with 3RS reclamation land area





80000 E

80000 E

81000 E

82000 E

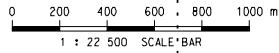
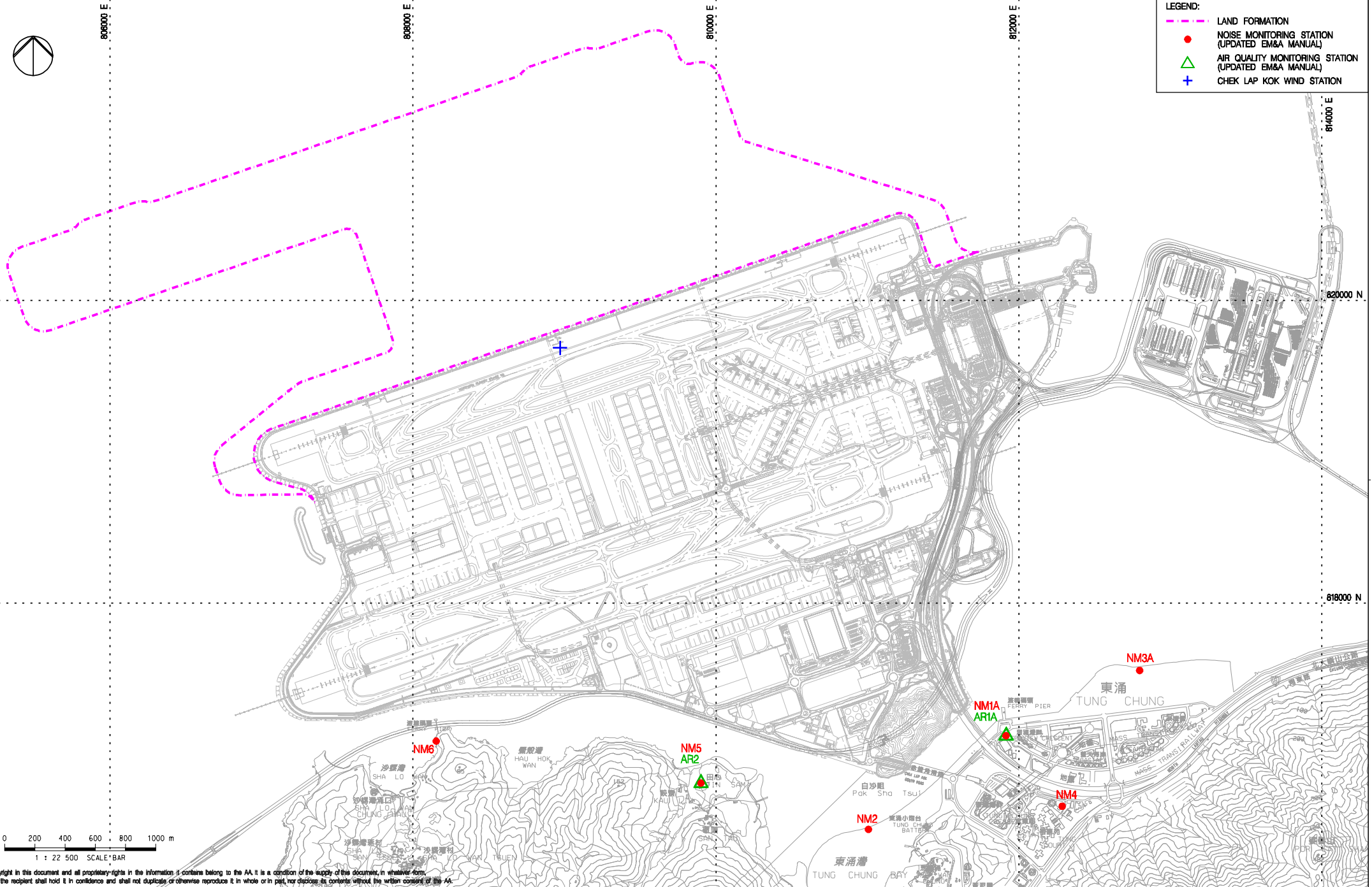
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82000 N

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



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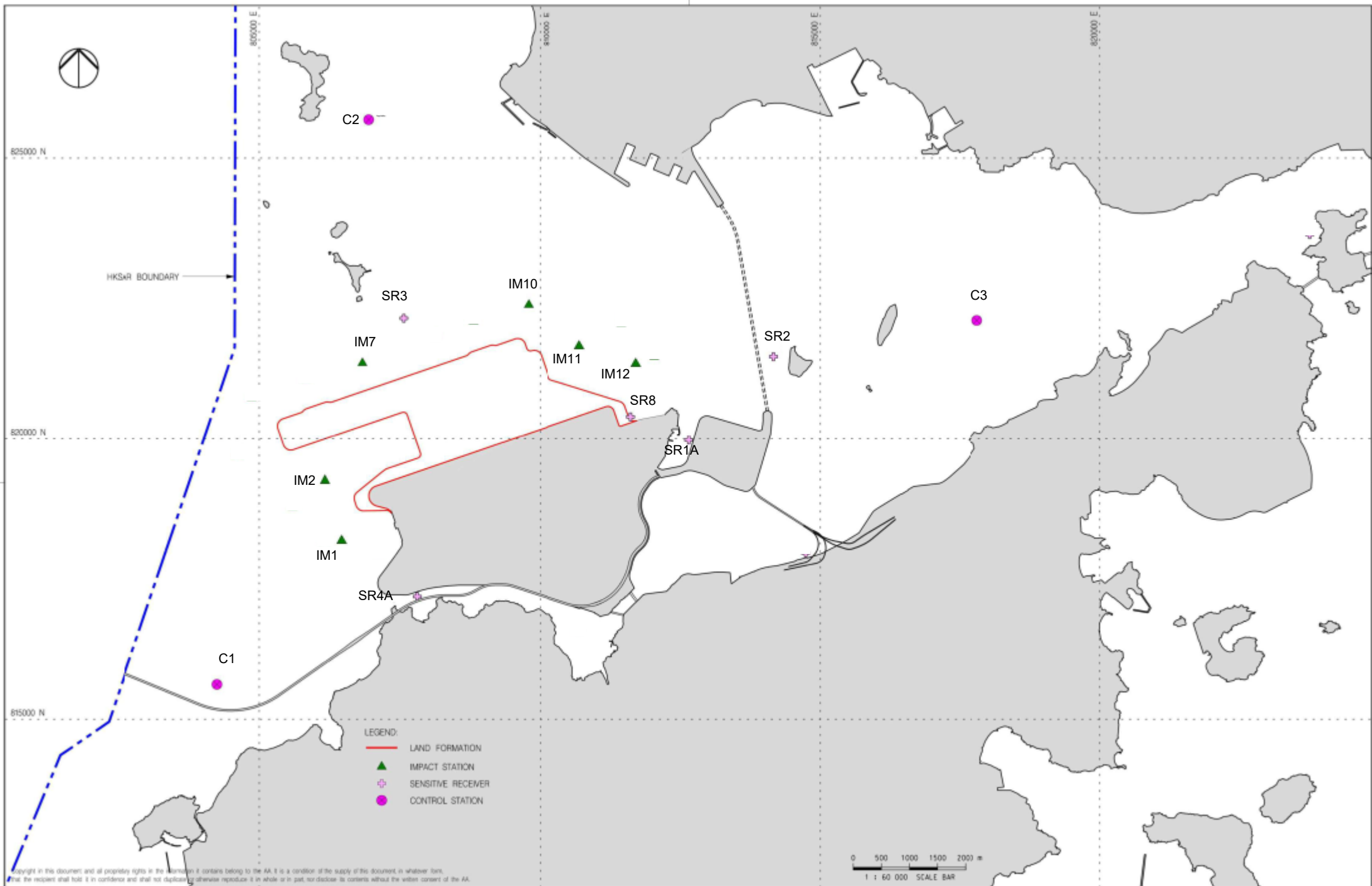
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B	28JAN16	GENERAL REVISION	RO
C	11FEB16	GENERAL REVISION	RO
D	28OCT18	GENERAL REVISION	SH



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

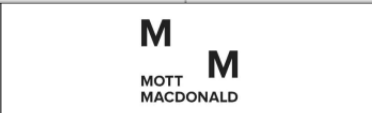
Consultant's Signatures for Approval		Date
Design	TK	29OCT18
Checkers	TK	29OCT18
Approver	EC	29OCT18

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM		Scale at A3
Drawing No.	<b>FIGURE 2.1</b>	1 : 22500
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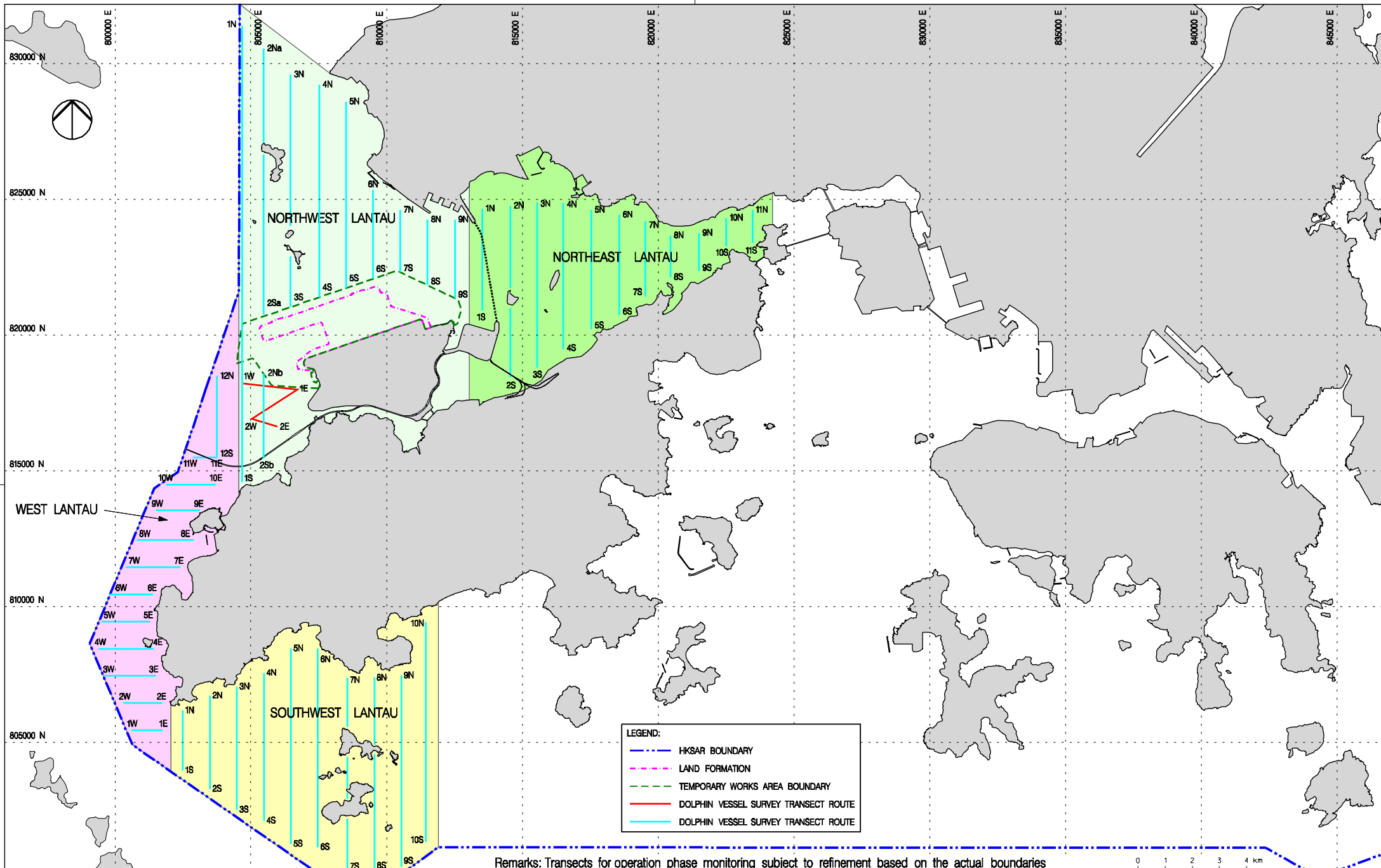
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Title  
WATER QUALITY MONITORING STATIONS

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		Scale at A3
Drawing No.	FIGURE 4.1	1 : 60000
Rev.	A	



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

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Rev.	Date	Description	Checked
B	27JUL16	GENERAL REVISION	JT
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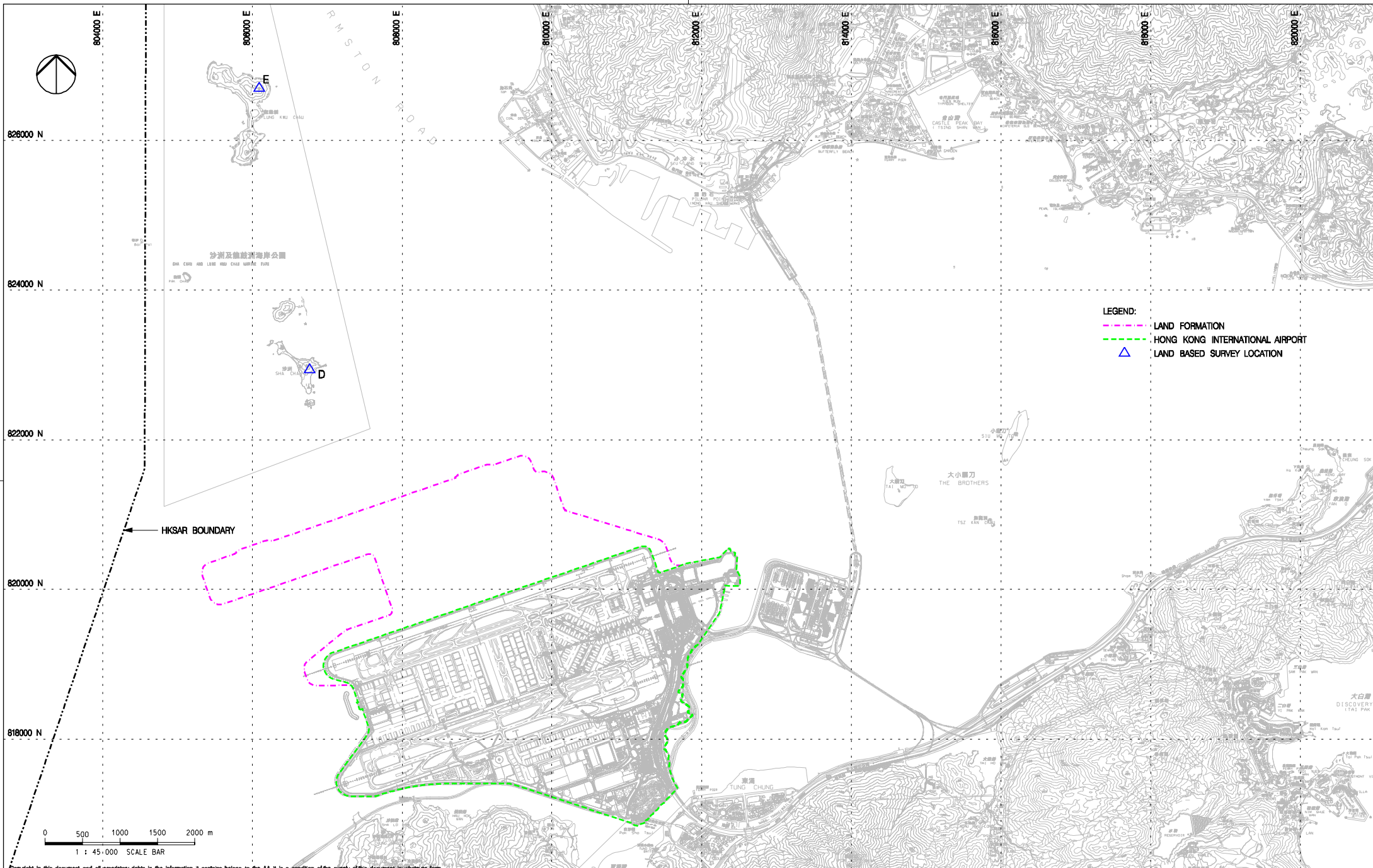
Title  
VESSEL BASED DOLPHIN MONITORING  
TRANSECTS IN CONSTRUCTION,  
POST-CONSTRUCTION AND OPERATION PHASES

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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

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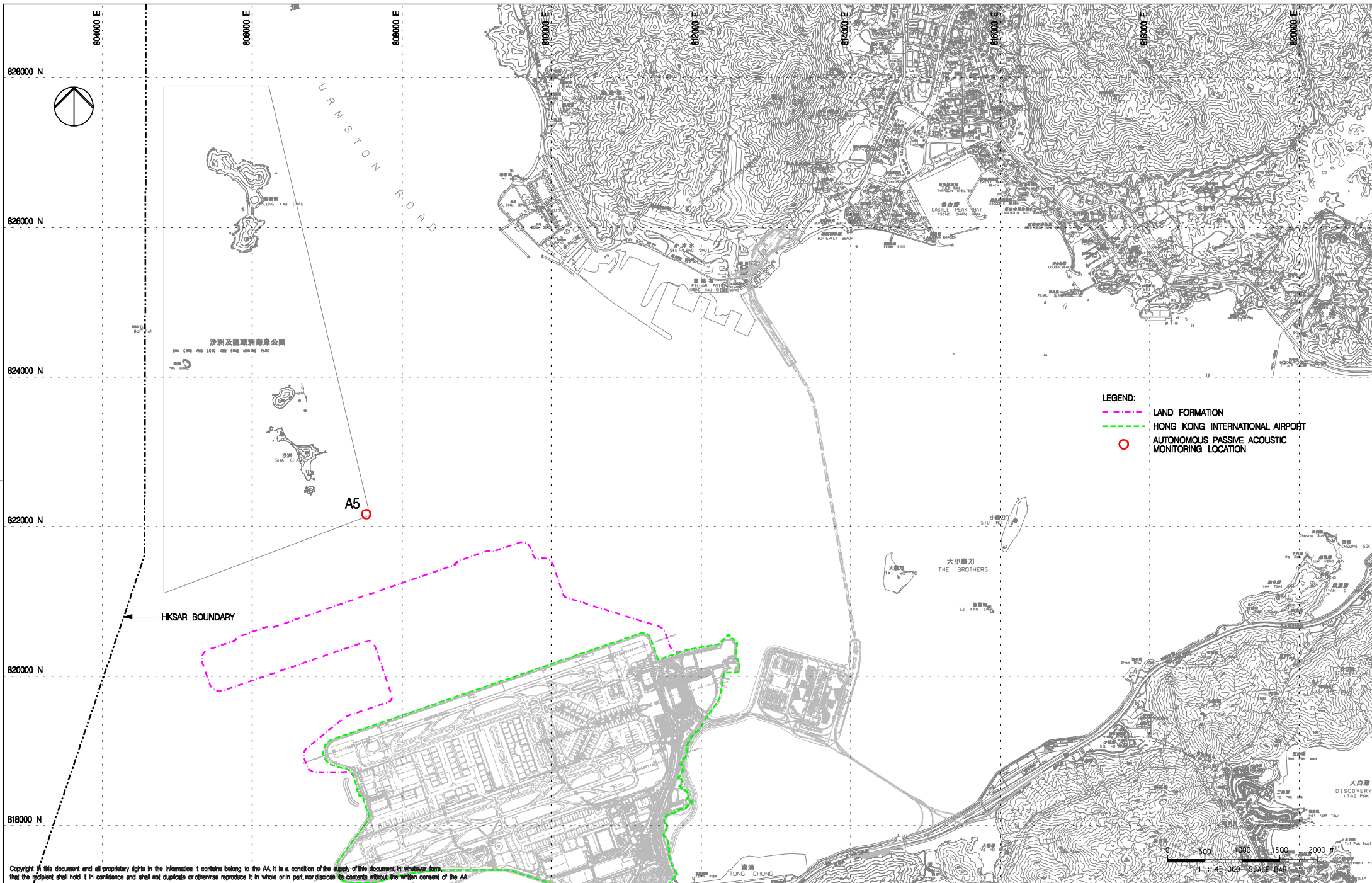
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**Title**  
**LAND BASED DOLPHIN MONITORING  
 IN BASELINE AND CONSTRUCTION PHASES**

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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

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**Title**  
 LOCATION FOR AUTONOMOUS PASSIVE ACOUSTIC MONITORING

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Approver	EC	29OCT18

EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM	
Drawing No.	FIGURE 6.4
Scale at A3	1 : 45 000
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?^
<b>Air Quality Impact – Construction Phase</b>					
5.2.6.2	2.1	-	<b>Dust Control Measures</b> <ul style="list-style-type: none"> <li>Water spraying for 12 times a day or once every two hours for 24-hour working at all active works area.</li> </ul>	Within construction site / Duration of the construction phase	I
5.2.6.3	2.1	-	<ul style="list-style-type: none"> <li>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.</li> </ul>	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"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
			Disturbed Parts of the Roads <ul style="list-style-type: none"> <li>Each and every main temporary access should be paved with concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or</li> <li>Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet.</li> </ul>	Within construction site / Duration of the construction phase	I
			Exposed Earth <ul style="list-style-type: none"> <li>Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seeding 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.</li> </ul>	Within construction site / Duration of the construction phase	I

EIA Ref.	EM&A Ref.	EP Condition	Environmental Protection Measures	Location / Duration of measures Timing of completion of measures	Mitigation Measures Implemented?^
			<p>Loading, Unloading or Transfer of Dusty Materials</p> <ul style="list-style-type: none"> <li>All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Debris Handling</p> <ul style="list-style-type: none"> <li>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</li> <li>Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Transport of Dusty Materials</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Wheel washing</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Use of vehicles</p> <ul style="list-style-type: none"> <li>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;</li> <li>Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels; and</li> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
			<p>Site hoarding</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
5.2.6.5	2.1	-	<p><b>Best Practices for Concrete Batching Plant</b></p> <p>The relevant best practices for dust control as stipulated in the Guidance Note on the Best Practicable Means for Cement Works (Concrete Batching Plant) BPM 3/2 as well as in the future Specified Process licence should be adopted. The best practices are recommended to be applied to both the land based and floating concrete batching plants. Best practices include:</p> <p>Cement and other dusty materials</p>	Within Concrete Batching Plant / Duration of the construction phase	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"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ Vents of all silos shall be fitted with fabric filtering system to meet the required emission limit;</li> <li>▪ Vents of cement/PFA weighing scale shall be fitted with fabric filtering system to meet the required emission limit; and</li> <li>▪ Seating of pressure relief valves of all silos shall be checked, and the valves re-seated if necessary, before each delivery.</li> </ul>		
			<p>Other raw materials</p> <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ All conveyor transfer points shall be totally enclosed. Openings for the passage of conveyors shall be fitted with adequate flexible seals;</li> <li>▪ Scrapers shall be provided at the turning points of all conveyors to remove dust adhered to the belt surface;</li> <li>▪ 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;</li> <li>▪ 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;</li> </ul>	<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"> <li>▪ The stockpile shall be enclosed at least on top and three sides and with flexible curtain to cover the entrance side;</li> <li>▪ 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</li> <li>▪ The opening between the storage bin and weighing scale of the materials shall be fully enclosed.</li> </ul>		
			<p>Loading of materials for batching</p> <ul style="list-style-type: none"> <li>▪ 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"> <li>(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</li> <li>(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.</li> </ul> </li> <li>▪ The loading bay shall be totally enclosed during the loading process.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Vehicles</p> <ul style="list-style-type: none"> <li>▪ All practicable measures shall be taken to prevent or minimize the dust emission caused by vehicle movement; and</li> <li>▪ All access and route roads within the premises shall be paved and adequately wetted.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Housekeeping</p> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	
5.2.6.6	2.1	-	<p><b>Best Practices for Asphaltic Concrete Plant</b></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"> <li>▪ The chimney shall not be less than 3 metres plus the building height or 8 metres above ground level, whichever is the greater;</li> <li>▪ The efflux velocity of gases from the main chimney shall not be less than 12 m/s at full load condition;</li> </ul>	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"> <li>▪ The flue gas exit temperature shall not be less than the acid dew point; and</li> <li>▪ Release of the chimney shall be directed vertically upwards and not be restricted or deflected.</li> </ul>		
			<p>Cold feed side</p> <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ All conveyor transfer points shall be totally enclosed. Openings for the passages of conveyors shall be fitted with adequate flexible seals; and</li> <li>▪ All materials returned from dust collection system shall be transferred in enclosed system and shall be stored inside bins or enclosures.</li> </ul>	<p>Within Concrete Batching Plant / Duration of the construction phase</p>	
			<p>Hot feed side</p> <ul style="list-style-type: none"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ Chutes for carrying hot material shall be rigid and preferably fitted with abrasion resistant plate inside. They shall be inspected daily for leakages;</li> <li>▪ 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</li> </ul>	<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"> <li>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).</li> </ul>		
			<p>Material transportation</p> <ul style="list-style-type: none"> <li>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;</li> <li>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</li> <li>Haul roads inside the Works shall be adequately wetted with water and/or chemical suppressants by water trucks or water sprayers.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Control of emissions from bitumen decanting</p> <ul style="list-style-type: none"> <li>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;</li> <li>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;</li> <li>Proper chimney for the discharge of bitumen fumes shall be provided at high level;</li> <li>The emission of bitumen fumes shall not exceed the required emission limit; and</li> <li>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.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Liquid fuel</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	
			<p>Housekeeping</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	
5.2.6.7	2.1	-	<p><b>Best Practices for Rock Crushing Plants</b></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"> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ Water sprayers shall be installed and operated in strategic locations at the feeding inlet of crushers; and</li> <li>▪ 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.</li> </ul>		
			<p>Vibratory screens and grizzlies</p> <ul style="list-style-type: none"> <li>▪ 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</li> <li>▪ All grizzlies shall be enclosed on top and 3 sides and sufficient water sprayers shall be installed at their feeding and outlet areas.</li> </ul>	<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"> <li>▪ 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;</li> <li>▪ 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</li> </ul> <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"> <li>▪ 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.</li> </ul>	<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"> <li>The surface of all surge piles and stockpiles of blasted rocks or aggregates shall be kept sufficiently wet by water spraying wherever practicable;</li> <li>All open stockpiles for aggregates of size in excess of 5 mm shall be kept sufficiently wet by water spraying where practicable; or</li> <li>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</li> <li>Scattered piles gathered beneath belt conveyors, inside and around enclosures shall be cleared regularly.</li> </ul>		
			<p>Rock drilling equipment</p> <ul style="list-style-type: none"> <li>Appropriate dust control equipment such as a dust extraction and collection system shall be used during rock drilling activities.</li> </ul>	Within Concrete Batching Plant / Duration of the construction phase	N/A as there was no rock crushing plant at this stage
<b>Hazard to Human Life – Construction Phase</b>					
Table 6.40	3.2	-	<ul style="list-style-type: none"> <li>Precautionary measures should be established to request barges to move away during typhoons.</li> </ul>	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> <li>An appropriate marine traffic management system should be established to minimize risk of ship collision.</li> </ul>	Construction Site / Construction Period	I
Table 6.40	3.2	-	<ul style="list-style-type: none"> <li>Location of all existing hydrant networks should be clearly identified prior to any construction works.</li> </ul>	Construction Site / Construction Period	I
<b>Noise Impact – Construction Phase</b>					
7.5.6	4.3	-	<p><b>Good Site Practice</b></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"> <li>only well-maintained plant to be operated on-site and plant should be serviced regularly during the construction works;</li> <li>machines and plant that may be in intermittent use to be shut down between work periods or should be throttled down to a minimum;</li> <li>plant known to emit noise strongly in one direction, should, where possible, be orientated to direct noise away from the NSRs;</li> <li>mobile plant should be sited as far away from NSRs as possible; and</li> <li>material stockpiles and other structures to be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>	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	-	<b>Adoption of QPME</b> <ul style="list-style-type: none"> <li>QPME should be adopted as far as applicable.</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	<b>Use of Movable Noise Barriers</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I
7.5.6	4.3	-	<b>Use of Noise Enclosure/ Acoustic Shed</b> <ul style="list-style-type: none"> <li>Noise enclosure or acoustic shed should be used to cover stationary PME such as air compressor and generator.</li> </ul>	Within the Project site / During construction phase / Prior to commencement of operation	I
<b>Water Quality Impact – Construction Phase</b>					
8.8.1.2 and 8.8.1.3	5.1	2.26	<b>Marine Construction Activities</b> <u>General Measures to be Applied to All Works Areas</u> <ul style="list-style-type: none"> <li>Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation;</li> <li>Use of Lean Material Overboard (LMOB) systems shall be prohibited;</li> <li>Excess materials shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessels are moved;</li> <li>Plants should not be operated with leaking pipes and any pipe leakages shall be repaired quickly;</li> <li>Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;</li> <li>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;</li> <li>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</li> <li>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.</li> </ul>	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"> <li>▪ The daily maximum production rates shall not exceed those assumed in the water quality assessment in the EIA report;</li> <li>▪ 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;</li> <li>▪ 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;</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ Closed grab dredger shall be used to excavate marine sediment;</li> <li>▪ Silt curtains surrounding the closed grab dredger shall be deployed in accordance with the Silt Curtain Deployment Plan; and</li> </ul>		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"> <li>▪ The Silt Curtain Deployment Plan shall be implemented.</li> </ul>		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"> <li>▪ 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;</li> <li>▪ 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</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ The silt curtains and silt screens should be regularly checked and maintained.</li> </ul>		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"> <li>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;</li> </ul>	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"> <li>Double layer silt curtains to be applied at the south-western opening prior to commencement of marine filling activities;</li> </ul>		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"> <li>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</li> </ul>		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"> <li>The silt curtains and silt screens should be regularly checked and maintained.</li> </ul>		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"> <li>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</li> <li>Silt curtains surrounding the closed grab dredger to be deployed as a precautionary measure.</li> </ul>	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><b>Modification of the Existing Seawall</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul>	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><b>Construction of New Stormwater Outfalls and Modifications to Existing Outfalls</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul>	Within construction site / Duration of the construction phase	I
8.8.1.6 8.8.1.7	5.1	2.27	<p><b>Piling Activities for Construction of New Runway Approach Lights and HKIAAA Marker Beacons</b></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"> <li>Ground improvement via DCM using a close-spaced layout shall be completed prior to commencement of piling works;</li> <li>Steel casings shall be installed to enclose the excavation area prior to commencement of excavation;</li> <li>The excavated materials shall be removed using a closed grab within the steel casings;</li> <li>No discharge of the cement mixed materials into the marine environment will be allowed; and</li> <li>Excavated materials shall be treated and reused on-site.</li> </ul>		<p>C – Completed in Oct 2021</p>
8.8.1.8	5.1	-	<p><b>Construction of Site Runoff and Drainage</b></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> <ul style="list-style-type: none"> <li>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);</li> <li>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;</li> </ul>	Within construction site / Duration of the construction phase	<p>I</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"> <li>▪ 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;</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ 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;</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ 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</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ 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;</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ 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</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ 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.</li> </ul>		
8.8.1.9	5.1	-	<p><b>Sewage Effluent from Construction Workforce</b></p> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	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><b>General Construction Activities</b></p> <ul style="list-style-type: none"> <li>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</li> <li>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.</li> </ul>	Within construction site / During construction phase	I
8.8.1.12 8.8.1.13	5.1	2.28	<p><b>Drilling Activities for the Submarine Aviation Fuel Pipelines</b></p> <p>To prevent potential water quality impacts at Sha Chau, the following measures shall be applied:</p> <ul style="list-style-type: none"> <li>A 'zero-discharge' policy shall be applied for all activities to be conducted at Sha Chau;</li> <li>No bulk storage of chemicals shall be permitted; and</li> <li>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.</li> </ul>	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"> <li>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</li> <li>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.</li> </ul>	Within construction site / During construction phase	C – Completed in Jan 2019
<b>Waste Management Implication – Construction Phase</b>					
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"> <li>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&amp;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&amp;D materials;</li> <li>Priority should be given to collect and reuse suitable inert C&amp;D materials generated from other concurrent projects and the Government's PFRF as fill materials for the proposed land formation works;</li> </ul>	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"> <li>▪ 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;</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ 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</li> </ul>		
			<ul style="list-style-type: none"> <li>▪ For the marine sediments expected to be excavated from the piling works of TRC, APM &amp; 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.</li> </ul>		
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"> <li>▪ 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;</li> <li>▪ Training of site personnel in proper waste management and chemical waste handling procedures;</li> <li>▪ Provision of sufficient waste disposal points and regular collection for disposal;</li> <li>▪ 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;</li> <li>▪ Stockpiles of C&amp;D materials should be kept wet or covered by impervious sheets to avoid wind-blown dust;</li> <li>▪ All dusty materials including C&amp;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;</li> <li>▪ C&amp;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;</li> <li>▪ The speed of the trucks including dump trucks carrying C&amp;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</li> <li>▪ To avoid or minimise dust emission during transport of C&amp;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.</li> </ul>	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"> <li>▪ Use of steel or aluminium formworks and falseworks for temporary works as far as practicable;</li> </ul>	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"> <li>▪ Adoption of repetitive design to allow reuse of formworks as far as practicable;</li> <li>▪ 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;</li> <li>▪ 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;</li> <li>▪ Any unused chemicals or those with remaining functional capacity should be collected for reused as far as practicable;</li> <li>▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials; and</li> <li>▪ Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>		
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"> <li>▪ On-site remediation should be carried out in an enclosed area in order to minimise odour/dust emissions;</li> <li>▪ 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;</li> <li>▪ All practical measures, including but not limited to speed control for vehicles, should be taken to minimise dust emission;</li> <li>▪ Good housekeeping should be maintained at all times at the sediment treatment facility and storage area;</li> <li>▪ Treated and untreated sediment should be clearly separated and stored separately; and</li> <li>▪ 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.</li> </ul>	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"> <li>Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material;</li> <li>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</li> <li>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.</li> </ul>	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"> <li>Good quality containers compatible with the chemical wastes should be used;</li> <li>Incompatible chemicals should be stored separately;</li> <li>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</li> <li>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.</li> </ul>	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&amp;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
<b>Land Contamination – Construction Phase</b>					
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"> <li>Further site reconnaissance would be conducted once the areas are accessible in order to identify any land contamination concern for the areas.</li> </ul>	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"> <li>▪ 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.</li> <li>▪ 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.</li> <li>▪ 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.</li> </ul>		<p>C – Completed in Jan 2018</p> <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> <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"> <li>▪ To minimize the incidents of construction workers coming in contact with any contaminated materials, bulk earth-moving excavation equipment should be employed;</li> <li>▪ 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;</li> <li>▪ Stockpiling of contaminated excavated materials on site should be avoided as far as possible;</li> <li>▪ The use of any contaminated soil for landscaping purpose should be avoided unless pre-treatment was carried out;</li> <li>▪ Vehicles containing any excavated materials should be suitably covered to reduce dust emissions and/or release of contaminated wastewater;</li> <li>▪ Truck bodies and tailgates should be sealed to prevent any discharge;</li> <li>▪ 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;</li> <li>▪ Speed control for trucks carrying contaminated materials should be exercised. 8km/h is the recommended speed limit;</li> <li>▪ 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</li> <li>▪ Maintain records of waste generation and disposal quantities and disposal arrangements.</li> </ul>	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?^
<b>Terrestrial Ecological – Construction Phase</b>					
12.10.1.1	9.2	2.14	<b>Pre-construction Egretty Survey</b> <ul style="list-style-type: none"> <li>Conduct ecological survey for Sha Chau egretty to update the latest boundary of the egretty.</li> </ul>	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	<b>Avoidance and Minimisation of Direct Impact to Egretty</b> <ul style="list-style-type: none"> <li>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;</li> <li>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</li> <li>The containment pit at the daylighting location shall be covered or camouflaged.</li> </ul>	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.7.2.5	9.1	2.30	<b>Preservation of Nesting Vegetation</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	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	<b>Timing the Pipe Connection Works outside Ardeid's Breeding Season</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	During construction phase at Sheung Sha Chau Island	C – Completed in Jan 2019
12.10.1.1	9.3	-	<b>Ecological Monitoring</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	at Sheung Sha Chau Island	C – Completed in Jan 2019
<b>Marine Ecological Impact – Pre-construction Phase</b>					
13.11.4.1	10.2.2	-	<ul style="list-style-type: none"> <li>Pre-construction phase Coral Dive Survey.</li> </ul>	HKIAAA artificial seawall	C – Completed in Jan 2016
<b>Marine Ecological Impact – Construction Phase</b>					
13.11.1.3 to 13.11.1.6	-	-	<b>Minimisation of Land Formation Area</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	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><b>Use of Construction Methods with Minimal Risk/Disturbance</b></p> <ul style="list-style-type: none"> <li>▪ Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ 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;</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway;</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ Avoid bored piling during CWD peak calving season (Mar to Jun);</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ Prohibition of underwater percussive piling; and</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	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><b>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</b></p> <ul style="list-style-type: none"> <li>▪ Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ 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);</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and</li> </ul> <hr/> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	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><b>Strict Enforcement of No-Dumping Policy</b></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"> <li>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;</li> <li>Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works;</li> <li>Fines for infractions should be implemented; and</li> <li>Unscheduled, on-site audits shall be implemented.</li> </ul>		
13.11.1.13	-	-	<p><b>Good Construction Site Practices</b></p> <ul style="list-style-type: none"> <li>Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines;</li> <li>Keep the number of working or stationary vessels present on-site to the minimum anytime; and</li> <li>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.</li> </ul>	All works area during the construction phase	I
13.11.1.3 to 13.11.1.6	-	-	<p><b>Minimisation of Land Formation Area</b></p> <ul style="list-style-type: none"> <li>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.</li> </ul>	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><b>SkyPier High Speed Ferries' Speed Restrictions and Route Diversions</b></p> <ul style="list-style-type: none"> <li>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 <b>Drawing No. MCL/P132/EIA/13-023</b> 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&amp;A data and taking reference to changes in total SkyPier HSF numbers; and</li> <li>A maximum of 10 knots will be enforced through the designated SCLKC Marine Park area at all times.</li> </ul> <p><b>Other mitigation measures</b></p> <ul style="list-style-type: none"> <li>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</li> <li>The effectiveness of the CWD mitigation measures after implementation of initial six month SkyPier HSF diversion and speed restriction will be reviewed.</li> </ul>	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><b>Dolphin Exclusion Zone</b></p> <ul style="list-style-type: none"> <li>Establishment of a 24 hr Dolphin Exclusion Zone (DEZ) with a 250 m radius around the land formation works areas;</li> </ul>	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"> <li>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</li> <li>A DEZ would also be implemented during bored piling work but as a precautionary measure only.</li> </ul>		I  C – Completed in Oct 2021 for the bored piling work of New approach lights
13.11.5.19	10.4	2.31	<b>Acoustic Decoupling of Construction Equipment</b> <ul style="list-style-type: none"> <li>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</li> <li>Specific acoustic decoupling measures shall be specified during the detailed design of the project for use during the land formation works.</li> </ul>	Around coastal works area during construction phase	I
13.11.5.20	10.6.1	2.29	<b>Spill Response Plan</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	Construction phase	I
13.11.5.21 to 13.11.5.23	10.6.1	-	<b>Construction Vessel Speed Limits and Skipper Training</b> <ul style="list-style-type: none"> <li>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).</li> <li>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.</li> </ul>	All areas north and west of Lantau Island during construction phase	I
<b>Fisheries Impact – Construction Phase</b>					
14.9.1.2 to 14.9.1.5	-	-	<b>Minimisation of Land Formation Area</b> <ul style="list-style-type: none"> <li>Minimise the overall size of the land formation needed for the additional facilities to minimise the overall loss of habitat for fisheries resources.</li> </ul>	Land formation footprint / during detailed design phase to completion of construction	I
14.9.1.6	-	-	<b>Use of Construction Methods with Minimal Risk/Disturbance</b> <ul style="list-style-type: none"> <li>Use of non-dredge method for the main land formation and ancillary works including the diversion of the aviation fuel pipeline to the AFRF;</li> </ul>	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"> <li>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;</li> <li>Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and</li> </ul>		<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><b>Strict Enforcement of No-Dumping Policy</b></p> <ul style="list-style-type: none"> <li>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;</li> <li>Mandatory educational programme of the no-dumping policy be made available to all construction site personnel for all project-related works;</li> <li>Fines for infractions should be implemented; and</li> <li>Unscheduled, on-site audits shall be implemented.</li> </ul>	All works area during the construction phase	I
14.9.1.12	-		<p><b>Good Construction Site Practices</b></p> <ul style="list-style-type: none"> <li>Regular inspection of the integrity and effectiveness of all silt curtains and monitoring of effluents to ensure that any discharge meets effluent discharge guidelines;</li> <li>Keep the number of working or stationary vessels present on-site to the minimum anytime; and</li> <li>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.</li> </ul>	All works area during the construction phase	I
14.9.1.13 to 14.9.1.18	-		<p><b>Mitigation for Indirect Disturbance due to Deterioration of Water Quality</b></p> <ul style="list-style-type: none"> <li>Water quality mitigation measures during construction phases include consideration of alternative construction methods, deployment of silt curtain and good site practices;</li> <li>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);</li> </ul>	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"> <li>Use of bored piling in short duration to form the new approach lights and marker beacons for the new runway; and</li> </ul>		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"> <li>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.</li> </ul>		C – Completed on Jan 2019 for HDD work
<b>Landscape and Visual Impact – Construction Phase</b>					
Table 15.6	12.3	-	<b>CM1</b> - 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	-	<b>CM2</b> - 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	-	<b>CM3</b> - 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	-	<b>CM4</b> - 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	-	<b>CM5</b> - 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	-	<b>CM6</b> - 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	-	<b>CM7</b> - 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	-	<b>CM8</b> - 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	-	<b>CM9</b> - 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	-	<b>CM10</b> - Land formation works shall be followed with advanced hydroseeding around taxiways and runways as soon as practical.	All affected existing grass areas around runways and verges/Duration of works; Upon handover and completion of works.	I
<b>Cultural Heritage Impact – Construction Phase</b>					
Not applicable to the construction stage of this project.					
<b>Health Impact – Aircraft Emissions</b>					
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?^
<b>Health Impact – Aircraft Noise</b>						
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**

# Jun-22

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Site Inspection	2 Site Inspection  WQ General mid-ebb: 14:47 mid-flood: 07:30	3	4  AR1A, AR2  WQ General mid-ebb: 16:02 mid-flood: 08:25
5	6 Site Inspection	7 Site Inspection  WQ General mid-ebb: 18:23 mid-flood: 05:59	8  CWD Survey (Vessel)	9 Site Inspection  WQ General mid-ebb: 09:05 mid-flood: 14:28	10 Site Inspection  CWD Survey (Vessel)  NM4, NM6 <sup>[1]</sup>	11  AR1A, AR2 <sup>[2]</sup> NM1A, NM5 <sup>[2]</sup>  WQ General mid-ebb: 10:34 mid-flood: 16:58
12	13 Site Inspection  CWD Survey (Vessel)	14 Site Inspection  WQ General mid-ebb: 12:46 mid-flood: 05:51	15  NM4, NM6	16 Site Inspection  CWD Survey (Vessel) AR1A, AR2 NM1A, NM5  WQ General mid-ebb: 14:24 mid-flood: 07:15	17 Site Inspection	18  WQ General mid-ebb: 16:05 mid-flood: 08:52
19	20 Site Inspection	21 Site Inspection  CWD Survey (Vessel)  NM4, NM6  WQ General mid-ebb: 07:24 mid-flood: 12:26	22 Site Inspection  CWD Survey (Vessel, Land-based) AR1A, AR2 NM1A, NM5	23 Site Inspection  CWD Survey (Vessel)  WQ General mid-ebb: 09:28 mid-flood: 15:10	24 Site Inspection  CWD Survey (Vessel, Land-based)	25  WQ General mid-ebb: 10:58 mid-flood: 17:34
26	27 Site Inspection	28 Site Inspection  AR1A, AR2 NM1A, NM5  WQ General mid-ebb: 12:47 mid-flood: 19:59	29 Site Inspection  NM4, NM6	30 Site Inspection  WQ General mid-ebb: 13:58 mid-flood: 21:13		
<p><b>Notes:</b></p> <p>CWD - Chinese White Dolphin</p> <p>Air quality and Noise Monitoring Station</p> <p>WQ - Water Quality</p> <p>NM1A/AR1A - Man Tung Road Park            NM4 - Ching Chung Hau Po Woon Primary School            NM5/AR2 - Village House, Tin Sum            NM6 - House No. 1, Sha Lo Wan</p> <p>[1] Noise monitoring session on 8 June 2022 was rescheduled to 10 June 2022 due to adverse weather.            [2] Due to Red Rainstorm Warning Signal on 8 June 2022, the monitoring session for NM4 and NM6 was rescheduled to 10 June 2022 and the monitoring session on 10 June 2022 for AR1A, AR2, NM1A and NM5 was rescheduled to 11 June 2022.</p>						



# **Tentative Monitoring Schedule of Next Reporting Period**

# Jul-22

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
						WQ General mid-ebb: 15:08 mid-flood: 07:48
3	4 Site Inspection  AR1A, AR2 NM1A, NM5	5 Site Inspection  WQ General mid-ebb: 17:01 mid-flood: 09:59	6 Site Inspection  NM4, NM6	7 Site Inspection  WQ General mid-ebb: 06:59 mid-flood: 12:19	8 Site Inspection  CWD Survey (Vessel)	9 Site Inspection  AR1A, AR2  WQ General mid-ebb: 09:01 mid-flood: 15:33
10	11 Site Inspection  CWD Survey (Vessel)	12 Site Inspection  CWD Survey (Vessel)  WQ General mid-ebb: 11:43 mid-flood: 04:36	13 Site Inspection  NM4, NM6	14 Site Inspection  CWD Survey (Vessel)  WQ General mid-ebb: 13:25 mid-flood: 06:16	15 Site Inspection  CWD Survey (Vessel) AR1A, AR2 NM1A, NM5	16 Site Inspection  WQ General mid-ebb: 15:03 mid-flood: 07:59
17	18 Site Inspection  CWD Survey (Land-based)	19 Site Inspection  CWD Survey (Land-based)  NM4, NM6  WQ General mid-ebb: 17:19 mid-flood: 10:47	20 Site Inspection  CWD Survey (Vessel)	21 Site Inspection  AR1A, AR2 NM1A, NM5  WQ General mid-ebb: 07:31 mid-flood: 13:11	22 Site Inspection	23 Site Inspection  WQ General mid-ebb: 09:41 mid-flood: 16:38
24	25 Site Inspection  CWD Survey (Vessel)	26 Site Inspection  CWD Survey (Vessel)  NM4, NM6  WQ General mid-ebb: 11:54 mid-flood: 04:18	27 Site Inspection  AR1A, AR2 NM1A, NM5	28 Site Inspection  WQ General mid-ebb: 13:06 mid-flood: 05:47	29 Site Inspection	30 Site Inspection  WQ General mid-ebb: 14:15 mid-flood: 07:07
31		<b>Notes:</b> Contract Number - Site Inspection 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**

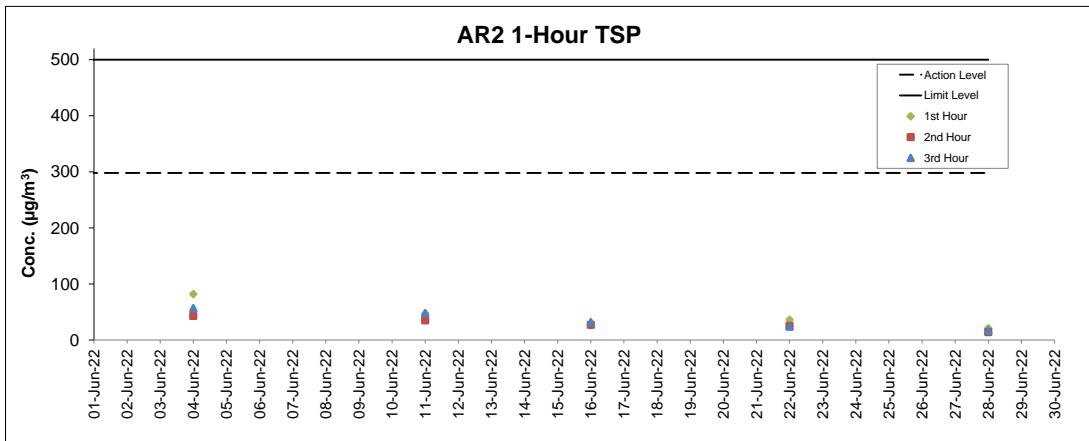
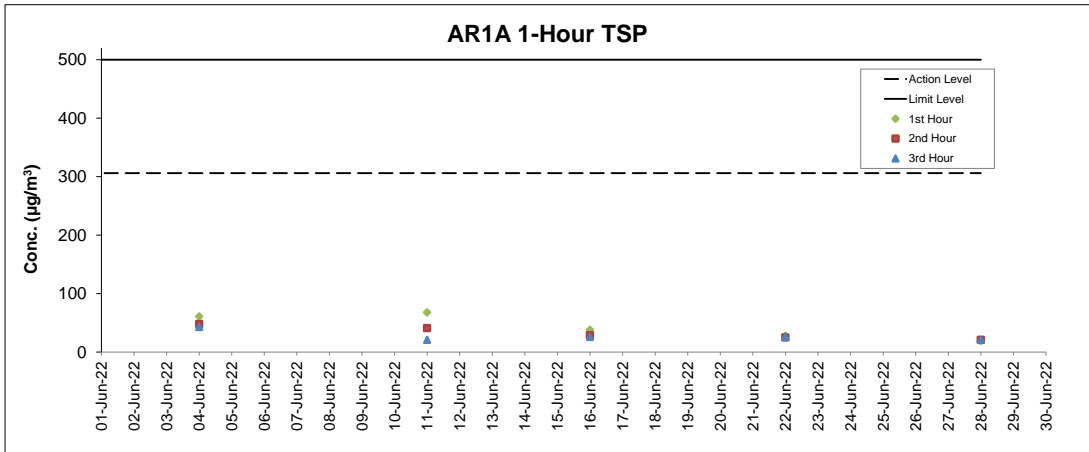
**Station: AR1A- Man Tung Road Park**

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-Jun-22	9:16	Sunny	8.6	201	61	306	500
04-Jun-22	10:16	Sunny	6.9	202	48	306	500
04-Jun-22	11:16	Sunny	6.4	217	43	306	500
11-Jun-22	13:14	Overcast	6.7	222	68	306	500
11-Jun-22	14:14	Overcast	4.2	288	41	306	500
11-Jun-22	15:14	Overcast	5.3	234	21	306	500
16-Jun-22	9:50	Fine	6.4	224	38	306	500
16-Jun-22	10:50	Fine	7.2	221	29	306	500
16-Jun-22	11:50	Fine	7.5	225	26	306	500
22-Jun-22	9:31	Sunny	4.7	224	28	306	500
22-Jun-22	10:31	Sunny	5.8	208	25	306	500
22-Jun-22	11:31	Sunny	3.9	225	26	306	500
28-Jun-22	12:14	Sunny	4.4	265	19	306	500
28-Jun-22	13:14	Sunny	3.3	264	21	306	500
28-Jun-22	14:14	Sunny	4.2	250	21	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-Jun-22	13:37	Sunny	7.2	193	82	298	500
04-Jun-22	14:37	Sunny	6.1	200	43	298	500
04-Jun-22	15:37	Sunny	5.3	211	57	298	500
11-Jun-22	9:01	Overcast	2.5	50	47	298	500
11-Jun-22	10:01	Overcast	5.3	206	35	298	500
11-Jun-22	11:01	Overcast	3.3	Variable	48	298	500
16-Jun-22	14:37	Fine	6.9	205	27	298	500
16-Jun-22	15:37	Fine	6.4	220	27	298	500
16-Jun-22	16:37	Fine	5.3	216	32	298	500
22-Jun-22	14:09	Sunny	4.7	188	36	298	500
22-Jun-22	15:09	Sunny	5.8	217	25	298	500
22-Jun-22	16:09	Sunny	4.7	163	24	298	500
28-Jun-22	8:00	Sunny	3.1	270	21	298	500
28-Jun-22	9:00	Sunny	1.7	324	14	298	500
28-Jun-22	10:00	Sunny	2.2	310	17	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 <sub>10</sub> dB(A)	Measured L <sub>90</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A) ^
11-Jun-22	Overcast	13:37	62.0	58.0	64
11-Jun-22	Overcast	13:42	61.7	57.3	
11-Jun-22	Overcast	13:47	61.0	56.1	
11-Jun-22	Overcast	13:52	60.6	55.0	
11-Jun-22	Overcast	13:57	58.5	54.8	
11-Jun-22	Overcast	14:02	61.7	56.2	
16-Jun-22	Fine	09:20	73.3	56.3	67*
16-Jun-22	Fine	09:25	73.9	54.2	
16-Jun-22	Fine	09:30	72.9	56.5	
16-Jun-22	Fine	09:35	73.3	56.6	
16-Jun-22	Fine	09:40	73.2	60.1	
16-Jun-22	Fine	09:45	73.4	58.9	
22-Jun-22	Sunny	10:02	70.3	53.0	69
22-Jun-22	Sunny	10:07	70.5	55.0	
22-Jun-22	Sunny	10:12	70.5	56.0	
22-Jun-22	Sunny	10:17	69.0	54.4	
22-Jun-22	Sunny	10:22	69.3	52.5	
22-Jun-22	Sunny	10:27	73.4	54.6	
28-Jun-22	Sunny	12:37	69.4	58.4	70
28-Jun-22	Sunny	12:42	70.0	57.3	
28-Jun-22	Sunny	12:47	68.9	57.3	
28-Jun-22	Sunny	12:52	70.9	59.7	
28-Jun-22	Sunny	12:57	71.2	57.3	
28-Jun-22	Sunny	13:02	71.3	57.5	

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: NM4- Ching Chung Hau Po Woon Primary School**

Date	Weather	Time	Measured L <sub>10</sub> dB(A)	Measured L <sub>90</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A) ^
10-Jun-22	Overcast	13:56	60.6	56.0	61
10-Jun-22	Overcast	14:01	59.6	55.6	
10-Jun-22	Overcast	14:06	59.9	54.8	
10-Jun-22	Overcast	14:11	59.6	55.1	
10-Jun-22	Overcast	14:16	59.0	54.9	
10-Jun-22	Overcast	14:21	60.1	56.4	
15-Jun-22	Sunny	13:29	62.7	59.7	63
15-Jun-22	Sunny	13:34	62.0	59.7	
15-Jun-22	Sunny	13:39	62.2	59.0	
15-Jun-22	Sunny	13:44	61.1	58.8	
15-Jun-22	Sunny	13:49	61.0	58.7	
15-Jun-22	Sunny	13:54	60.4	58.0	
21-Jun-22	Sunny	13:38	60.2	56.7	62
21-Jun-22	Sunny	13:43	61.6	56.7	
21-Jun-22	Sunny	13:48	60.4	56.8	
21-Jun-22	Sunny	13:53	60.4	57.3	
21-Jun-22	Sunny	13:58	60.3	57.1	
21-Jun-22	Sunny	14:03	59.5	56.8	
29-Jun-22	Sunny	08:33	62.1	57.4	63
29-Jun-22	Sunny	08:38	62.2	58.0	
29-Jun-22	Sunny	08:43	61.5	59.2	
29-Jun-22	Sunny	08:48	62.0	58.8	
29-Jun-22	Sunny	08:53	60.8	58.5	
29-Jun-22	Sunny	08:58	60.8	58.5	

Remarks:

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

### Noise Measurement Results

#### Station: NM5- Village House, Tin Sum

Date	Weather	Time	Measured L <sub>10</sub> dB(A)	Measured L <sub>90</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A) ^
11-Jun-22	Overcast	09:38	58.6	47.2	58
11-Jun-22	Overcast	09:43	58.4	52.0	
11-Jun-22	Overcast	09:48	54.3	46.7	
11-Jun-22	Overcast	09:53	51.6	44.9	
11-Jun-22	Overcast	09:58	53.5	44.7	
11-Jun-22	Overcast	10:03	52.2	45.5	
16-Jun-22	Fine	14:44	52.8	45.2	61*
16-Jun-22	Fine	14:49	57.4	44.9	
16-Jun-22	Fine	14:54	67.7	49.1	
16-Jun-22	Fine	14:59	53.8	45.3	
16-Jun-22	Fine	15:04	55.6	45.0	
16-Jun-22	Fine	15:09	59.3	47.8	
22-Jun-22	Sunny	14:58	50.3	43.7	56
22-Jun-22	Sunny	15:03	48.3	44.0	
22-Jun-22	Sunny	15:08	62.2	47.3	
22-Jun-22	Sunny	15:13	58.9	46.9	
22-Jun-22	Sunny	15:18	48.6	44.2	
22-Jun-22	Sunny	15:23	50.8	44.7	
28-Jun-22	Sunny	08:27	55.8	52.2	59
28-Jun-22	Sunny	08:32	60.5	56.1	
28-Jun-22	Sunny	08:37	57.7	55.8	
28-Jun-22	Sunny	08:42	55.8	52.2	
28-Jun-22	Sunny	08:47	54.4	47.7	
28-Jun-22	Sunny	08:52	59.2	48.3	

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

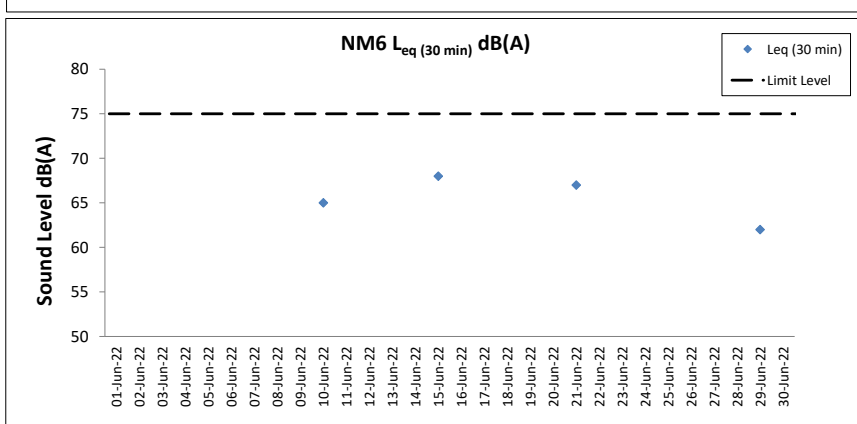
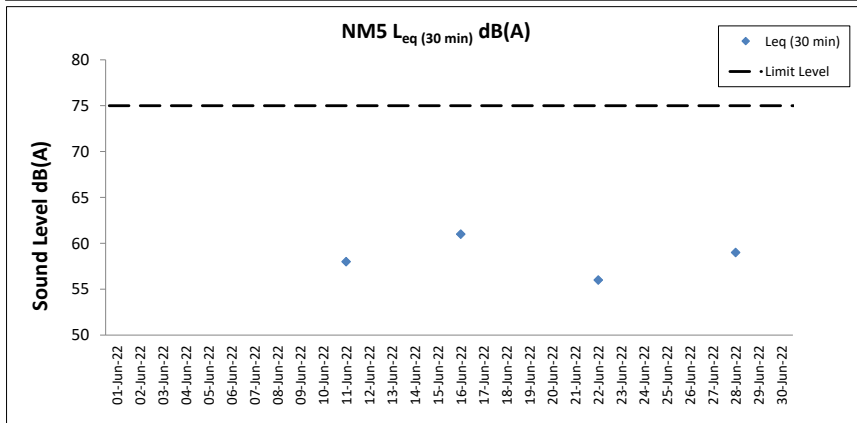
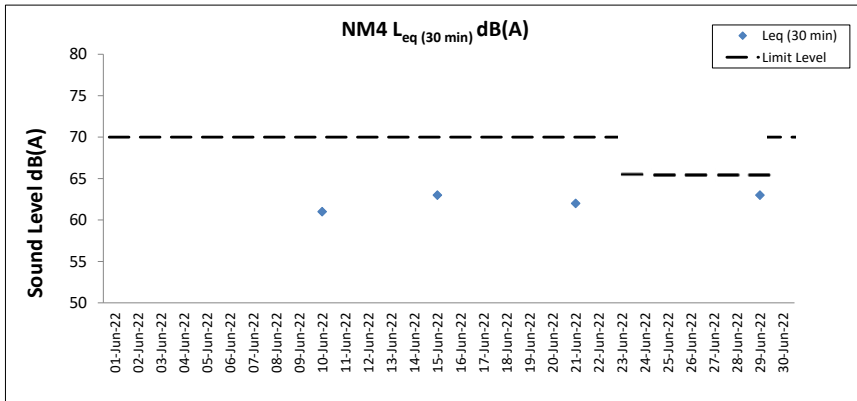
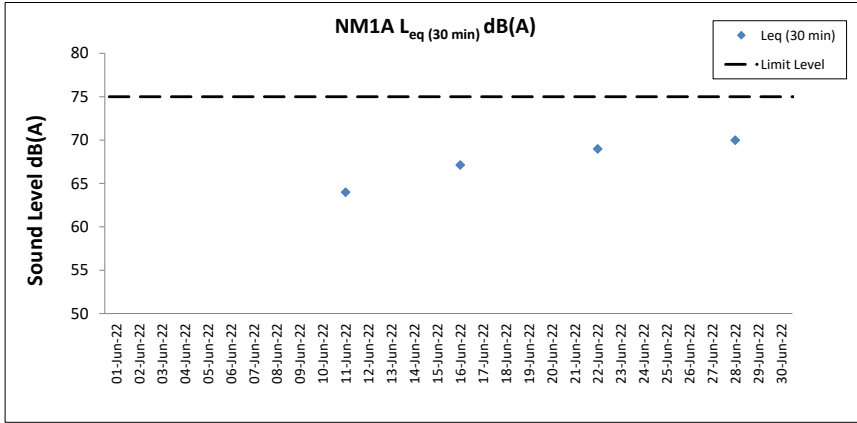
Date	Weather	Time	Measured L <sub>10</sub> dB(A)	Measured L <sub>90</sub> dB(A)	L <sub>eq(30mins)</sub> dB(A) ^
10-Jun-22	Overcast	15:40	56.1	50.0	65
10-Jun-22	Overcast	15:45	64.9	48.9	
10-Jun-22	Overcast	15:50	56.1	47.6	
10-Jun-22	Overcast	15:55	57.5	47.7	
10-Jun-22	Overcast	16:00	59.6	48.3	
10-Jun-22	Overcast	16:05	58.8	46.7	
15-Jun-22	Sunny	15:39	71.1	48.4	68
15-Jun-22	Sunny	15:44	57.7	45.8	
15-Jun-22	Sunny	15:49	72.9	47.4	
15-Jun-22	Sunny	15:54	64.0	50.8	
15-Jun-22	Sunny	15:59	54.5	49.5	
15-Jun-22	Sunny	16:04	69.6	49.9	
21-Jun-22	Sunny	15:38	61.9	48.8	67
21-Jun-22	Sunny	15:43	57.1	49.5	
21-Jun-22	Sunny	15:48	62.3	48.0	
21-Jun-22	Sunny	15:53	62.8	48.0	
21-Jun-22	Sunny	15:58	71.0	50.6	
21-Jun-22	Sunny	16:03	52.7	45.1	
29-Jun-22	Sunny	09:41	69.0	48.5	62*
29-Jun-22	Sunny	09:46	71.9	50.1	
29-Jun-22	Sunny	09:51	72.5	52.7	
29-Jun-22	Sunny	09:56	61.9	50.4	
29-Jun-22	Sunny	10:01	69.3	52.8	
29-Jun-22	Sunny	10:06	57.9	47.7	

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 June 22 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)								
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA						
C1	Cloudy	Moderate	14:19	8.7	Surface	1.0	0.6	198	26.7	26.7	8.0	8.0	20.8	21.0	87.3	87.3	6.2	5.8	1.5	6.3	3	2	815641	804259								
						1.0	0.6	193	26.7	8.0	8.0	21.3	21.0	87.2	87.3	6.2	5.8	1.6	6.3	2												
					Middle	4.4	0.6	207	25.8	25.8	8.0	8.0	31.4	31.4	77.9	78.2	5.3	5.3	7.8	6.3	2											
						4.4	0.6	205	25.8	25.8	8.0	8.0	31.4	31.4	78.5	78.2	5.4	5.3	7.6	6.3	2											
					Bottom	7.7	0.5	187	25.6	25.6	8.0	8.0	31.7	31.7	77.3	77.5	5.3	5.3	9.7	5.3	9.4				5.3	2						
						7.7	0.6	181	25.6	25.6	8.0	8.0	31.7	31.7	77.6	77.5	5.3	5.3	9.4	5.3	9.4				5.3	2						
					C2	Cloudy	Moderate	13:05	11.4	Surface	1.0	0.5	167	27.5	27.5	8.1	8.1	14.6	14.1	90.6	90.5				6.5	6.0	2.5	4.1	2	2	825660	806931
											1.0	0.5	162	27.5	27.5	8.1	8.1	13.6	14.1	90.4	90.5				6.5	6.0	2.5	4.1	2			
Middle	5.7	0.5	164	27.0						27.0	7.9	7.9	18.4	18.3	78.8	78.9	5.6	5.5	2.6	6.0	2.6	4.1	2									
	5.7	0.5	169	27.0						27.0	7.9	7.9	18.3	18.3	79.0	78.9	5.5	5.5	2.6	6.0	2.6	4.1	2									
Bottom	10.4	0.5	166	26.2						26.2	7.9	7.9	28.4	28.5	81.1	81.2	5.6	5.6	7.2	5.6	7.4	5.6	2									
	10.4	0.5	160	26.2						26.2	7.9	7.9	28.6	28.5	81.3	81.2	5.6	5.6	7.4	5.6	7.4	5.6	2									
C3	Misty	Moderate	14:07	10.4						Surface	1.0	0.5	63	26.7	26.7	8.0	8.0	19.3	19.4	101.5	101.5	7.3	7.3	1.0	1.4	2	3	822120	817787			
											1.0	0.6	61	26.7	26.7	8.0	8.0	19.4	19.4	101.4	101.5	7.3	7.3	1.0	1.4	3						
					Middle	5.2	0.5	48	26.4	26.4	8.0	8.0	21.7	22.0	101.3	101.5	7.2	7.2	1.1	7.3	1.1	1.4	3									
						5.2	0.5	42	26.4	26.4	8.0	8.0	22.3	22.0	101.7	101.5	7.2	7.2	1.2	7.3	1.2	1.4	3									
					Bottom	9.4	0.5	48	26.5	26.5	8.0	8.0	25.5	25.3	104.9	106.5	7.3	7.5	2.1	7.5	2.1	1.4	3									
						9.4	0.6	51	26.7	26.6	8.0	8.0	25.1	25.3	108.0	106.5	7.6	7.5	2.1	7.5	2.1	1.4	3									
					IM1	Cloudy	Moderate	13:54	7.5	Surface	1.0	0.3	191	26.9	26.9	8.0	8.0	18.6	18.7	88.5	88.6	6.4	5.8	3.4	7.5	3				2	818352	806450
											1.0	0.3	198	26.9	26.9	8.0	8.0	18.8	18.7	88.6	88.6	6.4	5.8	3.5	7.5	2						
Middle	3.8	0.3	184	25.8						25.8	8.0	8.0	30.3	30.4	74.0	74.1	5.1	5.1	8.5	5.1	8.9	5.1	2									
	3.8	0.3	178	25.7						25.7	8.0	8.0	30.5	30.4	74.1	74.1	5.1	5.1	8.9	5.1	8.9	5.1	2									
Bottom	6.5	0.4	167	25.7						25.7	8.0	8.0	31.0	31.0	74.9	75.0	5.1	5.1	10.5	5.1	10.2	5.1	2									
	6.5	0.4	163	25.7						25.7	8.0	8.0	31.0	31.0	75.0	75.0	5.1	5.1	10.2	5.1	10.2	5.1	2									
IM2	Cloudy	Moderate	13:49	7.6						Surface	1.0	0.4	184	26.8	26.8	8.0	8.0	21.0	20.9	86.2	86.3	6.1	5.7	1.9	8.6	3	3	819185	806242			
											1.0	0.4	179	26.8	26.8	8.0	8.0	20.8	20.9	86.4	86.3	6.2	5.7	2.0	8.6	2						
					Middle	3.8	0.4	181	25.8	25.8	8.0	8.0	30.0	30.0	76.5	76.6	5.3	5.3	11.1	5.3	11.5	5.3	3									
						3.8	0.4	185	25.8	25.8	8.0	8.0	30.1	30.0	76.6	76.6	5.3	5.3	11.5	5.3	11.5	5.3	3									
					Bottom	6.6	0.4	199	25.8	25.8	8.0	8.0	30.4	30.4	78.1	78.3	5.4	5.4	12.8	5.4	12.5	5.4	3									
						6.6	0.3	194	25.8	25.8	8.0	8.0	30.4	30.4	78.5	78.3	5.4	5.4	12.5	5.4	12.5	5.4	3									
					IM7	Cloudy	Moderate	13:28	8.6	Surface	1.0	0.2	154	27.4	27.4	8.1	8.1	17.1	17.1	86.8	86.8	6.2	5.8	1.3	4.9	3				2	821327	806816
											1.0	0.3	153	27.4	27.4	8.1	8.1	17.1	17.1	86.8	86.8	6.2	5.8	1.3	4.9	2						
Middle	4.3	0.3	137	26.6						26.6	8.0	8.0	22.5	22.5	76.1	76.4	5.4	5.4	4.6	5.8	5.3	5.8	2									
	4.3	0.3	131	26.6						26.6	8.0	8.0	22.5	22.5	76.6	76.4	5.4	5.4	5.3	5.8	5.3	5.8	2									
Bottom	7.6	0.3	167	26.6						26.6	8.0	8.0	25.5	25.5	79.5	79.5	5.5	5.5	8.5	5.5	8.5	5.5	2									
	7.6	0.3	163	26.6						26.6	8.0	8.0	25.5	25.5	79.5	79.5	5.5	5.5	8.5	5.5	8.5	5.5	2									

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 02 June 22 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Misty	Moderate	13:06	8.8	Surface	1.0	0.6	109	26.7	26.7	8.0	8.0	14.9	14.9	96.3	95.7	7.1	6.8	4.7	5.5	3	3	822245	809836
						1.0	0.5	105	26.6		8.0	8.0	14.9	14.9	95.1	95.7	7.0	6.8	4.9					
					Middle	4.4	0.6	124	26.4	26.4	8.0	8.0	19.0	19.1	91.3	91.2	6.6	6.8	5.1	6.8	3			
						4.4	0.6	118	26.4		8.0	8.0	19.2	19.1	91.3	91.2	6.6	6.8	5.2					
					Bottom	7.8	0.6	88	26.5	26.5	8.0	8.0	22.3	22.3	96.2	96.2	6.8	6.8	6.6	6.8	3			
						7.8	0.6	81	26.5		8.0	8.0	22.3	22.3	96.2	96.2	6.8	6.8	6.6					
IM11	Misty	Moderate	13:12	7.0	Surface	1.0	0.7	106	26.6	26.6	7.9	7.9	16.1	16.2	95.4	95.1	7.0	6.8	5.9	6.5	4	3	821509	810565
						1.0	0.7	109	26.6		7.9	7.9	16.2	16.2	94.7	95.1	6.9	6.8	5.9					
					Middle	3.5	0.7	79	26.4	26.4	7.9	7.9	19.6	19.5	91.5	91.7	6.6	6.8	6.2	6.8	3			
						3.5	0.8	82	26.4		7.9	7.9	19.3	19.5	91.9	91.7	6.7	6.8	6.2					
					Bottom	6.0	0.7	115	26.4	26.4	7.9	7.9	21.4	21.3	96.2	97.7	6.9	7.0	7.4	7.0	3			
						6.0	0.6	119	26.4		7.9	7.9	21.3	21.3	99.1	97.7	7.1	7.0	7.5					
IM12	Misty	Moderate	13:17	7.4	Surface	1.0	0.8	105	26.7	26.7	8.0	8.0	15.1	15.1	94.0	94.0	6.9	6.9	3.5	6.9	2	2	821167	811514
						1.0	0.8	105	26.7		8.0	8.0	15.1	15.1	94.0	94.0	6.9	6.9	3.4					
					Middle	3.7	0.7	100	26.6	26.6	7.9	7.9	18.9	18.9	93.1	95.0	6.7	6.9	4.0	6.9	3			
						3.7	0.7	102	26.6		8.0	8.0	19.0	18.9	96.9	95.0	7.0	6.9	4.1					
					Bottom	6.4	0.7	98	26.6	26.6	8.0	8.0	19.2	19.2	104.5	104.5	7.5	7.5	5.4	7.5	<2			
						6.4	0.7	101	26.6		8.0	8.0	19.2	19.2	104.5	104.5	7.5	7.5	5.4					
SR1A	Misty	Moderate	13:39	4.6	Surface	1.0	0.1	96	27.1	27.1	8.0	8.0	17.1	17.1	103.1	103.1	7.5	7.5	2.2	7.5	4	4	819972	812656
						1.0	0.1	98	27.1		8.0	8.0	17.1	17.1	103.1	103.1	7.5	7.5	2.2					
					Middle	2.3	0.0	96	-	-	-	-	-	-	-	-	-	-	-	2.8	-			
						2.3	0.0	101	-		-	-	-	-	-	-	-	-	-	-	-			
					Bottom	3.6	0.0	89	26.9	27.0	8.0	8.0	19.0	18.7	112.7	113.6	8.1	8.2	3.4	8.2	4			
						3.6	0.0	86	27.0		8.0	8.0	18.5	18.7	114.5	113.6	8.2	8.2	3.3					
SR2	Misty	Moderate	13:51	4.0	Surface	1.0	0.6	42	27.0	27.0	8.0	8.0	14.9	14.8	100.3	99.9	7.4	7.4	2.2	7.4	3	3	821451	814176
						1.0	0.6	44	26.9		8.0	8.0	14.7	14.8	99.5	99.9	7.3	7.4	2.2					
					Middle	-	0.6	67	-	-	-	-	-	-	-	-	-	-	-	3.1	-			
						-	0.6	68	-		-	-	-	-	-	-	-	-	-	-	-			
					Bottom	3.0	0.6	61	26.6	26.7	8.0	8.0	20.2	20.1	105.6	107.9	7.6	7.8	3.9	7.8	4			
						3.0	0.5	61	26.7		8.0	8.0	20.1	20.1	110.1	107.9	7.9	7.8	3.9					
SR3	Cloudy	Moderate	13:24	9.0	Surface	1.0	0.5	142	27.6	27.6	8.1	8.1	16.1	16.1	89.9	89.8	6.5	6.0	1.6	6.0	2	2	822130	807577
						1.0	0.5	134	27.6		8.1	8.1	16.1	16.1	89.6	89.8	6.5	6.0	1.6					
					Middle	4.5	0.5	143	26.5	26.5	8.0	8.0	22.8	22.8	77.6	77.7	5.5	6.0	6.5	6.0	2			
						4.5	0.5	149	26.5		8.0	8.0	22.9	22.8	77.8	77.7	5.5	6.0	7.4					
					Bottom	8.0	0.5	131	26.3	26.4	8.0	8.0	25.2	25.2	77.9	77.9	5.5	5.5	9.4	5.5	2			
						8.0	0.5	128	26.4		8.0	8.0	25.3	25.2	77.9	77.9	5.4	5.5	9.7					
SR4A	Cloudy	Moderate	14:42	8.9	Surface	1.0	0.0	45	26.9	26.9	8.0	8.0	18.4	18.7	89.2	89.3	6.4	5.8	7.5	5.8	2	2	817183	807800
						1.0	0.1	49	26.9		8.0	8.0	18.9	18.7	89.4	89.3	6.4	5.8	7.7					
					Middle	4.5	0.0	63	25.8	25.8	8.0	8.0	30.0	30.0	73.9	74.0	5.1	5.8	8.3	5.8	3			
						4.5	0.1	60	25.8		8.0	8.0	30.0	30.0	74.0	74.0	5.1	5.8	8.5					
					Bottom	7.9	0.0	51	25.8	25.8	8.0	8.0	30.1	30.1	74.7	74.9	5.1	5.2	10.3	5.2	2			
						7.9	0.1	50	25.8		8.0	8.0	30.2	30.1	75.0	74.9	5.2	5.2	10.3					
SR8	Misty	Moderate	13:21	5.0	Surface	1.0	-	-	27.0	27.0	8.0	8.0	18.8	18.8	98.3	98.4	7.1	7.1	3.3	7.1	3	3	820374	811603
						1.0	-	-	26.9		8.0	8.0	18.8	18.8	98.5	98.4	7.1	7.1	3.2					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	-			
						-	-	-	-		-	-	-	-	-	-	-	-	-		-			
					Bottom	4.0	-	-	26.7	26.7	8.0	8.0	20.3	20.3	101.3	101.7	7.2	7.3	4.1	7.3	3			
						4.0	-	-	26.7		8.0	8.0	20.3	20.3	102.1	101.7	7.3	7.3	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 02 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	07:30	8.0	Surface	1.0	0.3	16	26.9	26.9	8.0	8.0	14.6	14.6	89.4	89.1	6.6	5.9	2.7	7.2	4	3	815629	804230
						1.0	0.3	16	26.9		8.0	8.0	14.5	14.6	88.7	89.1	6.5		2.8					
					Middle	4.0	0.3	35	25.6	25.6	8.0	8.0	31.9	31.9	77.8	77.9	5.3	5.4	7.1	3				
						4.0	0.3	31	25.6		8.0	8.0	31.9	31.9	77.9	77.9	5.3		7.4	2				
					Bottom	7.0	0.3	19	25.5	25.5	8.0	8.0	32.5	32.5	79.2	79.3	5.4	5.4	11.7	2				
						7.0	0.3	23	25.5		8.0	8.0	32.5	32.5	79.4	79.3	5.4		11.7	3				
C2	Cloudy	Moderate	08:39	11.2	Surface	1.0	0.4	339	27.2	27.2	8.1	8.1	14.5	14.4	91.1	91.1	6.7	6.2	2.5	4.4	3	3	825691	806960
						1.0	0.4	342	27.2		8.1	8.1	14.3	14.4	91.0	91.1	6.7		2.6					
					Middle	5.6	0.4	348	27.0	27.0	7.9	7.9	20.5	20.5	78.7	78.6	5.6	5.3	4.3	3				
						5.6	0.4	349	26.9		7.9	7.9	20.4	20.5	78.4	78.6	5.6		4.7	3				
					Bottom	10.2	0.4	6	26.5	26.5	7.9	7.9	26.1	26.5	77.0	77.1	5.3	5.3	6.3	2				
						10.2	0.3	8	26.5		7.9	7.9	26.8	26.5	77.2	77.1	5.3		6.2	3				
C3	Misty	Moderate	08:00	8.4	Surface	1.0	0.5	239	26.1	26.1	7.9	7.9	17.7	17.7	93.5	93.2	6.9	6.5	1.0	2.2	3	2	822120	817806
						1.0	0.5	245	26.0		7.9	7.9	17.8	17.7	92.8	93.2	6.8		1.1		2			
					Middle	4.2	0.4	259	25.7	25.7	7.9	7.9	25.3	25.0	87.9	87.9	6.2	6.2	2.1	3				
						4.2	0.4	256	25.6		7.9	7.9	24.7	25.0	87.9	87.9	6.2		2.2	2				
					Bottom	7.4	0.5	250	25.5	25.5	7.9	7.9	31.0	30.9	89.1	89.4	6.1	6.2	3.3	2				
						7.4	0.5	247	25.5		7.9	7.9	30.9	30.9	89.6	89.4	6.2		3.3	2				
IM1	Cloudy	Moderate	07:44	7.2	Surface	1.0	0.1	30	26.9	26.9	8.0	8.0	14.5	14.5	90.5	90.2	6.7	6.5	2.2	7.6	2	2	818334	806469
						1.0	0.2	33	26.9		8.0	8.0	14.5	14.5	89.8	90.2	6.6		2.0		3			
					Middle	3.6	0.2	21	26.6	26.6	8.0	8.0	16.5	17.3	87.9	87.9	6.4	6.4	9.4	3				
						3.6	0.2	19	26.5		8.0	8.0	18.1	17.3	87.8	87.9	6.4		9.6	2				
					Bottom	6.2	0.2	20	25.8	25.9	8.0	8.0	30.2	30.2	78.0	78.2	5.4	5.4	11.2	2				
						6.2	0.2	26	25.9		8.0	8.0	30.2	30.2	78.3	78.2	5.4		11.2	2				
IM2	Cloudy	Moderate	07:51	8.0	Surface	1.0	0.1	8	26.9	26.9	8.0	8.0	14.6	14.7	93.0	93.0	6.8	6.6	1.9	5.4	2	2	819179	806223
						1.0	0.2	8	26.9		8.0	8.0	14.7	14.7	92.9	93.0	6.8		1.9		2			
					Middle	4.0	0.1	15	26.7	26.7	8.0	8.0	18.8	18.8	88.0	88.1	6.4	6.4	5.0	2				
						4.0	0.1	11	26.6		8.0	8.0	18.8	18.8	88.1	88.1	6.4		5.4	3				
					Bottom	7.0	0.2	14	26.2	26.2	8.0	8.0	27.1	27.1	79.0	79.1	5.5	5.5	9.0	2				
						7.0	0.2	21	26.2		8.0	8.0	27.1	27.1	79.2	79.1	5.5		9.4	3				
IM7	Cloudy	Moderate	08:13	8.4	Surface	1.0	0.2	359	27.2	27.2	8.0	8.0	14.9	14.9	89.3	89.3	6.5	6.2	2.7	5.7	3	3	821339	806840
						1.0	0.1	356	27.2		8.0	8.0	14.9	14.9	89.2	89.3	6.5		2.7		4			
					Middle	4.2	0.1	3	26.9	26.9	8.0	8.0	18.8	18.8	82.3	82.3	5.9	5.9	3.3	4				
						4.2	0.1	2	26.9		8.0	8.0	18.8	18.8	82.2	82.3	5.9		3.3	3				
					Bottom	7.4	0.1	353	26.4	26.4	8.0	8.0	25.8	25.9	79.0	79.1	5.5	5.5	10.8	3				
						7.4	0.1	356	26.4		8.0	8.0	25.9	25.9	79.2	79.1	5.5		11.2	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 02 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA									
																									Value	DA	Value	DA			
IM10	Misty	Moderate	09:06	8.2	Surface	1.0	0.3	308	26.7	26.7	8.0	8.0	16.1	16.1	92.2	92.1	6.7	6.6	3.6	4.5	2	3	822244	809853							
						1.0	0.3	312	26.7	8.0	8.0	16.1	16.1	91.9	91.3	6.7	6.6	3.6	4.5	3	2										
					Middle	4.1	0.3	300	26.6	8.0	8.0	20.1	20.0	91.3	91.3	6.6	6.5	4.4	4.4	3	2										
						4.1	0.3	293	26.5	8.0	8.0	20.0	20.0	91.3	91.3	6.5	6.5	4.4	4.4	2	3										
					Bottom	7.2	0.3	293	26.4	26.4	7.9	7.9	22.9	22.8	94.7	95.2	6.7	6.7	5.7	5.5	3	3									
						7.2	0.3	295	26.4	26.4	7.9	7.9	22.7	22.8	95.7	95.2	6.7	6.7	5.5	5.5	3	3									
					IM11	Misty	Moderate	09:01	8.0	Surface	1.0	0.4	283	26.9	26.9	8.0	8.0	16.1	16.1	94.3	94.1	6.9			6.9	3.7	4.6	<2	<2	821517	810531
											1.0	0.5	284	26.8	8.0	8.0	16.1	16.1	93.8	90.4	6.9	6.5			3.8	4.7	<2	<2			
Middle	4.0	0.4	294	26.5						26.5	8.0	8.0	20.9	20.9	90.3	90.4	6.5	6.5	4.9	4.9	<2	<2									
	4.0	0.5	287	26.5						26.5	8.0	8.0	20.9	20.9	90.5	90.4	6.5	6.5	4.9	4.9	<2	<2									
Bottom	7.0	0.4	282	26.4						26.4	7.9	7.9	23.8	23.8	96.0	96.9	6.8	6.8	5.4	5.4	<2	<2									
	7.0	0.4	277	26.4						26.4	7.9	7.9	23.8	23.8	97.7	96.9	6.8	6.8	5.4	5.4	<2	<2									
IM12	Misty	Moderate	08:55	9.2						Surface	1.0	0.3	267	26.4	26.4	8.0	8.0	17.0	17.0	92.5	92.1	6.8	6.4	5.1	6.2	<2	<2	821178	811522		
											1.0	0.3	270	26.4	26.4	8.0	8.0	17.0	17.0	91.6	92.1	6.7	6.1	5.2	6.2	<2	<2				
					Middle	4.6	0.4	290	26.1	26.1	8.0	8.0	25.7	25.9	86.7	86.8	6.1	6.1	6.2	6.2	<2	<2									
						4.6	0.4	293	26.1	26.1	8.0	8.0	26.0	26.3	86.9	86.7	6.1	6.1	6.2	6.2	<2	<2									
					Bottom	8.2	0.4	273	26.1	26.1	8.0	8.0	26.3	26.3	88.7	91.2	6.2	6.4	7.1	7.1	<2	<2									
						8.2	0.3	279	26.1	26.1	8.0	8.0	26.3	26.3	93.6	91.2	6.5	6.4	7.2	7.2	<2	<2									
					SR1A	Misty	Moderate	08:33	5.4	Surface	1.0	0.0	197	27.2	27.2	8.0	8.0	14.9	14.9	95.3	95.4	7.0	7.0	1.7	2.3	<2	<2			819982	812663
											1.0	-	192	27.2	27.2	8.0	8.0	14.9	14.9	95.5	95.4	6.9	7.0	1.7	2.3	<2	<2				
Middle	2.7	0.0	190	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2						
	2.7	0.1	190	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2						
Bottom	4.4	-	185	27.3						27.4	8.0	8.0	17.0	16.9	98.0	98.5	7.1	7.2	2.8	2.9	<2	<2									
	4.4	0.0	181	27.4						27.4	8.0	8.0	16.8	16.9	99.0	98.5	7.2	7.2	2.9	2.9	<2	<2									
SR2	Misty	Moderate	08:20	5.0						Surface	1.0	0.1	260	27.0	27.0	8.0	8.0	16.0	16.0	96.7	96.7	7.1	7.1	3.3	3.9	<2	<2	821473	814177		
											1.0	0.0	264	27.0	27.0	8.0	8.0	16.1	16.0	96.7	96.7	7.1	7.1	3.3	3.9	<2	<2				
					Middle	-	0.1	249	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2					
						-	0.1	248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2	<2					
					Bottom	4.0	0.1	270	27.3	27.3	8.0	8.0	18.1	18.0	98.3	98.7	7.0	7.1	4.6	4.5	<2	<2									
						4.0	0.2	270	27.3	27.3	8.0	8.0	18.0	18.0	99.0	98.7	7.1	7.1	4.5	4.5	<2	<2									
					SR3	Cloudy	Moderate	08:19	8.9	Surface	1.0	0.2	336	27.6	27.6	8.1	8.1	15.3	15.3	89.7	89.6	6.5	6.1	1.9	6.3	2	2			822152	807571
											1.0	0.2	331	27.5	27.6	8.1	8.1	15.3	15.3	89.4	89.6	6.5	6.1	1.9	6.3	2	2				
Middle	4.5	0.3	356	26.9						26.9	8.0	8.0	19.4	19.5	78.7	78.7	5.6	5.6	5.1	5.1	2	2									
	4.5	0.3	355	26.8						26.9	8.0	8.0	19.5	19.5	78.7	78.7	5.6	5.6	5.1	5.1	2	2									
Bottom	7.9	0.2	344	26.5						26.5	8.0	8.0	24.2	24.2	80.3	80.4	5.6	5.7	11.8	12.0	2	2									
	7.9	0.2	344	26.4						26.5	8.0	8.0	24.3	24.2	80.5	80.4	5.7	5.7	12.0	12.0	2	2									
SR4A	Cloudy	Moderate	07:12	9.2						Surface	1.0	0.0	175	26.7	26.7	7.9	7.9	14.1	14.1	88.1	88.1	6.5	6.2	3.2	6.5	<2	<2	817167	807797		
											1.0	0.0	181	26.7	26.7	7.9	7.9	14.1	14.1	88.0	88.1	6.5	6.2	3.4	6.5	<2	<2				
					Middle	4.6	0.0	181	26.7	26.7	7.9	7.9	19.2	19.2	82.4	82.4	5.9	5.9	4.9	4.6	<2	<2									
						4.6	0.1	175	26.7	26.7	7.9	7.9	19.2	19.2	82.3	82.4	5.9	5.9	4.6	4.6	<2	<2									
					Bottom	8.2	0.0	154	26.2	26.2	7.9	7.9	27.5	27.5	74.3	74.4	5.2	5.2	11.6	11.5	<2	<2									
						8.2	0.1	153	26.2	26.2	7.9	7.9	27.6	27.5	74.4	74.4	5.2	5.2	11.5	11.5	<2	<2									
					SR8	Misty	Moderate	08:50	5.6	Surface	1.0	-	-	27.0	27.1	8.0	8.0	17.5	17.6	90.3	90.3	6.5	6.5	4.2	4.6	2	2			820405	811629
											1.0	-	-	27.1	27.1	8.0	8.0	17.7	17.6	90.3	90.3	6.5	6.5	4.2	4.6	3	2				
Middle	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2					
	-	-	-	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2					
Bottom	4.6	-	-	27.4						27.4	7.9	7.9	23.2	23.1	93.5	94.3	6.5	6.6	5.1	5.1	2	2									
	4.6	-	-	27.4						27.4	7.9	7.9	23.1	23.1	95.1	94.3	6.6	6.6	5.1	5.1	2	2									

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

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

**Water Quality Monitoring**

**Water Quality Monitoring Results on 04 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
C1	Cloudy	Moderate	15:54	8.4	Surface	1.0	0.7	218	27.1	27.1	7.9	7.9	12.3	12.3	92.3	92.3	6.9	6.1	3.3	6.3	3	4	815625	804252		
						1.0	0.6	224	27.1		7.9		12.3		92.2		6.8		3.3		3					
					Middle	4.2	0.7	213	26.3	26.3	8.0	8.0	22.9	23.0	76.3	76.3	5.4	4.9	2.8	4.9	13.0				4.9	4
						4.2	0.6	217	26.3		8.0		23.1		76.3		5.4		2.8		3					
					Bottom	7.4	0.7	231	25.8	25.8	7.8	7.8	31.8	31.8	72.3	72.4	4.9	4.9	13.0	4.9	4					
						7.4	0.7	224	25.8		7.8		31.8		72.5		4.9		12.6		4					
C2	Cloudy	Moderate	14:22	11.6	Surface	1.0	0.4	172	27.0	27.1	8.0	8.0	12.0	12.0	91.0	6.3	6.8	5.4	3.2	2.8	3	3	825661	806927		
						1.0	0.5	167	27.1		8.0		12.0		90.9		6.8		3.1		3					
					Middle	5.8	0.5	177	27.1	27.1	8.0	8.0	20.2	20.4	82.3	82.4	5.8	5.4	1.3	5.4	4.0				5.4	3
						5.8	0.5	177	27.1		8.0		20.6		82.5		5.8		1.5		4					
					Bottom	10.6	0.5	188	26.7	26.7	8.0	8.0	27.6	27.7	77.9	78.0	5.4	5.4	4.0	5.4	4.0				5.4	3
						10.6	0.5	182	26.7		8.0		27.7		78.1		5.4		4.0		4					
C3	Misty	Moderate	15:19	10.0	Surface	1.0	0.5	73	27.1	27.1	8.0	8.0	16.7	16.7	107.9	108.0	7.8	7.9	1.1	1.9	<2	2	822087	817821		
						1.0	0.5	68	27.1		8.0		16.8		108.0		7.8		1.1		<2					
					Middle	5.0	0.5	53	27.0	27.0	8.0	8.0	17.1	17.2	108.9	109.1	7.9	8.1	1.9	8.1	2.7				8.1	2
						5.0	0.5	52	27.0		8.0		17.2		109.2		7.9		1.9		2					
					Bottom	9.0	0.5	70	27.0	27.0	8.1	8.1	17.4	17.4	111.7	112.0	8.1	8.1	2.7	8.1	2.8				8.1	3
						9.0	0.6	76	27.0		8.1		17.3		112.3		8.1		2.8		2					
IM1	Cloudy	Moderate	15:38	7.0	Surface	1.0	0.4	192	27.0	27.0	8.0	8.0	12.4	12.4	93.5	93.4	7.0	6.5	3.1	8.0	4	5	818333	806460		
						1.0	0.5	197	27.0		8.1		12.4		93.3		6.9		3.2		4					
					Middle	3.5	0.4	202	26.3	26.3	8.1	8.1	18.1	19.2	82.3	82.2	5.9	5.0	9.0	5.0	5					
						3.5	0.4	199	26.3		8.1		20.4		82.1		6.0		9.6		4					
					Bottom	6.0	0.4	210	25.8	25.8	8.0	7.9	30.4	30.4	72.0	72.3	4.9	5.0	11.3	5.0	6					
						6.0	0.5	209	25.8		7.9		30.4		72.5		5.0		11.5		5					
IM2	Cloudy	Moderate	15:30	6.9	Surface	1.0	0.5	189	27.2	27.2	8.1	8.1	12.4	12.4	95.1	95.0	7.0	6.6	2.7	5.4	5	5	819181	806240		
						1.0	0.5	184	27.2		8.1		12.4		94.9		7.0		2.8		4					
					Middle	3.5	0.5	202	26.8	26.9	8.2	8.2	18.0	18.0	85.6	85.7	6.2	5.1	5.0	5.1	5					
						3.5	0.4	202	26.9		8.2		18.0		85.7		6.2		5.1		5					
					Bottom	5.9	0.5	179	25.8	25.8	8.2	8.2	30.3	30.3	74.5	74.7	5.1	5.1	8.1	5.1	5					
						5.9	0.5	177	25.8		8.2		30.3		74.8		5.1		8.5		5					
IM7	Cloudy	Moderate	15:10	8.8	Surface	1.0	0.3	164	27.1	27.1	8.1	8.1	13.0	13.1	88.3	88.2	6.5	6.1	2.3	8.0	5	4	821370	806824		
						1.0	0.3	164	27.1		8.1		13.2		88.0		6.5		2.3		5					
					Middle	4.4	0.4	185	26.8	26.8	8.2	8.2	18.0	18.0	78.5	78.4	5.7	4.8	6.3	4.8	4					
						4.4	0.4	180	26.7		8.2		18.1		78.2		5.7		7.0		4					
					Bottom	7.8	0.3	163	26.2	26.2	8.2	8.2	26.7	26.7	68.8	69.0	4.8	4.8	14.8	4.8	4					
						7.8	0.3	167	26.2		8.2		26.7		69.1		4.8		15.6		4					

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 04 June 22 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Misty	Moderate	14:21	8.6	Surface	1.0	0.5	117	26.9	26.9	8.0	8.0	15.0	15.1	97.0	96.8	7.1	6.9	3.6	4.4	2	3	822218	809857
						1.0	0.4	110	26.9		8.0		15.1		96.6		7.1		3.6		3			
					Middle	4.3	0.6	90	26.8	26.8	8.0	8.0	15.8	15.8	90.8	90.8	6.6	6.2	4.2	6.2	3			
						4.3	0.6	96	26.8		8.0		15.8		90.8		6.6		4.2		3			
					Bottom	7.6	0.5	123	26.7	26.7	8.0	8.0	20.0	19.9	86.7	86.8	6.2	6.2	5.3	6.2	3			
						7.6	0.5	124	26.7		8.1		19.8		86.9		6.2		5.4		4			
IM11	Misty	Moderate	14:26	7.2	Surface	1.0	0.6	84	26.8	26.8	8.0	8.0	15.9	15.7	94.5	94.1	6.9	6.8	1.7	2.5	2	3	821489	810533
						1.0	0.6	90	26.8		8.0		15.5		93.6		6.9		1.6		3			
					Middle	3.6	0.6	107	26.7	26.7	8.0	8.0	20.3	20.3	93.8	94.7	6.7	6.8	2.3	7.7	3			
						3.6	0.6	108	26.7		8.0		20.4		95.5		6.8		2.3		3			
					Bottom	6.2	0.7	102	26.7	26.7	8.0	8.0	20.3	20.3	107.4	107.4	7.7	7.7	3.7	7.7	3			
						6.2	0.7	109	26.7		8.0		20.3		107.4		7.7		3.7		4			
IM12	Misty	Moderate	14:31	7.0	Surface	1.0	0.7	110	27.1	27.1	8.0	8.0	15.3	15.3	105.5	105.6	7.7	7.8	1.0	1.4	2	3	821160	811521
						1.0	0.7	106	27.1		8.0		15.4		105.7		7.7		1.0		3			
					Middle	3.5	0.7	115	27.0	27.0	8.0	8.0	15.8	15.8	106.5	106.5	7.8	8.0	1.2	8.0	3			
						3.5	0.7	120	27.0		8.0		15.8		106.5		7.8		1.2		3			
					Bottom	6.0	0.7	104	27.0	27.0	8.0	8.0	16.8	16.9	108.4	109.9	7.8	8.1	2.1	8.0	2			
						6.0	0.7	106	27.0		8.0		17.0		111.4		8.1		2.2		3			
SR1A	Misty	Moderate	14:51	4.8	Surface	1.0	0.0	115	26.9	26.9	8.0	8.0	15.0	15.0	97.5	97.1	7.2	7.2	4.2	4.7	3	3	819972	812654
						1.0	0.0	117	26.8		8.0		15.1		96.6		7.1		4.1		3			
					Middle	2.4	0.1	101	-	-	-	-	-	-	-	-	-	-	-	-	-			
						2.4	0.1	103	-		-		-		-		-		-		-			
					Bottom	3.8	0.0	125	26.7	26.7	8.0	8.0	19.7	19.7	91.8	91.9	6.6	6.6	5.4	6.6	2			
						3.8	0.1	121	26.7		8.0		19.8		91.9		6.6		5.3		2			
SR2	Misty	Moderate	15:02	4.2	Surface	1.0	0.6	60	27.6	27.6	8.1	8.1	14.3	14.3	116.4	116.4	8.5	8.5	1.8	2.6	2	2	821450	814168
						1.0	0.6	65	27.6		8.1		14.3		116.4		8.5		1.8		2			
					Middle	-	0.6	33	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	0.6	37	-		-		-		-		-		-		-			
					Bottom	3.2	0.6	52	27.5	27.5	8.1	8.1	14.3	14.3	126.3	127.0	9.2	9.3	3.4	9.3	<2			
						3.2	0.6	51	27.5		8.2		14.3		127.7		9.3		3.3		<2			
SR3	Cloudy	Moderate	15:03	9.1	Surface	1.0	0.6	168	27.5	27.5	8.3	8.3	14.3	14.3	92.0	92.0	6.7	6.2	2.3	5.5	2	3	822145	807576
						1.0	0.6	168	27.5		8.3		14.3		91.9		6.7		2.3		3			
					Middle	4.6	0.6	146	27.1	27.1	8.3	8.3	19.4	19.4	79.0	79.0	5.6	5.6	4.1	5.6	4			
						4.6	0.6	141	27.1		8.3		19.4		79.0		5.6		4.1		3			
					Bottom	8.1	0.6	166	26.9	26.9	8.2	8.2	23.2	23.2	79.4	79.4	5.6	5.6	10.3	5.6	4			
						8.1	0.6	172	26.9		8.2		23.2		79.4		5.6		10.3		3			
SR4A	Cloudy	Moderate	16:17	8.4	Surface	1.0	0.0	11	27.3	27.3	7.8	7.8	12.7	12.7	95.9	95.8	7.1	6.2	6.6	9.7	4	4	817184	807792
						1.0	0.0	17	27.3		7.8		12.7		95.7		7.1		6.9		4			
					Middle	4.2	-	17	26.2	26.2	7.9	7.9	24.3	24.3	73.3	73.3	5.2	5.2	11.8	5.2	4			
						4.2	0.0	21	26.2		7.9		24.3		73.3		5.2		11.2		4			
					Bottom	7.4	0.0	356	26.2	26.2	7.9	7.9	26.7	26.7	74.6	74.8	5.2	5.2	10.8	5.2	4			
						7.4	0.1	357	26.2		7.9		26.7		74.9		5.2		10.8		4			
SR8	Misty	Moderate	14:35	5.2	Surface	1.0	-	-	27.7	27.6	8.0	8.0	15.2	15.2	111.6	111.9	8.1	8.1	2.6	3.3	2	2	820373	811605
						1.0	-	-	27.5		8.0		15.2		112.2		8.1		2.6		2			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-		-		-		-		-		-		-			
					Bottom	4.2	-	-	27.2	27.2	8.1	8.1	15.4	15.4	121.4	121.4	8.8	8.8	3.9	8.8	2			
						4.2	-	-	27.2		8.1		15.4		121.4		8.8		3.9		2			

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 Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher  
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**Expansion of Hong Kong International Airport into a Three-Runway System**  
**Water Quality Monitoring**

**Water Quality Monitoring Results on 04 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	08:46	8.0	Surface	1.0	0.3	27	26.6	26.5	8.0	8.0	11.4	11.7	89.7	85.2	6.8	5.9	4.9	7.4	3	4	815609	804229
						1.0	0.3	31	26.4		8.0	8.0	12.0	11.7	80.6	85.2	6.0		5.5					
					Middle	4.0	0.3	52	26.3	26.3	8.0	8.0	23.1	23.2	76.5	76.3	5.4	5.3	5.2	3				
						4.0	0.4	47	26.2		8.0	8.0	23.3	23.2	76.1	76.3	5.4		5.3					
					Bottom	7.0	0.3	22	25.9	25.9	8.0	8.0	29.2	29.2	75.9	76.2	5.2	5.3	11.9	4				
						7.0	0.4	18	25.9		8.0	8.0	29.2	29.2	76.4	76.2	5.3		11.7	4				
C2	Cloudy	Moderate	09:47	11.1	Surface	1.0	0.4	342	27.1	27.1	8.1	8.1	11.6	11.5	92.9	92.9	6.9	6.4	3.7	2.7	4	4	825700	806948
						1.0	0.4	341	27.1		8.2	8.1	11.5	11.5	92.8	92.9	6.9		3.5					
					Middle	5.6	0.4	339	27.3	27.3	8.2	8.2	21.1	21.1	82.2	82.4	5.8	5.8	1.3	4				
						5.6	0.5	336	27.3		8.2	8.2	21.1	21.1	82.6	82.4	5.8		1.4	4				
					Bottom	10.1	0.5	355	26.9	26.9	8.1	8.1	24.5	24.5	78.1	78.2	5.5	5.5	3.0	4				
						10.1	0.5	353	26.9		8.0	8.1	24.6	24.5	78.2	78.2	5.4		3.3	4				
C3	Misty	Moderate	07:51	9.0	Surface	1.0	0.4	256	26.6	26.6	7.9	7.9	13.5	13.5	98.8	98.8	7.4	6.9	2.0	2.3	2	2	822094	817807
						1.0	0.4	253	26.6		7.9	7.9	13.5	13.5	98.8	98.8	7.4		2.0					
					Middle	4.5	0.4	262	26.2	26.2	7.8	7.8	23.1	23.1	88.9	88.8	6.3	6.3	2.2	2				
						4.5	0.3	255	26.1		7.8	7.8	23.1	23.1	88.7	88.8	6.3		2.2	2				
					Bottom	8.0	0.4	268	25.8	25.8	7.8	7.8	28.3	28.1	92.3	93.0	6.4	6.5	2.7	3				
						8.0	0.5	265	25.8		7.8	7.8	28.0	28.1	93.7	93.0	6.5		2.7	3				
IM1	Cloudy	Moderate	08:57	6.9	Surface	1.0	0.3	5	26.7	26.7	8.0	8.0	12.3	12.3	91.7	91.7	6.9	6.9	3.5	6.4	3	3	818351	806477
						1.0	0.3	5	26.7		8.0	8.0	12.3	12.3	91.7	91.7	6.9		3.5					
					Middle	3.5	0.3	22	26.7	26.8	8.0	8.0	12.5	12.5	91.5	91.5	6.8	6.8	3.4	3				
						3.5	0.3	28	26.8		8.0	8.0	12.5	12.5	91.5	91.5	6.8		3.2	4				
					Bottom	5.9	0.3	34	26.8	26.8	8.0	8.0	13.3	13.3	91.3	91.1	6.8	6.8	12.4	3				
						5.9	0.4	31	26.8		8.0	8.0	13.3	13.3	90.9	91.1	6.8		12.3	4				
IM2	Cloudy	Moderate	09:03	7.2	Surface	1.0	0.3	23	26.8	26.8	8.0	8.0	12.3	12.3	92.3	92.2	6.9	6.8	3.0	3.1	4	3	819176	806257
						1.0	0.3	23	26.8		8.0	8.0	12.3	12.3	92.1	92.2	6.9		3.0					
					Middle	3.6	0.3	1	26.8	26.8	8.0	8.0	12.4	12.3	90.2	90.1	6.7	6.7	3.1	3				
						3.6	0.3	0	26.8		8.0	8.0	12.3	12.3	90.0	90.1	6.7		2.9	3				
					Bottom	6.2	0.3	7	26.7	26.7	8.0	8.0	13.9	14.0	87.8	87.6	6.5	6.5	3.4	2				
						6.2	0.3	1	26.7		8.0	8.0	14.0	14.0	87.3	87.6	6.5		3.6	2				
IM7	Cloudy	Moderate	09:23	7.8	Surface	1.0	0.2	358	27.2	27.2	8.0	8.0	14.0	14.0	91.2	91.1	6.7	6.6	2.6	2.2	3	3	821329	806852
						1.0	0.2	355	27.2		8.0	8.0	14.0	14.0	90.9	91.1	6.7		2.6					
					Middle	3.9	0.2	338	27.2	27.2	8.0	8.0	15.0	15.0	87.8	87.7	6.4	6.4	2.0	4				
						3.9	0.2	340	27.2		8.0	8.0	15.0	15.0	87.6	87.7	6.4		1.9	3				
					Bottom	6.8	0.2	349	27.0	27.0	8.0	8.0	18.8	19.8	77.9	78.0	5.6	5.6	2.0	3				
						6.8	0.1	347	27.0		8.0	8.0	20.8	19.8	78.0	78.0	5.5		2.1	2				

DA: Depth-Averaged

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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 June 22 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)			
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA					
IM10	Misty	Moderate	09:12	8.0	Surface	1.0	0.4	286	27.1	27.1	8.0	8.0	14.2	14.2	105.5	105.5	7.8	7.8	1.0	1.5	3	3	822222	809845			
						1.0	0.5	278	27.1		8.0	8.0	14.2	14.2	105.5	105.5	7.8		1.1		4						
					Middle	4.0	0.4	294	27.0	27.0	8.0	8.0	15.3	15.3	106.4	106.7	7.8	7.8	1.1	3							
						4.0	0.4	290	27.0		8.0	8.0	15.3	15.3	106.9	106.7	7.8		1.1	3							
					Bottom	7.0	0.4	318	26.9	26.9	8.0	8.0	17.7	17.6	111.9	113.4	8.1	8.2	2.2	2							
						7.0	0.4	314	26.9		8.0	8.0	17.6	17.6	114.8	113.4	8.3		2.2	2							
IM11	Misty	Moderate	09:07	8.2	Surface	1.0	0.5	290	26.8	26.8	8.0	8.0	15.6	15.6	100.1	99.9	7.3	7.0	2.1	3.3	3	3	821483	810554			
						1.0	0.5	284	26.7		8.0	8.0	15.6	15.6	99.7	99.9	7.3		2.1		4						
					Middle	4.1	0.5	279	26.6	26.6	8.0	8.0	19.6	19.8	93.9	93.9	6.7	6.7	3.1	3							
						4.1	0.5	273	26.6		8.0	8.0	20.0	19.8	93.8	93.9	6.7		3.2	2							
					Bottom	7.2	0.5	269	26.6	26.7	8.0	8.0	22.3	22.2	97.2	100.1	6.9	7.1	4.6	2							
						7.2	0.5	265	26.7		8.0	8.0	22.2	22.2	103.0	100.1	7.3		4.7	3							
IM12	Misty	Moderate	08:48	9.4	Surface	1.0	0.5	276	26.8	26.8	8.0	8.0	13.8	13.8	102.1	102.1	7.6	7.0	2.4	3.3	4	3	821173	811533			
						1.0	0.5	275	26.8		8.0	8.0	13.8	13.8	102.1	102.1	7.6		2.4		5						
					Middle	4.7	0.5	277	26.3	26.3	8.0	8.0	24.3	24.4	91.5	92.1	6.4	6.5	3.1	3							
						4.7	0.5	277	26.3		8.0	8.0	24.5	24.4	92.7	92.1	6.5		3.1	3							
					Bottom	8.4	0.5	282	26.2	26.2	8.0	8.0	25.3	25.3	101.2	102.0	7.1	7.2	4.4	3							
						8.4	0.5	275	26.2		8.0	8.0	25.3	25.3	102.8	102.0	7.2		4.3	2							
SR1A	Misty	Moderate	08:26	5.4	Surface	1.0	0.0	193	26.9	26.9	7.9	7.9	13.6	13.6	95.8	95.4	7.1	7.1	5.6	6.0	<2	2	819979	812656			
						1.0	0.0	200	26.9		7.9	7.9	13.6	13.6	94.9	95.4	7.0		5.5		<2						
					Middle	2.7	0.0	186	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
						2.7	0.0	185	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-
					Bottom	4.4	-	176	26.8	26.8	7.9	7.9	19.4	19.4	88.3	88.4	6.3	6.4	6.4	2							
						4.4	0.0	181	26.8		7.9	7.9	19.4	19.4	88.5	88.4	6.4		6.4	2							
SR2	Misty	Moderate	08:14	5.0	Surface	1.0	0.1	261	26.7	26.7	8.0	8.0	16.8	17.0	94.6	94.6	6.9	6.9	2.1	2.3	<2	2	821486	814162			
						1.0	0.1	254	26.7		8.0	8.0	17.2	17.0	94.5	94.6	6.9		2.2		<2						
					Middle	-	0.1	261	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-
						-	0.1	260	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-
					Bottom	4.0	0.1	282	26.7	26.7	8.0	8.0	19.7	19.7	94.8	94.9	6.8	6.8	2.6	2							
						4.0	0.1	284	26.7		8.0	8.0	19.7	19.7	95.0	94.9	6.8		2.5	2							
SR3	Cloudy	Moderate	09:29	8.9	Surface	1.0	0.2	340	27.1	27.1	8.1	8.1	13.7	13.8	90.0	90.0	6.6	6.4	3.3	3.3	3	3	822155	807579			
						1.0	0.3	343	27.1		8.1	8.1	13.8	13.8	89.9	90.0	6.6		3.2		4						
					Middle	4.5	0.3	337	27.4	27.4	8.1	8.1	15.4	16.3	84.5	84.5	6.1	6.1	1.3	3							
						4.5	0.3	343	27.3		8.1	8.1	17.2	17.2	84.4	84.5	6.1		1.4	4							
					Bottom	7.9	0.3	349	27.0	27.0	8.1	8.1	19.4	20.2	76.7	76.7	5.5	5.5	5.0	3							
						7.9	0.2	351	27.0		8.1	8.1	21.0	20.2	76.6	76.7	5.4		5.4	3							
SR4A	Cloudy	Moderate	08:28	8.9	Surface	1.0	0.0	139	27.2	27.2	8.0	8.0	13.4	13.4	94.1	94.0	6.9	6.7	1.7	3.5	3	3	817173	807790			
						1.0	0.0	144	27.2		8.0	8.0	13.3	13.4	93.9	94.0	6.9		1.8		3						
					Middle	4.5	0.0	149	27.1	27.1	8.0	8.0	14.9	14.9	87.1	87.0	6.4	6.4	2.7	3							
						4.5	0.1	144	27.0		8.0	8.0	14.9	14.9	86.9	87.0	6.4		3.0	3							
					Bottom	7.9	0.0	126	26.4	26.4	8.0	8.0	23.1	24.1	66.5	66.7	4.7	4.7	6.0	3							
						7.9	0.1	125	26.4		8.0	8.0	25.1	24.1	66.9	66.7	4.7		5.9	3							
SR8	Misty	Moderate	08:44	5.2	Surface	1.0	-	-	26.8	26.8	8.0	8.0	16.9	16.8	103.0	103.2	7.5	7.5	4.3	4.7	3	3	820366	811635			
						1.0	-	-	26.8		8.0	8.0	16.7	16.8	103.4	103.2	7.5		4.3		3						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	
						-	-	-	-		-	-	-	-	-	-	-	-	-	-	-				-	-	
					Bottom	4.2	-	-	26.6	26.6	8.0	8.0	21.9	21.9	116.4	116.4	8.3	8.3	5.0	2							
						4.2	-	-	26.6		8.0	8.0	21.9	21.9	116.4	116.4	8.3		5.0	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 07 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	17:56	8.1	Surface	1.0	0.5	216	<u>27.1</u>	27.1	8.1	8.1	9.6	9.6	<u>108.9</u>	108.6	8.2	6.7	4.6	5.5	4	4	815642	804236
						1.0	0.5	218	27.1		8.1	8.1	9.6	9.6	<u>108.2</u>	108.6	8.2		4.6		4			
					Middle	4.1	0.5	206	<u>25.3</u>	25.3	7.9	7.9	30.8	30.9	73.6	73.6	5.1	5.1	4.3	5.1	4			
						4.1	0.5	212	25.3		7.9	7.9	30.9	30.9	73.6	73.6	5.1		4.3		4			
					Bottom	7.1	0.4	186	<u>25.2</u>	25.2	7.9	7.9	33.6	33.6	74.2	74.4	5.1	5.1	7.2	5.1	4			
						7.1	0.4	185	25.2		7.9	7.9	33.6	33.6	74.6	74.4	5.1		7.7		4			
C2	Cloudy	Moderate	16:39	10.7	Surface	1.0	0.3	181	<u>27.3</u>	27.3	8.0	8.0	10.9	10.9	<u>98.6</u>	98.6	7.4	6.5	4.3	3.9	5	6	825659	806951
						1.0	0.3	174	27.3		8.0	8.0	11.0	10.9	98.5	98.6	7.4		4.3		6			
					Middle	5.4	0.3	184	<u>26.4</u>	26.4	7.9	7.9	24.0	24.0	79.1	79.2	5.6	5.6	2.4	5.6	5			
						5.4	0.3	184	26.4		7.9	7.9	24.0	24.0	79.2	79.2	5.6		2.4		6			
					Bottom	9.7	0.4	174	<u>26.1</u>	26.1	7.9	7.9	27.5	27.5	75.1	75.2	5.2	5.2	5.0	5.2	6			
						9.7	0.4	176	26.0		7.9	7.9	27.6	27.5	75.2	75.2	5.2		5.1		6			
C3	Misty	Moderate	18:05	10.0	Surface	1.0	0.4	58	<u>26.6</u>	26.6	8.1	8.1	11.6	11.7	<u>95.2</u>	94.7	7.2	6.8	1.3	2.1	2	3	822096	817791
						1.0	0.4	59	26.5		8.1	8.1	11.7	11.7	94.1	94.7	7.1		1.2		3			
					Middle	5.0	0.4	65	<u>26.5</u>	26.5	8.0	8.0	18.2	17.9	88.9	89.0	6.5	6.5	2.1	6.5	3			
						5.0	0.4	58	26.5		8.0	8.0	17.6	17.9	89.0	89.0	6.5		2.1		3			
					Bottom	9.0	0.4	73	<u>26.5</u>	26.5	8.0	8.0	21.5	21.1	90.6	91.3	6.5	6.6	3.0	6.6	4			
						9.0	0.3	73	26.5		8.0	8.0	20.7	21.1	91.9	91.3	6.6		3.0		3			
IM1	Cloudy	Moderate	17:40	6.6	Surface	1.0	0.2	189	<u>27.4</u>	27.4	8.2	8.2	9.2	9.2	<u>115.7</u>	115.6	8.7	6.9	4.6	7.2	5	4	818365	806457
						1.0	0.3	187	27.4		8.2	8.2	9.2	9.2	115.5	115.6	8.7		4.6		5			
					Middle	3.3	0.3	190	<u>25.8</u>	25.8	7.9	7.9	26.3	26.3	71.4	71.3	5.0	5.0	7.8	5.0	4			
						3.3	0.3	196	25.8		7.9	7.9	26.3	26.3	71.2	71.3	5.0		8.0		4			
					Bottom	5.6	0.3	203	<u>25.5</u>	25.5	7.9	7.9	30.0	30.0	67.9	68.0	4.7	4.7	8.8	4.7	4			
						5.6	0.3	196	25.5		7.9	7.9	30.0	30.0	68.0	68.0	4.7		9.0		4			
IM2	Cloudy	Moderate	17:33	6.7	Surface	1.0	0.3	208	<u>27.4</u>	27.4	8.2	8.2	9.6	9.6	<u>113.5</u>	113.3	8.5	7.6	4.4	7.0	4	4	819179	806212
						1.0	0.3	200	27.3		8.2	8.2	9.6	9.6	113.1	113.3	8.5		4.4		4			
					Middle	3.4	0.3	187	<u>26.4</u>	26.4	7.9	7.9	17.6	17.2	90.1	90.6	6.6	6.6	4.9	6.6	4			
						3.4	0.3	182	26.3		7.9	7.9	16.9	17.2	91.1	90.6	6.7		4.9		4			
					Bottom	5.7	0.2	210	<u>25.5</u>	25.5	7.9	7.9	29.8	29.8	68.6	68.7	4.7	4.8	12.0	4.8	4			
						5.7	0.3	207	25.5		7.9	7.9	29.9	29.8	68.8	68.7	4.8		11.6		4			
IM7	Cloudy	Moderate	17:08	7.7	Surface	1.0	0.3	187	<u>27.4</u>	27.4	8.1	8.1	10.7	10.7	<u>105.4</u>	105.4	7.9	6.9	3.8	5.4	4	4	821346	806835
						1.0	0.3	194	27.4		8.1	8.1	10.7	10.7	105.4	105.4	7.9		3.8		4			
					Middle	3.9	0.3	190	<u>27.0</u>	27.0	7.9	7.9	18.6	17.8	82.4	82.3	5.9	5.9	4.8	5.9	4			
						3.9	0.3	186	27.0		7.9	7.9	17.1	17.8	82.1	82.3	6.0		5.1		4			
					Bottom	6.7	0.3	191	<u>25.8</u>	25.8	7.8	7.8	28.2	28.3	66.4	66.7	4.6	4.6	7.5	4.6	3			
						6.7	0.3	192	25.7		7.8	7.8	28.4	28.3	66.9	66.7	4.6		7.6		4			

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 07 June 22 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
IM10	Misty	Moderate	16:43	8.2	Surface	1.0	0.4	115	26.7	26.7	8.0	8.0	12.4	12.4	91.6	91.2	6.9	6.5	1.0	2.3	4	5	822244	809854		
						1.0	0.4	117	26.7		8.0		12.3		90.7		6.8		1.0		4					
					Middle	4.1	0.4	116	26.6	26.6	8.0	8.0	16.4	16.4	83.3	83.3	6.1	6.2	3.8	6.2	2.1				6.2	4
						4.1	0.4	115	26.6		8.0		16.3		83.3		6.1		2.2		5					
					Bottom	7.2	0.4	125	26.7	26.7	8.0	8.0	19.1	19.0	84.8	85.1	6.1	6.2	3.8	6.2	3.9				6.2	5
						7.2	0.4	117	26.7		8.0		18.8		85.4		6.2		5							
IM11	Misty	Moderate	17:03	7.2	Surface	1.0	0.5	105	26.6	26.6	8.0	8.0	12.0	11.9	90.6	90.4	6.8	6.3	1.0	1.6	3	3	821508	810544		
						1.0	0.5	98	26.6		8.1		11.9		90.1		6.8		1.0		3					
					Middle	3.6	0.5	105	26.7	26.7	8.0	7.9	16.9	16.9	78.5	78.3	5.7	5.9	1.6	5.9	2.3				5.9	3
						3.6	0.5	101	26.7		7.9		16.9		78.0		5.7		1.7		2					
					Bottom	6.2	0.4	112	26.8	26.9	7.9	7.9	21.4	21.3	80.4	82.6	5.7	6.0	2.3	6.0	2.3				6.0	3
						6.2	0.5	112	26.9		7.9		21.3		84.7		6.0		2.3		2					
IM12	Misty	Moderate	17:09	7.0	Surface	1.0	0.5	112	26.8	26.8	8.1	8.1	11.1	11.2	97.4	96.8	7.3	6.9	1.2	2.4	2	2	821158	811528		
						1.0	0.6	114	26.8		8.1		11.2		96.2		7.2		1.1		2					
					Middle	3.5	0.6	112	26.6	26.6	8.0	8.0	15.1	15.1	86.4	88.2	6.4	6.7	2.7	6.7	2.6				6.7	2
						3.5	0.6	118	26.6		8.0		15.2		89.9		6.6		2.6		3					
					Bottom	6.0	0.6	87	26.5	26.6	8.0	8.0	18.8	18.7	91.8	92.3	6.6	6.7	3.4	6.7	3.4				6.7	3
						6.0	0.5	85	26.6		8.0		18.6		92.8		6.7		3.4		2					
SR1A	Misty	Moderate	17:32	4.8	Surface	1.0	0.0	107	27.4	27.4	8.1	8.1	10.6	10.6	100.1	99.4	7.5	7.5	2.1	2.3	3	3	819976	812664		
						1.0	0.0	110	27.3		8.1		10.6		98.6		7.4		2.0		2					
					Middle	2.4	-	115	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
						2.4	0.0	113	-		-		-		-		-		-		-					-
					Bottom	3.8	-	91	26.7	26.7	7.9	7.9	17.0	16.8	92.2	93.6	6.7	6.8	2.6	6.8	2.7				6.8	3
						3.8	0.0	88	26.7		7.9		16.6		94.9		6.9		2.7		3					
SR2	Misty	Moderate	17:45	4.0	Surface	1.0	0.5	49	27.1	27.1	8.1	8.1	11.5	11.5	101.6	100.0	7.6	7.5	2.1	2.4	3	3	821478	814180		
						1.0	0.5	41	27.0		8.1		11.5		98.4		7.4		2.1		4					
					Middle	-	0.5	41	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
						-	0.4	42	-		-		-		-		-		-		-					
					Bottom	3.0	0.5	58	26.9	26.9	8.1	8.1	13.6	13.5	98.0	98.0	7.3	7.3	2.8	7.3	2.7				7.3	3
						3.0	0.5	52	26.9		8.1		13.3		97.9		7.3		2.7		3					
SR3	Cloudy	Moderate	17:00	8.7	Surface	1.0	0.4	163	27.4	27.4	8.0	8.0	10.5	10.5	105.6	105.5	7.9	7.2	4.3	6.1	4	4	822143	807578		
						1.0	0.5	166	27.4		8.0		10.5		105.4		7.9		4.2		4					
					Middle	4.4	0.4	152	26.6	26.6	7.9	7.9	14.9	14.9	87.8	87.6	6.5	5.1	3.3	5.1	3.4				5.1	4
						4.4	0.4	152	26.6		7.9		15.0		87.3		6.5		3.4		4					
					Bottom	7.7	0.4	187	26.4	26.4	7.8	7.8	25.8	25.8	70.2	72.3	4.9	4.5	10.7	4.5	10.6				4.5	5
						7.7	0.4	186	26.4		7.8		25.8		74.4		5.2		10.6		5					
SR4A	Cloudy	Moderate	18:15	9.2	Surface	1.0	0.0	356	27.3	27.4	8.1	8.1	11.3	11.3	107.7	107.7	8.0	6.3	6.5	10.3	5	5	817202	807816		
						1.0	0.1	3	27.4		8.2		11.3		107.6		8.0		7.2		6					
					Middle	4.6	0.0	4	25.9	25.9	7.8	7.8	26.6	26.6	64.8	64.8	4.5	4.5	10.6	4.5	10.6				4.5	5
						4.6	0.0	7	25.9		7.8		26.6		64.8		4.5		10.6		5					
					Bottom	8.2	0.0	9	25.7	25.7	7.8	7.8	28.5	28.5	64.6	64.9	4.5	4.5	13.4	4.5	13.7				4.5	5
						8.2	0.0	5	25.7		7.8		28.5		65.1		4.5		13.7		5					
SR8	Misty	Moderate	17:14	5.2	Surface	1.0	-	-	27.0	27.0	8.0	8.0	11.7	11.7	94.7	94.5	7.1	7.1	1.8	2.0	3	4	820378	811641		
						1.0	-	-	27.0		8.0		11.7		94.3		7.1		1.8		4					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-
						-	-	-	-		-		-		-		-		-		-					
					Bottom	4.2	-	-	26.8	26.8	8.0	8.0	15.8	15.7	95.1	95.4	7.0	7.0	2.3	7.0	2.2				7.0	4
						4.2	-	-	26.8		8.0		15.6		95.6		7.0		2.2		4					

DA: Depth-Averaged

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

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

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

**Water Quality Monitoring Results on 07 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	05:44	8.0	Surface	1.0	0.0	205	27.1	27.1	8.1	8.1	9.6	9.6	105.9	105.8	8.0	7.1	4.3	8.3	6	5	815603	804263
						1.0	0.1	210	27.1		8.1		9.6		105.6		8.0		4.4		5			
					Middle	4.0	0.0	217	26.5	26.5	8.0	8.0	16.4	16.4	85.0	85.0	6.2	6.2	10.0	10.0	5			
						4.0	0.1	214	26.5		8.0		16.4		85.0		6.2		10.0		5			
					Bottom	7.0	0.0	219	26.1	26.1	7.9	7.9	20.2	20.4	77.4	77.4	5.6	5.6	10.8	10.2	4			
						7.0	0.1	225	26.1		7.9		20.7		77.3		5.6		10.2		4			
C2	Cloudy	Moderate	06:50	11.0	Surface	1.0	0.2	172	27.1	27.1	8.0	8.0	10.1	10.1	96.2	96.2	7.2	6.3	4.7	6.5	4	4	825704	806927
						1.0	0.2	177	27.1		8.0		10.2		96.2		7.2		4.7		4			
					Middle	5.5	0.2	178	26.2	26.2	7.9	7.9	25.8	25.8	75.3	75.3	5.3	5.3	2.3	2.3	5			
						5.5	0.2	185	26.2		7.9		25.9		75.2		5.3		2.3		4			
					Bottom	10.0	0.2	151	26.0	26.0	7.9	7.9	27.5	27.5	73.1	73.1	5.1	5.1	12.4	12.5	4			
						10.0	0.2	144	26.0		7.9		27.5		73.1		5.1		12.5		4			
C3	Misty	Moderate	06:27	8.8	Surface	1.0	0.1	77	26.8	26.8	7.9	7.9	10.1	10.1	86.8	86.6	6.6	6.5	1.0	2.1	5	5	822102	817783
						1.0	0.1	81	26.8		7.9		10.2		86.4		6.5		1.1		4			
					Middle	4.4	0.1	69	26.8	26.8	7.9	7.9	11.4	11.4	84.8	84.6	6.4	6.4	2.0	2.0	4			
						4.4	0.2	62	26.8		7.9		11.4		84.3		6.3		2.0		5			
					Bottom	7.8	0.2	45	26.9	26.9	7.9	7.9	15.1	15.1	84.7	87.0	6.2	6.4	3.2	3.2	5			
						7.8	0.1	38	26.9		7.9		15.2		89.2		6.6		3.2		5			
IM1	Cloudy	Moderate	05:53	6.7	Surface	1.0	0.1	163	27.1	27.1	8.1	8.1	9.3	9.3	104.0	103.9	7.9	7.6	4.2	5.8	3	3	818330	806474
						1.0	0.1	168	27.1		8.1		9.3		103.7		7.8		4.2		3			
					Middle	3.4	0.1	150	26.9	26.9	8.0	8.0	10.4	10.4	98.3	98.0	7.4	7.4	4.2	4.2	3			
						3.4	0.1	156	26.9		8.0		10.4		97.7		7.4		4.2		3			
					Bottom	5.7	0.1	187	25.7	25.7	7.8	7.8	28.5	28.5	67.5	67.6	4.7	4.7	9.1	9.2	4			
						5.7	0.1	187	25.7		7.8		28.4		67.7		4.7		9.2		4			
IM2	Cloudy	Moderate	06:00	6.9	Surface	1.0	0.1	186	27.0	27.0	8.0	8.0	9.9	9.9	101.1	101.0	7.6	7.1	4.4	7.4	3	3	819164	806218
						1.0	0.1	184	27.0		8.0		9.9		100.9		7.6		4.4		3			
					Middle	3.5	0.0	183	26.9	26.9	7.9	7.9	12.1	12.1	88.3	87.8	6.6	6.5	4.6	4.5	3			
						3.5	0.0	184	26.9		7.9		12.2		87.3		6.5		4.5		3			
					Bottom	5.9	0.1	199	25.6	25.7	7.8	7.8	28.5	28.5	69.7	69.7	4.8	4.8	13.5	13.2	3			
						5.9	0.0	197	25.7		7.8		28.5		69.7		4.8		13.2		4			
IM7	Cloudy	Moderate	06:25	8.3	Surface	1.0	0.1	141	27.0	27.0	8.0	8.0	10.7	10.7	95.5	95.4	7.2	6.1	4.0	5.3	4	3	821333	806858
						1.0	0.1	136	27.0		8.0		10.7		95.2		7.2		4.0		3			
					Middle	4.2	0.1	135	26.5	26.5	7.8	7.8	21.6	21.6	69.4	69.4	4.9	5.0	3.6	3.6	4			
						4.2	0.1	140	26.5		7.8		21.6		69.4		5.0		3.6		3			
					Bottom	7.3	0.1	114	26.1	26.1	7.8	7.8	24.9	24.9	60.8	61.0	4.3	4.3	8.4	8.4	3			
						7.3	0.1	120	26.1		7.8		24.9		61.1		4.3		8.4		3			

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 07 June 22 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)	Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	
								Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			
IM10	Misty	Moderate	07:34	8.0	Surface	1.0	0.1	123	26.5	26.5	8.0	8.0	10.5	10.5	83.2	82.0	6.3	5.9	2.3	3.4	3	4	822260	809850
						1.0	0.2	126	26.4		8.0	8.0	10.4	10.5	80.8	82.0	6.2		2.3		4			
					Middle	4.0	0.2	119	26.2	26.2	7.9	7.9	19.9	19.9	75.3	75.4	5.5	5.7	4.0	5				
						4.0	0.2	112	26.1		7.9	7.9	19.9	19.9	75.5	75.4	5.5		3.9	4				
					Bottom	7.0	0.2	104	25.7	25.7	7.9	7.9	25.3	25.2	79.0	79.6	5.6	5.7	4.1	5				
						7.0	0.2	102	25.7		7.9	7.9	25.1	25.2	80.2	79.6	5.7		4.0	4				
IM11	Misty	Moderate	07:26	9.4	Surface	1.0	0.2	93	26.3	26.3	8.0	8.0	9.7	9.7	87.7	87.0	6.7	5.9	3.8	4.3	5	4	821487	810522
						1.0	0.2	88	26.2		8.0	8.0	9.8	9.7	86.3	87.0	6.6		3.7		4			
					Middle	4.7	0.2	78	26.3	26.3	7.9	7.9	20.2	20.5	71.8	71.9	5.2	5.5	4.0	4				
						4.7	0.2	76	26.3		7.9	7.9	20.7	20.5	72.0	71.9	5.2		4.1	4				
					Bottom	8.4	0.3	104	26.7	26.8	7.9	7.9	23.5	23.5	77.1	77.5	5.4	5.5	5.1	4				
						8.4	0.2	106	26.8		7.9	7.9	23.5	23.5	77.8	77.5	5.5		5.1	4				
IM12	Misty	Moderate	07:21	9.2	Surface	1.0	0.2	86	26.6	26.6	8.0	8.0	9.9	9.9	88.8	88.6	6.8	6.0	5.1	6.2	4	4	821179	811504
						1.0	0.2	81	26.5		8.0	8.0	9.9	9.9	88.3	88.6	6.7		5.2		4			
					Middle	4.6	0.2	87	25.8	25.8	7.9	7.9	20.9	21.1	71.7	71.7	5.2	5.2	6.1	4				
						4.6	0.3	84	25.8		7.9	7.9	21.2	21.1	71.6	71.7	5.2		6.1	4				
					Bottom	8.2	0.3	108	25.5	25.5	7.9	7.9	26.9	26.9	71.7	73.8	5.0	5.2	7.4	4				
						8.2	0.3	104	25.5		7.9	7.9	26.9	26.9	75.9	73.8	5.3		7.5	4				
SR1A	Misty	Moderate	06:58	5.0	Surface	1.0	0.0	146	27.0	27.0	8.0	8.0	9.4	9.4	93.0	92.9	7.0	7.0	1.5	2.2	4	4	819971	812657
						1.0	-	146	27.0		8.0	8.0	9.4	9.4	92.8	92.9	7.0		1.5		3			
					Middle	2.5	0.0	165	-	-	-	-	-	-	-	-	-	-	-	-	4			
						2.5	-	165	-		-	-	-	-	-	-	-		-	-	-			
					Bottom	4.0	0.0	151	26.9	26.9	8.0	8.0	12.6	12.5	94.2	95.9	7.0	7.2	3.0	4				
						4.0	0.1	151	26.9		8.0	8.0	12.4	12.5	97.5	95.9	7.3		2.9	4				
SR2	Misty	Moderate	06:42	4.2	Surface	1.0	0.2	59	26.9	26.9	7.9	7.9	9.8	9.9	88.7	87.0	6.7	6.6	2.4	3.0	5	4	821484	814177
						1.0	0.2	61	26.9		7.9	7.9	10.0	9.9	85.3	87.0	6.5		2.3		4			
					Middle	-	0.2	58	-	-	-	-	-	-	-	-	-	-	-	-	4			
						-	0.3	56	-		-	-	-	-	-	-	-		-	-	-			
					Bottom	3.2	0.2	36	26.8	26.8	7.8	7.8	13.1	13.0	85.9	86.1	6.4	6.4	3.7	3				
						3.2	0.3	28	26.8		7.8	7.8	13.0	13.0	86.2	86.1	6.4		3.8	3				
SR3	Cloudy	Moderate	06:32	8.9	Surface	1.0	0.2	135	27.2	27.2	8.0	8.0	9.9	9.9	101.6	101.5	7.6	6.8	4.6	4.5	3	3	822139	807550
						1.0	0.3	128	27.2		8.0	8.0	9.9	9.9	101.4	101.5	7.6		4.6		3			
					Middle	4.5	0.2	143	26.7	26.7	7.9	7.9	18.7	18.6	82.7	82.7	6.0	5.1	3.5	3				
						4.5	0.2	137	26.6		7.9	7.9	18.5	18.6	82.7	82.7	6.0		3.7	3				
					Bottom	7.9	0.2	124	26.2	26.2	7.8	7.8	26.4	26.4	73.0	73.1	5.1	5.1	5.2	3				
						7.9	0.2	122	26.2		7.8	7.8	26.4	26.4	73.1	73.1	5.1		5.2	4				
SR4A	Cloudy	Moderate	05:22	9.1	Surface	1.0	0.0	109	27.1	27.1	8.1	8.1	11.1	11.1	102.6	102.6	7.7	7.1	4.9	7.5	5	4	817181	807796
						1.0	0.0	116	27.1		8.1	8.1	11.1	11.1	102.5	102.6	7.7		4.9		4			
					Middle	4.6	0.1	95	27.0	27.0	8.0	8.0	16.4	16.4	88.1	88.1	6.4	4.7	7.7	4				
						4.6	0.0	101	27.0		8.0	8.0	16.4	16.4	88.0	88.1	6.4		7.7	4				
					Bottom	8.1	0.0	123	25.7	25.7	7.9	7.9	28.7	28.7	67.0	67.1	4.7	4.7	9.3	4				
						8.1	0.0	122	25.7		7.9	7.9	28.8	28.7	67.2	67.1	4.7		10.4	4				
SR8	Misty	Moderate	07:15	5.4	Surface	1.0	-	-	27.1	27.1	8.0	8.0	9.8	9.8	92.6	92.6	7.0	7.0	3.8	4.2	3	3	820367	811630
						1.0	-	-	27.1		8.0	8.0	9.8	9.8	92.5	92.6	7.0		3.7		2			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4			
						-	-	-	-		-	-	-	-	-	-	-		-	-	-			
					Bottom	4.4	-	-	26.9	26.9	7.9	7.9	13.0	13.0	91.6	92.5	6.8	6.9	4.6	3				
						4.4	-	-	26.9		7.9	7.9	13.0	13.0	93.4	92.5	6.9		4.6	3				

DA: Depth-Averaged

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

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

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

**Water Quality Monitoring**

**Water Quality Monitoring Results on 09 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Rainy	Moderate	09:32	8.7	Surface	1.0	0.4	197	26.2	26.2	8.0	8.0	6.9	6.9	94.3	94.2	7.3	6.3	6.9	7.6	6	6	815622	804244
						1.0	0.3	190	26.2		8.0		6.9		94.0		7.3		6.9					
					Middle	4.4	0.3	209	25.9	25.9	8.0	8.0	21.6	21.6	72.7	72.6	5.2	5.2	5.6					
						4.4	0.3	212	25.8		8.0		21.7		72.5		5.2		5.5					
					Bottom	7.7	0.3	234	25.5	25.5	8.0	8.0	30.4	30.4	66.7	66.7	4.6	4.6	10.3					
						7.7	0.3	239	25.5		8.0		30.4		66.7		4.6		10.3	5				
C2	Cloudy	Moderate	10:47	10.6	Surface	1.0	0.4	169	26.4	26.4	8.0	8.0	14.5	14.6	81.0	81.0	6.0	5.6	5.1	4.1	8	7	825696	806937
						1.0	0.5	162	26.4		8.0		14.7		80.9		6.0		5.1		8			
					Middle	5.3	0.5	174	26.0	26.0	8.0	8.0	25.2	25.2	72.1	72.2	5.1	5.1	3.4					
						5.3	0.5	168	26.0		8.0		25.2		72.2		5.1		3.5	7				
					Bottom	9.6	0.5	152	25.9	25.9	8.0	8.0	28.7	28.7	72.8	72.8	5.0	5.0	3.6					
						9.6	0.4	158	25.9		8.0		28.7		72.8		5.0		3.7	6				
C3	Rainy	Moderate	08:37	8.6	Surface	1.0	0.3	69	25.9	25.9	7.9	7.9	11.2	11.2	84.1	84.1	6.4	6.0	1.1	1.2	3	4	822091	817808
						1.0	0.2	69	25.8		7.9		11.2		84.0		6.4		1.1		3			
					Middle	4.3	0.3	87	25.5	25.5	7.8	7.8	19.8	19.8	76.9	76.8	5.6	5.6	1.1					
						4.3	0.2	88	25.5		7.8		19.9		76.7		5.6		1.2	4				
					Bottom	7.6	0.3	67	25.5	25.5	7.8	7.8	24.7	24.6	76.7	76.8	5.5	5.5	1.3					
						7.6	0.3	68	25.5		7.8		24.6		76.8		5.5		1.3	4				
IM1	Cloudy	Moderate	09:48	6.3	Surface	1.0	0.2	191	26.4	26.4	8.0	8.0	11.7	11.7	86.0	85.9	6.5	5.6	5.6	7.5	5	5	818355	806438
						1.0	0.2	186	26.4		8.0		11.7		85.8		6.5		5.6		4			
					Middle	3.2	0.3	174	25.6	25.6	8.0	8.0	27.0	27.0	65.9	66.0	4.6	4.6	5.5					
						3.2	0.3	176	25.6		8.0		27.0		66.0		4.6		5.5	4				
					Bottom	5.3	0.3	189	25.4	25.4	8.0	7.9	29.8	29.8	64.9	65.1	4.5	4.5	11.3					
						5.3	0.3	190	25.4		7.9		29.8		65.2		4.5		11.7	5				
IM2	Cloudy	Moderate	09:54	6.5	Surface	1.0	0.3	202	26.1	26.1	8.0	8.0	17.5	17.5	78.9	78.9	5.8	5.3	5.4	5.8	3	4	819185	806244
						1.0	0.3	200	26.1		8.0		17.5		78.9		5.8		5.4		4			
					Middle	3.3	0.3	192	25.7	25.7	8.0	8.0	26.3	26.3	66.6	66.7	4.7	4.7	5.0					
						3.3	0.3	190	25.7		8.0		26.4		66.7		4.7		5.0	4				
					Bottom	5.5	0.4	197	25.4	25.5	8.0	8.0	30.1	30.1	68.5	68.6	4.7	4.8	7.1					
						5.5	0.3	189	25.5		8.0		30.1		68.7		4.8		7.2	5				
IM7	Cloudy	Moderate	10:22	7.7	Surface	1.0	0.2	216	26.5	26.5	8.1	8.1	8.8	8.4	91.4	91.5	7.0	6.6	5.5	6.5	5	4	821340	806850
						1.0	0.2	218	26.5		8.1		8.0		91.5		7.0		5.4		4			
					Middle	3.9	0.2	201	26.4	26.4	8.0	8.0	13.7	13.7	81.7	81.8	6.1	6.1	4.5					
						3.9	0.2	203	26.4		8.0		13.7		81.8		6.1		4.5	5				
					Bottom	6.7	0.3	224	25.9	25.9	7.9	7.9	27.1	27.2	62.0	62.0	4.3	4.3	9.3					
						6.7	0.3	217	25.9		7.9		27.2		62.0		4.3		9.7	4				

DA: Depth-Averaged

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

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

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

**Water Quality Monitoring Results on 09 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
IM10	Rainy	Moderate	09:49	7.8	Surface	1.0	0.4	102	25.9	25.9	7.9	7.9	9.6	9.7	79.3	78.9	6.1	5.6	2.4	3.4	4	4	822224	809849		
						1.0	0.3	97	25.9		7.9	7.9	9.8	9.7	78.4	78.9	6.0		2.4		4					
					Middle	3.9	0.3	103	25.9	25.9	7.9	7.9	20.3	20.4	20.3	20.4	72.0	72.3	5.2	5.5	3.2				4.8	4
						3.9	0.3	104	25.9		7.9	7.9	20.4		20.7	72.5	76.4	5.2	3.2		4					
					Bottom	6.8	0.3	110	25.9	26.0	7.9	7.9	20.7	20.7	20.7	20.7	75.2	76.4	5.4	5.5	4.8				4.7	4
						6.8	0.3	103	26.0		7.9	7.9	20.7		20.7	77.5	76.4	5.6	4.7		4					
IM11	Rainy	Moderate	09:43	9.0	Surface	1.0	0.4	94	25.9	25.9	7.9	7.9	12.5	12.6	74.2	73.9	5.6	5.2	2.2	3.5	4	4	821505	810557		
						1.0	0.4	95	25.9		7.9	7.9	12.7	12.6	73.5	73.9	5.6		2.2		4					
					Middle	4.5	0.4	90	25.9	25.9	7.9	7.9	21.4	21.4	21.4	21.4	67.2	67.5	4.8	5.0	3.4				4.9	4
						4.5	0.3	95	25.9		7.9	7.9	21.5		21.4	67.7	70.3	4.9	3.4		4					
					Bottom	8.0	0.4	86	26.0	26.0	7.9	7.9	24.3	24.3	24.3	24.3	69.7	70.3	4.9	5.0	4.9				4.8	4
						8.0	0.3	92	26.0		7.9	7.9	24.2		24.3	70.8	70.3	5.0	4.8		4					
IM12	Rainy	Moderate	09:37	9.4	Surface	1.0	0.4	87	25.9	25.9	7.9	7.9	14.3	14.3	71.2	70.8	5.3	5.0	3.2	4.1	4	4	821161	811506		
						1.0	0.5	92	25.9		7.9	7.9	14.3	14.3	70.4	70.8	5.3		3.2		4					
					Middle	4.7	0.5	102	25.8	25.8	7.9	7.9	20.5	20.5	20.5	20.5	65.3	65.6	4.7	4.8	4.0				4.8	5
						4.7	0.5	98	25.8		7.9	7.9	20.5		20.5	65.8	67.9	4.8	4.1		4					
					Bottom	8.4	0.4	109	25.8	25.8	7.9	7.9	24.5	24.6	24.6	24.6	67.5	67.9	4.8	4.8	5.2				5.1	4
						8.4	0.4	105	25.8		7.9	7.9	24.6		24.6	68.2	67.9	4.8	5.1		5					
SR1A	Rainy	Moderate	09:16	5.2	Surface	1.0	-	123	26.0	26.0	7.9	7.9	10.8	10.8	85.7	85.8	6.5	6.6	2.8	2.9	4	4	819972	812655		
						1.0	0.1	115	26.0		7.9	7.9	10.8	10.8	85.8	85.8	6.6		2.8		5					
					Middle	2.6	0.0	152	-	-	-	-	-	-	-	-	-	-	-	7.0	-				3.1	-
						2.6	0.0	146	-		-	-	-		-	-	-	-	-		-					4
					Bottom	4.2	0.0	125	25.7	25.7	7.9	7.9	12.7	12.6	12.6	12.6	90.4	91.5	6.9	7.0	3.0				3.0	4
						4.2	0.0	126	25.7		7.9	7.9	12.6		12.6	92.5	91.5	7.0	3.0		4					
SR2	Rainy	Moderate	09:01	4.8	Surface	1.0	0.4	47	26.2	26.2	8.0	8.0	8.9	8.9	86.3	86.3	6.6	6.6	2.3	2.9	4	4	821456	814171		
						1.0	0.3	45	26.2		8.0	8.0	9.0	8.9	86.3	86.3	6.6		2.3		5					
					Middle	-	0.3	51	-	-	-	-	-	-	-	-	-	-	-	6.6	-				6.6	-
						-	0.3	57	-		-	-	-		-	-	-	-	-		-					4
					Bottom	3.8	0.3	21	26.3	26.3	7.9	7.9	14.4	14.4	14.4	14.4	88.1	88.1	6.6	6.6	3.5				4.7	4
						3.8	0.4	14	26.3		7.9	7.9	14.4		14.4	88.1	88.1	6.6	3.5		4					
SR3	Cloudy	Moderate	10:29	8.8	Surface	1.0	0.4	164	26.4	26.4	8.0	8.0	11.7	11.7	84.2	84.2	6.4	5.8	4.7	7.9	5	5	822149	807573		
						1.0	0.4	159	26.4		8.0	8.0	11.7	11.7	84.1	84.2	6.3		4.7		5					
					Middle	4.4	0.4	156	26.1	26.1	8.0	8.0	17.1	17.0	17.0	17.0	72.4	72.2	5.3	4.4	6.6				4.4	5
						4.4	0.4	156	26.1		8.0	8.0	16.8		17.0	72.0	72.2	5.3	7.1		5					
					Bottom	7.8	0.5	185	25.8	25.9	7.9	7.9	27.6	27.6	27.6	27.6	62.2	62.4	4.3	4.6	12.2				12.0	5
						7.8	0.5	187	25.9		7.9	7.9	27.6		27.6	62.5	62.4	4.4	12.0		4					
SR4A	Rainy	Moderate	08:57	8.4	Surface	1.0	0.0	100	26.1	26.1	8.0	8.0	8.7	8.6	90.1	89.9	7.0	6.2	7.2	7.8	6	6	817205	807811		
						1.0	0.0	103	26.1		8.0	8.0	8.5	8.6	89.7	89.9	7.0		7.3		6					
					Middle	4.2	-	85	25.7	25.7	7.9	7.9	21.6	21.6	21.6	21.6	73.5	73.4	5.3	4.6	4.0				4.6	5
						4.2	0.0	91	25.7		7.9	7.9	21.6		21.6	73.3	73.4	5.3	3.7		6					
					Bottom	7.4	0.1	119	25.4	25.4	7.8	7.7	30.5	30.5	30.5	30.5	66.5	66.9	4.6	4.6	12.4				12.5	6
						7.4	0.1	111	25.4		7.7	7.7	30.5		30.5	67.2	66.9	4.6	12.5		5					
SR8	Rainy	Moderate	09:32	5.0	Surface	1.0	-	-	26.2	26.2	8.0	8.0	10.0	10.0	82.6	80.7	6.3	6.2	4.5	4.7	4	4	820412	811608		
						1.0	-	-	26.1		8.0	8.0	10.0	10.0	78.8	80.7	6.0		4.3		4					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.2	-				6.2	-
						-	-	-	-		-	-	-		-	-	-	-	-		-					-
					Bottom	4.0	-	-	26.1	26.1	7.9	7.9	18.3	18.4	18.4	18.4	82.5	85.0	6.0	6.2	5.0				5.0	5
						4.0	-	-	26.1		7.9	7.9	18.5		18.4	87.4	85.0	6.4	5.0		4					

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



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

**Water Quality Monitoring Results on 09 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Rainy	Moderate	14:05	8.3	Surface	1.0	0.2	28	26.2	26.2	8.0	8.0	6.1	6.1	94.6	94.6	7.4	7.2	8.5	6.6	5	5	815600	804234
						1.0	0.2	33	26.2		8.0	8.0	6.1	6.1	94.5	94.6	7.4		8.5					
					Middle	4.2	0.2	27	26.2	26.2	8.0	8.0	8.6	8.6	90.1	89.8	6.9	5.6	5.8	5				
						4.2	0.3	23	26.2		8.0	8.0	8.6	8.6	89.4	89.8	6.9		5.7					
					Bottom	7.3	0.2	25	26.2	26.2	7.9	7.9	20.2	20.2	77.0	77.1	5.6	5.6	5.5	5				
						7.3	0.3	19	26.2		7.9	7.9	20.2	20.2	77.2	77.1	5.6		5.5					
C2	Rainy	Moderate	12:48	10.8	Surface	1.0	0.1	204	26.4	26.4	8.0	8.0	10.2	10.2	82.2	82.2	6.3	5.7	6.0	4.1	6	6	825692	806967
						1.0	0.1	206	26.4		8.0	8.0	10.2	10.2	82.2	82.2	6.3		6.0					
					Middle	5.4	0.1	181	26.1	26.1	8.0	8.0	22.7	22.7	71.5	71.5	5.1	5.0	3.6		7			
						5.4	0.1	183	26.1		8.0	8.0	22.7	22.7	71.5	71.5	5.1		3.5					
					Bottom	9.8	0.1	179	26.0	26.0	8.0	8.0	27.9	27.9	71.4	71.4	5.0	5.0	2.8		6			
						9.8	0.0	179	26.0		8.0	8.0	27.9	27.9	71.4	71.4	5.0		2.8					
C3	Rainy	Moderate	14:15	10.0	Surface	1.0	0.4	271	25.8	25.8	8.0	8.0	11.5	11.5	83.7	83.6	6.4	6.2	1.4	2.2	4	4	822100	817818
						1.0	0.4	275	25.7		8.0	8.0	11.6	11.5	83.4	83.6	6.3		1.5					
					Middle	5.0	0.3	276	25.6	25.6	8.0	8.0	21.7	21.7	83.5	83.8	6.0	6.6	2.2		4			
						5.0	0.4	283	25.6		8.0	8.0	21.8	21.7	84.1	83.8	6.0		2.2					
					Bottom	9.0	0.4	245	25.6	25.6	7.9	7.9	23.8	23.7	90.3	90.7	6.5	6.6	3.1		4			
						9.0	0.4	243	25.6		7.9	7.9	23.6	23.7	91.1	90.7	6.6		3.1					
IM1	Rainy	Moderate	13:46	6.8	Surface	1.0	0.1	350	26.3	26.3	8.0	8.0	10.4	10.4	89.1	89.1	6.8	6.4	6.7	8.2	5	5	818334	806438
						1.0	0.1	343	26.3		8.0	8.0	10.4	10.4	89.0	89.1	6.8		6.7					
					Middle	3.4	0.1	358	25.8	25.8	8.0	8.0	15.2	15.2	79.8	79.6	6.0	4.5	7.8		5			
						3.4	0.2	351	25.8		8.0	8.0	15.3	15.2	79.4	79.6	5.9		7.9					
					Bottom	5.8	0.1	17	25.5	25.5	8.0	8.0	29.3	29.3	65.0	65.1	4.5	4.5	10.2		5			
						5.8	0.2	21	25.5		8.0	8.0	29.3	29.3	65.2	65.1	4.5		10.1					
IM2	Rainy	Moderate	13:39	7.2	Surface	1.0	0.2	284	26.2	26.2	8.0	8.0	15.1	15.1	85.0	85.1	6.3	5.5	6.3	8.8	7	6	819189	806235
						1.0	0.2	290	26.2		8.0	8.0	15.1	15.1	85.1	85.1	6.3		6.3					
					Middle	3.6	0.2	282	25.7	25.7	7.9	7.9	25.9	25.8	64.8	64.9	4.6	4.7	6.5		5			
						3.6	0.2	289	25.7		7.9	7.9	25.8	25.8	64.9	64.9	4.6		6.4					
					Bottom	6.2	0.1	304	25.5	25.5	7.9	7.9	30.3	30.3	67.4	67.6	4.7	4.7	13.5		5			
						6.2	0.2	299	25.5		7.9	7.9	30.3	30.3	67.7	67.6	4.7		14.0					
IM7	Rainy	Moderate	13:14	7.6	Surface	1.0	0.1	254	26.6	26.6	8.0	8.0	8.4	8.4	93.2	93.1	7.1	6.2	6.1	6.0	6	6	821371	806819
						1.0	0.2	254	26.6		8.0	8.0	8.4	8.4	93.0	93.1	7.1		6.0					
					Middle	3.8	0.1	234	26.1	26.1	7.9	7.9	20.6	20.0	72.2	72.1	5.2	4.5	5.2		6			
						3.8	0.1	236	26.1		7.9	7.9	19.5	20.0	72.0	72.1	5.3		5.5					
					Bottom	6.6	0.2	231	26.0	26.0	7.8	7.8	25.8	25.8	64.1	64.3	4.5	4.5	6.6		6			
						6.6	0.2	224	26.0		7.8	7.8	25.8	25.8	64.4	64.3	4.5		6.5					

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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 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Rainy	Moderate	12:50	8.6	Surface	1.0	0.2	231	26.3	26.3	8.0	8.0	10.8	10.9	81.4	81.4	6.2	5.9	1.1	2.2	4	4	822245	809857
						1.0	0.2	227	26.2		8.0	8.0	10.9	10.9	81.3	81.4	6.2		1.1					
					Middle	4.3	0.1	227	26.0	26.0	8.0	8.0	11.0	11.0	73.5	73.4	5.6	5.5	2.2	4				
						4.3	0.1	228	26.0		8.0	8.0	11.0	11.0	73.2	73.4	5.6		2.2					
					Bottom	7.6	0.1	221	26.0	26.0	8.0	8.0	20.2	20.2	75.4	75.8	5.5	5.5	3.3	4				
						7.6	0.0	225	26.0		8.0	8.0	20.2	20.2	76.2	75.8	5.5		3.3					
IM11	Rainy	Moderate	13:10	7.0	Surface	1.0	0.2	273	26.2	26.2	8.0	8.0	10.7	10.7	81.5	81.4	6.2	6.0	1.1	2.3	4	4	821496	810562
						1.0	0.2	265	26.2		8.0	8.0	10.7	10.7	81.3	81.4	6.2		1.2					
					Middle	3.5	0.1	276	26.1	26.1	8.0	7.9	11.3	11.6	75.8	75.8	5.7	5.9	2.4	4				
						3.5	0.2	280	26.1		7.9	7.9	12.0	11.6	75.8	75.8	5.7		2.3					
					Bottom	6.0	0.1	301	26.2	26.2	7.9	7.9	21.5	21.5	80.0	81.7	5.7	5.9	3.2	4				
						6.0	0.2	302	26.2		7.9	7.9	21.4	21.5	83.4	81.7	6.0		3.4					
IM12	Rainy	Moderate	13:16	7.4	Surface	1.0	0.2	303	26.1	26.1	7.9	7.9	11.2	11.2	79.8	79.7	6.1	5.9	2.0	2.5	4	4	821154	811514
						1.0	0.2	296	26.1		7.9	7.9	11.2	11.2	79.5	79.7	6.1		2.0					
					Middle	3.7	0.2	299	26.0	26.0	7.9	7.9	13.7	13.7	75.2	75.3	5.7	5.8	2.1	4				
						3.7	0.2	306	26.0		7.9	7.9	13.7	13.7	75.3	75.3	5.7		2.2					
					Bottom	6.4	0.2	319	25.9	25.9	7.9	7.9	21.6	21.6	79.2	79.7	5.7	5.8	3.3	4				
						6.4	0.2	322	25.9		7.9	7.9	21.5	21.6	80.2	79.7	5.8		3.3					
SR1A	Rainy	Moderate	13:43	4.6	Surface	1.0	0.0	166	26.0	26.0	7.9	7.9	10.9	11.0	84.8	84.8	6.5	6.5	1.8	2.2	4	4	819974	812663
						1.0	0.1	168	26.0		7.9	7.9	11.1	11.0	84.7	84.8	6.4		1.8					
					Middle	2.3	0.0	188	-	-	-	-	-	-	-	-	-	6.8	-	4				
						2.3	-	193	-		-	-	-	-	-	-	-		-					
					Bottom	3.6	-	205	25.9	25.9	8.0	8.0	14.5	14.2	88.6	90.1	6.6	6.8	2.7	4				
						3.6	0.0	200	25.9		8.0	8.0	14.0	14.2	91.6	90.1	6.9		2.7					
SR2	Rainy	Moderate	13:56	4.2	Surface	1.0	0.1	299	26.0	26.0	7.9	7.9	9.8	9.8	85.1	85.2	6.5	6.6	1.4	2.0	4	4	821465	814154
						1.0	0.0	295	25.9		7.9	7.9	9.9	9.8	85.2	85.2	6.6		1.5					
					Middle	-	0.1	280	-	-	-	-	-	-	-	-	-	6.8	-	4				
						-	0.1	273	-		-	-	-	-	-	-	-		-					
					Bottom	3.2	0.1	295	25.8	25.8	7.9	7.9	14.8	14.5	89.0	90.2	6.7	6.8	2.4	4				
						3.2	0.1	299	25.8		7.9	7.9	14.2	14.5	91.3	90.2	6.9		2.6					
SR3	Rainy	Moderate	13:05	9.2	Surface	1.0	0.1	177	26.5	26.5	8.0	8.0	9.2	9.1	88.3	88.2	6.8	6.0	7.2	8.5	6	5	822135	807574
						1.0	0.1	184	26.5		8.0	8.0	9.1	9.1	88.0	88.2	6.7		7.2					
					Middle	4.6	0.2	148	26.1	26.1	8.0	8.0	18.4	18.4	71.1	70.8	5.2	4.3	5.1	5				
						4.6	0.1	146	26.0		8.0	8.0	18.4	18.4	70.5	70.8	5.2		5.1					
					Bottom	8.2	0.2	157	25.9	25.9	7.9	7.9	27.2	27.1	61.4	61.5	4.3	4.3	13.2	5				
						8.2	0.2	157	25.9		7.9	7.9	27.1	27.1	61.5	61.5	4.3		13.3					
SR4A	Rainy	Moderate	14:24	8.3	Surface	1.0	0.0	122	26.4	26.4	7.9	7.9	9.9	9.9	94.5	94.5	7.2	6.2	7.6	10.4	4	6	817200	807816
						1.0	0.0	124	26.4		7.9	7.9	9.9	9.9	94.4	94.5	7.2		7.7					
					Middle	4.2	0.0	109	25.8	25.8	7.8	7.8	20.9	20.9	70.3	70.2	5.1	4.7	11.7	6				
						4.2	0.0	113	25.8		7.8	7.8	21.0	20.9	70.0	70.2	5.1		11.9					
					Bottom	7.3	0.0	117	25.8	25.9	7.7	7.7	28.0	28.0	68.0	68.2	4.7	4.7	11.9	7				
						7.3	0.1	113	25.9		7.7	7.7	28.0	28.0	68.3	68.2	4.7		11.6					
SR8	Rainy	Moderate	13:22	5.0	Surface	1.0	-	-	26.4	26.4	7.9	7.9	12.5	12.5	83.5	83.6	6.3	6.3	3.0	3.7	5	5	820393	811612
						1.0	-	-	26.4		7.9	7.9	12.5	12.5	83.7	83.6	6.3		3.1					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	6.5	-	6				
						-	-	-	-		-	-	-	-	-	-	-		-					
					Bottom	4.0	-	-	26.1	26.1	7.9	7.9	14.5	14.4	85.9	86.7	6.4	6.5	4.4	4				
						4.0	-	-	26.1		7.9	7.9	14.3	14.4	87.5	86.7	6.5		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 11 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	10:51	8.6	Surface	1.0	0.4	199	26.8	26.8	8.0	8.0	9.7	9.7	93.5	93.4	7.1	5.8	5.9	8.9	4	4	815614	804270
						1.0	0.4	192	26.8		8.0	8.0	9.7	9.7	93.3	93.4	7.1		6.0					
					Middle	4.3	0.5	189	25.4	25.4	7.9	7.9	28.2	28.2	65.0	65.1	4.5	4.2	8.4	4				
						4.3	0.5	195	25.4		7.9	7.9	28.2	28.2	65.1	65.1	4.6		3					
					Bottom	7.6	0.5	197	25.1	25.1	7.9	7.9	31.6	31.6	61.2	61.2	4.2	4.2	12.2	3				
						7.6	0.5	197	25.1		7.9	7.9	31.6	31.6	61.2	61.2	4.2		12.2	4				
C2	Cloudy	Moderate	12:13	10.6	Surface	1.0	0.8	171	26.2	26.2	7.9	7.9	5.6	5.6	80.4	80.1	6.3	5.6	9.1	7.9	2	3	825663	806962
						1.0	0.8	169	26.2		7.9	7.9	5.6	5.6	79.7	80.1	6.2		9.0					
					Middle	5.3	0.8	166	26.0	26.0	8.0	8.0	23.2	23.2	70.1	70.1	5.0	4.9	8.0	3				
						5.3	0.8	161	26.0		8.0	8.0	23.2	23.2	70.1	70.1	5.0		8.0					
					Bottom	9.6	0.8	186	25.8	25.8	7.9	7.9	28.7	28.7	70.5	70.6	4.9	4.9	6.8	4				
						9.6	0.8	183	25.8		7.9	7.9	28.7	28.7	70.6	70.6	4.9		6.6	4				
C3	Cloudy	Rough	09:12	14.2	Surface	1.0	0.2	73	25.8	25.8	7.9	7.9	15.3	15.3	79.2	79.2	5.9	5.5	2.5	2.5	3	4	822095	817814
						1.0	0.2	69	25.8		7.9	7.9	15.3	15.3	79.2	79.2	5.9		2.5					
					Middle	7.1	0.2	68	25.2	25.2	7.9	7.9	25.2	25.1	70.6	70.6	5.0	4.8	2.6	4				
						7.1	0.2	73	25.2		7.9	7.9	25.1	25.1	70.6	70.6	5.0		2.6					
					Bottom	13.2	0.2	100	25.0	25.0	7.9	7.9	28.0	28.0	68.0	68.1	4.8	4.8	2.3	4				
						13.2	0.3	100	25.0		7.9	7.9	28.0	28.0	68.1	68.1	4.8		2.3	4				
IM1	Cloudy	Moderate	11:08	6.2	Surface	1.0	0.4	200	26.4	26.4	8.0	8.0	16.5	16.5	81.1	81.1	6.0	5.1	5.6	6.9	4	4	818331	806462
						1.0	0.4	203	26.4		8.0	8.0	16.5	16.5	81.0	81.1	6.0		5.7					
					Middle	3.1	0.4	208	25.3	25.3	7.9	7.9	30.4	30.4	61.2	61.2	4.2	4.2	6.6	4				
						3.1	0.3	206	25.3		7.9	7.9	30.3	30.4	61.1	61.2	4.2		6.6					
					Bottom	5.2	0.3	191	25.1	25.1	7.9	7.9	32.0	32.0	60.5	60.7	4.2	4.2	9.0	4				
						5.2	0.4	193	25.1		7.9	7.9	32.0	32.0	60.8	60.7	4.2		8.1	4				
IM2	Cloudy	Moderate	11:13	6.7	Surface	1.0	0.4	199	26.4	26.5	8.0	8.0	16.9	16.9	80.1	80.2	5.9	5.1	5.4	8.5	4	4	819173	806252
						1.0	0.4	195	26.5		8.0	8.0	16.8	16.9	80.2	80.2	5.9		5.5					
					Middle	3.4	0.4	193	25.2	25.2	7.9	7.9	30.2	30.3	60.5	60.5	4.2	4.3	8.9	4				
						3.4	0.4	188	25.2		7.9	7.9	30.3	30.3	60.5	60.5	4.2		9.2					
					Bottom	5.7	0.4	191	25.1	25.1	7.9	7.9	32.0	32.0	62.4	62.5	4.3	4.3	11.1	4				
						5.7	0.4	196	25.1		7.9	7.9	31.9	32.0	62.6	62.5	4.3		10.8	2				
IM7	Cloudy	Moderate	11:43	7.7	Surface	1.0	0.3	204	26.7	26.7	8.0	8.0	9.7	9.8	87.6	87.6	6.7	6.0	6.3	7.8	3	3	821365	806815
						1.0	0.4	203	26.7		8.0	8.0	9.8	9.8	87.5	87.6	6.6		6.3					
					Middle	3.9	0.3	218	26.1	26.1	7.9	7.9	16.8	16.8	71.3	71.3	5.3	4.1	6.4	4				
						3.9	0.3	218	26.1		7.9	7.9	16.8	16.8	71.3	71.3	5.3		6.4					
					Bottom	6.7	0.3	215	25.5	25.5	7.9	7.9	27.2	27.2	57.6	57.7	4.0	4.1	10.7	4				
						6.7	0.3	220	25.5		7.9	7.9	27.2	27.2	57.7	57.7	4.1		10.8	3				

DA: Depth-Averaged

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

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

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

**Water Quality Monitoring Results on 11 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Cloudy	Moderate	11:01	8.9	Surface	1.0	0.6	118	26.2	26.2	7.9	7.9	6.9	6.9	82.7	82.6	6.4	5.6	5.9	4.9	4	4	822229	809851
						1.0	0.6	123	26.2		7.9	7.9	6.9	6.9	82.4	82.6	6.4		5.9		4			
					Middle	4.5	0.6	97	25.8	25.8	7.8	7.8	17.7	17.7	64.4	64.5	4.8	4.8	3.7	4				
						4.5	0.6	102	25.8		7.8	7.8	17.7	17.7	64.5	64.5	4.8		3.7	4				
					Bottom	7.9	0.6	97	25.6	25.6	7.9	7.9	21.6	21.7	65.7	65.8	4.8	4.8	5.2	4				
						7.9	0.6	103	25.6		7.9	7.9	21.7	21.7	65.9	65.8	4.8		5.2	4				
IM11	Cloudy	Moderate	10:46	8.2	Surface	1.0	0.7	108	26.1	26.1	7.9	7.9	7.3	7.3	84.0	84.0	6.5	6.3	4.8	4.3	3	4	821489	810555
						1.0	0.7	107	26.1		7.9	7.9	7.3	7.3	83.9	84.0	6.5		4.8		4			
					Middle	4.1	0.7	84	26.1	26.1	7.9	7.9	11.1	11.1	79.5	79.7	6.1	6.1	4.2		4			
						4.1	0.7	83	26.1		7.9	7.9	11.1	11.1	79.8	79.7	6.1		4.2		4			
					Bottom	7.2	0.7	100	25.7	25.8	7.9	7.8	18.9	18.9	67.5	67.6	4.9	5.0	3.9		4			
						7.2	0.7	100	25.8		7.8	7.8	18.9	18.9	67.6	67.6	5.0		3.9		5			
IM12	Cloudy	Moderate	10:38	9.6	Surface	1.0	0.8	89	26.2	26.2	7.9	7.9	7.3	7.3	84.3	84.3	6.5	6.2	5.0	4.5	4	4	821139	811519
						1.0	0.7	83	26.2		7.9	7.9	7.3	7.3	84.2	84.3	6.5		4.9		4			
					Middle	4.8	0.7	87	26.1	26.1	7.9	7.9	11.5	11.5	78.1	78.1	5.9	5.9	4.2		4			
						4.8	0.8	83	26.0		7.9	7.9	11.5	11.5	78.1	78.1	5.9		4.2		4			
					Bottom	8.6	0.8	104	25.7	25.7	7.9	7.9	19.6	19.6	69.8	70.0	5.1	5.1	4.5		4			
						8.6	0.8	101	25.7		7.9	7.9	19.6	19.6	70.1	70.0	5.1		4.5		3			
SR1A	Cloudy	Moderate	09:58	5.6	Surface	1.0	0.0	122	26.1	26.1	7.9	7.9	8.2	8.2	83.6	83.6	6.5	6.5	4.9	4.3	4	4	819979	812658
						1.0	0.0	115	26.1		7.9	7.9	8.2	8.2	83.5	83.6	6.5		4.8		3			
					Middle	2.8	0.1	148	-	-	-	-	-	-	-	-	-	-	-		-			
						2.8	0.1	141	-		-	-	-	-	-	-	-		-		-			
					Bottom	4.6	-	141	26.0	26.0	7.9	7.9	10.5	10.5	79.7	79.7	6.1	6.1	3.7		3			
						4.6	0.0	141	26.0		7.9	7.9	10.5	10.5	79.6	79.7	6.1		3.7		4			
SR2	Cloudy	Rough	09:39	5.7	Surface	1.0	0.5	40	25.9	25.9	7.9	7.9	14.9	14.9	81.1	81.1	6.1	6.1	2.7	2.0	3	4	821463	814183
						1.0	0.4	47	25.9		7.9	7.9	14.9	14.9	81.1	81.1	6.1		2.7		4			
					Middle	-	0.5	49	-	-	-	-	-	-	-	-	-	-	-		-			
						-	0.4	47	-		-	-	-	-	-	-	-		-		-			
					Bottom	4.7	0.5	51	25.7	25.7	7.9	7.9	17.2	17.2	78.0	78.0	5.8	5.8	1.2		3			
						4.7	0.5	49	25.7		7.9	7.9	17.2	17.2	78.0	78.0	5.8		1.3		4			
SR3	Cloudy	Moderate	11:52	8.2	Surface	1.0	0.7	150	26.8	26.8	8.0	8.0	8.8	8.8	93.3	93.3	7.1	6.7	6.4	9.2	4	4	822156	807590
						1.0	0.7	155	26.8		8.0	8.0	8.8	8.8	93.2	93.3	7.1		6.4		5			
					Middle	4.1	0.7	165	26.3	26.3	7.9	7.9	12.5	12.5	82.7	82.7	6.2	6.2	5.9		4			
						4.1	0.6	164	26.3		7.9	7.9	12.5	12.5	82.7	82.7	6.2		5.9		4			
					Bottom	7.2	0.8	188	25.5	25.5	7.9	7.9	27.6	27.6	62.3	62.4	4.4	4.4	15.2		4			
						7.2	0.8	190	25.5		7.9	7.9	27.6	27.6	62.5	62.4	4.4		15.8		4			
SR4A	Cloudy	Moderate	10:32	8.7	Surface	1.0	0.0	109	26.1	26.1	7.9	7.9	15.5	15.5	77.8	77.8	5.8	5.0	7.5	10.8	4	4	817188	807786
						1.0	0.0	114	26.0		7.9	7.9	15.5	15.5	77.7	77.8	5.8		7.8		3			
					Middle	4.4	-	114	25.2	25.2	7.8	7.8	30.6	30.6	59.6	59.6	4.1	4.1	10.1		4			
						4.4	0.0	116	25.2		7.8	7.8	30.6	30.6	59.6	59.6	4.1		10.1		4			
					Bottom	7.7	0.0	100	25.2	25.2	7.7	7.7	31.0	31.0	62.4	62.5	4.3	4.3	14.8		4			
						7.7	0.0	102	25.2		7.7	7.7	31.0	31.0	62.6	62.5	4.3		14.6		5			
SR8	Cloudy	Moderate	10:29	5.2	Surface	1.0	-	-	26.2	26.2	7.9	7.9	8.0	8.0	83.3	83.3	6.4	6.4	3.5	4.1	3	4	820408	811635
						1.0	-	-	26.2		7.9	7.9	8.0	8.0	83.3	83.3	6.4		3.5		4			
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-			
						-	-	-	-		-	-	-	-	-	-	-		-		-			
					Bottom	4.2	-	-	26.0	26.0	7.9	7.9	11.4	11.4	77.2	77.2	5.9	5.9	4.6		4			
						4.2	-	-	26.0		7.9	7.9	11.4	11.4	77.1	77.2	5.9		4.6		4			

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 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 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	16:31	8.4	Surface	1.0	0.3	47	26.5	26.5	8.0	8.0	5.9	5.9	90.5	90.5	7.1	6.2	9.9	9.4	4	4	815626	804255
						1.0	0.3	41	26.5		8.0	8.0	5.9		90.4		7.0		9.9					
					Middle	4.2	0.3	51	25.8	25.8	7.9	7.9	20.0	20.4	73.5	73.7	5.3	4.8	7.0	4				
						4.2	0.3	52	25.7		7.9	7.9	20.9		73.8		5.3		7.0					
					Bottom	7.4	0.4	52	25.5	25.5	7.9	7.9	24.8	24.9	67.4	67.5	4.8	4.8	11.6	4				
						7.4	0.4	58	25.5		7.9	7.9	25.0		67.6		4.8		11.3					
C2	Rainy	Moderate	15:18	10.8	Surface	1.0	0.2	199	26.5	26.5	7.9	7.9	4.6	4.6	84.2	84.2	6.6	5.9	11.4	9.8	3	4	825688	806967
						1.0	0.1	192	26.5		7.9	7.9	4.6		84.1		6.6		11.2					
					Middle	5.4	0.1	182	25.9	25.9	7.9	7.9	18.7	19.1	70.8	70.7	5.2	5.0	7.9	4				
						5.4	0.0	186	25.9		7.9	7.9	19.5		70.6		5.1		7.8					
					Bottom	9.8	0.1	218	26.1	26.2	7.9	7.9	27.6	27.6	71.0	71.3	4.9	5.0	10.1	4				
						9.8	0.1	222	26.2		7.9	7.9	27.6		71.5		5.0		10.5					
C3	Cloudy	Moderate	17:15	13.1	Surface	1.0	0.5	247	26.0	26.0	7.9	7.9	14.0	14.0	82.0	82.0	6.2	5.9	4.2	2.6	3	4	822108	817825
						1.0	0.5	244	26.0		7.9	7.9	14.0		81.9		6.2		4.2					
					Middle	6.6	0.5	239	25.8	25.8	7.9	7.9	16.5	16.5	76.1	76.1	5.7	5.1	1.5	4				
						6.6	0.5	244	25.8		7.9	7.9	16.5		76.0		5.6		1.6					
					Bottom	12.1	0.5	234	25.7	25.7	7.9	7.9	20.4	20.4	70.4	70.5	5.1	5.1	2.0	4				
						12.1	0.5	232	25.7		7.9	7.9	20.4		70.5		5.1		2.0					
IM1	Cloudy	Moderate	16:11	6.4	Surface	1.0	0.2	3	26.5	26.5	8.0	8.0	8.2	8.2	94.2	94.2	7.2	6.7	9.4	10.1	3	4	818329	806439
						1.0	0.2	358	26.5		8.0	8.0	8.2		94.1		7.2		9.4					
					Middle	3.2	0.2	350	26.4	26.4	8.0	8.0	13.6	13.6	83.1	82.9	6.2	4.2	10.3	4				
						3.2	0.1	347	26.4		8.0	8.0	13.5		82.7		6.2		10.3					
					Bottom	5.4	0.2	348	25.4	25.5	7.9	7.9	30.9	30.9	60.4	60.6	4.2	4.2	10.7	5				
						5.4	0.2	347	25.5		7.9	7.9	30.9		60.8		4.2		10.6					
IM2	Cloudy	Moderate	16:02	6.5	Surface	1.0	0.2	299	26.6	26.6	8.0	8.0	9.6	9.6	94.1	94.1	7.2	6.9	7.6	8.3	4	4	819177	806215
						1.0	0.1	298	26.6		8.0	8.0	9.6		94.0		7.2		7.5					
					Middle	3.3	0.2	302	26.5	26.5	8.0	8.0	14.2	14.2	88.0	88.0	6.5	4.0	6.7	4				
						3.3	0.1	305	26.5		8.0	8.0	14.2		88.0		6.5		6.7					
					Bottom	5.5	0.1	330	25.6	25.6	7.9	7.9	31.2	31.2	58.3	58.3	4.0	4.0	10.7	4				
						5.5	0.2	334	25.6		7.9	7.9	31.2		58.3		4.0		10.7					
IM7	Cloudy	Moderate	15:37	7.6	Surface	1.0	0.2	252	26.3	26.3	7.8	7.8	6.8	6.8	86.7	86.7	6.7	6.7	11.2	13.0	3	4	821370	806841
						1.0	0.2	253	26.3		7.8	7.8	6.8		86.7		6.7		11.2					
					Middle	3.8	0.3	262	26.4	26.4	7.8	7.8	8.1	8.1	85.8	85.9	6.6	6.8	13.5	4				
						3.8	0.2	267	26.4		7.8	7.8	8.1		85.9		6.6		13.6					
					Bottom	6.6	0.3	247	26.4	26.4	7.8	7.8	8.3	8.2	88.1	88.2	6.8	6.8	14.4	4				
						6.6	0.3	241	26.4		7.8	7.8	8.2		88.3		6.8		14.1					

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 **11 June 22** during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA			
IM10	Rainy	Rough	15:17	7.9	Surface	1.0	0.1	237	<u>26.3</u>	26.3	7.9	7.9	6.6	6.6	<u>85.7</u>	85.7	6.7	6.4	5.8	5.0	4	4	822254	809834					
						1.0	0.2	231	26.3	7.9	7.9	6.6	6.6	85.6	85.7	6.7	6.4	5.7	5.0	4	4								
					Middle	4.0	0.2	241	<u>26.2</u>	7.9	7.9	8.2	8.2	79.4	79.3	6.1	6.4	5.0	5.0	4	4	3			4				
						4.0	0.1	240	26.2	7.9	7.9	8.2	8.2	79.2	79.3	6.1	6.4	4.9	5.0	4	4	4			4				
					Bottom	6.9	0.2	219	<u>25.7</u>	7.8	7.8	19.0	19.0	66.5	66.6	4.9	4.9	4.3	4.9	4	4	4			4				
						6.9	0.2	221	25.8	7.8	7.8	19.0	19.0	66.7	66.6	4.9	4.9	4.3	4.9	4	4	3			4				
IM11	Rainy	Rough	15:32	8.5	Surface	1.0	0.3	281	<u>26.8</u>	26.8	7.9	7.9	7.9	7.8	86.2	86.3	6.6	6.3	5.8	6.5	3	4	821483	810547					
						1.0	0.3	281	26.7	7.9	7.9	7.8	7.8	86.3	86.3	6.6	6.3	5.8	6.5	4	4								
					Middle	4.3	0.2	288	<u>26.7</u>	7.9	7.9	11.0	10.9	79.3	79.3	6.0	6.3	5.1	6.5	4	4	4			4				
						4.3	0.2	292	26.7	7.9	7.9	10.9	10.9	79.3	79.3	6.0	6.3	5.2	6.5	4	4	4			4				
					Bottom	7.5	0.2	267	<u>25.8</u>	7.8	7.8	18.1	18.2	66.7	66.7	4.9	4.9	8.5	6.5	4	4	4			4				
						7.5	0.2	272	25.8	7.8	7.8	18.2	18.2	66.7	66.7	4.9	4.9	8.6	6.5	4	4	4			4				
IM12	Rainy	Rough	15:43	8.4	Surface	1.0	0.3	292	<u>26.3</u>	26.3	7.9	7.9	8.0	8.0	85.8	85.8	6.6	6.5	4.3	5.3	3	3	821166	811501					
						1.0	0.2	299	26.3	7.9	7.9	8.0	8.0	85.7	85.8	6.6	6.5	4.2	5.3	4	3								
					Middle	4.2	0.3	266	<u>26.3</u>	7.9	7.9	8.4	8.4	81.6	81.5	6.3	6.5	4.2	5.3	3	3	4			3				
						4.2	0.3	259	26.3	7.9	7.9	8.4	8.4	81.4	81.5	6.3	6.5	4.2	5.3	4	3	4			3				
					Bottom	7.4	0.3	276	<u>25.6</u>	7.8	7.8	20.7	20.7	62.0	62.0	4.5	4.5	7.5	4.5	3	3	3			3				
						7.4	0.3	278	25.6	7.8	7.8	20.7	20.7	62.0	62.0	4.5	4.5	7.5	4.5	3	3	3			3				
SR1A	Cloudy	Moderate	16:24	4.7	Surface	1.0	0.0	186	<u>26.3</u>	26.3	7.9	7.9	8.3	8.3	84.6	84.6	6.5	6.5	4.9	4.8	3	4	819983	812656					
						1.0	-	182	26.3	7.9	7.9	8.3	8.3	84.5	84.6	6.5	6.5	4.9	4.8	4	4								
					Middle	2.4	0.0	182	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4	
						2.4	0.0	177	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4	
					Bottom	3.7	0.0	189	<u>26.3</u>	7.9	7.9	9.3	9.3	81.3	81.2	6.2	6.2	4.8	6.2	4	4	4			4	3	3		
						3.7	0.0	182	26.3	7.9	7.9	9.3	9.3	81.1	81.2	6.2	6.2	4.7	6.2	3	3	3			3				
SR2	Cloudy	Moderate	16:43	4.3	Surface	1.0	0.2	281	<u>25.9</u>	25.9	7.9	7.9	16.0	16.0	79.4	79.5	5.9	5.9	1.9	1.8	4	3	821462	814149					
						1.0	0.2	273	25.9	7.9	7.9	16.0	16.0	79.5	79.5	5.9	5.9	1.9	1.8	3	3								
					Middle	-	0.2	288	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	3	3
						-	0.2	281	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	3	3
					Bottom	3.3	0.2	281	<u>25.8</u>	7.9	7.9	17.9	17.9	75.2	75.3	5.5	5.6	1.8	5.6	1.8	1.8	2			2	4	4		
						3.3	0.1	277	25.8	7.9	7.9	17.9	17.9	75.3	75.3	5.6	5.6	1.8	5.6	1.8	1.8	2			2	4	4		
SR3	Cloudy	Moderate	15:31	8.6	Surface	1.0	0.2	185	<u>26.3</u>	26.3	7.9	7.9	4.7	4.4	86.5	86.5	6.8	6.4	12.2	11.4	4	4	822140	807574					
						1.0	0.2	187	26.3	7.9	7.9	4.1	4.4	86.5	86.5	6.8	6.4	12.3	11.4	4	4								
					Middle	4.3	0.2	197	<u>26.3</u>	7.8	7.8	13.6	13.6	79.3	79.3	5.9	5.9	7.1	6.4	4	4	4			4				
						4.3	0.2	200	26.3	7.8	7.8	13.7	13.6	79.2	79.3	5.9	5.9	7.2	6.4	4	4	4			4				
					Bottom	7.6	0.1	207	<u>26.3</u>	7.8	7.8	14.2	14.2	79.4	79.4	5.9	5.9	14.9	6.4	4	4	4			4				
						7.6	0.1	212	26.3	7.8	7.8	14.2	14.2	79.4	79.4	5.9	5.9	14.9	6.4	4	4	4			4				
SR4A	Cloudy	Moderate	16:47	8.6	Surface	1.0	0.0	136	<u>26.5</u>	26.5	7.9	7.9	13.5	13.5	88.3	88.3	6.6	6.3	9.1	11.6	4	4	817190	807792					
						1.0	0.0	138	26.5	7.9	7.9	13.5	13.5	88.2	88.3	6.6	6.3	9.3	11.6	3	4								
					Middle	4.3	0.0	142	<u>25.8</u>	7.9	7.9	15.5	15.5	79.0	78.7	5.9	6.3	12.1	11.6	4	4	4			4				
						4.3	0.1	138	25.7	7.9	7.9	15.4	15.5	78.3	78.7	5.9	6.3	12.3	11.6	4	4	4			4				
					Bottom	7.6	0.1	147	<u>25.4</u>	7.8	7.8	28.1	28.1	63.8	64.0	4.5	4.5	13.6	6.4	4	4	4			4				
						7.6	0.1	147	25.4	7.8	7.8	28.1	28.1	64.1	64.0	4.5	4.5	13.4	6.4	4	4	4			4				
SR8	Rainy	Moderate	15:51	4.9	Surface	1.0	-	-	<u>26.4</u>	26.4	7.9	7.9	8.0	8.0	87.1	87.1	6.7	6.7	4.1	4.3	4	4	820390	811612					
						1.0	-	-	26.4	7.9	7.9	8.0	8.0	87.1	87.1	6.7	6.7	4.2	4.3	4	4								
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4	
					Bottom	3.9	-	-	<u>26.0</u>	7.8	7.8	12.4	12.4	75.5	75.5	5.7	5.7	4.4	5.7	4.4	5.7	4			4	3	4		
						3.9	-	-	26.0	7.8	7.8	12.4	12.4	75.5	75.5	5.7	5.7	4.4	5.7	4.4	5.7	4			4	4	4		

DA: Depth-Averaged

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

**Water Quality Monitoring Results on 14 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Rainy	Moderate	13:04	8.4	Surface	1.0	0.7	214	26.0	26.0	8.0	8.0	15.2	15.2	83.5	83.4	6.2	5.7	10.5	12.0	5	5	815630	804255
						1.0	0.7	210	26.0		8.0	8.0	15.2	15.2	83.3	83.4	6.2		10.5					
					Middle	4.2	0.7	194	25.7	25.7	8.0	8.0	23.5	23.4	71.6	71.6	5.1	5.0	10.1	4				
						4.2	0.7	189	25.7		8.0	8.0	23.3	23.4	71.5	71.6	5.1		10.1					
					Bottom	7.4	0.7	216	25.6	25.6	8.0	8.0	24.0	24.1	70.7	70.7	5.0	5.0	15.4	5				
						7.4	0.8	215	25.6		8.0	8.0	24.1	24.1	70.7	70.7	5.0		15.3					
C2	Rainy	Rough	11:21	11.1	Surface	1.0	0.5	154	26.0	26.0	7.9	7.9	7.4	7.4	77.0	76.9	6.0	5.6	9.3	11.5	11	9	825667	806954
						1.0	0.5	159	26.0		7.9	7.9	7.4	7.4	76.8	76.9	6.0		9.9					
					Middle	5.6	0.5	183	26.0	26.0	7.9	7.9	16.2	16.2	69.8	69.7	5.2	5.0	9.6	9				
						5.6	0.5	177	26.0		7.9	7.9	16.2	16.2	69.6	69.7	5.2		9.6					
					Bottom	10.1	0.5	144	26.0	26.0	7.9	7.8	18.6	18.6	68.8	68.8	5.0	5.0	15.3	8				
						10.1	0.5	141	26.0		7.8	7.8	18.6	18.6	68.7	68.8	5.0		15.2					
C3	Misty	Moderate	13:18	10.0	Surface	1.0	0.5	47	26.0	26.0	7.8	7.8	10.2	10.3	80.2	80.3	6.1	6.2	6.1	7.4	7	8	822129	817806
						1.0	0.5	45	26.0		7.8	7.8	10.3	10.3	80.3	80.3	6.2		6.1					
					Middle	5.0	0.5	80	26.0	26.0	7.8	7.8	11.0	11.0	81.4	81.7	6.2	6.3	7.6	8				
						5.0	0.5	81	26.0		7.8	7.8	10.9	11.0	81.9	81.7	6.3		7.5					
					Bottom	9.0	0.5	82	26.0	26.0	7.8	7.8	12.2	12.2	83.2	83.4	6.3	6.3	8.5	10				
						9.0	0.5	86	26.0		7.8	7.8	12.2	12.2	83.5	83.4	6.3		8.4					
IM1	Rainy	Moderate	12:32	6.8	Surface	1.0	0.4	183	26.0	26.0	8.0	8.0	17.6	17.6	80.2	80.1	5.9	5.0	6.5	9.6	5	5	818344	806476
						1.0	0.4	189	25.9		8.0	8.0	17.7	17.6	79.9	80.1	5.9		6.6					
					Middle	3.4	0.4	189	25.1	25.1	8.0	8.0	30.1	30.1	58.9	58.9	4.1	4.1	10.3	5				
						3.4	0.4	189	25.1		8.0	8.0	30.1	30.1	58.9	58.9	4.1		10.9					
					Bottom	5.8	0.4	190	25.1	25.1	8.0	8.0	30.5	30.5	59.1	59.4	4.1	4.1	11.9	5				
						5.8	0.4	188	25.1		8.0	8.0	30.5	30.5	59.6	59.4	4.1		11.5					
IM2	Rainy	Moderate	12:22	6.8	Surface	1.0	0.4	205	26.1	26.1	8.0	8.0	15.7	15.6	84.2	83.7	6.3	5.7	7.7	9.2	5	5	819174	806218
						1.0	0.4	211	26.1		8.0	8.0	15.5	15.6	83.1	83.7	6.2		7.6					
					Middle	3.4	0.5	208	25.7	25.7	8.0	8.0	22.5	22.5	71.6	71.6	5.1	4.5	8.4	5				
						3.4	0.4	201	25.7		8.0	8.0	22.5	22.5	71.6	71.6	5.1		8.5					
					Bottom	5.8	0.4	213	25.4	25.4	8.0	8.0	27.7	27.8	64.7	64.8	4.5	4.5	11.5	6				
						5.8	0.4	215	25.4		8.0	8.0	27.9	27.8	64.8	64.8	4.5		11.5					
IM7	Rainy	Rough	11:56	7.8	Surface	1.0	0.3	150	26.3	26.3	7.9	7.9	9.7	9.7	83.5	83.6	6.4	6.4	12.9	13.9	6	5	821353	806838
						1.0	0.3	143	26.3		7.9	7.9	9.7	9.7	83.6	83.6	6.4		12.2					
					Middle	3.9	0.3	146	26.3	26.3	7.9	7.9	10.1	10.1	83.8	83.8	6.4	6.5	14.0	4				
						3.9	0.4	148	26.3		7.9	7.9	10.1	10.1	83.8	83.8	6.4		13.8					
					Bottom	6.8	0.3	172	26.3	26.3	7.9	7.9	10.4	10.4	84.9	85.1	6.5	6.5	15.3	4				
						6.8	0.3	167	26.3		7.9	7.9	10.4	10.4	85.3	85.1	6.5		15.5					

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

**Water Quality Monitoring Results on 14 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
IM10	Rainy	Moderate	12:29	8.4	Surface	1.0	0.7	124	25.9	25.9	7.8	7.8	7.4	7.5	80.0	80.1	6.2	6.3	6.6	7.4	5	5	822246	809845				
						1.0	0.8	127	25.9		7.8	7.8	7.5	7.5	80.1	80.1	6.3		6.6									
					Middle	4.2	0.8	105	25.8	25.8	7.8	7.8	8.2	8.2	80.8	80.9	6.3	7.1	5									
						4.2	0.8	102	25.7		7.8	7.8	8.2	8.2	81.0	80.9	6.3	7.2	5									
					Bottom	7.4	0.8	119	25.5	25.5	7.8	7.8	8.3	8.3	82.7	83.1	6.5	8.4	5									
						7.4	0.8	120	25.5		7.8	7.8	8.3	8.3	83.5	83.1	6.5	8.4	6									
IM11	Rainy	Moderate	12:33	7.2	Surface	1.0	0.8	111	25.9	25.9	7.8	7.8	7.7	7.7	80.9	81.0	6.3	6.4	7.1	8.3	7	5	821505	810568				
						1.0	0.8	115	25.9		7.8	7.8	7.7	7.7	81.0	81.0	6.3		7.2									
					Middle	3.6	0.8	112	25.7	25.7	7.8	7.8	7.7	7.7	82.0	82.1	6.4	8.7	6									
						3.6	0.7	113	25.7		7.8	7.8	7.7	7.7	82.1	82.1	6.4	8.7	4									
					Bottom	6.2	0.8	110	25.4	25.4	7.8	7.8	7.7	7.7	83.5	83.9	6.6	9.0	4									
						6.2	0.7	106	25.4		7.8	7.8	7.7	7.7	84.2	83.9	6.6	9.1	5									
IM12	Rainy	Moderate	12:38	7.6	Surface	1.0	1.0	98	25.9	25.9	7.8	7.8	8.3	8.3	79.9	80.0	6.2	6.2	5.0	6.5	5	5	821158	811512				
						1.0	1.0	96	25.9		7.8	7.8	8.3	8.3	80.0	80.0	6.2		5.1									
					Middle	3.8	1.0	115	25.9	25.9	7.8	7.8	8.4	8.5	80.5	80.5	6.2	6.8	6									
						3.8	1.0	109	25.9		7.8	7.8	8.5	8.5	80.5	80.5	6.2	6.7	4									
					Bottom	6.6	1.0	87	25.9	25.9	7.8	7.8	8.6	8.6	80.9	81.0	6.3	7.8	7									
						6.6	1.0	80	25.9		7.8	7.8	8.6	8.6	81.0	81.0	6.3	7.9	6									
SR1A	Rainy	Moderate	12:49	5.2	Surface	1.0	0.0	99	26.0	26.0	7.8	7.8	10.0	10.0	80.5	80.6	6.2	6.2	8.1	8.6	6	5	819974	812659				
						1.0	0.0	95	26.0		7.9	7.8	10.0	10.0	80.6	80.6	6.2		8.2									
					Middle	2.6	0.0	91	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
						2.6	0.0	91	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
					Bottom	4.2	-	116	26.0	26.0	7.9	7.9	11.5	11.6	81.3	81.4	6.2	9.0	5									
						4.2	0.0	114	26.0		7.9	7.9	11.6	11.6	81.4	81.4	6.2	9.0	5									
SR2	Misty	Moderate	13:07	4.0	Surface	1.0	0.7	37	25.9	25.9	7.8	7.8	7.4	7.5	85.0	85.2	6.6	6.7	6.1	6.8	5	5	821477	814159				
						1.0	0.7	36	25.9		7.8	7.8	7.5	7.5	85.3	85.2	6.7		6.2									
					Middle	-	0.7	30	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	
						-	0.7	27	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-	
					Bottom	3.0	0.7	35	25.9	25.9	7.8	7.8	8.6	8.6	87.3	88.0	6.8	7.4	4									
						3.0	0.7	37	25.9		7.8	7.8	8.6	8.6	88.7	88.0	6.9	7.5	5									
SR3	Rainy	Rough	11:47	8.8	Surface	1.0	0.6	147	26.3	26.3	7.9	7.9	10.3	10.3	81.3	81.3	6.2	6.2	11.2	11.5	14	13	822136	807592				
						1.0	0.5	149	26.3		7.9	7.9	10.3	10.3	81.2	81.3	6.2		11.3									
					Middle	4.4	0.5	138	26.3	26.3	7.9	7.9	12.2	12.2	81.1	81.1	6.1	11.4	13									
						4.4	0.5	138	26.3		7.9	7.9	12.2	12.2	81.1	81.1	6.1	11.3	12									
					Bottom	7.8	0.5	166	26.3	26.3	7.9	7.9	13.2	13.2	83.7	83.8	6.3	11.2	11									
						7.8	0.6	168	26.3		7.9	7.9	13.2	13.2	83.9	83.8	6.3	12.4	12									
SR4A	Rainy	Moderate	13:32	8.8	Surface	1.0	0.0	18	26.4	26.4	8.0	8.0	16.7	16.7	82.9	82.9	6.1	6.1	9.3	12.4	5	5	817176	807802				
						1.0	0.1	11	26.4		8.0	8.0	16.7	16.7	82.9	82.9	6.1		10.0									
					Middle	4.4	0.0	33	26.4	26.4	8.0	8.0	16.9	16.9	82.7	82.7	6.1	12.4	5									
						4.4	-	30	26.4		8.0	8.0	16.9	16.9	82.6	82.6	6.1	12.0	6									
					Bottom	7.8	0.0	49	26.4	26.4	8.0	8.0	16.9	16.9	82.4	82.4	6.0	15.3	5									
						7.8	0.1	49	26.4		8.0	8.0	16.8	16.9	82.4	82.4	6.0	15.4	4									
SR8	Rainy	Moderate	12:42	4.2	Surface	1.0	-	-	26.1	26.1	7.9	7.9	9.5	9.5	82.8	83.0	6.4	6.4	7.1	8.0	4	5	820375	811599				
						1.0	-	-	26.1		7.9	7.9	9.5	9.5	83.1	83.0	6.4		7.1									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-		
						-	-	-	-		-	-	-	-	-	-	-	-	-	-	-							
					Bottom	3.2	-	-	26.3	26.3	7.9	7.9	11.4	11.3	85.2	87.2	6.5	9.0	6									
						3.2	-	-	26.3		7.9	7.9	11.3	11.3	89.1	87.2	6.8	8.9	5									

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



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

**Water Quality Monitoring**

**Water Quality Monitoring Results on 14 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	05:32	8.0	Surface	1.0	0.2	42	26.1	26.1	8.0	8.0	15.9	16.7	80.6	80.6	5.9	5.6	7.4	9.7	4	4	815623	804251
						1.0	0.2	49	26.1		8.0	8.0	17.5	16.7	80.6	80.6	5.9		7.5					
					Middle	4.0	0.3	53	25.9	25.9	8.0	8.0	20.7	20.8	73.8	73.8	5.3	4.9	9.2	4				
						4.0	0.2	58	25.9		8.0	8.0	20.8	20.8	73.7	73.8	5.3		9.3	4				
					Bottom	7.0	0.3	16	25.7	25.7	8.0	8.0	22.1	22.2	68.0	67.8	4.9	4.9	12.3	4				
						7.0	0.3	10	25.7		8.0	8.0	22.4	22.2	67.5	67.8	4.9		12.6	3				
C2	Cloudy	Moderate	07:28	10.4	Surface	1.0	0.4	8	26.0	26.0	7.8	7.8	7.2	7.2	79.8	79.8	6.2	5.7	8.5	10.6	10	10	825688	806967
						1.0	0.4	1	26.0		7.8	7.8	7.2	7.2	79.8	79.8	6.2		8.5					
					Middle	5.2	0.4	347	26.0	26.0	7.9	7.9	16.9	16.9	70.5	70.5	5.2	5.2	9.9		10			
						5.2	0.5	342	26.0		7.9	7.9	16.8	16.9	70.4	70.5	5.2		9.6		11			
					Bottom	9.4	0.4	357	26.0	26.0	7.8	7.8	18.8	18.8	70.7	70.7	5.2	5.2	13.9		11			
						9.4	0.5	2	26.0		7.8	7.8	18.8	18.8	70.7	70.7	5.2		13.4		10			
C3	Misty	Moderate	05:07	9.4	Surface	1.0	0.3	254	25.9	25.9	7.8	7.8	16.6	16.6	75.2	75.1	5.6	5.5	4.9	5.6	11	11	822117	817796
						1.0	0.4	247	25.8		7.8	7.8	16.6	16.6	75.0	75.1	5.6		4.8					
					Middle	4.7	0.3	249	25.6	25.6	7.8	7.8	19.1	19.1	73.4	73.4	5.4	5.4	5.2		11			
						4.7	0.3	248	25.6		7.8	7.8	19.1	19.1	73.3	73.4	5.4		5.3		11			
					Bottom	8.4	0.3	272	25.5	25.5	7.8	7.8	21.2	21.3	73.2	73.8	5.3	5.4	6.8		12			
						8.4	0.3	278	25.5		7.8	7.8	21.3	21.3	74.3	73.8	5.4		6.8		13			
IM1	Cloudy	Moderate	05:56	6.3	Surface	1.0	0.2	17	26.2	26.2	8.0	8.0	14.0	14.0	83.8	83.7	6.3	5.1	6.6	8.9	3	4	818342	806468
						1.0	0.2	23	26.2		8.0	8.0	14.0	14.0	83.6	83.7	6.2		6.6					
					Middle	3.2	0.2	19	25.2	25.2	8.0	8.0	29.5	29.5	55.9	55.9	3.9	4.0	7.8		4			
						3.2	0.2	17	25.2		8.0	8.0	29.6	29.5	55.8	55.9	3.9		7.7		3			
					Bottom	5.3	0.2	31	25.1	25.1	8.0	8.0	30.9	30.9	58.0	58.1	4.0	4.0	12.9		5			
						5.3	0.2	33	25.1		8.0	8.0	30.9	30.9	58.1	58.1	4.0		12.1		4			
IM2	Cloudy	Moderate	06:03	6.8	Surface	1.0	0.1	350	26.5	26.5	8.1	8.1	13.8	13.8	92.2	92.2	6.9	5.5	4.9	9.4	10	9	819185	806236
						1.0	0.1	355	26.5		8.1	8.1	13.8	13.8	92.1	92.2	6.9		4.9					
					Middle	3.4	0.2	351	25.1	25.1	8.0	8.0	30.5	30.5	57.9	58.1	4.0	4.2	10.1		10			
						3.4	0.1	350	25.1		8.0	8.0	30.5	30.5	58.2	58.1	4.0		10.0		9			
					Bottom	5.8	0.1	9	25.1	25.1	8.0	8.0	30.7	30.7	59.7	59.8	4.1	4.2	13.5		7			
						5.8	0.2	7	25.1		8.0	8.0	30.7	30.7	59.9	59.8	4.2		13.1		7			
IM7	Cloudy	Moderate	06:42	8.0	Surface	1.0	0.2	7	26.3	26.3	7.9	7.9	10.8	10.8	83.5	83.5	6.3	6.3	9.5	10.5	10	10	821327	806852
						1.0	0.2	5	26.3		7.9	7.9	10.8	10.8	83.5	83.5	6.3		9.7					
					Middle	4.0	0.3	8	26.3	26.3	7.9	7.9	11.2	11.2	83.3	83.3	6.3	6.3	10.2		11			
						4.0	0.3	9	26.3		7.9	7.9	11.2	11.2	83.3	83.3	6.3		10.2		10			
					Bottom	7.0	0.2	349	26.3	26.3	7.9	7.9	11.4	11.4	83.6	83.6	6.3	6.3	11.8		10			
						7.0	0.2	342	26.3		7.9	7.9	11.4	11.4	83.6	83.6	6.3		11.7		11			

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 14 June 22 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			
IM10	Rainy	Moderate	06:34	8.4	Surface	1.0	0.4	291	<u>26.1</u>	26.1	7.9	7.9	9.6	9.6	<u>81.2</u>	79.5	6.2	6.0	6.0	3.4	5.1	11	10	822237	809841
						1.0	0.4	292	26.1	7.9	7.9	9.7	9.6	77.7	77.3	6.0	5.8	6.0	3.5	10					
					Middle	4.2	0.4	286	<u>26.0</u>	7.9	7.9	12.8	12.8	77.2	77.3	5.8	5.8	5.1	5.7	10					
						4.2	0.4	289	26.0	7.9	7.9	12.8	12.8	77.3	77.3	5.8	5.8	5.1	5.8	10					
					Bottom	7.4	0.4	274	<u>26.4</u>	7.8	7.8	<u>14.2</u>	14.2	<u>78.6</u>	78.9	5.9	5.9	5.9	6.1	9					
						7.4	0.5	277	26.4	7.8	7.8	<u>14.2</u>	14.2	<u>79.2</u>	78.9	5.9	5.9	5.9	6.1	8					
IM11	Rainy	Moderate	06:12	6.6	Surface	1.0	0.5	266	<u>26.0</u>	26.0	7.8	7.8	13.3	13.4	<u>75.2</u>	75.2	5.7	5.7	5.7	4.0	4.5	13	12	821493	810548
						1.0	0.5	262	26.0	7.8	7.8	13.4	13.4	75.2	75.2	5.7	5.7	5.7	3.9	12					
					Middle	3.3	0.4	286	<u>26.0</u>	7.8	7.8	14.7	14.7	75.9	76.1	5.7	5.7	4.5	4.3	12					
						3.3	0.5	284	26.0	7.9	7.9	14.7	14.7	76.2	76.1	5.7	5.7	4.5	4.3	12					
					Bottom	5.6	0.5	268	<u>26.0</u>	7.9	7.9	<u>14.7</u>	14.7	<u>78.3</u>	78.5	5.8	5.9	5.9	5.3	11					
						5.6	0.5	262	26.0	7.9	7.9	<u>14.7</u>	14.7	<u>78.6</u>	78.5	5.9	5.9	5.9	5.3	10					
IM12	Rainy	Moderate	06:00	9.0	Surface	1.0	0.5	271	<u>26.0</u>	26.0	7.9	7.9	11.4	11.4	<u>80.1</u>	79.8	6.1	6.0	5.9	2.1	3.3	26	27	821174	811538
						1.0	0.4	268	26.0	7.9	7.9	11.4	11.4	79.4	79.8	6.0	6.0	5.9	2.0	27					
					Middle	4.5	0.4	280	<u>26.0</u>	7.9	7.9	15.1	15.1	76.0	76.1	5.7	5.7	3.3	3.9	28					
						4.5	0.4	283	26.0	7.9	7.9	15.0	15.1	76.2	76.1	5.7	5.7	3.3	3.8	27					
					Bottom	8.0	0.4	286	<u>26.0</u>	7.9	7.9	<u>15.8</u>	15.8	<u>78.3</u>	78.6	5.8	5.9	5.9	4.1	30					
						8.0	0.4	291	26.0	7.9	7.9	<u>15.8</u>	15.8	<u>78.9</u>	78.6	5.9	5.9	5.9	4.1	29					
SR1A	Misty	Moderate	05:33	5.0	Surface	1.0	0.1	196	<u>26.1</u>	26.1	7.9	7.9	14.7	14.8	<u>78.4</u>	78.5	5.8	5.8	5.8	2.2	3.0	12	12	819983	812656
						1.0	0.1	197	26.1	7.9	7.9	14.8	14.8	78.5	78.5	5.8	5.8	5.8	2.3	12					
					Middle	2.5	0.0	179	-	-	-	-	-	-	-	-	-	3.0	-	12					
						2.5	0.0	181	-	-	-	-	-	-	-	-	-	3.0	-	12					
					Bottom	4.0	0.1	172	<u>26.1</u>	7.9	7.9	15.2	15.2	<u>80.3</u>	80.5	6.0	6.0	6.0	3.9	11					
						4.0	0.0	175	26.1	7.9	7.9	15.1	15.2	80.7	80.5	6.0	6.0	6.0	3.7	12					
SR2	Misty	Moderate	05:15	5.0	Surface	1.0	0.1	264	<u>26.0</u>	26.0	7.9	7.9	13.0	13.0	<u>78.7</u>	78.6	5.9	5.9	5.9	4.1	4.6	10	11	821480	814156
						1.0	0.1	258	26.0	7.9	7.9	13.0	13.0	78.5	78.6	5.9	5.9	5.9	4.1	11					
					Middle	-	0.1	270	-	-	-	-	-	-	-	-	-	4.6	-	11					
						-	0.1	268	-	-	-	-	-	-	-	-	-	4.6	-	11					
					Bottom	4.0	0.2	262	<u>26.5</u>	7.9	7.9	14.4	14.3	<u>78.6</u>	78.8	5.8	5.9	5.9	5.1	11					
						4.0	0.1	267	26.5	7.9	7.9	14.3	14.3	78.9	78.8	5.9	5.9	5.9	5.1	12					
SR3	Cloudy	Moderate	06:54	8.5	Surface	1.0	0.4	337	<u>26.3</u>	26.3	7.9	7.9	9.6	9.6	<u>84.5</u>	84.5	6.5	6.5	6.4	9.3	10.1	10	9	822150	807576
						1.0	0.4	337	26.3	7.9	7.9	9.6	9.6	84.4	84.5	6.5	6.5	6.4	9.3	9					
					Middle	4.3	0.4	0	<u>26.4</u>	7.9	7.9	12.7	12.8	<u>82.3</u>	82.3	6.2	6.2	6.4	9.5	10					
						4.3	0.4	359	26.4	7.9	7.9	12.8	12.8	82.3	82.3	6.2	6.2	6.4	9.8	9					
					Bottom	7.5	0.4	338	<u>26.4</u>	7.9	7.9	13.3	13.3	<u>82.5</u>	82.6	6.2	6.2	6.2	11.3	8					
						7.5	0.4	341	26.4	7.9	7.9	13.3	13.3	82.6	82.6	6.2	6.2	6.2	11.2	7					
SR4A	Cloudy	Rough	05:14	8.2	Surface	1.0	0.0	175	<u>26.4</u>	26.4	8.0	8.0	11.3	11.3	<u>88.5</u>	88.4	6.7	6.7	5.4	7.1	10.4	6	5	817211	807803
						1.0	0.0	180	26.3	8.0	8.0	11.4	11.3	88.3	88.4	6.7	6.7	5.4	7.5	5					
					Middle	4.1	0.0	169	<u>25.3</u>	7.9	7.9	28.7	28.8	<u>57.6</u>	57.7	4.0	4.0	5.4	9.7	5					
						4.1	0.0	175	25.3	7.9	7.9	28.8	28.8	57.7	57.7	4.0	4.0	5.4	10.0	5					
					Bottom	7.2	0.0	164	<u>25.4</u>	7.9	7.9	30.4	30.3	<u>55.7</u>	55.8	3.8	3.9	3.9	14.0	4					
						7.2	0.1	161	25.5	7.9	7.9	30.3	30.3	55.9	55.8	3.9	3.9	3.9	14.3	3					
SR8	Misty	Moderate	05:46	5.2	Surface	1.0	-	-	<u>26.4</u>	26.4	7.9	7.9	15.4	15.4	<u>77.6</u>	77.6	5.7	5.7	5.7	5.0	5.6	16	16	820399	811621
						1.0	-	-	26.3	7.9	7.9	15.4	15.4	77.6	77.6	5.7	5.7	5.7	5.0	17					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	5.6	-	16					
						-	-	-	-	-	-	-	-	-	-	-	-	5.6	-	16					
					Bottom	4.2	-	-	<u>26.0</u>	7.9	7.9	16.0	15.9	<u>79.5</u>	80.0	5.9	6.0	6.0	6.1	16					
						4.2	-	-	26.0	7.9	7.9	15.9	15.9	80.5	80.0	6.0	6.0	6.0	6.1	15					

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 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
C1	Cloudy	Moderate	13:55	8.8	Surface	1.0	0.7	218	26.3	26.3	7.9	7.9	7.7	7.5	75.2	75.1	5.8	5.5	6.6	7.0	7	8	815629	804266		
						1.0	0.7	219	26.3		7.9		7.4		75.0		5.8		6.5		8					
					Middle	4.4	0.7	200	25.7	25.7	8.0	8.0	12.1	11.8	68.5	68.1	5.2	4.1	5.7	7	7				7	7
						4.4	0.6	204	25.7		8.0		11.6		67.7		5.2		5.8		8					
					Bottom	7.8	0.8	202	24.9	24.9	8.0	8.0	25.5	25.4	57.4	57.5	4.1	4.1	8.4	7	8				7	8
						7.8	0.7	202	24.9		8.0		25.3		57.6		4.1		8.8		7					
C2	Cloudy	Moderate	12:41	12.1	Surface	1.0	0.6	167	26.2	26.2	7.8	7.8	7.4	7.4	69.8	69.8	5.4	5.0	7.3	11.1	4	6	825673	806968		
						1.0	0.6	161	26.2		7.8		7.3		69.8		5.4		7.4		5					
					Middle	6.1	0.5	164	25.7	25.7	7.9	7.9	16.5	16.5	61.8	61.8	4.6	4.3	11.3	7	5				7	6
						6.1	0.5	169	25.7		7.9		16.5		61.8		4.6		11.3		6					
					Bottom	11.1	0.5	175	25.4	25.4	8.0	8.0	22.3	22.3	59.3	59.4	4.3	4.3	15.0	7	7				7	7
						11.1	0.6	175	25.4		8.0		22.3		59.4		4.3		14.4		7					
C3	Fine	Moderate	13:43	9.0	Surface	1.0	0.6	76	25.9	25.9	7.5	7.5	16.2	16.2	77.0	77.0	5.7	5.7	6.1	7.1	5	6	822108	817787		
						1.0	0.6	79	25.9		7.5		16.2		76.9		5.7		6.2		6					
					Middle	4.5	0.6	83	25.9	25.9	7.4	7.4	20.5	20.5	77.7	77.8	5.6	5.9	7.1	7	6				7	6
						4.5	0.6	85	25.9		7.4		20.5		77.9		5.6		7.1		6					
					Bottom	8.0	0.6	55	25.9	25.9	7.2	7.1	20.6	20.6	80.5	81.0	5.8	5.9	8.1	7	7				7	7
						8.0	0.6	49	25.9		7.1		20.5		81.4		5.9		8.1		6					
IM1	Cloudy	Moderate	13:29	7.1	Surface	1.0	0.4	182	25.9	25.9	8.0	8.0	15.4	15.4	72.2	72.2	5.4	4.7	5.6	9.1	7	8	818358	806455		
						1.0	0.4	176	25.9		8.0		15.4		72.2		5.4		5.6		8					
					Middle	3.6	0.4	199	24.9	24.9	8.0	8.0	26.4	26.4	56.8	56.8	4.0	3.7	10.6	7	8				7	8
						3.6	0.4	198	24.9		8.0		26.4		56.8		4.0		10.6		7					
					Bottom	6.1	0.4	188	24.8	24.8	8.0	8.0	28.2	28.2	52.6	52.6	3.7	3.7	11.3	7	8				7	8
						6.1	0.4	191	24.8		8.0		28.2		52.6		3.7		11.3		8					
IM2	Cloudy	Moderate	13:23	7.8	Surface	1.0	0.5	181	26.1	26.1	8.0	8.0	13.1	13.1	75.0	74.9	5.6	4.7	4.7	7.2	7	7	819184	806213		
						1.0	0.4	184	26.1		8.0		13.1		74.8		5.6		4.8		6					
					Middle	3.9	0.5	202	25.0	25.0	8.0	8.0	24.4	24.4	52.1	52.1	3.8	3.7	6.3	7	6				7	6
						3.9	0.5	196	24.9		8.0		24.4		52.0		3.8		6.3		6					
					Bottom	6.8	0.4	196	24.8	24.8	8.0	8.0	28.2	28.2	52.1	52.3	3.7	4.0	10.9	7	7				7	7
						6.8	0.4	189	24.8		8.0		28.2		52.4		3.7		10.4		7					
IM7	Cloudy	Moderate	13:04	8.0	Surface	1.0	0.3	156	26.1	26.1	7.8	7.8	6.4	6.4	75.0	75.0	5.9	5.5	7.8	8.6	5	6	821359	806847		
						1.0	0.3	158	26.1		7.8		6.4		74.9		5.9		7.6		6					
					Middle	4.0	0.3	145	25.8	25.8	7.8	7.8	10.8	11.4	65.1	65.1	5.0	4.0	4.9	7	6				7	6
						4.0	0.3	146	25.8		7.8		11.9		65.0		5.0		4.9		6					
					Bottom	7.0	0.3	146	25.2	25.2	7.9	7.9	20.4	20.5	55.1	55.2	4.0	4.0	13.1	7	6				7	6
						7.0	0.2	147	25.2		7.9		20.6		55.2		4.0		13.3		6					

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

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

**Water Quality Monitoring Results on 16 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)			
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA					
IM10	Fine	Moderate	12:43	8.2	Surface	1.0	0.6	116	26.2	26.2	7.3	7.3	7.8	7.8	78.5	78.4	6.1	5.7	6.7	7.4	5	6	822260	809817			
						1.0	0.6	109	26.2	7.3	7.3	7.8	7.8	78.2	78.4	6.1	5.7	6.6	7.4	6							
					Middle	4.1	0.6	107	26.1	26.1	7.2	7.1	13.6	13.6	69.2	69.1	5.2	5.1	7.6	7.4	5						
						4.1	0.6	104	26.1	26.1	7.1	7.1	13.5	13.6	69.0	69.1	5.2	5.1	7.7	7.4	5						
					Bottom	7.2	0.7	98	26.2	26.2	6.9	6.8	18.7	18.6	68.8	69.6	5.0	5.1	8.0	5.1	8.0				6		
						7.2	0.7	95	26.2	26.2	6.8	6.8	18.6	18.6	70.4	70.4	5.1	5.1	8.0	5.1	8.0				6		
IM11	Fine	Moderate	12:48	6.4	Surface	1.0	0.7	92	26.2	26.2	7.5	7.5	10.2	10.2	76.8	76.6	5.9	5.6	6.1	7.1	5	5	821487	810553			
						1.0	0.7	95	26.2	26.2	7.5	7.5	10.2	10.2	76.4	76.6	5.8	5.6	6.0	7.1	5						
					Middle	3.2	0.7	89	26.2	26.2	7.4	7.4	15.0	15.0	71.4	71.5	5.3	5.3	7.1	7.1	5						
						3.2	0.7	83	26.2	26.2	7.4	7.4	15.1	15.1	71.5	71.5	5.3	5.3	7.2	7.1	5						
					Bottom	5.4	0.7	118	26.4	26.4	7.3	7.3	15.1	15.1	73.2	73.2	5.4	5.4	8.1	5.4	8.1				7.1	5	
						5.4	0.7	119	26.4	26.4	7.3	7.3	15.1	15.1	73.2	73.2	5.4	5.4	8.0	5.4	8.0				7.1	5	
IM12	Fine	Moderate	12:53	8.0	Surface	1.0	0.8	94	26.4	26.4	7.6	7.6	9.2	9.1	72.7	72.6	5.6	5.1	5.3	6.3	6	6	821180	811542			
						1.0	0.8	92	26.4	26.4	7.6	7.6	9.1	9.1	72.4	72.6	5.6	5.1	5.3	6.3	6						
					Middle	4.0	0.8	78	26.4	26.5	7.6	7.6	13.5	13.5	61.1	61.0	4.6	4.5	6.2	6.3	6						
						4.0	0.7	72	26.5	26.5	7.6	7.6	13.5	13.5	60.9	61.0	4.5	4.5	6.3	6.3	6						
					Bottom	7.0	0.8	112	27.0	27.1	7.4	7.4	14.7	14.7	60.5	60.5	4.4	4.4	7.4	4.4	7.4				6.3	6	
						7.0	0.8	109	27.1	27.1	7.4	7.4	14.7	14.7	60.5	60.5	4.4	4.4	7.5	4.4	7.5				6.3	5	
SR1A	Fine	Moderate	13:05	5.4	Surface	1.0	0.0	66	26.5	26.5	7.0	6.9	10.5	10.5	77.4	77.4	5.9	5.9	6.4	6.7	5	5	819975	812661			
						1.0	0.0	62	26.5	26.5	6.9	6.9	10.5	10.5	77.4	77.4	5.9	5.9	6.4	6.7	6						
					Middle	2.7	0.0	92	-	-	-	-	-	-	-	-	-	-	-	-	-				-	6.7	-
						2.7	0.0	95	-	-	-	-	-	-	-	-	-	-	-	-	-				-	6.7	-
					Bottom	4.4	0.0	82	26.9	26.9	6.6	6.6	12.3	12.3	79.1	79.1	5.9	5.9	7.0	5.9	7.0				6.7	5	
						4.4	0.1	78	26.9	26.9	6.6	6.6	12.3	12.3	79.1	79.1	5.9	5.9	7.0	5.9	7.0				6.7	5	
SR2	Fine	Moderate	13:24	5.2	Surface	1.0	0.7	59	26.4	26.4	7.3	7.3	7.9	8.0	75.0	74.0	5.8	5.7	7.7	8.3	5	5	821480	814144			
						1.0	0.7	58	26.3	26.4	7.3	7.3	8.1	8.0	73.0	74.0	5.6	5.7	7.8	8.3	5						
					Middle	-	0.7	62	-	-	-	-	-	-	-	-	-	-	-	-	-				-	8.3	-
						-	0.7	64	-	-	-	-	-	-	-	-	-	-	-	-	-				-	8.3	-
					Bottom	4.2	0.7	37	26.1	26.2	6.9	6.9	15.5	15.4	70.4	70.8	5.2	5.3	8.9	5.3	8.9				8.3	5	
						4.2	0.6	40	26.3	26.2	6.9	6.9	15.2	15.4	71.1	70.8	5.3	5.3	8.9	5.3	8.9				8.3	6	
SR3	Cloudy	Moderate	12:58	8.9	Surface	1.0	0.5	150	26.2	26.2	7.9	7.9	6.6	6.7	73.7	73.6	5.8	5.2	7.6	8.6	4	4	822137	807575			
						1.0	0.5	149	26.1	26.2	7.9	7.9	6.7	6.7	73.5	73.6	5.7	5.2	7.4	8.6	5						
					Middle	4.5	0.6	160	25.6	25.6	7.9	7.9	14.1	14.2	60.9	60.9	4.6	4.6	7.5	5.2	7.5				8.6	4	
						4.5	0.6	163	25.6	25.6	7.9	7.9	14.2	14.2	60.9	60.9	4.6	4.6	7.6	5.2	7.6				8.6	4	
					Bottom	7.9	0.6	161	25.1	25.1	7.9	7.9	22.6	22.5	55.1	55.1	4.0	4.0	10.7	4.0	10.7				8.6	5	
						7.9	0.6	156	25.1	25.1	7.9	7.9	22.5	22.5	55.1	55.1	4.0	4.0	10.7	4.0	10.7				8.6	4	
SR4A	Cloudy	Moderate	14:10	9.3	Surface	1.0	0.1	79	26.1	26.1	7.9	7.9	12.5	12.4	72.7	72.6	5.5	4.7	5.5	9.5	6	7	817176	807818			
						1.0	0.0	79	26.1	26.1	7.9	7.9	12.4	12.4	72.5	72.6	5.5	4.7	5.5	9.5	7						
					Middle	4.7	-	88	25.1	25.1	8.0	8.0	27.0	27.0	53.6	53.8	3.8	3.8	10.1	4.7	10.1				9.5	6	
						4.7	-	87	25.1	25.1	8.0	8.0	27.0	27.0	54.0	53.8	3.8	3.8	10.2	4.7	10.2				9.5	7	
					Bottom	8.3	0.1	87	24.8	24.8	8.0	8.0	27.7	27.7	51.4	51.5	3.6	3.7	12.9	3.7	12.9				9.5	7	
						8.3	0.1	89	24.8	24.8	8.0	8.0	27.7	27.7	51.5	51.5	3.7	3.7	13.0	3.7	13.0				9.5	7	
SR8	Fine	Moderate	12:57	5.0	Surface	1.0	-	-	26.8	26.8	7.1	7.1	10.5	10.5	69.9	69.8	5.3	5.3	6.9	7.1	5	6	820412	811613			
						1.0	-	-	26.8	26.8	7.1	7.1	10.5	10.5	69.7	69.8	5.3	5.3	6.9	7.1	5						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	7.1	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	7.1	-
					Bottom	4.0	-	-	27.1	27.1	6.6	6.6	12.3	12.2	67.6	66.6	5.0	5.0	7.2	5.0	7.2				7.1	6	
						4.0	-	-	27.0	27.1	6.6	6.6	12.2	12.2	65.5	66.6	4.9	5.0	7.3	5.0	7.3				7.1	6	

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

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

**Water Quality Monitoring Results on 16 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	07:29	8.0	Surface	1.0	0.4	32	25.5	25.5	7.9	7.9	11.9	11.7	66.1	66.0	5.1	4.5	7.5	10.9	5	5	815615	804237
						1.0	0.4	30	25.5		7.9	7.9	11.6	11.7	65.9	66.0	5.1		7.6					
					Middle	4.0	0.3	14	24.8	24.8	8.0	8.0	28.3	28.3	54.9	55.0	3.9	4.1	11.7	5				
						4.0	0.3	11	24.8		8.0	8.0	28.3	28.3	55.0	55.0	3.9		11.5	6				
					Bottom	7.0	0.3	57	24.8	24.8	7.9	7.9	28.2	28.2	57.4	57.6	4.1	4.1	13.8	6				
						7.0	0.4	57	24.8		7.9	7.9	28.2	28.2	57.8	57.6	4.1		13.2	5				
C2	Cloudy	Moderate	08:36	11.2	Surface	1.0	0.4	3	26.1	26.1	7.7	7.7	6.6	6.6	68.7	68.7	5.4	5.1	7.1	9.3	6	6	825701	806945
						1.0	0.4	359	26.1		7.7	7.7	6.6	6.6	68.6	68.7	5.4		7.1					
					Middle	5.6	0.4	334	25.8	25.8	7.8	7.8	13.6	13.5	61.9	61.9	4.7	4.1	9.6		6			
						5.6	0.4	332	25.7		7.8	7.8	13.3	13.5	61.9	61.9	4.7		9.6		6			
					Bottom	10.2	0.4	332	25.2	25.2	8.0	8.0	23.1	24.2	56.9	57.0	4.1	4.1	11.2		6			
						10.2	0.4	337	25.2		8.0	8.0	25.3	24.2	57.1	57.0	4.1		11.0		6			
C3	Misty	Moderate	07:36	9.2	Surface	1.0	0.5	263	26.0	26.0	7.8	7.8	12.5	12.5	74.5	74.4	5.6	5.5	4.1	5.5	4	4	822106	817817
						1.0	0.5	268	26.0		7.8	7.8	12.6	12.5	74.3	74.4	5.6		4.2					
					Middle	4.6	0.5	252	25.4	25.4	7.8	7.8	21.0	21.0	72.6	72.5	5.3	4.8	5.6		4			
						4.6	0.5	246	25.3		7.8	7.8	21.0	21.0	72.4	72.5	5.3		5.7		4			
					Bottom	8.2	0.5	237	25.2	25.2	7.7	7.7	30.0	30.0	69.4	69.5	4.8	4.8	6.7		4			
						8.2	0.5	233	25.2		7.7	7.7	29.9	30.0	69.5	69.5	4.8		6.6		4			
IM1	Cloudy	Moderate	07:43	7.1	Surface	1.0	0.3	23	25.6	25.6	7.9	7.9	12.3	12.3	67.5	67.5	5.1	4.8	5.4	9.0	4	5	818358	806436
						1.0	0.3	24	25.6		7.9	7.9	12.3	12.3	67.4	67.5	5.1		5.6					
					Middle	3.6	0.3	7	25.2	25.2	8.0	8.0	19.1	19.1	59.8	59.8	4.4	3.9	7.1		5			
						3.6	0.3	13	25.1		8.0	8.0	19.1	19.1	59.8	59.8	4.4		7.2		5			
					Bottom	6.1	0.3	39	24.8	24.8	8.0	8.0	27.9	27.9	54.8	54.9	3.9	4.0	14.3		6			
						6.1	0.3	34	24.8		8.0	8.0	27.9	27.9	55.0	54.9	3.9		14.5		4			
IM2	Cloudy	Moderate	07:49	6.8	Surface	1.0	0.3	26	25.8	25.8	7.9	7.9	11.1	11.1	70.5	70.5	5.4	4.9	4.3	6.8	5	5	819184	806257
						1.0	0.4	29	25.8		7.9	7.9	11.1	11.1	70.4	70.5	5.4		4.5					
					Middle	3.4	0.3	28	25.3	25.3	7.9	7.9	20.0	20.0	60.3	60.4	4.4	4.0	7.7		4			
						3.4	0.3	26	25.2		7.9	7.9	20.0	20.0	60.4	60.4	4.4		7.7		5			
					Bottom	5.8	0.3	40	24.9	24.9	8.0	8.0	24.3	25.6	56.1	56.3	4.0	4.3	8.4		5			
						5.8	0.3	33	24.9		8.0	8.0	26.9	25.6	56.4	56.3	4.0		8.4		5			
IM7	Cloudy	Moderate	08:10	8.0	Surface	1.0	0.3	9	25.6	25.6	7.8	7.8	10.2	10.2	66.2	66.2	5.1	4.8	8.9	11.2	6	6	821336	806849
						1.0	0.3	15	25.6		7.8	7.8	10.2	10.2	66.2	66.2	5.1		8.9					
					Middle	4.0	0.3	347	25.5	25.5	7.9	7.9	15.6	15.6	58.8	58.8	4.4	4.3	12.5		6			
						4.0	0.2	353	25.5		7.9	7.9	15.6	15.6	58.8	58.8	4.4		12.5		6			
					Bottom	7.0	0.2	17	25.3	25.3	7.9	7.9	21.2	21.2	58.8	59.0	4.3	4.3	12.3		6			
						7.0	0.2	15	25.3		7.9	7.9	21.2	21.2	59.1	59.0	4.3		12.1		6			

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 16 June 22 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Misty	Moderate	08:47	8.8	Surface	1.0	0.3	299	26.2	26.2	7.3	7.3	7.7	7.7	73.5	73.4	5.7	5.6	7.2	8.3	5	5	822221	809838
						1.0	0.4	302	26.2		7.3	7.3	7.7	7.7	73.3	73.4	5.7		7.3					
					Middle	4.4	0.4	290	26.2	26.2	7.1	7.1	13.2	13.2	72.8	73.1	5.5	6.0	8.4	5				
						4.4	0.4	292	26.2		7.1	7.1	13.2	13.2	73.4	73.1	5.5		8.4					
					Bottom	7.8	0.4	288	26.2	26.2	6.8	6.8	14.8	14.7	79.4	80.0	5.9	5.7	9.1	6				
						7.8	0.3	285	26.2		6.7	6.8	14.7	14.7	80.5	80.0	6.0		9.1					
IM11	Misty	Moderate	08:39	8.0	Surface	1.0	0.4	263	26.2	26.2	7.6	7.6	9.6	9.6	69.9	69.8	5.4	5.2	4.6	5.4	4	5	821515	810540
						1.0	0.5	268	26.2		7.7	7.6	9.6	9.6	69.6	69.8	5.3		4.7					
					Middle	4.0	0.4	275	26.2	26.2	7.7	7.7	10.2	10.6	66.7	66.1	5.1	4.4	5.1	5				
						4.0	0.5	271	26.1		7.7	7.7	11.1	10.6	65.4	66.1	5.0		5.0					
					Bottom	7.0	0.4	296	26.1	26.1	7.5	7.5	16.2	16.2	59.7	59.5	4.4	5.7	6.5	5				
						7.0	0.4	291	26.0		7.5	7.5	16.1	16.2	59.2	59.5	4.4		6.5					
IM12	Misty	Moderate	08:32	8.8	Surface	1.0	0.5	280	26.1	26.1	7.6	7.6	10.4	10.4	76.6	76.6	5.9	5.5	6.1	7.2	5	5	821181	811517
						1.0	0.5	281	26.1		7.6	7.6	10.4	10.4	76.5	76.6	5.8		6.1					
					Middle	4.4	0.5	273	26.0	26.0	7.4	7.4	20.1	20.2	71.1	71.2	5.2	5.7	7.0	5				
						4.4	0.5	278	26.0		7.4	7.4	20.2	20.2	71.2	71.2	5.2		7.1					
					Bottom	7.8	0.5	270	25.9	25.9	7.1	7.0	20.6	20.6	76.6	77.5	5.6	5.7	8.4	5				
						7.8	0.5	271	25.9		7.0	7.0	20.5	20.6	78.3	77.5	5.7		8.5					
SR1A	Misty	Moderate	08:07	4.8	Surface	1.0	0.0	204	26.0	26.0	7.5	7.5	9.0	9.1	67.8	67.7	5.2	5.2	8.8	8.9	4	5	819971	812659
						1.0	0.0	207	26.0		7.5	7.5	9.1	9.1	67.5	67.7	5.2		8.7					
					Middle	2.4	-	205	-	-	-	-	-	-	-	-	-	5.0	-	4				
						2.4	0.0	207	-		-	-	-	-	-	-	-		-	-				
					Bottom	3.8	0.0	186	25.7	25.7	7.1	7.1	18.7	18.4	65.9	66.6	4.9	5.0	9.1	5				
						3.8	0.0	181	25.6		7.1	7.1	18.1	18.4	67.2	66.6	5.0		9.0					
SR2	Misty	Moderate	07:53	5.2	Surface	1.0	0.1	232	26.2	26.2	7.3	7.2	10.6	10.6	71.3	71.0	5.4	5.4	6.1	6.8	3	4	821439	814168
						1.0	0.1	225	26.1		7.2	7.2	10.6	10.6	70.6	71.0	5.4		6.3					
					Middle	-	0.1	225	-	-	-	-	-	-	-	-	-	4.9	-	4				
						-	0.1	227	-		-	-	-	-	-	-	-		-					
					Bottom	4.2	0.2	246	25.8	25.8	7.0	7.0	16.3	16.3	65.4	65.5	4.9	4.9	7.4	4				
						4.2	0.2	242	25.7		6.9	7.0	16.3	16.3	65.5	65.5	4.9		7.5					
SR3	Cloudy	Moderate	08:17	8.8	Surface	1.0	0.4	340	25.8	25.8	7.8	7.8	6.6	6.6	69.3	69.3	5.4	5.1	6.7	9.6	4	5	822126	807560
						1.0	0.3	342	25.8		7.8	7.8	6.6	6.6	69.3	69.3	5.4		6.8					
					Middle	4.4	0.4	354	25.8	25.8	7.8	7.8	13.0	13.0	62.2	62.2	4.7	4.8	8.3	4				
						4.4	0.4	354	25.8		7.8	7.8	13.0	13.0	62.2	62.2	4.7		8.4					
					Bottom	7.8	0.4	324	25.7	25.7	7.8	7.8	15.0	15.0	63.3	63.4	4.8	4.8	13.8	5				
						7.8	0.3	330	25.7		7.8	7.8	15.0	15.0	63.5	63.4	4.8		13.9					
SR4A	Cloudy	Moderate	07:11	9.3	Surface	1.0	0.0	227	25.6	25.6	7.8	7.8	9.7	9.7	69.1	69.1	5.3	4.7	6.3	9.8	4	4	817210	807812
						1.0	0.1	233	25.6		7.8	7.8	9.7	9.7	69.0	69.1	5.3		6.3					
					Middle	4.7	0.0	204	25.2	25.2	7.9	7.9	21.8	21.9	55.4	55.4	4.0	3.8	10.1	4				
						4.7	0.1	206	25.2		7.9	7.9	21.9	21.9	55.4	55.4	4.0		10.4					
					Bottom	8.3	0.0	239	25.0	25.0	7.9	7.9	24.9	24.9	53.2	53.2	3.8	4.4	12.6	4				
						8.3	0.0	231	25.0		7.9	7.9	24.9	24.9	53.2	53.2	3.8		12.9					
SR8	Misty	Moderate	08:27	5.0	Surface	1.0	-	-	26.1	26.1	7.6	7.6	11.2	11.0	61.9	61.6	4.7	4.7	8.6	8.9	4	4	820380	811607
						1.0	-	-	26.0		7.6	7.6	10.8	11.0	61.2	61.6	4.7		8.6					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	4.4	-	4				
						-	-	-	-		-	-	-	-	-	-	-		-					
					Bottom	4.0	-	-	25.9	25.9	7.4	7.4	15.5	15.4	59.4	59.0	4.4	4.4	9.1	4				
						4.0	-	-	25.8		7.4	7.4	15.3	15.4	58.5	59.0	4.4		9.2					

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

**Water Quality Monitoring Results on 18 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Misty	Calm	15:11	8.4	Surface	1.0	0.6	221	26.2	26.3	7.9	7.9	10.2	10.1	72.5	71.0	5.5	5.0	6.2	7.3	5	5	815608	804267
						1.0	0.7	216	26.3		7.9		10.0		69.5		5.3		6.5					
					Middle	4.2	0.6	201	24.9	7.9	7.9	25.3	25.3	64.2	64.5	4.6	7.4	5						
						4.2	0.7	196	24.8	7.9	25.3	64.7		4.6		7.5								
					Bottom	7.4	0.6	232	24.8	7.9	7.9	28.5	28.5	73.2	76.4	5.2	8.2	6						
						7.4	0.6	239	24.8	7.9	28.4	79.5		5.6		5.4	8.1	5						
C2	Misty	Calm	14:24	10.0	Surface	1.0	0.5	168	25.9	25.9	7.7	7.7	6.2	6.2	76.4	76.2	6.0	5.6	3.1	4.2	4	5	825702	806946
						1.0	0.5	162	25.9		7.7		6.2		76.0		6.0		3.1					
					Middle	5.0	0.4	185	25.7	7.7	7.7	9.8	9.8	67.6	67.6	5.2	4.1	5						
						5.0	0.5	191	25.7	7.8	9.9	67.5		5.2		4.2								
					Bottom	9.0	0.5	153	25.8	7.7	7.7	20.9	21.0	69.3	70.1	5.0	5.3	6						
						9.0	0.5	157	25.8	7.7	21.0	70.8		5.1		5.1	5.4	5						
C3	Cloudy	Moderate	15:31	11.2	Surface	1.0	0.5	62	26.5	26.5	8.2	8.2	11.0	11.0	80.1	80.1	6.1	5.3	7.6	10.3	5	4	822090	817795
						1.0	0.6	62	26.5		8.2		11.0		80.0		6.0		7.6					
					Middle	5.6	0.6	53	25.4	8.3	8.2	27.5	27.6	65.7	65.8	4.6	12.3	4						
						5.6	0.5	49	25.3	8.2	27.7	65.8		4.6		12.2								
					Bottom	10.2	0.5	47	25.3	8.2	8.2	28.3	28.4	65.7	65.7	4.6	11.1	4						
						10.2	0.6	45	25.3	8.2	28.4	65.7		4.6		4.6	11.1	4						
IM1	Misty	Calm	15:03	7.2	Surface	1.0	0.3	193	25.8	25.8	7.8	7.8	15.3	14.9	66.7	66.1	5.0	4.8	5.0	6.5	5	5	818366	806472
						1.0	0.3	197	25.8		7.9		14.5		65.5		5.0		5.0					
					Middle	3.6	0.3	193	24.9	7.9	7.9	25.2	25.3	64.0	64.9	4.6	6.7	5						
						3.6	0.3	193	24.9	7.9	25.4	65.7		4.7		6.7								
					Bottom	6.2	0.3	212	24.9	7.9	7.9	28.7	28.5	74.5	77.0	5.2	7.8	4						
						6.2	0.3	212	25.1	7.9	28.3	79.4		5.6		5.4	7.8	4						
IM2	Misty	Calm	14:59	7.0	Surface	1.0	0.3	198	25.1	25.1	7.9	7.9	18.6	18.5	62.7	62.5	4.7	4.6	7.2	8.2	3	4	819193	806245
						1.0	0.3	192	25.1		7.9		18.4		62.3		4.6		7.2					
					Middle	3.5	0.3	173	24.9	7.9	7.9	26.7	26.8	62.0	64.0	4.4	8.4	5						
						3.5	0.2	176	24.9	7.9	26.8	65.9		4.7		8.3								
					Bottom	6.0	0.3	198	24.9	7.9	7.9	27.2	27.0	71.3	73.3	5.1	9.1	5						
						6.0	0.3	197	24.9	7.9	26.9	75.2		5.4		5.3	9.1	5						
IM7	Misty	Calm	14:43	7.4	Surface	1.0	0.3	148	25.9	25.9	7.7	7.7	8.2	8.2	72.9	72.9	5.7	5.7	6.2	7.2	5	4	821361	806840
						1.0	0.3	143	25.9		7.7		8.2		72.8		5.7		6.3					
					Middle	3.7	0.3	158	25.7	7.8	7.8	8.4	8.4	72.3	72.4	5.6	7.3	4						
						3.7	0.2	164	25.7	7.8	8.4	72.5		5.6		7.2								
					Bottom	6.4	0.3	170	25.6	7.7	7.7	16.7	16.4	76.6	78.0	5.7	8.0	3						
						6.4	0.4	163	25.7	7.7	16.2	79.3		5.9		5.8	8.1	3						

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**Water Quality Monitoring**

**Water Quality Monitoring Results on 18 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Cloudy	Moderate	14:21	7.2	Surface	1.0	0.6	89	26.5	26.5	8.0	8.0	7.2	7.2	79.6	79.6	6.2	5.8	7.3	8.7	4	3	822218	809832
						1.0	0.6	93	26.4		8.1	8.0	7.2	7.2	79.6	79.6	6.2		7.3					
					Middle	3.6	0.5	106	26.3	26.3	8.1	8.1	10.7	10.7	70.0	70.0	5.3	4.5	6.3	4	3			
						3.6	0.6	111	26.3		8.1	8.0	10.7	10.7	69.9	70.0	5.3		6.5					
					Bottom	6.2	0.6	107	25.8	25.8	8.0	8.0	19.1	19.1	61.9	62.0	4.5	4.5	12.6	3	3			
						6.2	0.6	104	25.8		8.0	8.0	19.1	19.1	62.0	62.0	4.5		12.1					
IM11	Cloudy	Moderate	14:28	8.1	Surface	1.0	0.7	92	26.6	26.6	8.1	8.1	7.0	7.0	79.8	79.8	6.2	5.5	9.1	10.1	3	3	821516	810539
						1.0	0.7	93	26.6		8.1	8.0	7.0	7.0	79.8	79.8	6.2		9.1					
					Middle	4.1	0.7	87	26.0	26.0	8.0	8.0	14.5	14.5	63.7	63.7	4.8	4.6	9.3	3	2			
						4.1	0.7	84	26.0		8.0	8.0	14.5	14.5	63.6	63.7	4.8		9.5					
					Bottom	7.1	0.7	110	25.9	25.9	8.0	8.0	16.7	16.7	62.6	62.7	4.6	4.6	11.7	3	3			
						7.1	0.8	113	25.9		8.0	8.0	16.7	16.7	62.8	62.7	4.6		11.9					
IM12	Cloudy	Moderate	14:33	8.8	Surface	1.0	0.8	111	26.6	26.6	8.0	8.0	8.0	8.0	78.4	78.4	6.0	5.7	7.6	10.2	4	3	821185	811531
						1.0	0.8	116	26.5		8.0	8.0	8.0	8.0	78.4	78.4	6.0		7.6					
					Middle	4.4	0.8	85	26.1	26.1	8.0	8.0	10.6	10.6	69.0	69.0	5.3	4.7	9.3	3	3			
						4.4	0.8	86	26.1		8.0	8.0	10.6	10.6	68.9	69.0	5.3		9.4					
					Bottom	7.8	0.8	114	26.0	26.0	7.9	7.9	15.9	15.9	63.3	63.3	4.7	4.7	13.2	3	3			
						7.8	0.8	114	26.0		7.9	7.9	15.9	15.9	63.3	63.3	4.7		13.9					
SR1A	Cloudy	Moderate	15:00	5.5	Surface	1.0	0.0	89	26.5	26.5	8.0	8.0	9.0	9.0	77.0	77.0	5.9	5.9	7.7	8.2	3	3	819976	812654
						1.0	0.0	95	26.5		8.0	8.0	9.0	9.0	77.0	77.0	5.9		7.7					
					Middle	2.8	0.0	93	-	-	-	-	-	-	-	-	-	5.6	-	3	-			
						2.8	0.1	86	-		-	-	-	-	-	-	-		-					
					Bottom	4.5	0.0	75	26.4	26.4	7.9	7.9	9.9	9.9	73.0	73.0	5.6	5.6	8.6	3	3			
						4.5	0.0	68	26.4		7.9	7.9	9.9	9.9	73.0	73.0	5.6		8.6					
SR2	Cloudy	Moderate	15:15	4.5	Surface	1.0	0.7	50	26.6	26.6	8.0	8.0	8.1	7.8	80.7	80.7	6.2	6.2	7.7	7.6	2	3	821443	814185
						1.0	0.7	47	26.6		8.0	8.0	7.5	7.8	80.7	80.7	6.2		7.8					
					Middle	-	0.7	56	-	-	-	-	-	-	-	-	-	5.1	-	4	-			
						-	0.7	53	-		-	-	-	-	-	-	-		-					
					Bottom	3.5	0.7	61	26.3	26.3	7.9	7.9	14.7	14.6	67.9	68.5	5.1	5.1	7.5	3	3			
						3.5	0.7	58	26.3		7.9	7.9	14.5	14.6	69.1	68.5	5.1		7.6					
SR3	Misty	Calm	14:38	8.6	Surface	1.0	0.5	163	25.9	25.9	7.7	7.7	7.9	7.9	73.9	73.9	5.8	5.5	6.6	7.2	3	4	822149	807570
						1.0	0.5	160	25.9		7.7	7.7	7.9	7.9	73.8	73.9	5.7		6.5					
					Middle	4.3	0.6	146	25.6	25.6	7.7	7.7	11.6	11.6	67.6	67.7	5.2	4.9	7.1	4	4			
						4.3	0.5	140	25.6		7.8	7.7	11.7	11.6	67.8	67.7	5.2		7.1					
					Bottom	7.6	0.5	145	25.6	25.6	7.7	7.7	15.7	15.6	75.6	78.2	5.7	5.9	8.0	4	4			
						7.6	0.6	149	25.6		7.7	7.7	15.5	15.6	80.8	78.2	6.1		8.1					
SR4A	Misty	Calm	15:24	9.0	Surface	1.0	0.0	75	25.0	25.0	7.9	7.9	12.3	12.5	64.4	62.4	5.0	4.6	7.3	8.3	4	4	817178	807801
						1.0	0.0	77	25.0		7.9	7.9	12.6	12.5	60.4	62.4	4.6		7.2					
					Middle	4.5	0.1	67	24.9	24.9	7.9	7.9	27.3	27.3	61.2	61.7	4.3	4.9	8.6	4	4			
						4.5	0.1	61	24.9		7.9	7.9	27.4	27.3	62.2	61.7	4.4		8.7					
					Bottom	8.0	0.0	57	24.9	24.9	7.9	7.9	27.5	27.4	68.5	68.9	4.9	4.9	9.1	4	4			
						8.0	0.0	56	24.9		7.9	7.9	27.4	27.4	69.2	68.9	4.9		9.1					
SR8	Cloudy	Moderate	14:38	5.1	Surface	1.0	-	-	26.9	26.9	8.2	8.2	10.1	10.1	78.0	78.0	5.9	5.9	7.8	9.7	3	4	820402	811611
						1.0	-	-	26.8		8.2	8.2	10.1	10.1	78.0	78.0	5.9		7.9					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	5.4	-	4	-			
						-	-	-	-		-	-	-	-	-	-	-		-					
					Bottom	4.1	-	-	26.5	26.6	8.5	8.5	11.7	11.7	71.1	71.1	5.4	5.4	11.4	4	4			
						4.1	-	-	26.6		8.5	8.5	11.7	11.7	71.1	71.1	5.4		11.6					

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 18 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Misty	Calm	09:27	7.0	Surface	1.0	0.5	19	25.2	25.2	7.8	7.8	7.7	7.7	70.1	69.5	5.5	5.1	4.8	6.3	3	4	815602	804267
						1.0	0.5	15	25.2		7.9	7.7	68.8	5.4	4.7									
					Middle	3.5	0.5	32	25.2	25.2	7.9	7.9	19.2	19.2	63.5	63.6	4.7	4.8	6.6					
						3.5	0.4	33	25.2		7.9	7.7	19.3	19.2	63.6	63.6	4.7		6.6					
					Bottom	6.0	0.4	46	25.4	25.4	7.8	7.8	27.5	27.4	66.4	67.4	4.7	4.8	7.7					
						6.0	0.4	45	25.4		7.8	7.8	27.4	27.4	68.3	67.4	4.8		7.6					
C2	Misty	Calm	10:15	9.8	Surface	1.0	0.6	353	25.9	25.9	7.7	7.7	6.2	6.1	71.4	71.4	5.6	5.6	2.1	3.4	4	4	825661	806929
						1.0	0.6	359	25.9		7.7	7.7	6.1	6.1	71.4	71.4	5.6		2.2					
					Middle	4.9	0.5	341	25.9	25.9	7.7	7.7	9.4	9.5	72.0	72.1	5.6	6.1	3.4					
						4.9	0.6	341	25.9		7.7	7.7	9.6	9.5	72.1	72.1	5.6		3.5					
					Bottom	8.8	0.5	14	25.9	25.9	7.6	7.6	11.6	11.5	79.3	80.1	6.0	6.1	4.7					
						8.8	0.5	6	25.9		7.6	7.6	11.4	11.5	80.9	80.1	6.2		4.6					
C3	Cloudy	Moderate	08:41	11.2	Surface	1.0	0.5	263	26.2	26.2	8.0	8.0	6.4	6.4	77.6	77.5	6.1	5.8	8.6	10.5	5	5	822098	817811
						1.0	0.5	264	26.2		8.0	8.0	6.4	6.4	77.3	77.5	6.0		8.6					
					Middle	5.6	0.6	258	26.0	26.0	8.0	8.0	9.9	9.9	72.9	72.9	5.6	4.9	10.8					
						5.6	0.5	258	26.0		8.0	8.0	9.9	9.9	72.8	72.9	5.6		11.1					
					Bottom	10.2	0.6	253	25.9	25.9	8.0	8.0	18.7	18.7	66.7	66.8	4.9	4.9	12.1					
						10.2	0.6	258	25.9		8.0	8.0	18.7	18.7	66.8	66.8	4.9		11.9					
IM1	Misty	Calm	09:34	6.4	Surface	1.0	0.3	17	25.6	25.6	7.6	7.6	6.5	6.5	71.2	71.2	5.6	5.5	5.5	6.2	3	4	818338	806455
						1.0	0.3	19	25.6		7.6	7.6	6.5	6.5	71.1	71.2	5.6		5.6					
					Middle	3.2	0.3	28	25.6	25.6	7.8	7.8	13.5	13.8	71.2	71.5	5.4	5.6	6.1					
						3.2	0.3	25	25.6		7.8	7.8	14.0	13.8	71.7	71.5	5.4		6.2					
					Bottom	5.4	0.3	15	25.9	26.0	7.8	7.8	18.1	18.0	75.7	76.2	5.6	5.6	7.1					
						5.4	0.3	17	26.0		7.8	7.8	18.0	18.0	76.7	76.2	5.6		7.0					
IM2	Misty	Calm	09:38	7.2	Surface	1.0	0.4	11	25.6	25.6	7.7	7.7	6.5	6.5	71.3	71.4	5.6	5.6	6.2	7.2	4	4	819182	806230
						1.0	0.4	15	25.6		7.8	7.8	6.5	6.5	71.4	71.4	5.6		6.3					
					Middle	3.6	0.4	32	25.6	25.6	7.8	7.8	13.2	13.1	72.1	72.2	5.5	5.8	7.0					
						3.6	0.4	35	25.6		7.8	7.8	13.0	13.1	72.3	72.2	5.5		7.0					
					Bottom	6.2	0.3	30	26.1	26.2	7.7	7.7	15.2	15.1	76.2	76.9	5.7	5.8	8.2					
						6.2	0.3	26	26.2		7.7	7.7	15.0	15.1	77.5	76.9	5.8		8.3					
IM7	Misty	Calm	09:59	8.2	Surface	1.0	0.2	0	25.7	25.7	7.6	7.6	4.9	4.9	72.6	72.5	5.8	5.8	4.1	5.2	5	4	821364	806818
						1.0	0.2	357	25.7		7.6	7.6	4.9	4.9	72.4	72.5	5.7		4.1					
					Middle	4.1	0.2	353	25.9	26.0	7.6	7.6	7.6	7.7	75.7	76.0	5.9	6.2	5.4					
						4.1	0.2	0	26.0		7.6	7.6	7.7	7.7	76.3	76.0	5.9		5.4					
					Bottom	7.2	0.3	1	26.1	26.2	7.6	7.6	9.8	9.7	79.5	80.1	6.1	6.2	6.1					
						7.2	0.2	358	26.2		7.6	7.6	9.7	9.7	80.7	80.1	6.2		6.1					

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 18 June 22 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Cloudy	Moderate	10:08	7.6	Surface	1.0	0.5	279	26.2	26.2	8.0	8.0	6.7	6.6	74.7	74.7	5.8	5.8	7.6	10.7	4	4	822254	809817
						1.0	0.4	272	26.2		8.0		6.6		74.7		5.8		7.5					
					Middle	3.8	0.5	295	26.2	26.2	8.0	8.0	8.7	8.7	73.8	73.8	5.7	5.7	10.5	4	4			
						3.8	0.4	301	26.1		8.0		8.7		73.5		5.7		10.8					
					Bottom	6.6	0.5	305	26.1	26.1	7.9	7.9	15.8	15.8	66.2	66.2	4.9	4.9	14.0	4	4			
						6.6	0.5	304	26.1		7.9		15.8		66.2		4.9		14.0					
IM11	Cloudy	Moderate	10:02	7.9	Surface	1.0	0.5	289	26.2	26.2	8.0	8.0	7.4	7.4	76.5	76.5	5.9	5.9	7.6	7.7	4	3	821521	810548
						1.0	0.5	296	26.2		8.0		7.4		76.5		5.9		7.6					
					Middle	4.0	0.5	285	26.3	26.3	8.0	8.0	8.0	8.0	76.4	76.4	5.9	5.9	7.6	2	2			
						4.0	0.5	279	26.2		8.0		8.0		76.3		5.9		7.6					
					Bottom	6.9	0.5	261	26.2	26.2	8.0	8.0	13.7	13.6	70.2	70.2	5.3	5.3	7.8	2	2			
						6.9	0.5	265	26.2		8.0		13.6		70.2		5.3		7.9		3			
IM12	Cloudy	Moderate	09:56	7.9	Surface	1.0	0.5	266	26.3	26.3	8.1	8.1	8.0	8.0	77.8	77.8	6.0	5.8	7.5	7.3	3	4	821146	811528
						1.0	0.5	273	26.3		8.1		8.0		77.8		6.0		7.5					
					Middle	4.0	0.5	268	26.2	26.2	8.1	8.1	10.7	10.7	72.1	72.1	5.5	5.5	7.4	4	4			
						4.0	0.5	266	26.2		8.1		10.7		72.0		5.5		7.4					
					Bottom	6.9	0.5	258	25.9	25.9	8.1	8.1	19.0	19.0	65.0	65.0	4.7	4.7	7.1	4	4			
						6.9	0.4	257	25.9		8.1		19.0		65.0		4.7		7.1		4			
SR1A	Cloudy	Moderate	09:24	5.8	Surface	1.0	0.0	187	26.3	26.3	8.0	8.0	6.5	6.5	75.5	75.4	5.9	5.9	10.5	10.9	4	4	819980	812665
						1.0	0.0	182	26.3		8.0		6.5		75.2		5.9		10.7					
					Middle	2.9	-	206	-	-	-	-	-	-	-	-	-	-	-	-	-			
						2.9	0.0	212	-		-		-		-		-		-					
					Bottom	4.8	-	177	26.4	26.4	7.9	7.9	8.3	8.3	72.0	71.9	5.5	5.5	11.2	5.5	4			
						4.8	0.0	177	26.4		7.9		8.3		71.7		5.5		11.1		3			
SR2	Cloudy	Moderate	09:06	4.7	Surface	1.0	0.2	252	26.2	26.2	8.0	8.0	6.5	6.5	76.8	76.8	6.0	6.0	8.9	9.6	3	4	821449	814157
						1.0	0.2	259	26.1		8.0		6.5		76.7		6.0		9.0					
					Middle	-	0.2	258	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	0.2	250	-		-		-		-		-		-					
					Bottom	3.7	0.1	269	26.0	26.0	8.0	8.0	16.6	16.6	68.9	68.9	5.1	5.1	10.2	5.1	4			
						3.7	0.1	262	26.0		8.0		16.6		68.9		5.1		10.2		4			
SR3	Misty	Calm	10:04	7.4	Surface	1.0	0.3	341	25.7	25.7	7.7	7.7	4.8	4.8	70.1	70.0	5.6	5.5	3.6	4.5	4	3	822123	807585
						1.0	0.3	335	25.7		7.7		4.8		69.8		5.5		3.5					
					Middle	3.7	0.3	345	25.9	25.9	7.6	7.6	8.8	8.8	69.4	69.5	5.4	5.4	4.2	5.5	3			
						3.7	0.3	344	25.9		7.6		8.8		69.5		5.4		4.2					
					Bottom	6.4	0.3	318	26.0	26.0	7.6	7.6	12.0	11.9	76.5	77.2	5.8	5.9	5.7	5.9	3			
						6.4	0.3	312	26.0		7.6		11.9		77.9		5.9		5.8		2			
SR4A	Misty	Calm	09:07	9.2	Surface	1.0	0.0	199	25.2	25.2	7.8	7.8	7.7	7.7	72.5	71.9	5.7	5.3	6.5	7.3	4	4	817196	807814
						1.0	0.1	194	25.1		7.8		7.7		71.3		5.6		6.6					
					Middle	4.6	0.0	194	25.1	25.1	7.9	7.9	19.5	19.5	66.6	66.6	4.9	4.9	7.2	5.0	4			
						4.6	0.0	200	25.1		7.9		19.5		66.6		4.9		7.2		5			
					Bottom	8.2	0.0	186	25.5	25.6	7.8	7.8	27.3	27.2	69.7	70.9	4.9	5.0	8.0	5.0	4			
						8.2	0.0	178	25.6		7.8		27.2		72.1		5.1		8.0		5			
SR8	Cloudy	Moderate	09:48	5.5	Surface	1.0	-	-	26.2	26.2	8.0	8.0	7.6	7.6	71.8	71.8	5.6	5.6	8.5	9.6	4	4	820379	811619
						1.0	-	-	26.2		8.0		7.6		71.8		5.6		8.6					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-		-		-		-		-		-					
					Bottom	4.5	-	-	26.1	26.1	8.0	8.0	10.1	10.1	66.2	66.2	5.1	5.1	10.7	5.1	4			
						4.5	-	-	26.1		8.0		10.1		66.1		5.1		10.7		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 21 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
C1	Cloudy	Moderate	06:32	7.8	Surface	1.0	0.2	197	25.5	25.5	7.9	7.9	6.2	6.2	83.5	83.4	6.6	6.4	8.6	8.0	6	7	815617	804252				
						1.0	0.3	203	25.5		7.9		6.2		83.3		6.6		8.5		6							
					Middle	3.9	0.2	196	25.6	25.6	7.9	7.9	7.8	7.8	77.5	77.5	6.1	5.3	5.9	5.3	7	7			7	7		
						3.9	0.2	196	25.6		7.9		7.8		77.4		6.1		5.9		8							
					Bottom	6.8	0.2	185	25.4	25.4	7.9	7.9	13.8	13.9	69.4	69.5	5.3	5.3	9.4	5.3	9.4	5.3			7	7	7	7
						6.8	0.2	191	25.4		7.9		14.1		69.5		5.3		9.6		8				8			
C2	Cloudy	Moderate	07:48	10.4	Surface	1.0	0.4	178	25.2	25.2	7.9	7.9	1.9	1.9	77.8	77.7	6.3	5.4	7.5	7.8	7	7	825681	806924				
						1.0	0.4	178	25.2		7.9		1.9		77.6		6.3		7.3		7							
					Middle	5.2	0.4	175	25.2	25.2	8.0	8.0	20.5	20.5	60.8	60.9	4.5	4.6	5.1	4.6	5.3	4.6			6	6	6	6
						5.2	0.4	178	25.2		8.0		20.4		60.9		4.5		5.3		6							
					Bottom	9.4	0.4	193	25.2	25.2	8.0	8.0	23.8	23.8	64.0	64.1	4.6	4.6	11.0	4.6	11.0	4.6			6	6	6	6
						9.4	0.4	191	25.2		8.0		23.8		64.2		4.6		10.6		6				6			
C3	Misty	Moderate	07:55	9.0	Surface	1.0	0.0	3	26.0	26.0	7.5	7.5	8.7	8.7	77.8	77.8	6.0	6.0	7.1	8.2	9	8	822102	817802				
						1.0	0.0	357	26.0		7.5		8.6		77.8		6.0		7.2		8							
					Middle	4.5	0.1	2	26.0	26.0	7.4	7.4	9.1	9.2	77.7	77.8	6.0	6.2	8.1	6.2	8.2	6.2			8	8	8	8
						4.5	0.1	5	26.0		7.4		9.2		77.8		6.0		8.2		8							
					Bottom	8.0	0.1	38	26.6	26.7	7.4	7.4	10.9	10.9	80.9	81.4	6.1	6.2	9.4	6.2	9.4	6.2			7	7	7	7
						8.0	0.0	39	26.7		7.4		10.9		81.9		6.2		9.5		7				7			
IM1	Cloudy	Moderate	06:49	6.6	Surface	1.0	0.1	199	25.8	25.8	7.9	7.9	8.6	8.6	79.0	79.0	6.1	6.1	5.8	7.3	6	5	818331	806474				
						1.0	0.2	191	25.7		7.9		8.6		78.9		6.1		5.7		6							
					Middle	3.3	0.2	200	25.7	25.7	7.9	7.9	10.4	10.4	77.8	77.5	6.0	4.1	5.4	4.1	5.7	4.1			5	5	5	5
						3.3	0.2	204	25.7		7.9		10.4		77.2		6.0		5.7		6							
					Bottom	5.6	0.1	192	24.9	24.9	8.0	8.0	27.0	27.0	57.3	57.4	4.1	4.1	10.5	4.1	10.5	4.1			4	4	4	4
						5.6	0.2	187	24.9		8.0		27.0		57.5		4.1		10.6		4				4			
IM2	Cloudy	Moderate	06:58	6.8	Surface	1.0	0.2	192	25.7	25.7	7.9	7.9	9.1	9.1	78.1	78.0	6.1	5.7	5.2	5.8	4	4	819178	806254				
						1.0	0.2	190	25.7		7.9		9.1		77.9		6.0		5.2		4							
					Middle	3.4	0.2	187	25.4	25.4	7.9	7.9	13.5	13.7	70.4	70.3	5.3	4.4	5.7	4.4	5.6	4.4			4	4	4	4
						3.4	0.2	190	25.4		7.9		13.9		70.2		5.3		5.6		4							
					Bottom	5.8	0.2	194	24.8	24.8	8.0	8.0	27.6	27.7	61.4	61.6	4.3	4.4	6.2	4.4	6.2	4.4			5	5	5	5
						5.8	0.2	199	24.8		8.0		27.7		61.7		4.4		6.6		5				5			
IM7	Cloudy	Moderate	07:24	7.8	Surface	1.0	0.2	189	25.5	25.5	7.8	7.8	5.6	5.5	76.6	76.6	6.1	5.8	8.0	7.1	6	6	821347	806849				
						1.0	0.2	188	25.5		7.8		5.5		76.6		6.1		7.7		6							
					Middle	3.9	0.2	196	25.5	25.5	7.8	7.8	8.6	8.6	69.2	69.1	5.4	4.5	5.9	4.5	6.1	4.5			6	6	6	6
						3.9	0.2	189	25.4		7.8		8.6		68.9		5.4		6.1		7							
					Bottom	6.8	0.2	224	25.3	25.3	7.9	7.9	19.5	19.5	60.7	60.8	4.5	4.5	7.4	4.5	7.4	4.5			6	6	6	6
						6.8	0.2	218	25.3		7.9		19.6		60.9		4.5		7.5		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 21 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)					
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA							
IM10	Misty	Moderate	08:59	8.6	Surface	1.0	0.1	160	<u>25.8</u>	25.8	7.7	7.7	5.8	5.8	81.2	80.6	6.4	6.0	7.4	8.4	7	7	822228	809830					
						1.0	0.2	157	25.8		7.7	7.7	5.8	5.8	79.9	80.6	6.3		7.5										
					Middle	4.3	0.1	158	25.8	25.8	7.6	7.6	10.3	10.3	74.3	74.1	5.7	8.6											
						4.3	0.1	161	25.8		7.6	7.6	10.3	10.3	73.9	74.1	5.7	8.8											
					Bottom	7.6	0.1	153	25.8	25.8	7.5	7.5	17.3	16.9	78.3	80.2	5.8	9.1											
						7.6	0.1	146	25.8		7.5	7.5	16.5	16.9	82.0	80.2	6.1	9.0											
IM11	Misty	Moderate	08:53	8.2	Surface	1.0	0.1	81	26.0	26.0	7.7	7.7	8.2	8.2	81.8	81.6	6.3	5.9	6.4	7.6	4	5	821518	810567					
						1.0	0.1	77	26.0		7.7	7.7	8.2	8.2	81.3	81.6	6.3		6.5										
					Middle	4.1	0.1	91	26.2	26.3	7.7	7.7	11.1	11.1	72.2	72.1	5.5	7.7											
						4.1	0.2	96	26.3		7.8	7.7	11.1	11.1	72.0	72.1	5.4	7.7											
					Bottom	7.2	0.1	100	26.8	26.9	7.6	7.5	20.6	20.3	78.4	81.9	5.6	8.6											
						7.2	0.1	104	26.9		7.5	7.5	20.1	20.3	85.4	81.9	6.2	8.5											
IM12	Misty	Moderate	08:47	8.4	Surface	1.0	0.1	66	26.0	26.0	7.7	7.7	8.3	8.3	80.9	80.2	6.3	5.8	7.0	7.4	5	5	821166	811534					
						1.0	0.1	71	26.0		7.7	7.7	8.2	8.3	79.5	80.2	6.2		7.1										
					Middle	4.2	0.1	71	25.7	25.7	7.7	7.7	15.9	15.9	72.7	72.7	5.4	7.1											
						4.2	0.1	64	25.7		7.7	7.7	15.9	15.9	72.7	72.7	5.4	7.1											
					Bottom	7.4	0.1	74	25.7	25.7	7.6	7.6	22.3	22.2	78.1	79.4	5.6	8.1											
						7.4	0.1	74	25.7		7.5	7.6	22.0	22.2	80.7	79.4	5.8	8.0											
SR1A	Misty	Moderate	08:25	4.6	Surface	1.0	0.1	164	26.5	26.5	7.7	7.7	6.1	6.1	88.1	88.0	6.8	6.8	7.3	8.1	5	5	819980	812657					
						1.0	0.1	164	26.5		7.7	7.7	6.1	6.1	87.9	88.0	6.8		7.3										
					Middle	2.3	0.1	156	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
						2.3	0.1	159	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
					Bottom	3.6	0.0	179	26.9	26.9	7.6	7.6	9.5	9.4	90.5	91.7	6.9	8.9											
						3.6	0.0	177	26.9		7.6	7.6	9.3	9.4	92.8	91.7	7.1	8.9											
SR2	Misty	Moderate	08:11	5.4	Surface	1.0	0.2	48	26.0	26.0	7.5	7.5	8.3	8.3	77.2	77.2	6.0	6.0	6.4	7.1	7	6	821454	814166					
						1.0	0.2	42	26.0		7.5	7.5	8.4	8.3	77.2	77.2	6.0		6.5										
					Middle	-	0.2	37	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
						-	0.2	36	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	-
					Bottom	4.4	0.3	59	26.0	26.0	7.5	7.5	11.1	11.0	77.5	77.5	5.9	7.7											
						4.4	0.2	65	26.0		7.5	7.5	11.0	11.0	77.5	77.5	5.9	7.8											
SR3	Cloudy	Moderate	07:31	8.5	Surface	1.0	0.4	167	25.7	25.7	7.8	7.8	4.7	4.7	79.0	79.0	6.3	6.0	9.4	7.1	6	7	822139	807592					
						1.0	0.4	169	25.7		7.8	7.8	4.7	4.7	78.9	79.0	6.3		9.2										
					Middle	4.3	0.4	152	25.7	25.7	7.8	7.8	8.5	8.4	73.2	73.1	5.7	7.1											
						4.3	0.4	159	25.6		7.8	7.8	8.4	8.4	73.0	73.1	5.7	6.9											
					Bottom	7.5	0.4	162	25.4	25.4	7.9	7.9	18.8	18.8	64.2	64.2	4.7	5.0											
						7.5	0.4	154	25.4		7.9	7.9	18.8	18.8	64.2	64.2	4.7	5.0											
SR4A	Cloudy	Moderate	06:11	9.2	Surface	1.0	0.0	85	25.6	25.6	7.8	7.8	9.4	9.4	73.8	73.7	5.7	5.1	5.3	9.3	4	4	817183	807790					
						1.0	0.0	80	25.6		7.8	7.8	9.4	9.4	73.5	73.7	5.7		5.4										
					Middle	4.6	0.0	99	25.3	25.3	7.8	7.8	17.2	17.3	59.7	59.6	4.5	6.5											
						4.6	0.0	96	25.3		7.8	7.8	17.3	17.3	59.5	59.6	4.4	6.5											
					Bottom	8.2	0.1	75	24.9	24.9	7.9	7.9	27.5	27.5	52.2	52.2	3.7	16.1											
						8.2	0.1	68	24.9		7.9	7.9	27.5	27.5	52.2	52.2	3.7	16.0											
SR8	Misty	Moderate	08:43	5.6	Surface	1.0	-	-	26.4	26.5	7.7	7.7	7.2	7.2	83.6	83.5	6.5	6.5	8.5	8.8	5	5	820393	811640					
						1.0	-	-	26.5		7.7	7.7	7.2	7.2	83.4	83.5	6.4		8.5										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	
						-	-	-	-		-	-	-	-	-	-	-	-	-	-	-				-	-	-	-	
					Bottom	4.6	-	-	26.8	26.9	7.6	7.6	13.0	12.6	87.2	88.1	6.5	9.1											
						4.6	-	-	26.9		7.6	7.6	12.3	12.6	88.9	88.1	6.7	9.0											

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 21 June 22 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)									
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA											
C1	Cloudy	Moderate	12:12	8.4	Surface	1.0	0.2	26	25.6	25.6	7.9	7.9	5.8	5.8	81.2	81.1	6.4	5.9	11.0	9.6	9	9	815604	804250									
						1.0	0.3	24	25.6		7.9	7.9	5.8	5.8	80.9	81.1	6.4		11.3														
					Middle	4.2	0.2	19	25.4	25.4	7.9	7.9	10.9	11.0	70.1	70.0	5.4	3.9	7.2	9	9												
						4.2	0.2	23	25.3		7.9	7.9	11.0		69.8	70.0	5.4		7.7														
					Bottom	7.4	0.2	48	24.8	24.8	8.0	8.0	28.9	28.9	55.6	55.7	3.9	4.4	10.3	4	9												
						7.4	0.2	42	24.8		8.0	8.0	28.9		55.7	55.7	3.9		10.2		10												
					C2	Cloudy	Moderate	10:52	11.2	Surface	1.0	0.1	327	25.2	25.2	7.9	7.9	1.9	1.9	74.9	74.8				6.1	5.2	13.1	10.0	4	4	825678	806958	
											1.0	0.2	321	25.2		7.9	7.9	1.9	1.9	74.6	74.8				6.1		13.4						
Middle	5.6	0.1	323	25.2						25.2	7.9	7.9	20.8	20.8	58.4	58.4	4.3	4.4	3.3	4	4												
	5.6	0.0	320	25.2							7.9	7.9	20.8		58.4	58.4	4.3		3.4		4												
Bottom	10.2	0.1	339	25.1						25.2	7.9	7.9	23.8	23.8	60.3	60.5	4.3	4.4	13.4	4	4												
	10.2	0.1	338	25.2							7.9	7.9	23.8		60.6	60.5	4.4		13.4		5												
C3	Misty	Moderate	12:13	9.0						Surface	1.0	0.4	269	26.2	26.2	7.9	7.9	7.4	7.4	91.9	91.8	7.1	7.1	4.1	5.5	8	7		822132				817820
											1.0	0.3	264	26.1		7.9	7.9	7.4	7.4	91.6	91.8	7.1		4.1									
					Middle	4.5	0.4	270	26.1	26.1	7.9	7.9	9.2	9.3	91.5	91.8	7.0	7.1	5.3	6	6												
						4.5	0.4	269	26.1		7.9	7.9	9.4		92.1	91.8	7.1		5.4		7												
					Bottom	8.0	0.4	278	26.1	26.1	7.8	7.8	17.6	17.3	94.5	95.3	7.0	7.1	7.0	5	5												
						8.0	0.4	279	26.1		7.8	7.8	16.9		96.0	95.3	7.1		6.9		6												
					IM1	Cloudy	Moderate	11:50	6.7	Surface	1.0	0.2	22	25.6	25.6	7.9	7.9	6.5	6.5	83.4	83.4	6.6	6.6	7.2		8.3		8		7	818344	806461	
											1.0	0.2	16	25.6		7.9	7.9	6.5	6.5	83.4	83.4	6.6		7.2									
Middle	3.4	0.2	9	25.8						25.8	7.9	7.9	8.0	8.0	83.3	83.1	6.5	6.5	8.0	7	8												
	3.4	0.2	11	25.8							7.9	7.9	8.0		82.9	83.1	6.5		8.0		7												
Bottom	5.7	0.2	356	25.5						25.5	8.0	8.0	10.9	10.9	78.0	77.8	6.0	6.0	10.0	7	7												
	5.7	0.1	353	25.5							8.0	8.0	11.0		77.5	77.8	6.0		9.5		7												
IM2	Cloudy	Moderate	11:42	7.2						Surface	1.0	0.2	318	25.7	25.7	7.9	7.9	5.9	5.9	86.4	86.4	6.8	6.7	8.5	8.6		8	8	819176				806235
											1.0	0.1	316	25.7		7.9	7.9	5.9	5.9	86.3	86.4	6.8		8.5									
					Middle	3.6	0.1	319	25.7	25.7	7.9	7.9	7.1	7.1	82.6	82.5	6.5	6.5	8.0	8	8												
						3.6	0.1	325	25.7		7.9	7.9	7.2		82.4	82.5	6.5		8.1		8												
					Bottom	6.2	0.1	342	25.0	25.0	8.0	8.0	18.8	19.8	59.5	58.9	4.4	4.3	9.2	8	8												
						6.2	0.1	339	25.0		8.0	8.0	20.9		58.3	58.9	4.2		9.5		8												
					IM7	Cloudy	Moderate	11:14	8.1	Surface	1.0	0.2	274	25.7	25.7	7.8	7.8	5.0	5.0	79.8	79.7	6.3	5.9	10.2		8.7	8			7	821345	806844	
											1.0	0.1	268	25.7		7.8	7.8	5.0	5.0	79.6	79.7	6.3		10.2									
Middle	4.1	0.2	248	25.6						25.6	7.8	7.8	7.5	7.7	71.0	70.9	5.6	5.5	8.0	8	8												
	4.1	0.2	244	25.6							7.8	7.8	7.9		70.8	70.9	5.5		7.9		7												
Bottom	7.1	0.2	273	25.3						25.3	7.9	7.9	19.9	19.9	56.9	57.0	4.2	4.2	8.0	6	6												
	7.1	0.2	271	25.3							7.9	7.9	19.9		57.0	57.0	4.2		8.1		7												

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

**Water Quality Monitoring**

**Water Quality Monitoring Results on 21 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Misty	Moderate	11:01	8.0	Surface	1.0	0.3	281	26.1	26.1	7.7	7.7	5.0	5.0	87.1	86.6	6.9	6.8	7.1	8.1	7	9	822262	809834
						1.0	0.3	284	26.1		7.7	7.7	5.0	5.0	86.1	86.6	6.8		7.1					
					Middle	4.0	0.3	282	26.1	26.1	7.7	7.7	8.4	8.4	87.0	88.3	6.7	6.9	8.1	8	10			
						4.0	0.3	283	26.1		7.7	7.7	8.4	8.4	89.5	88.3	6.9		8.2					
					Bottom	7.0	0.3	277	26.1	26.1	7.7	7.7	8.4	8.4	90.7	91.7	7.0	7.1	9.2	8	10			
						7.0	0.3	270	26.1		7.7	7.7	8.4	8.4	92.7	91.7	7.2		9.3					
IM11	Misty	Moderate	11:07	6.6	Surface	1.0	0.3	270	26.0	26.0	7.7	7.7	9.0	9.0	80.6	80.3	6.2	6.1	6.4	7.4	4	5	821484	810531
						1.0	0.3	262	26.0		7.7	7.7	9.0	9.0	80.0	80.3	6.2		6.5					
					Middle	3.3	0.3	301	25.9	25.9	7.7	7.7	12.2	12.2	78.7	78.4	6.0	5.9	7.2	5	5			
						3.3	0.3	297	25.9		7.7	7.7	12.3	12.2	78.0	78.4	5.9		7.1					
					Bottom	5.6	0.4	297	26.0	26.0	7.7	7.7	17.5	17.5	87.0	87.0	6.5	6.5	8.6	5	5			
						5.6	0.3	298	26.0		7.7	7.7	17.5	17.5	87.0	87.0	6.5		8.6					
IM12	Misty	Moderate	11:13	8.2	Surface	1.0	0.3	288	25.9	25.9	7.8	7.8	5.8	5.8	84.3	84.1	6.6	6.5	5.0	6.4	6	6	821148	811528
						1.0	0.3	287	25.9		7.8	7.8	5.9	5.8	83.9	84.1	6.6		5.1					
					Middle	4.1	0.3	280	25.9	25.9	7.8	7.8	8.8	8.9	83.1	82.9	6.4	6.4	6.4	5	5			
						4.1	0.3	276	25.9		7.8	7.8	8.9	8.9	82.7	82.9	6.4		6.5					
					Bottom	7.2	0.3	264	25.9	25.9	7.7	7.7	15.9	15.6	88.2	88.9	6.6	6.7	7.7	5	5			
						7.2	0.3	261	25.9		7.7	7.7	15.3	15.6	89.6	88.9	6.7		7.7					
SR1A	Misty	Moderate	11:37	5.2	Surface	1.0	0.1	194	26.3	26.3	7.8	7.8	7.8	7.8	94.7	95.1	7.3	7.4	6.5	7.0	7	8	819973	812654
						1.0	0.1	198	26.3		7.8	7.8	7.8	7.8	95.4	95.1	7.4		6.5					
					Middle	2.6	0.0	186	-	-	-	-	-	-	-	-	-	-	-	-	-			
						2.6	0.0	184	-		-	-	-	-	-	-	-		-					
					Bottom	4.2	0.0	199	26.3	26.3	7.8	7.8	8.7	8.6	105.5	106.4	8.1	8.2	7.4	8	7			
						4.2	0.0	197	26.3		7.9	7.8	8.4	8.6	107.3	106.4	8.3		7.5					
SR2	Misty	Moderate	11:50	5.0	Surface	1.0	0.0	311	26.2	26.2	7.8	7.8	7.6	7.6	90.0	89.6	7.0	7.0	8.5	8.9	4	4	821478	814172
						1.0	0.1	304	26.2		7.8	7.8	7.6	7.6	89.1	89.6	6.9		8.6					
					Middle	-	0.1	285	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	0.1	291	-		-	-	-	-	-	-	-		-					
					Bottom	4.0	0.1	319	26.4	26.5	7.8	7.8	12.8	13.4	83.6	84.1	6.2	6.3	9.2	4	4			
						4.0	0.1	321	26.5		7.8	7.8	14.0	13.4	84.6	84.1	6.3		9.3					
SR3	Cloudy	Moderate	11:06	8.6	Surface	1.0	0.0	197	25.7	25.7	7.8	7.8	4.3	4.3	82.4	82.4	6.6	6.2	11.8	11.2	7	7	822169	807565
						1.0	0.0	196	25.7		7.8	7.8	4.3	4.3	82.4	82.4	6.6		11.8					
					Middle	4.3	0.1	199	25.7	25.7	7.8	7.8	9.8	9.8	73.6	73.6	5.7	4.9	8.8	6	7			
						4.3	0.1	195	25.7		7.8	7.8	9.8	9.8	73.5	73.6	5.7		8.7					
					Bottom	7.6	0.1	183	25.3	25.3	7.9	7.9	18.9	18.9	66.3	66.4	4.9	4.9	13.2	6	7			
						7.6	0.1	188	25.3		7.9	7.9	18.9	18.9	66.5	66.4	4.9		13.1					
SR4A	Cloudy	Moderate	12:30	8.4	Surface	1.0	0.1	110	25.9	25.9	8.0	8.0	6.7	6.7	87.2	87.2	6.8	6.5	7.6	7.2	8	7	817165	807827
						1.0	0.0	103	25.9		8.0	8.0	6.7	6.7	87.1	87.2	6.8		7.5					
					Middle	4.2	-	108	26.1	26.1	7.9	7.9	10.4	10.4	80.7	80.6	6.2	6.2	6.7	7	7			
						4.2	0.0	100	26.0		7.9	7.9	10.4	10.4	80.5	80.6	6.2		6.7					
					Bottom	7.4	0.0	109	25.4	25.4	7.9	7.9	15.5	15.5	66.1	66.0	5.0	5.0	7.5	6	6			
						7.4	0.0	111	25.4		7.9	7.9	15.6	15.5	65.9	66.0	5.0		7.5					
SR8	Misty	Moderate	11:19	4.8	Surface	1.0	-	-	26.2	26.2	7.8	7.8	7.6	7.6	93.1	93.3	7.2	7.2	8.0	8.8	5	5	820370	811624
						1.0	-	-	26.2		7.8	7.8	7.6	7.6	93.4	93.3	7.2		8.1					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
						-	-	-	-		-	-	-	-	-	-	-		-					
					Bottom	3.8	-	-	26.2	26.2	7.8	7.8	7.7	7.7	95.7	96.4	7.4	7.5	9.5	5	5			
						3.8	-	-	26.2		7.8	7.8	7.7	7.7	97.0	96.4	7.5		9.4					

DA: Depth-Averaged

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

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

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

**Water Quality Monitoring Results on 23 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
C1	Sunny	Moderate	09:15	7.8	Surface	1.0	0.3	207	26.1	26.1	7.7	7.7	5.5	5.2	78.8	78.8	6.2	5.8	10.1	9.6	4	4	815605	804233		
						1.0	0.4	203	26.1	7.7	7.7	5.0	5.2	78.7	78.8	6.2	5.8	10.1	9.6	5						
					Middle	3.9	0.4	187	25.6	25.6	7.7	7.7	9.9	9.9	68.5	68.5	5.3	5.3	6.4	9.6	4				4	
						3.9	0.4	180	25.6	25.6	7.7	7.7	9.9	9.9	68.4	68.5	5.3	5.3	6.4	9.6	4					
					Bottom	6.8	0.4	205	24.7	24.7	7.9	7.8	28.6	28.6	53.5	53.6	3.8	3.8	12.6	3.8	4					4
						6.8	0.4	199	24.7	24.7	7.8	7.8	28.6	28.6	53.7	53.6	3.8	3.8	12.0	3.8	4					
C2	Sunny	Moderate	10:57	10.8	Surface	1.0	0.4	177	24.7	24.7	7.6	7.6	1.1	1.1	73.3	73.3	6.1	5.3	19.6	9.5	10	9	825700	806940		
						1.0	0.4	180	24.6	24.7	7.6	7.6	1.1	1.1	73.3	73.3	6.1	5.3	19.5	9.5	9					
					Middle	5.4	0.4	184	25.3	25.3	7.8	7.8	17.8	17.8	59.7	59.7	4.4	4.4	5.6	9.5	9				9	
						5.4	0.5	177	25.3	25.3	7.8	7.8	17.8	17.8	59.6	59.7	4.4	4.4	5.6	9.5	8					
					Bottom	9.8	0.5	157	25.0	25.0	7.9	7.9	27.2	27.1	58.1	58.2	4.1	4.1	3.5	4.1	9					9
						9.8	0.5	150	25.0	25.0	7.9	7.9	27.1	27.1	58.2	58.2	4.1	4.1	3.4	4.1	9					
C3	Sunny	Calm	08:26	8.2	Surface	1.0	0.3	72	26.4	26.4	7.7	7.7	7.1	7.1	88.5	88.5	6.9	6.7	4.3	5.2	4	4	822104	817823		
						1.0	0.2	70	26.4	26.4	7.7	7.7	7.1	7.1	88.4	88.4	6.9	6.7	4.4	5.2	5					
					Middle	4.1	0.2	103	26.1	26.1	7.7	7.7	10.3	10.3	83.9	83.9	6.4	6.4	5.2	5.2	5				5	
						4.1	0.2	105	26.1	26.1	7.7	7.7	10.3	10.3	83.9	83.9	6.4	6.4	5.1	5.2	4					
					Bottom	7.2	0.3	108	26.1	26.2	7.7	7.7	22.8	22.7	84.0	84.1	6.0	6.0	6.0	6.0	4					4
						7.2	0.2	103	26.2	26.2	7.7	7.7	22.7	22.7	84.1	84.1	6.0	6.0	6.0	6.0	4					
IM1	Sunny	Moderate	09:36	6.1	Surface	1.0	0.3	193	26.7	26.7	7.8	7.8	6.4	6.4	82.2	82.2	6.4	5.2	6.8	6.5	4	4	818331	806448		
						1.0	0.3	186	26.7	26.7	7.8	7.8	6.5	6.4	82.2	82.2	6.4	5.2	6.8	6.5	4					
					Middle	3.1	0.2	177	25.0	25.0	7.9	7.9	23.6	23.6	54.2	54.3	3.9	3.9	4.0	5.2	4				4	
						3.1	0.3	174	25.0	25.0	7.9	7.9	23.6	23.6	54.3	54.3	3.9	3.9	4.0	5.2	5					
					Bottom	5.1	0.2	182	24.8	24.8	7.8	7.8	27.5	27.5	53.1	53.3	3.8	3.8	8.9	3.8	4					4
						5.1	0.2	189	24.8	24.8	7.8	7.8	27.4	27.5	53.4	53.3	3.8	3.8	8.7	3.8	5					
IM2	Sunny	Moderate	09:44	6.8	Surface	1.0	0.3	192	26.4	26.4	7.8	7.8	6.7	6.7	81.5	81.4	6.3	5.0	6.7	5.9	3	5	819191	806250		
						1.0	0.4	189	26.4	26.4	7.8	7.8	6.7	6.7	81.3	81.4	6.3	5.0	6.8	5.9	3					
					Middle	3.4	0.3	208	24.9	24.9	7.9	7.9	25.4	25.4	51.6	51.7	3.7	3.7	4.5	5.0	4				4	
						3.4	0.3	214	24.9	24.9	7.9	7.9	25.4	25.4	51.7	51.7	3.7	3.7	4.4	5.0	5					
					Bottom	5.8	0.4	192	24.8	24.8	7.9	7.9	27.8	27.8	52.7	52.8	3.7	3.8	6.5	3.8	6					6
						5.8	0.4	193	24.8	24.8	7.9	7.9	27.9	27.8	52.9	52.8	3.8	3.8	6.6	3.8	6					
IM7	Sunny	Moderate	10:09	8.0	Surface	1.0	0.2	209	25.8	25.8	7.6	7.6	4.8	4.8	77.8	77.8	6.2	6.2	14.1	11.2	3	4	821328	806844		
						1.0	0.2	211	25.8	25.8	7.6	7.6	4.8	4.8	77.8	77.8	6.2	6.2	14.1	11.2	3					
					Middle	4.0	0.2	214	25.7	25.7	7.6	7.6	5.0	5.0	77.8	77.8	6.2	6.2	12.4	6.2	4				4	
						4.0	0.2	212	25.7	25.7	7.6	7.6	5.0	5.0	77.7	77.8	6.2	6.2	12.3	6.2	5					
					Bottom	7.0	0.3	220	25.1	25.1	7.8	7.8	22.4	22.4	51.6	51.8	3.8	3.8	7.2	3.8	4					4
						7.0	0.3	217	25.1	25.1	7.8	7.8	22.5	22.4	51.9	51.8	3.8	3.8	7.3	3.8	5					

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

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

**Water Quality Monitoring Results on 23 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
IM10	Sunny	Calm	09:42	7.8	Surface	1.0	0.4	107	26.1	7.8	7.8	5.3	5.2	85.7	85.2	6.7	6.5	6.4	5.5	7	822226	809841		
						1.0	0.4	104	26.0	7.8	7.8	5.2	84.7	6.7	5.6									
					Middle	3.9	0.4	115	26.0	7.8	7.8	7.8	80.9	6.3	6.1									
						3.9	0.3	112	26.1	7.8	7.8	7.8	80.0	6.2	6.1									
					Bottom	6.8	0.4	102	26.5	7.6	7.6	20.4	74.0	5.3	7.4									
						6.8	0.4	95	26.6	7.6	7.6	20.2	76.4	5.5	7.5									
IM11	Sunny	Calm	09:35	9.0	Surface	1.0	0.4	95	25.8	7.8	7.8	7.1	7.2	79.1	78.6	6.2	5.6	7.4	6.4	5	821516	810524		
						1.0	0.4	100	25.8	7.8	7.8	7.2	78.1	6.1	6.5									
					Middle	4.5	0.4	85	25.9	7.7	7.7	18.8	68.0	5.0	7.1									
						4.5	0.4	79	25.9	7.7	7.7	18.6	68.3	5.0	7.2									
					Bottom	8.0	0.4	103	26.4	7.7	7.7	25.0	74.0	5.2	8.6									
						8.0	0.4	110	26.5	7.7	7.7	24.7	80.6	5.6	8.7									
IM12	Sunny	Calm	09:29	9.4	Surface	1.0	0.4	91	26.0	7.7	7.7	8.0	8.0	79.9	79.7	6.2	5.7	6.5	5.1	6	821180	811534		
						1.0	0.5	91	25.9	7.7	7.7	8.0	79.5	6.2	5.1									
					Middle	4.7	0.4	108	25.8	7.7	7.7	15.3	69.4	5.2	6.4									
						4.7	0.4	114	25.8	7.7	7.7	15.3	69.3	5.2	6.5									
					Bottom	8.4	0.5	122	25.6	7.7	7.6	23.5	71.1	5.1	8.0									
						8.4	0.4	122	25.5	7.6	7.6	24.2	77.4	5.5	7.9									
SR1A	Sunny	Calm	09:12	5.2	Surface	1.0	0.0	131	26.5	7.8	7.8	6.1	6.0	92.6	92.6	7.2	7.2	7.9	7.0	5	819972	812660		
						1.0	0.0	135	26.5	7.8	7.8	6.0	92.6	7.2	7.1									
					Middle	2.6	0.0	141	-	-	-	-	-	-	-									
						2.6	0.0	142	-	-	-	-	-	-	-									
					Bottom	4.2	0.0	117	26.8	7.8	7.8	7.5	95.7	7.3	8.7									
						4.2	0.1	115	26.8	7.8	7.8	7.5	97.7	7.5	8.8									
SR2	Sunny	Calm	08:49	5.0	Surface	1.0	0.3	56	26.2	7.8	7.8	6.2	6.2	86.9	86.7	6.8	6.8	7.0	6.1	5	821453	814163		
						1.0	0.4	61	26.2	7.8	7.8	6.3	86.5	6.8	6.2									
					Middle	-	0.3	26	-	-	-	-	-	-	-									
						-	0.4	21	-	-	-	-	-	-	-									
					Bottom	4.0	0.4	66	26.1	7.8	7.8	13.6	78.7	5.9	7.8									
						4.0	0.4	65	26.2	7.8	7.8	13.4	78.9	5.9	7.9									
SR3	Sunny	Moderate	10:25	8.4	Surface	1.0	0.4	166	24.9	7.6	7.6	1.8	1.8	73.0	73.0	6.0	5.7	12.6	15.7	10	822158	807555		
						1.0	0.4	162	24.9	7.6	7.6	1.8	72.9	6.0	15.6									
					Middle	4.2	0.4	157	25.4	7.7	7.7	6.9	68.4	5.4	9.4									
						4.2	0.4	160	25.3	7.7	7.7	6.9	68.1	5.4	9.2									
					Bottom	7.4	0.5	143	25.0	7.8	7.8	23.7	47.1	3.4	12.4									
						7.4	0.5	138	25.0	7.8	7.8	23.7	47.3	3.4	13.2									
SR4A	Sunny	Moderate	08:54	8.7	Surface	1.0	0.0	47	26.1	7.8	7.8	6.8	6.8	81.2	81.1	6.3	5.0	10.4	7.1	4	817203	807830		
						1.0	0.1	49	26.1	7.8	7.8	6.8	81.0	6.3	7.1									
					Middle	4.4	-	66	24.9	7.9	7.9	26.3	52.4	3.7	9.8									
						4.4	0.0	68	24.9	7.9	7.9	26.3	52.4	3.7	10.0									
					Bottom	7.7	0.1	34	24.8	7.8	7.8	27.9	53.5	3.8	14.3									
						7.7	0.1	36	24.8	7.8	7.8	27.9	53.8	3.8	14.3									
SR8	Sunny	Calm	09:24	5.0	Surface	1.0	-	-	26.5	7.7	7.7	6.1	6.1	88.6	88.7	6.9	6.9	5.8	5.4	7	820379	811609		
						1.0	-	-	26.5	7.7	7.7	6.1	88.7	6.9	5.5									
					Middle	-	-	-	-	-	-	-	-	-	-									
						-	-	-	-	-	-	-	-	-	-									
					Bottom	4.0	-	-	26.8	7.7	7.7	8.2	91.8	7.0	6.2									
						4.0	-	-	26.8	7.7	7.7	8.1	92.8	7.1	6.2									

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

**Water Quality Monitoring Results on 23 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Sunny	Moderate	14:54	8.7	Surface	1.0	0.2	16	26.5	26.5	7.8	7.8	6.5	6.6	78.7	78.6	6.1	5.3	9.6	10	10	815640	804258	
						1.0	0.2	23	26.5	7.8	7.8	6.6	78.5	78.6	6.1	10.0								
					Middle	4.4	0.2	41	25.2	25.2	7.9	7.9	19.4	19.4	59.5	59.6	4.4			8.2				
						4.4	0.2	34	25.2	25.2	7.9	7.9	19.4	19.4	59.6	59.6	4.4			8.5				
					Bottom	7.7	0.3	33	24.9	24.9	7.9	7.9	23.3	23.6	54.8	54.8	4.0			10.0				
						7.7	0.3	31	24.9	24.9	7.9	7.9	24.0	23.6	54.8	54.8	3.9			11.3				
C2	Sunny	Moderate	13:30	11.1	Surface	1.0	0.1	234	25.0	25.0	7.5	7.5	3.6	3.6	72.4	72.4	5.9	5.0	11.2	10	10	825697	806954	
						1.0	0.1	232	25.0	25.0	7.5	7.5	3.7	3.6	72.4	72.4	5.9			18.9				
					Middle	5.6	0.1	256	25.2	25.2	7.9	7.9	20.5	21.3	57.0	57.0	4.1			7.4				
						5.6	0.1	259	25.2	25.2	7.9	7.9	22.2	21.3	56.9	57.0	4.1			7.6				
					Bottom	10.1	0.1	263	25.1	25.1	7.9	7.9	25.6	25.6	56.6	56.7	4.0			7.2				
						10.1	0.1	258	25.1	25.1	7.9	7.9	25.6	25.6	56.7	56.7	4.1			7.5				
C3	Sunny	Calm	14:59	10.0	Surface	1.0	0.3	262	26.9	27.0	7.9	7.8	8.7	8.5	90.4	90.1	6.9	6.1	6.0	5	4	822090	817793	
						1.0	0.3	262	27.0	27.0	7.8	7.8	8.4	8.5	89.8	90.1	6.8			5.8				
					Middle	5.0	0.3	263	25.5	25.5	7.8	7.8	21.8	21.8	73.4	73.4	5.3			6.1				
						5.0	0.3	259	25.5	25.5	7.8	7.8	21.8	21.8	73.3	73.4	5.3			6.1				
					Bottom	9.0	0.3	277	25.4	25.4	7.8	7.8	26.8	26.8	75.4	76.8	5.3			6.0				
						9.0	0.3	275	25.4	25.4	7.8	7.8	26.8	26.8	78.1	76.8	5.5			6.1				
IM1	Sunny	Moderate	14:31	7.0	Surface	1.0	0.0	353	26.6	26.6	7.7	7.7	6.3	6.3	79.2	79.2	6.1	6.0	11.2	9	11	818339	806441	
						1.0	0.1	351	26.6	26.6	7.7	7.7	6.3	6.3	79.2	79.2	6.1			15.8				
					Middle	3.5	0.1	359	26.5	26.5	7.9	7.9	9.0	9.0	76.4	76.2	5.8			10.0				
						3.5	0.1	359	26.5	26.5	7.9	7.9	9.0	9.0	76.0	76.2	5.8			9.7				
					Bottom	6.0	0.1	21	24.9	24.9	7.9	7.8	26.6	26.6	53.0	53.2	3.8			8.0				
						6.0	0.1	28	24.9	24.9	7.8	7.8	26.6	26.6	53.4	53.2	3.8			8.2				
IM2	Sunny	Moderate	14:19	7.1	Surface	1.0	0.1	280	26.6	26.6	7.7	7.7	7.6	7.6	78.7	78.8	6.1	6.0	11.1	12	12	819180	806222	
						1.0	0.1	275	26.6	26.6	7.7	7.7	7.6	7.6	78.8	78.8	6.1			11.7				
					Middle	3.6	0.1	303	26.5	26.5	7.9	7.9	9.9	9.9	76.6	76.5	5.8			12.2				
						3.6	0.1	307	26.5	26.5	7.9	7.9	9.9	9.9	76.3	76.5	5.8			12.0				
					Bottom	6.1	0.1	288	24.8	24.8	7.9	7.9	27.8	27.8	52.8	52.9	3.7			9.5				
						6.1	0.1	286	24.8	24.8	7.9	7.9	27.8	27.8	53.0	52.9	3.8			9.4				
IM7	Sunny	Moderate	13:49	8.1	Surface	1.0	0.2	237	25.5	25.5	7.6	7.6	3.0	3.0	74.6	74.6	6.0	5.9	14.4	5	6	821355	806836	
						1.0	0.2	243	25.5	25.5	7.6	7.6	3.0	3.0	74.5	74.6	6.0			18.3				
					Middle	4.1	0.2	240	25.4	25.4	7.6	7.6	3.4	3.4	71.7	71.7	5.8			16.3				
						4.1	0.2	246	25.4	25.4	7.7	7.6	3.4	3.4	71.6	71.7	5.8			16.3				
					Bottom	7.1	0.2	232	25.0	25.0	7.8	7.8	23.6	23.6	48.5	48.7	3.5			8.6				
						7.1	0.2	230	25.0	25.0	7.8	7.8	23.6	23.6	48.8	48.7	3.5			8.5				

DA: Depth-Averaged

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

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

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

**Water Quality Monitoring Results on 23 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA	Value	DA						
IM10	Sunny	Calm	13:37	8.6	Surface	1.0	0.3	274	26.5	26.5	7.7	7.7	3.0	3.0	84.6	84.6	6.7	6.6	10.0	9.5	14	16	822253	809815				
						1.0	0.2	279	26.5	7.7	7.7	3.0	3.0	84.5	84.6	6.7	6.6	10.0	15									
					Middle	4.3	0.3	265	26.3	7.8	7.8	3.8	3.8	82.0	82.0	6.5	6.5	9.8	16									
						4.3	0.3	272	26.2	7.9	7.8	3.8	3.8	81.9	82.0	6.5	6.5	9.7	16									
					Bottom	7.6	0.2	270	25.8	7.8	7.8	15.8	14.9	69.7	69.8	5.3	5.3	8.9	19									
						7.6	0.3	263	25.8	7.9	7.8	13.9	14.9	69.8	69.8	5.2	5.3	8.8	18									
IM11	Sunny	Calm	13:56	7.0	Surface	1.0	0.3	277	26.9	26.9	7.7	7.7	4.1	4.1	87.4	87.3	6.8	6.7	15.0	14.4	14	13	821509	810531				
						1.0	0.3	271	26.8	7.7	7.7	4.2	4.1	87.2	87.3	6.8	6.7	15.1	13									
					Middle	3.5	0.3	260	26.5	7.7	7.7	7.1	6.8	85.6	85.7	6.6	6.6	14.7	13									
						3.5	0.3	261	26.5	7.7	7.7	6.5	6.8	85.7	85.7	6.7	6.7	14.7	14									
					Bottom	6.0	0.3	286	26.4	7.6	7.6	16.8	16.8	76.7	78.2	5.6	5.7	13.4	12									
						6.0	0.4	284	26.6	7.6	7.6	16.7	16.8	79.6	78.2	5.8	5.7	13.5	13									
IM12	Sunny	Calm	14:02	7.4	Surface	1.0	0.3	269	26.5	26.5	7.8	7.8	4.0	4.0	87.4	87.4	6.9	6.7	12.8	11.9	14	13	821142	811542				
						1.0	0.3	265	26.5	7.8	7.8	4.0	4.0	87.3	87.4	6.9	6.7	12.8	13									
					Middle	3.7	0.3	291	26.1	7.8	7.8	5.4	5.4	83.6	82.8	6.6	6.6	11.4	13									
						3.7	0.3	289	26.0	7.8	7.8	5.4	5.4	82.0	82.8	6.5	6.5	11.3	12									
					Bottom	6.4	0.3	296	25.4	7.7	7.6	26.1	25.9	73.4	74.8	5.2	5.3	11.6	13									
						6.4	0.3	293	25.4	7.6	7.6	25.7	25.9	76.1	74.8	5.4	5.3	11.5	12									
SR1A	Sunny	Calm	14:24	4.6	Surface	1.0	0.0	194	27.1	27.1	7.7	7.7	4.8	4.8	94.3	94.5	7.3	7.3	10.4	7.3	8	8	819970	812659				
						1.0	0.0	194	27.1	7.7	7.7	4.8	4.8	94.6	94.5	7.3	7.3	10.4	8									
					Middle	2.3	0.0	184	-	-	-	-	-	-	-	-	-	-	-	-	-				-	10.2	-	-
						2.3	0.1	191	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
					Bottom	3.6	0.0	199	27.2	7.7	7.7	6.4	6.4	95.7	96.1	7.3	7.4	9.9	7.4	7.4	7.4				10.0	8	9	
						3.6	0.0	194	27.2	7.7	7.7	6.4	6.4	96.5	96.1	7.4	7.4	10.0	7.4	7.4	7.4				10.0	8	8	
SR2	Sunny	Calm	14:37	4.2	Surface	1.0	0.1	301	27.2	27.2	7.8	7.8	7.6	7.6	96.5	96.3	7.4	7.4	7.4	7.4	5	5	821466	814155				
						1.0	0.1	302	27.2	7.8	7.8	7.6	7.6	96.0	96.3	7.3	7.3	7.4	7.4	5								
					Middle	-	0.1	293	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
						-	0.1	287	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	-
					Bottom	3.2	0.1	315	27.3	7.7	7.7	9.2	9.2	95.7	96.5	7.2	7.3	7.0	7.3	7.3	7.3				7.0	7.2	5	
						3.2	0.1	312	27.3	7.8	7.7	9.2	9.2	97.3	96.5	7.3	7.3	7.0	7.3	7.3	7.3				7.0	7.2	4	
SR3	Sunny	Moderate	13:44	8.8	Surface	1.0	0.1	212	25.7	25.7	7.6	7.6	2.2	2.2	75.7	75.7	6.1	5.9	19.8	15.5	4	4	822132	807572				
						1.0	0.1	213	25.7	7.6	7.6	2.2	2.2	75.6	75.7	6.1	5.9	19.3	3									
					Middle	4.4	0.1	205	25.3	7.6	7.6	6.7	6.7	70.8	70.8	5.6	5.6	16.2	4									
						4.4	0.0	198	25.3	7.6	7.6	6.7	6.7	70.7	70.8	5.6	5.6	16.2	4									
					Bottom	7.8	0.1	199	25.3	7.8	7.8	9.3	9.3	59.1	59.1	4.6	4.6	10.8	4									
						7.8	0.2	194	25.3	7.8	7.8	9.3	9.3	59.1	59.1	4.6	4.6	10.8	5									
SR4A	Sunny	Moderate	15:10	8.4	Surface	1.0	0.1	131	27.1	27.1	8.0	8.0	9.6	9.6	91.4	91.4	6.9	6.6	7.9	9.9	8	9	817169	807796				
						1.0	0.1	127	27.1	8.0	8.0	9.6	9.6	91.3	91.4	6.9	6.6	7.9	9									
					Middle	4.2	0.0	109	27.0	8.0	8.0	10.6	10.6	83.8	83.6	6.3	6.3	8.7	9									
						4.2	0.0	109	27.0	8.0	8.0	10.6	10.6	83.4	83.6	6.3	6.3	8.8	9									
					Bottom	7.4	0.0	118	25.2	7.9	7.9	18.1	17.9	59.2	57.1	4.4	4.3	12.9	10									
						7.4	0.0	119	25.2	7.9	7.9	17.7	17.9	54.9	57.1	4.1	4.3	13.0	10									
SR8	Sunny	Calm	14:07	5.0	Surface	1.0	-	-	27.4	27.4	7.7	7.7	4.6	4.6	91.9	92.0	7.1	7.1	17.5	17.6	12	11	820380	811608				
						1.0	-	-	27.4	7.7	7.7	4.6	4.6	92.1	92.0	7.1	7.1	17.5	12									
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				-	-	-	
					Bottom	4.0	-	-	27.5	27.5	7.7	7.7	5.4	5.4	93.1	93.2	7.1	7.1	17.7	7.1	7.1				17.7	11		
						4.0	-	-	27.5	27.5	7.7	7.7	5.4	5.4	93.2	93.2	7.1	7.1	17.7	7.1	7.1				17.7	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 25 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			
C1	Fine	Moderate	11:20	8.4	Surface	1.0	0.5	217	26.1	26.1	7.8	7.8	9.8	9.8	73.1	73.0	5.6	5.3	8.9	8.1	6	6	815633	804253	
						1.0	0.5	216	26.1	7.8	7.8	9.8	9.8	72.9	73.0	5.6									
					Middle	4.2	0.6	208	25.6	25.6	7.8	7.8	14.4	14.4	65.4	65.3	4.9								5.6
						4.2	0.6	211	25.5	7.8	7.8	14.4	14.4	65.2	65.3	4.9	5.6								
					Bottom	7.4	0.5	215	25.2	25.2	7.8	7.8	28.2	28.2	54.4	54.7	3.8								9.8
						7.4	0.5	208	25.2	7.8	7.8	28.2	28.2	55.0	54.7	3.9	9.5								
C2	Fine	Moderate	12:17	10.9	Surface	1.0	0.7	159	25.3	25.3	7.5	7.5	3.2	3.4	70.7	70.7	5.7	4.9	25.6	14.0	9	9	825691	806925	
						1.0	0.7	162	25.3	7.5	7.5	3.6	3.4	70.7	70.7	5.7									
					Middle	5.5	0.7	159	25.2	25.2	7.9	7.9	20.4	20.4	56.0	55.9	4.1								7.0
						5.5	0.8	156	25.2	7.9	7.9	20.3	20.4	55.7	55.9	4.1	7.1								
					Bottom	9.9	0.7	172	25.0	25.0	8.0	8.0	26.2	26.2	53.0	53.0	3.8								9.4
						9.9	0.7	168	25.0	8.0	8.0	26.2	26.2	53.0	53.0	3.8	9.4								
C3	Sunny	Calm	10:01	9.0	Surface	1.0	0.4	73	26.8	26.8	7.7	7.7	7.0	7.2	91.2	89.7	7.0	6.9	5.0	5.5	5	5	822107	817825	
						1.0	0.3	66	26.7	7.8	7.7	7.5	7.2	88.1	89.7	6.8									
					Middle	4.5	0.4	85	26.8	26.9	7.7	7.7	7.0	6.9	91.5	90.4	7.0								5.0
						4.5	0.4	80	27.0	7.7	7.7	6.8	6.9	89.2	90.4	6.7	5.2								
					Bottom	8.0	0.4	78	26.7	26.9	7.7	7.7	7.5	7.6	88.0	89.0	6.8								6.1
						8.0	0.4	79	27.1	7.6	7.7	7.8	7.6	89.9	89.0	6.7	6.4								
IM1	Fine	Moderate	11:36	6.2	Surface	1.0	0.3	194	26.5	26.5	7.9	7.9	10.6	10.6	77.7	77.6	5.9	4.8	5.9	4.3	6	6	818340	806474	
						1.0	0.3	187	26.5	7.9	7.9	10.6	10.6	77.5	77.6	5.9									
					Middle	3.1	0.4	210	25.0	25.0	7.9	7.9	24.4	24.3	51.9	51.8	3.7								2.9
						3.1	0.3	214	25.0	7.9	7.9	24.2	24.3	51.6	51.8	3.7	2.9								
					Bottom	5.2	0.4	211	24.7	24.7	7.9	7.9	29.1	29.1	48.0	48.0	3.4								4.1
						5.2	0.3	204	24.7	7.9	7.9	29.1	29.1	47.9	48.0	3.4	4.2								
IM2	Fine	Moderate	11:43	6.6	Surface	1.0	0.4	191	26.6	26.6	7.9	7.9	10.9	10.9	77.8	77.8	5.9	4.9	5.5	7.1	6	6	819173	806213	
						1.0	0.4	191	26.6	7.9	7.9	10.9	10.9	77.7	77.8	5.9									
					Middle	3.3	0.5	190	25.2	25.2	7.9	7.9	23.0	22.8	53.1	53.1	3.9								8.7
						3.3	0.5	183	25.2	7.9	7.9	22.6	22.8	53.0	53.1	3.9	8.7								
					Bottom	5.6	0.5	193	24.7	24.7	7.9	7.9	29.5	29.4	48.4	48.5	3.4								7.0
						5.6	0.5	196	24.7	7.9	7.9	29.4	29.4	48.6	48.5	3.4	7.5								
IM7	Fine	Moderate	12:09	7.8	Surface	1.0	0.4	204	25.9	25.9	7.7	7.7	6.2	6.2	74.7	74.8	5.9	5.7	11.9	10.9	8	8	821343	806851	
						1.0	0.4	205	25.9	7.7	7.7	6.2	6.2	74.8	74.8	5.9									
					Middle	3.9	0.4	219	25.7	25.7	7.8	7.8	7.2	7.2	70.2	70.0	5.5								8.5
						3.9	0.4	224	25.7	7.8	7.8	7.2	7.2	69.7	70.0	5.5	8.7								
					Bottom	6.8	0.4	216	24.9	24.9	7.9	7.9	26.3	26.3	45.8	46.1	3.3								12.3
						6.8	0.4	218	24.9	7.9	7.9	26.4	26.3	46.3	46.1	3.3	12.3								

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 25 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA					
IM10	Sunny	Calm	11:14	8.6	Surface	1.0	0.6	126	27.0	26.5	7.9	7.9	4.7	4.8	80.1	79.2	6.2	5.5	7.0	8.5	8	822262	809819								
						1.0	0.5	124	25.9	7.9	7.9	4.9	4.8	78.2	79.2	6.2															
					Middle	4.3	0.5	130	25.8	25.8	7.7	7.7	21.4	21.4	65.1	65.3	4.7							7.1							
						4.3	0.6	130	25.8	25.8	7.7	7.7	21.4	21.4	65.5	65.3	4.7														
					Bottom	7.6	0.6	143	25.8	25.8	7.7	7.6	21.4	21.4	72.0	74.8	5.2							7.1							
						7.6	0.6	137	25.8	25.8	7.6	7.6	21.3	21.4	77.5	74.8	5.6														
IM11	Sunny	Calm	11:06	8.0	Surface	1.0	0.6	100	26.0	26.0	7.8	7.8	7.9	7.7	80.2	79.7	6.2	5.5	6.4	7.6	8	821502	810521								
						1.0	0.6	94	26.0	26.0	7.8	7.8	7.4	7.7	79.2	79.7	6.2														
					Middle	4.0	0.6	86	25.7	25.7	7.7	7.7	19.7	19.7	64.4	64.6	4.7							7.6							
						4.0	0.6	78	25.6	25.6	7.7	7.7	19.7	19.7	64.7	64.6	4.7														
					Bottom	7.0	0.6	116	25.6	25.6	7.6	7.6	24.0	24.0	67.2	67.6	4.8							7.6							
						7.0	0.6	121	25.6	25.6	7.6	7.6	24.0	24.0	68.0	67.6	4.9														
IM12	Sunny	Calm	10:58	8.6	Surface	1.0	0.7	93	26.2	26.2	7.8	7.8	7.7	7.7	80.4	80.2	6.2	6.0	6.1	7.4	7	821148	811534								
						1.0	0.6	98	26.1	26.2	7.8	7.8	7.7	7.7	80.0	80.2	6.2														
					Middle	4.3	0.7	119	25.9	25.9	7.8	7.8	9.1	9.0	76.6	75.9	5.9							7.4							
						4.3	0.7	121	25.8	25.9	7.8	7.8	9.0	9.0	75.2	75.9	5.8														
					Bottom	7.6	0.7	100	25.6	25.6	7.6	7.6	23.8	23.7	67.9	68.6	4.9							7.4							
						7.6	0.7	99	25.6	25.6	7.6	7.6	23.6	23.7	69.2	68.6	5.0														
SR1A	Sunny	Calm	10:34	5.0	Surface	1.0	0.0	112	26.9	26.9	7.8	7.8	5.8	5.8	93.6	93.6	7.2	7.2	6.2	7.1	4	819973	812658								
						1.0	0.0	117	26.8	26.9	7.8	7.8	5.8	5.8	93.6	93.6	7.2														
					Middle	2.5	-	139	-	-	-	-	-	-	-	-	-							-	-	7.2	6.3	7.1	4	819973	812658
						2.5	0.0	141	-	-	-	-	-	-	-	-	-														
					Bottom	4.0	0.0	150	27.2	27.3	7.7	7.7	13.4	13.1	85.7	86.8	6.3							7.2							
						4.0	0.1	151	27.3	27.3	7.7	7.7	12.8	13.1	87.8	86.8	6.5														
SR2	Sunny	Calm	10:17	5.4	Surface	1.0	0.5	45	26.8	26.8	7.7	7.7	6.7	6.7	90.5	90.6	7.0	7.0	7.0	7.6	4	821461	814161								
						1.0	0.5	43	26.8	26.8	7.7	7.7	6.7	6.7	90.6	90.6	7.0														
					Middle	-	0.6	45	-	-	-	-	-	-	-	-	-							-	7.0	7.1	7.6	4	821461	814161	
						-	0.6	48	-	-	-	-	-	-	-	-	-														
					Bottom	4.4	0.5	56	26.7	26.8	7.6	7.6	10.2	10.0	88.0	88.1	6.7							7.0							
						4.4	0.5	56	26.8	26.8	7.6	7.6	9.8	10.0	88.2	88.1	6.7														
SR3	Fine	Moderate	12:16	8.7	Surface	1.0	0.7	173	26.2	26.2	7.6	7.6	4.8	4.8	75.4	75.4	5.9	5.7	14.8	11.3	9	822164	807566								
						1.0	0.6	172	26.2	26.2	7.6	7.6	4.9	4.8	75.3	75.4	5.9														
					Middle	4.4	0.7	172	25.9	25.9	7.7	7.7	9.2	9.4	70.7	70.8	5.5							11.3							
						4.4	0.7	169	25.9	25.9	7.7	7.7	9.6	9.4	70.8	70.8	5.4														
					Bottom	7.7	0.7	183	24.9	24.9	7.8	7.8	25.5	25.5	46.7	46.8	3.3							11.3							
						7.7	0.7	182	24.9	24.9	7.8	7.8	25.4	25.5	46.8	46.8	3.4														
SR4A	Fine	Moderate	11:02	9.3	Surface	1.0	0.1	8	26.6	26.6	7.9	7.9	11.0	11.0	83.2	83.3	6.3	4.8	7.8	9.7	6	817209	807830								
						1.0	0.0	7	26.6	26.6	7.9	7.9	11.0	11.0	83.4	83.3	6.3														
					Middle	4.7	0.0	27	24.8	24.8	7.8	7.8	28.2	28.3	46.6	46.6	3.3							9.7							
						4.7	0.0	23	24.8	24.8	7.8	7.8	28.3	28.3	46.5	46.6	3.3														
					Bottom	8.3	0.0	29	24.7	24.7	7.8	7.8	29.0	29.0	46.0	46.1	3.2							9.7							
						8.3	0.0	34	24.7	24.7	7.8	7.8	29.0	29.0	46.1	46.1	3.3														
SR8	Sunny	Calm	10:53	5.2	Surface	1.0	-	-	26.9	26.9	7.7	7.7	7.2	7.2	87.8	87.6	6.7	6.7	8.0	8.6	6	820369	811623								
						1.0	-	-	26.9	26.9	7.7	7.7	7.2	7.2	87.4	87.6	6.7														
					Middle	-	-	-	-	-	-	-	-	-	-	-	-							8.6							
						-	-	-	-	-	-	-	-	-	-	-	-														
					Bottom	4.2	-	-	27.1	27.2	7.7	7.7	8.8	8.7	87.3	87.6	6.6							8.6							
						4.2	-	-	27.2	27.2	7.7	7.7	8.5	8.7	87.8	87.6	6.7														

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 25 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Fine	Moderate	17:05	8.2	Surface	1.0	0.3	45	26.1	26.1	7.7	7.7	9.7	9.7	71.6	71.7	5.5	5.2	12.2	18	18	815621	804238	
						1.0	0.3	38	26.1	7.7	7.7	9.8	9.8	71.8	71.7	5.5	15.7							
					Middle	4.1	0.3	28	25.7	25.7	7.7	7.7	14.3	14.3	65.6	65.7	4.9			10.5				
						4.1	0.3	28	25.7	25.7	7.7	7.7	14.3	14.3	65.7	65.7	5.0			10.6				
					Bottom	7.2	0.3	11	25.6	25.6	7.8	7.8	14.6	14.6	67.8	67.8	5.1			10.4				
						7.2	0.2	11	25.6	25.6	7.8	7.8	14.6	14.6	67.8	67.8	5.1			10.0				
C2	Fine	Moderate	15:50	10.6	Surface	1.0	0.1	265	26.4	26.4	7.8	7.8	5.2	5.2	79.9	79.4	6.3	5.4	14.0	5	5	825670	806935	
						1.0	0.1	271	26.4	26.4	7.8	7.8	5.2	5.2	78.9	79.4	6.2			19.7				
					Middle	5.3	0.0	272	25.4	25.4	7.8	7.8	17.1	17.1	61.0	61.0	4.5			14.7				
						5.3	0.0	267	25.4	25.4	7.8	7.8	17.1	17.1	60.9	61.0	4.5			14.6				
					Bottom	9.6	0.1	241	25.1	25.1	7.9	7.9	25.1	25.1	55.0	55.1	3.9			7.5				
						9.6	0.1	242	25.1	25.1	7.9	7.9	25.1	25.1	55.1	55.1	4.0			7.6				
C3	Sunny	Calm	17:07	9.0	Surface	1.0	0.3	271	26.6	26.6	7.8	7.8	9.8	9.8	86.0	86.0	6.5	6.5	7.0	4	5	822110	817783	
						1.0	0.3	267	26.5	26.6	7.8	7.8	9.9	9.9	86.0	86.0	6.5			7.2				
					Middle	4.5	0.3	267	26.3	26.3	7.9	7.9	10.3	10.3	85.4	84.9	6.5			7.0				
						4.5	0.3	259	26.2	26.3	7.9	7.9	10.2	10.3	84.3	84.9	6.4			7.1				
					Bottom	8.0	0.4	271	26.0	26.0	7.8	7.8	15.4	16.2	75.0	74.9	5.6			6.7				
						8.0	0.4	278	26.0	26.0	7.8	7.8	16.9	16.2	74.8	74.9	5.5			6.8				
IM1	Fine	Moderate	16:47	6.3	Surface	1.0	0.1	17	26.9	27.0	7.7	7.7	6.7	6.7	84.8	84.9	6.5	6.9	11.2	18	18	818356	806444	
						1.0	0.1	19	27.0	27.0	7.7	7.7	6.7	6.7	84.9	84.9	6.5			13.5				
					Middle	3.2	0.2	355	27.2	27.2	8.0	8.0	9.3	9.3	95.6	95.5	7.2			8.5				
						3.2	0.2	1	27.2	27.2	8.0	8.0	9.3	9.3	95.4	95.5	7.2			8.4				
					Bottom	5.3	0.2	31	25.6	25.6	7.8	7.8	21.6	21.6	60.6	60.6	4.4			11.6				
						5.3	0.2	35	25.6	25.6	7.8	7.8	21.7	21.6	60.6	60.6	4.4			11.6				
IM2	Fine	Moderate	16:36	6.7	Surface	1.0	0.2	320	27.2	27.2	7.8	7.8	7.0	7.0	86.0	86.0	6.6	6.5	9.6	17	17	819172	806248	
						1.0	0.2	323	27.2	27.2	7.8	7.8	7.0	7.0	85.9	86.0	6.6			10.3				
					Middle	3.4	0.1	317	27.3	27.3	7.9	7.9	8.8	8.8	85.5	85.3	6.5			9.0				
						3.4	0.1	312	27.3	27.3	7.9	7.9	8.8	8.8	85.1	85.3	6.4			9.1				
					Bottom	5.7	0.1	308	24.8	24.8	7.7	7.7	22.1	22.1	51.8	51.8	3.7			9.3				
						5.7	0.1	312	24.8	24.8	7.7	7.7	22.1	22.1	51.8	51.8	3.7			9.3				
IM7	Fine	Moderate	16:15	7.6	Surface	1.0	0.3	257	26.5	26.5	7.6	7.6	2.9	2.9	79.5	79.5	6.3	6.2	14.0	5	9	821346	806822	
						1.0	0.3	255	26.5	26.5	7.6	7.6	2.9	2.9	79.4	79.5	6.3			18.1				
					Middle	3.8	0.3	231	26.1	26.1	7.6	7.6	4.2	4.2	76.3	76.3	6.0			14.0				
						3.8	0.2	231	26.1	26.1	7.6	7.6	4.2	4.2	76.2	76.3	6.0			13.2				
					Bottom	6.6	0.2	240	25.8	25.8	7.6	7.6	9.0	9.0	70.0	70.0	5.4			10.3				
						6.6	0.2	236	25.8	25.8	7.6	7.6	9.0	9.0	70.0	70.0	5.4			10.3				

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 25 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity (NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)	
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value
IM10	Sunny	Calm	15:53	8.2	Surface	1.0	0.2	265	27.3	27.3	7.8	7.8	3.8	3.7	90.6	90.6	7.0	6.8	18.0	18.5	13	822242	809823		
						1.0	0.2	265	27.3	7.8	3.7	90.6	7.0												
					Middle	4.1	0.2	253	26.8	26.8	7.8	7.8	6.0	6.0	84.8	84.7	6.6							6.6	18.1
						4.1	0.2	248	26.7	7.8	6.0	84.6	6.6	18.7											
					Bottom	7.2	0.2	287	25.8	25.8	7.7	7.7	15.9	16.0	67.3	67.3	5.0							5.0	18.8
						7.2	0.3	287	25.8	7.7	16.1	67.3	5.0	18.7											
IM11	Sunny	Calm	15:59	6.4	Surface	1.0	0.3	274	27.2	27.2	7.7	7.7	4.9	4.9	89.4	89.4	6.9	6.9	17.1	16.2	12	821519	810531		
						1.0	0.3	272	27.2	7.7	4.9	89.4	6.9												
					Middle	3.2	0.3	266	27.1	27.1	7.7	7.7	5.3	5.3	88.2	88.1	6.8							6.8	17.1
						3.2	0.3	262	27.0	7.7	5.3	87.9	6.8	16.4											
					Bottom	5.4	0.3	292	26.9	26.9	7.7	7.7	6.6	6.7	86.5	86.4	6.7							6.7	16.5
						5.4	0.3	293	26.9	7.7	6.7	86.3	6.6	15.1											
IM12	Sunny	Calm	16:05	8.0	Surface	1.0	0.3	269	27.0	27.0	7.8	7.8	5.1	5.1	87.9	87.8	6.8	6.4	13.4	12.8	13	821174	811522		
						1.0	0.3	269	27.0	7.8	5.1	87.7	6.8												
					Middle	4.0	0.3	285	26.4	26.3	7.8	7.8	8.0	8.0	76.9	76.7	5.9							5.9	12.9
						4.0	0.3	280	26.2	7.8	8.0	76.5	5.9	12.9											
					Bottom	7.0	0.3	283	25.4	25.4	7.8	7.8	27.1	27.1	58.1	58.2	4.1							4.1	12.2
						7.0	0.3	278	25.4	7.8	27.1	58.3	4.1	12.2											
SR1A	Sunny	Calm	16:30	5.4	Surface	1.0	0.0	185	27.4	27.4	7.9	7.9	6.3	6.3	99.0	98.7	7.6	7.6	10.2	9.7	14	819971	812660		
						1.0	0.1	178	27.3	7.9	6.4	98.4	7.5	10.2											
					Middle	2.7	0.0	182	-	-	-	-	-	-	-	-	-							-	-
						2.7	0.0	187	-	-	-	-	-	-	-	-	-							-	
					Bottom	4.4	0.0	201	27.3	27.4	7.9	7.9	6.9	6.9	99.6	101.8	7.6							7.8	9.2
						4.4	0.0	194	27.4	7.9	6.9	103.9	7.9	9.3											
SR2	Sunny	Calm	16:44	5.2	Surface	1.0	0.2	300	27.1	27.1	7.7	7.7	5.0	5.0	88.7	88.8	6.9	6.9	19.0	18.9	14	821472	814187		
						1.0	0.2	301	27.1	7.7	5.0	88.9	6.9												
					Middle	-	0.1	275	-	-	-	-	-	-	-	-	-							-	
						-	0.1	275	-	-	-	-	-	-	-	-	-								
					Bottom	4.2	0.1	296	27.1	27.1	7.8	7.7	6.9	7.0	91.5	91.7	7.0							7.0	18.8
						4.2	0.1	300	27.1	7.7	7.1	91.8	7.0	18.7											
SR3	Fine	Moderate	16:09	8.2	Surface	1.0	0.2	201	26.2	26.2	7.6	7.6	3.4	3.2	78.9	78.9	6.3	6.1	24.1	17.6	7	822158	807555		
						1.0	0.2	199	26.2	7.6	3.1	78.9	6.3	24.2											
					Middle	4.1	0.1	225	26.2	26.2	7.6	7.6	8.0	8.0	74.8	74.8	5.8							5.8	14.8
						4.1	0.1	220	26.2	7.6	8.2	74.7	5.8	14.1											
					Bottom	7.2	0.2	197	25.9	25.9	7.7	7.7	10.1	10.1	72.1	72.1	5.5							5.5	14.1
						7.2	0.1	196	25.9	7.7	10.1	72.1	5.5	14.5											
SR4A	Fine	Moderate	17:19	8.6	Surface	1.0	0.1	129	28.1	28.1	8.4	8.4	10.3	10.3	136.2	136.1	10.1	9.6	10.9	11.4	9	817196	807794		
						1.0	0.1	131	28.1	8.4	10.3	136.0	10.1	10.8											
					Middle	4.3	0.1	140	27.9	27.9	8.3	8.3	10.9	11.0	122.6	122.5	9.1							9.1	11.0
						4.3	0.1	143	27.9	8.3	11.0	122.3	9.0	11.0											
					Bottom	7.6	0.0	120	25.7	25.7	7.8	7.8	21.3	21.4	68.6	68.6	5.0							5.0	12.4
						7.6	0.0	115	25.7	7.8	21.4	68.6	5.0	12.4											
SR8	Sunny	Calm	16:11	5.0	Surface	1.0	-	-	26.9	26.9	7.8	7.8	5.1	5.1	88.9	88.9	6.9	6.9	18.5	18.8	12	820374	811646		
						1.0	-	-	26.9	7.8	5.1	88.9	6.9												
					Middle	-	-	-	-	-	-	-	-	-	-	-	-								
						-	-	-	-	-	-	-	-	-											
					Bottom	4.0	-	-	26.9	26.9	7.8	7.8	5.5	5.5	88.9	89.0	6.9							6.9	19.2
						4.0	-	-	26.9	7.8	5.5	89.0	6.9	19.1											

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 28 June 22 during Mid-Ebb Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Sunny	Moderate	12:23	8.2	Surface	1.0	0.6	199	27.7	7.9	7.9	16.2	16.2	87.2	87.2	6.3	5.1	6.0	6	5	815598	804264		
						1.0	0.5	198	27.7	7.9	7.9	16.2	87.2	6.3										
					Middle	4.1	0.6	212	26.4	7.9	7.9	28.8	28.9	55.0	55.8	3.8								
						4.1	0.6	217	26.5	7.9	7.9	29.0	28.9	56.5	55.8	3.9								
					Bottom	7.2	0.6	211	25.6	8.0	8.0	28.6	29.1	52.2	52.2	3.6							3.6	9.3
						7.2	0.6	204	25.6	8.0	8.0	29.6	29.1	52.2	52.2	3.6							3.6	9.4
C2	Sunny	Moderate	14:05	10.2	Surface	1.0	0.9	175	27.4	7.8	7.8	10.5	10.5	81.4	81.4	6.1	5.0	6.8	5	825699	806960			
						1.0	0.9	182	27.4	7.8	7.8	10.5	81.4	6.1										
					Middle	5.1	0.9	160	26.2	8.0	8.0	25.4	25.4	53.7	53.7	3.8								
						5.1	0.8	167	26.2	8.0	8.0	25.4	25.4	53.6	53.7	3.8								
					Bottom	9.2	0.9	159	26.1	8.1	8.1	26.4	26.4	53.3	53.3	3.7						3.7	7.3	
						9.2	0.9	156	26.1	8.1	8.1	26.4	26.4	53.3	53.3	3.7						3.7	7.3	
C3	Sunny	Calm	11:28	8.8	Surface	1.0	0.3	58	27.0	8.7	8.7	18.1	18.2	114.0	113.5	8.2	7.6	3.4	8	822091	817804			
						1.0	0.4	60	26.9	8.7	8.7	18.3	18.2	113.0	113.5	8.1								
					Middle	4.4	0.4	68	26.5	8.7	8.7	19.3	19.3	98.6	98.7	7.1								
						4.4	0.4	73	26.5	8.7	8.7	19.3	19.3	98.7	98.7	7.1								
					Bottom	7.8	0.4	44	26.6	8.8	8.8	22.6	22.6	100.6	100.9	7.1						7.1	4.0	
						7.8	0.4	42	26.7	8.8	8.8	22.6	22.6	101.2	100.9	7.1						7.1	4.0	
IM1	Sunny	Moderate	12:41	6.2	Surface	1.0	0.5	186	27.1	8.0	8.0	20.1	20.1	88.5	88.5	6.3	5.2	7.6	4	818364	806454			
						1.0	0.4	182	27.1	8.0	8.0	20.1	20.1	88.5	88.5	6.3								
					Middle	3.1	0.4	177	25.8	8.0	8.0	30.8	30.8	58.6	58.6	4.0								
						3.1	0.4	183	25.8	8.0	8.0	30.8	30.8	58.6	58.6	4.0								
					Bottom	5.2	0.4	203	25.7	8.0	8.0	32.6	32.6	59.2	59.2	4.0						4.0	13.4	
						5.2	0.4	196	25.7	8.0	8.0	32.6	32.6	59.2	59.2	4.0						4.0	13.4	
IM2	Sunny	Moderate	12:48	6.8	Surface	1.0	0.5	197	27.6	8.0	8.0	19.4	19.5	88.6	88.4	6.3	4.9	7.5	6	819183	806232			
						1.0	0.5	196	27.5	8.0	8.0	19.5	19.5	88.1	88.4	6.2								
					Middle	3.4	0.5	198	25.9	8.0	8.0	29.6	29.6	52.6	52.6	3.6								
						3.4	0.5	198	25.9	8.0	8.0	29.6	29.6	52.6	52.6	3.6								
					Bottom	5.8	0.5	213	25.7	8.0	8.0	32.8	32.8	55.4	55.4	3.7						3.7	13.8	
						5.8	0.5	214	25.7	8.0	8.0	32.8	32.8	55.4	55.4	3.7						3.7	13.3	
IM7	Sunny	Moderate	13:26	7.8	Surface	1.0	0.4	216	27.9	7.8	7.8	13.1	13.1	88.6	88.6	6.5	6.3	6.3	7	821351	806814			
						1.0	0.4	218	27.9	7.8	7.8	13.1	13.1	88.6	88.6	6.5								
					Middle	3.9	0.4	213	27.5	7.9	7.9	14.8	14.8	83.0	83.0	6.0								
						3.9	0.4	209	27.5	7.9	7.9	14.8	14.8	83.0	83.0	6.0								
					Bottom	6.8	0.4	215	26.2	8.0	8.0	27.1	27.1	53.1	53.3	3.7						3.7	12.1	
						6.8	0.4	216	26.2	8.0	8.0	27.1	27.1	53.4	53.3	3.7						3.7	11.5	

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 28 June 22 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)				
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA		
IM10	Sunny	Calm	12:49	8.0	Surface	1.0	0.7	109	<u>27.2</u>	27.2	8.0	8.0	10.9	11.2	100.9	100.8	7.5	7.5	4.9	5.6	3	3	822232	809844				
						1.0	0.7	110	27.2		8.0		11.4		100.7		7.5		4.8		4							
					Middle	4.0	0.6	135	<u>27.1</u>	27.1	8.0	8.0	12.7	12.7	99.7	99.6	7.4	7.4	5.9	6.6	6.2	6.6			3	3		
						4.0	0.6	136	27.1		8.0		12.7		99.5		7.4		5.9		3							
					Bottom	7.0	0.7	117	<u>26.3</u>	26.3	7.9	7.9	20.0	20.0	88.2	90.8	6.4	6.6	6.1	6.6	2	6.6			3	3		
						7.0	0.7	116	26.3		7.9		20.0		93.3		6.7		6.1		3							
IM11	Sunny	Calm	12:41	9.4	Surface	1.0	0.7	102	<u>26.5</u>	26.5	8.1	8.1	14.0	13.9	91.8	90.8	6.8	6.0	7.0	8.2	3	3	821481	810532				
						1.0	0.8	101	26.4		8.1		13.9		89.8		6.7		7.1		3							
					Middle	4.7	0.8	84	<u>26.1</u>	26.1	7.9	7.9	21.1	21.1	72.8	72.9	5.2	5.6	8.4	5.6	8.5	5.6			4	4		
						4.7	0.8	82	26.1		7.9		21.1		73.0		5.3		9.1		3							
					Bottom	8.4	0.7	99	<u>26.1</u>	26.1	7.9	7.9	21.6	21.5	75.7	78.3	5.4	5.6	9.1	5.6	3	5.6			4	4		
						8.4	0.7	96	26.1		7.9		21.4		80.9		5.8		9.1		4							
IM12	Sunny	Calm	12:32	9.2	Surface	1.0	0.8	103	<u>27.4</u>	27.4	8.1	8.0	14.3	14.4	90.4	88.9	6.6	5.7	5.3	6.4	4	4	821180	811528				
						1.0	0.8	103	27.4		8.0		14.5		87.4		6.4		5.4		5							
					Middle	4.6	0.8	83	<u>25.9</u>	25.9	7.9	7.9	23.4	23.5	67.2	67.6	4.8	5.4	6.7	5.4	6.8	5.4			4	4		
						4.6	0.8	78	25.9		7.9		23.5		67.9		4.8		7.1		4							
					Bottom	8.2	0.8	94	<u>25.9</u>	26.0	7.9	7.9	23.6	23.6	74.3	74.9	5.3	5.4	7.1	5.4	4	5.4			4	4		
						8.2	0.8	101	26.0		7.9		23.6		75.4		5.4		7.2		4							
SR1A	Sunny	Calm	12:09	5.0	Surface	1.0	0.0	129	<u>27.4</u>	27.4	8.1	8.1	14.7	14.7	110.1	109.9	8.0	8.0	5.6	8.0	4	4	819975	812666				
						1.0	0.1	127	27.4		8.1		14.7		109.7		8.0		5.5		4							
					Middle	2.5	0.0	105	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
						2.5	0.0	102	-		-		-		-		-		-		-				-			
					Bottom	4.0	-	109	<u>27.7</u>	27.7	8.1	8.1	16.1	16.1	110.2	110.7	7.9	8.0	7.0	8.0	7.0	8.0			4	8.0	4	4
						4.0	-	108	27.7		8.1		16.0		111.1		8.0		6.8		4							
SR2	Sunny	Calm	11:53	4.2	Surface	1.0	0.7	54	<u>27.1</u>	27.1	8.1	8.1	13.8	13.8	110.4	109.8	8.1	8.1	4.7	8.1	4	4	821441	814181				
						1.0	0.7	48	27.1		8.1		13.8		109.1		8.0		4.6		5							
					Middle	-	0.7	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	5	5
						-	0.7	56	-		-		-		-		-		-		-							
					Bottom	3.2	0.6	35	<u>27.4</u>	27.5	8.1	8.1	15.5	15.5	103.2	103.9	7.5	7.6	4.7	7.6	4.7	7.6			6	7.6	5	5
						3.2	0.7	38	27.5		8.1		15.4		104.5		7.6		4.8		5							
SR3	Sunny	Moderate	13:33	8.6	Surface	1.0	0.8	169	<u>28.2</u>	28.2	7.8	7.8	12.4	12.4	91.7	89.8	6.7	5.4	3.6	7.2	4	4	822147	807584				
						1.0	0.8	167	28.1		7.8		12.5		87.8		6.4		3.5		4							
					Middle	4.3	0.8	156	<u>26.5</u>	26.5	7.8	7.8	21.8	21.8	61.0	61.0	4.3	3.4	4.6	3.4	4.5	3.4			4	4		
						4.3	0.8	156	26.4		7.8		21.8		60.9		4.3		4.6		4							
					Bottom	7.6	0.8	155	<u>26.1</u>	26.2	7.9	7.9	29.0	29.0	49.8	49.9	3.4	3.4	13.2	3.4	13.2	3.4			4	3.4		
						7.6	0.8	158	26.2		7.9		29.0		50.0		3.4		13.5		5							
SR4A	Sunny	Moderate	12:04	8.7	Surface	1.0	0.0	79	<u>27.1</u>	27.1	8.0	8.0	17.3	17.4	85.9	85.8	6.2	4.9	5.2	9.7	6	6	817168	807800				
						1.0	0.1	74	27.1		8.0		17.4		85.6		6.2		5.1		6							
					Middle	4.4	0.0	89	<u>25.7</u>	25.7	8.0	8.0	31.4	31.5	52.7	52.7	3.6	3.5	10.2	3.5	10.4	3.5			6	6		
						4.4	0.1	95	25.7		8.0		31.5		52.7		3.6		10.4		6							
					Bottom	7.7	0.1	97	<u>25.7</u>	25.7	8.0	8.0	32.5	32.5	51.3	51.3	3.5	3.5	13.7	3.5	13.7	3.5			6	3.5		
						7.7	0.1	96	25.7		8.0		32.5		51.3		3.5		14.0		8							
SR8	Sunny	Calm	12:28	5.4	Surface	1.0	-	-	<u>27.5</u>	27.5	8.1	8.1	13.7	13.7	103.6	101.2	7.6	7.4	7.0	7.6	5	4	820410	811607				
						1.0	-	-	27.4		8.0		13.7		98.7		7.2		7.0		4							
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4	4
						-	-	-	-		-		-		-		-		-		-							
					Bottom	4.4	-	-	<u>26.5</u>	26.6	8.0	8.0	19.7	19.7	100.5	102.3	7.2	7.3	8.1	7.3	8.1	7.3			4	7.3		
						4.4	-	-	26.6		8.0		19.6		104.0		7.4		8.1		4							

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



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

**Water Quality Monitoring**

**Water Quality Monitoring Results on 28 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Fine	Moderate	19:18	8.3	Surface	1.0	0.3	25	28.8	28.8	7.8	7.8	14.9	14.8	108.9	108.9	7.7	6.0	8.3	10.2	7	6	815628	804255
						1.0	0.3	20	28.8	7.8	7.8	14.8	14.8	108.9	108.9	7.7	6.0	8.3	10.2	6				
					Middle	4.2	0.3	43	26.0	26.0	7.9	7.9	21.7	21.7	59.6	59.6	4.2	3.7	11.6	6	6			
						4.2	0.4	42	26.0	26.0	7.9	7.9	21.7	21.7	59.6	59.6	4.2	3.7	11.7	6	6			
					Bottom	7.3	0.3	32	26.4	26.4	8.0	8.0	31.7	31.7	55.4	55.4	3.7	3.7	10.6	5	6			
						7.3	0.3	36	26.4	26.4	8.0	8.0	31.7	31.7	55.4	55.4	3.7	3.7	10.3	5	6			
C2	Sunny	Moderate	18:15	10.8	Surface	1.0	0.1	192	28.0	28.0	8.0	8.0	10.4	10.4	91.7	91.6	6.7	5.4	6.2	5.9	5	6	825701	806942
						1.0	0.0	188	28.0	28.0	8.0	8.0	10.4	10.4	91.5	91.6	6.7	5.4	6.4	5.9	6			
					Middle	5.4	0.1	182	26.6	26.6	8.0	8.0	23.7	23.7	57.5	57.4	4.0	3.7	3.8	5	6			
						5.4	0.2	185	26.6	26.6	8.0	8.0	23.8	23.7	57.3	57.4	4.0	3.7	3.8	5	6			
					Bottom	9.8	0.1	202	26.5	26.5	8.1	8.0	24.9	24.9	53.3	53.0	3.7	3.7	7.6	5	6			
						9.8	0.1	203	26.5	26.5	8.0	8.0	25.0	24.9	52.7	53.0	3.6	3.7	7.6	5	6			
C3	Sunny	Moderate	19:28	10.0	Surface	1.0	0.4	247	27.7	27.7	8.1	8.1	14.6	14.7	104.2	103.5	7.6	7.0	4.1	5.2	5	5	822132	817820
						1.0	0.4	253	27.7	27.7	8.1	8.1	14.7	14.7	102.8	103.5	7.6	7.0	4.1	5.2	5			
					Middle	5.0	0.4	248	26.4	26.4	8.0	8.0	21.1	21.1	89.2	89.2	6.4	6.5	5.5	4	5			
						5.0	0.4	251	26.4	26.4	8.0	8.0	21.2	21.1	89.1	89.2	6.4	6.5	5.5	4	5			
					Bottom	9.0	0.4	240	26.5	26.6	8.0	8.0	25.5	25.3	91.0	92.9	6.3	6.5	6.0	5	5			
						9.0	0.4	246	26.6	26.6	8.0	8.0	25.2	25.3	94.7	92.9	6.6	6.5	6.0	5	5			
IM1	Fine	Moderate	19:00	6.6	Surface	1.0	0.3	25	28.2	28.2	7.9	7.9	17.8	17.9	112.4	112.4	7.9	6.3	5.3	8.4	6	7	818334	806455
						1.0	0.2	18	28.2	28.2	7.9	7.9	17.9	17.9	112.4	112.4	7.8	6.3	5.7	8.4	6			
					Middle	3.3	0.2	19	26.3	26.3	8.0	8.0	24.3	24.4	68.9	68.9	4.8	3.6	9.2	7	7			
						3.3	0.2	25	26.2	26.3	8.0	8.0	24.4	24.4	68.9	68.9	4.8	3.6	9.8	7	7			
					Bottom	5.6	0.2	3	25.9	25.9	8.0	8.0	32.6	32.6	53.2	53.2	3.6	3.6	10.5	8	8			
						5.6	0.3	6	25.9	25.9	8.0	8.0	32.6	32.6	53.2	53.2	3.6	3.6	10.2	7	7			
IM2	Fine	Moderate	18:53	7.2	Surface	1.0	0.2	347	27.8	27.8	8.0	8.0	17.5	17.5	119.8	119.8	8.4	6.9	3.3	4.3	7	8	819197	806224
						1.0	0.3	351	27.7	27.7	8.0	8.0	17.6	17.5	119.8	119.8	8.5	6.9	3.4	4.3	7			
					Middle	3.6	0.3	328	26.7	26.7	8.0	8.0	23.1	23.1	78.0	78.0	5.4	3.6	4.4	8	8			
						3.6	0.3	329	26.7	26.7	8.0	8.0	23.1	23.1	78.0	78.0	5.4	3.6	4.4	8	8			
					Bottom	6.2	0.2	351	26.0	26.0	7.9	7.9	31.9	31.9	53.2	53.2	3.6	3.6	5.2	8	8			
						6.2	0.3	356	26.0	26.0	7.9	7.9	32.0	31.9	53.2	53.2	3.6	3.6	5.1	8	8			
IM7	Sunny	Moderate	18:28	8.1	Surface	1.0	0.2	254	27.7	27.7	7.8	7.8	9.5	9.4	92.1	92.1	6.8	6.4	6.3	9.8	6	6	821351	806858
						1.0	0.3	249	27.7	27.7	7.8	7.8	9.4	9.4	92.1	92.1	6.8	6.4	6.3	9.8	6			
					Middle	4.1	0.3	252	27.5	27.5	7.8	7.8	10.7	10.7	82.1	82.0	6.0	6.0	10.7	6	6			
						4.1	0.3	248	27.5	27.5	7.8	7.8	10.8	10.7	81.9	82.0	6.0	6.0	10.3	6	6			
					Bottom	7.1	0.3	243	27.5	27.5	7.8	7.8	12.1	12.1	81.9	82.0	6.0	6.0	12.5	5	6			
						7.1	0.3	237	27.5	27.5	7.8	7.8	12.1	12.1	82.0	82.0	6.0	6.0	12.9	5	6			

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Water Quality Monitoring

Water Quality Monitoring Results on 28 June 22 during Mid-Flood Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)							
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA			Value	DA					
IM10	Sunny	Moderate	18:24	8.2	Surface	1.0	0.2	273	<u>27.5</u>	27.5	8.1	8.1	9.0	9.1	101.9	102.0	7.7	7.7	8.1	9.1	7	7	822221	809830							
						1.0	0.2	277	27.5		8.1		9.1		102.0		7.7		8.1		7										
					Middle	4.1	0.2	278	<u>27.5</u>	27.5	8.1	8.1	9.3	9.3	102.4	102.5	7.7	7.7	9.0	7.7	7	7			7	7					
						4.1	0.3	277	27.5		8.1		9.3		102.6		7.7		9.0		7										
					Bottom	7.2	0.2	288	<u>27.5</u>	27.5	8.1	8.1	10.5	10.5	104.2	104.5	7.8	7.8	10.2	7.8	7	7			6	7					
						7.2	0.2	284	27.5		8.1		10.5		104.8		7.8		10.1		7										
					IM11	Sunny	Moderate	18:29	7.2	Surface	1.0	0.2	264	<u>27.6</u>	27.6	8.0	8.0	7.8	7.8	99.8	99.8	7.5			7.5	8.4	9.2	7	8	821483	810553
											1.0	0.3	265	27.5		8.0		7.8		99.7		7.5				8.4		7			
Middle	3.6	0.2	268	<u>27.4</u>						27.4	8.0	8.0	8.5	8.5	98.8	98.7	7.5	7.4	9.1	7.4	8	7.3	8	8							
	3.6	0.3	268	27.4							8.0		8.4		98.5		7.4		9.2		8										
Bottom	6.2	0.2	257	<u>27.3</u>						27.4	8.0	8.0	14.6	14.5	99.5	100.3	7.3	7.4	10.0	7.4	7	7.4	9	8							
	6.2	0.2	254	27.4							8.0		14.4		101.1		7.4		10.0		8										
IM12	Sunny	Moderate	18:35	7.0						Surface	1.0	0.3	292	<u>27.7</u>	27.7	8.0	8.0	7.4	7.4	102.6	102.6	7.8	7.8	6.0	7.3	7	7	821177	811528		
											1.0	0.3	287	27.6		8.0		7.4		102.5		7.8		6.1		8					
					Middle	3.5	0.3	306	<u>27.4</u>	27.4	8.0	8.0	9.6	9.8	102.6	102.7	7.7	7.7	7.3	8.0	6	7.3	6	7							
						3.5	0.3	310	27.4		8.0		9.9		102.8		7.7		7.3		7										
					Bottom	6.0	0.2	297	<u>27.4</u>	27.4	8.0	8.0	10.9	10.8	106.4	107.2	7.9	8.0	8.7	8.0	6	8.0	6	8.6							
						6.0	0.3	292	27.4		8.1		10.8		107.9		8.0		8.6		6										
					SR1A	Sunny	Moderate	18:51	4.4	Surface	1.0	0.0	196	<u>28.1</u>	28.2	8.3	8.3	12.3	12.3	137.6	141.2	10.0	10.3	9.1	9.6	6	6			819971	812660
											1.0	0.0	192	28.2		8.4		12.3		144.7		10.5		9.1		6					
Middle	2.2	0.1	207	-						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6						
	2.2	0.0	201	-							-		-		-		-		-		-										
Bottom	3.4	-	219	<u>28.2</u>						28.2	8.4	8.4	14.0	13.9	142.8	140.0	10.3	10.1	10.0	10.1	6	10.1	6	7							
	3.4	0.0	219	28.2							8.4		13.9		137.1		9.9		10.1		7										
SR2	Sunny	Moderate	19:09	4.4						Surface	1.0	0.1	292	<u>28.0</u>	28.0	8.1	8.1	9.5	9.6	111.5	111.5	8.3	8.3	6.2	7.0	7	6	821466	814183		
											1.0	0.0	298	27.9		8.1		9.6		111.4		8.3		6.1		6					
					Middle	-	0.1	271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6						
						-	0.1	272	-		-		-		-		-		-		-										
					Bottom	3.4	0.1	292	<u>27.8</u>	27.8	8.1	8.1	9.7	9.7	112.0	112.7	8.3	8.4	7.8	8.4	6	7.9	6	6							
						3.4	0.1	289	27.8		8.1		9.7		113.3		8.4		7.9		6										
SR3	Sunny	Moderate	18:23	8.9	Surface	1.0	0.2	177	<u>27.8</u>	27.8	7.8	7.8	10.8	10.7	83.4	83.5	6.1	5.4	6.5	5.4	6	6	822164	807555							
						1.0	0.1	173	<u>27.8</u>		7.8		10.6		83.5		6.1		6.6		6										
					Middle	4.5	0.2	187	<u>26.9</u>	26.9	7.8	7.8	18.4	18.4	66.6	66.6	4.7	4.7	4.1	4.7	6	4.3			6	6					
						4.5	0.2	185	26.9		7.8		18.4		66.6		4.7		4.3		6										
					Bottom	7.9	0.2	188	<u>26.9</u>	26.9	7.9	7.9	18.7	18.7	66.7	66.7	4.7	4.7	5.6	4.7	6	4.7			6	5					
						7.9	0.1	190	26.9		7.9		18.8		66.7		4.7		5.6		5										
SR4A	Fine	Moderate	19:34	8.7	Surface	1.0	0.1	136	<u>28.7</u>	28.7	8.1	8.1	17.1	17.1	130.3	130.3	9.1	7.1	10.9	9.9	12	10	817204	807815							
						1.0	0.0	131	28.7		8.1		17.0		130.2		9.1		10.9		13										
					Middle	4.4	0.1	158	<u>26.8</u>	26.8	8.0	8.0	23.6	23.5	73.5	73.5	5.1	4.2	8.4	4.2	10	8.1			10	8					
						4.4	0.1	164	26.8		8.0		23.5		73.5		5.1		8.1		10										
					Bottom	7.7	0.0	164	<u>26.7</u>	26.7	8.0	8.0	25.8	25.8	61.3	61.3	4.2	4.2	10.5	4.2	8	4.2			8	8					
						7.7	0.1	158	26.7		8.0		25.8		61.3		4.2		10.4		8										
SR8	Sunny	Moderate	18:39	5.2	Surface	1.0	-	-	<u>28.4</u>	28.4	8.2	8.2	9.8	9.8	119.6	119.5	8.8	8.8	8.2	8.7	7	7	820367	811610							
						1.0	-	-	28.4		8.2		9.8		119.3		8.8		8.4		7										
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	7				
						-	-	-	-		-		-		-		-		-		-										
					Bottom	4.2	-	-	<u>28.4</u>	28.4	8.2	8.2	11.7	11.7	120.1	122.3	8.7	8.9	9.2	8.9	7	9.1			7	8					
						4.2	-	-	28.4		8.2		11.7		124.4		9.1		9.1		8										

DA: Depth-Averaged

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

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

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

Water Quality Monitoring

Water Quality Monitoring Results on 30 June 22 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA		
C1	Cloudy	Moderate	12:29	8.0	Surface	1.0	0.4	207	27.2	8.1	8.1	18.9	18.9	87.6	87.6	6.3	5.8	2.5	7.6	4	4	815602	804237	
						1.0	0.4	201	27.1	8.1	8.1	18.9	18.9	87.5	87.6	6.3	5.8	2.6	7.6	5				
					Middle	4.0	0.4	217	26.5	8.1	8.1	23.0	23.0	74.4	74.4	5.3	5.8	5.5	7.6	4				
						4.0	0.4	215	26.4	8.1	8.1	23.0	23.0	74.4	74.4	5.3	5.8	5.7	7.6	4				
					Bottom	7.0	0.4	186	25.9	8.0	8.0	30.4	30.4	56.3	56.4	3.9	3.9	14.1	7.6	3				
						7.0	0.3	193	25.9	8.0	8.0	30.4	30.4	56.4	56.4	3.9	3.9	14.9	7.6	3				
C2	Cloudy	Moderate	13:56	11.4	Surface	1.0	0.8	179	27.4	8.1	8.1	19.0	19.0	90.3	90.2	6.4	5.5	2.9	4.7	4	5	825673	806943	
						1.0	0.8	183	27.3	8.1	8.1	19.0	19.0	90.1	90.2	6.4	5.5	3.1	4.7	4				
					Middle	5.7	0.8	158	26.8	8.1	8.1	25.5	25.5	64.9	64.9	4.5	4.1	4.5	4.7	5				
						5.7	0.8	161	26.8	8.1	8.1	25.6	25.6	64.9	64.9	4.5	4.1	4.6	4.7	5				
					Bottom	10.4	0.9	148	26.5	8.0	8.0	28.4	28.4	60.2	60.3	4.1	4.1	6.5	4.7	5				
						10.4	0.9	153	26.6	8.0	8.0	28.4	28.4	60.3	60.3	4.1	4.1	6.4	4.7	6				
C3	Rainy	Moderate	12:29	9.0	Surface	1.0	0.4	73	26.8	8.1	8.1	23.0	23.0	108.1	108.1	7.6	7.4	3.1	3.7	4	4	822103	817801	
						1.0	0.5	69	26.8	8.1	8.1	23.0	23.0	108.1	108.1	7.6	7.4	3.1	3.7	4				
					Middle	4.5	0.4	91	26.6	7.9	7.9	23.6	23.6	101.2	101.2	7.1	7.1	3.5	3.7	4				
						4.5	0.4	93	26.6	7.9	7.9	23.6	23.6	101.2	101.2	7.1	7.1	3.6	3.7	4				
					Bottom	8.0	0.4	76	26.7	7.9	7.9	23.7	23.7	100.4	100.6	7.1	7.1	4.4	3.7	4				
						8.0	0.4	74	26.7	7.9	7.9	23.7	23.7	100.7	100.6	7.1	7.1	4.4	3.7	5				
IM1	Cloudy	Moderate	12:45	6.4	Surface	1.0	0.3	172	27.1	8.0	8.0	22.7	22.7	107.3	107.3	7.5	6.5	2.5	5.5	6	5	818366	806455	
						1.0	0.3	175	27.1	8.0	8.0	22.7	22.7	107.3	107.3	7.5	6.5	2.5	5.5	6				
					Middle	3.2	0.3	177	26.5	8.0	8.0	23.8	23.8	76.6	76.5	5.4	4.1	2.9	5.5	6				
						3.2	0.3	183	26.5	8.0	8.0	23.8	23.8	76.4	76.5	5.4	4.1	2.9	5.5	5				
					Bottom	5.4	0.3	168	26.1	8.0	8.0	27.2	27.2	58.6	58.4	4.1	4.1	11.0	5.5	3				
						5.4	0.3	172	26.1	8.0	8.0	27.2	27.2	58.2	58.4	4.0	4.1	11.0	5.5	4				
IM2	Cloudy	Moderate	12:51	7.1	Surface	1.0	0.3	204	27.0	8.0	8.0	22.2	22.2	104.0	103.8	7.3	6.3	2.3	2.6	5	5	819182	806230	
						1.0	0.3	201	26.9	8.0	8.0	22.2	22.2	103.5	103.8	7.3	6.3	2.3	2.6	4				
					Middle	3.6	0.4	203	26.5	8.0	8.0	24.1	24.1	75.4	75.5	5.3	4.7	2.4	2.6	4				
						3.6	0.4	210	26.5	8.0	8.0	24.1	24.1	75.6	75.5	5.3	4.7	2.4	2.6	5				
					Bottom	6.1	0.4	211	26.4	8.0	8.0	26.2	26.2	67.1	67.2	4.7	4.7	3.1	2.6	6				
						6.1	0.3	205	26.5	8.0	8.0	26.2	26.2	67.2	67.2	4.7	4.7	3.1	2.6	6				
IM7	Cloudy	Moderate	13:19	7.9	Surface	1.0	0.3	158	27.1	8.1	8.1	20.8	20.9	95.9	95.7	6.8	5.8	3.3	7.4	7	6	821358	806821	
						1.0	0.3	153	27.0	8.1	8.1	20.9	20.9	95.4	95.7	6.8	5.8	3.3	7.4	6				
					Middle	4.0	0.3	186	26.4	8.1	8.1	24.8	24.8	67.2	67.1	4.7	3.7	5.7	7.4	5				
						4.0	0.3	183	26.3	8.1	8.1	24.8	24.8	66.9	67.1	4.7	3.7	5.5	7.4	6				
					Bottom	6.9	0.3	184	26.0	8.1	8.1	28.6	28.6	53.6	53.7	3.7	3.7	13.2	7.4	6				
						6.9	0.3	176	26.0	8.1	8.1	28.6	28.6	53.8	53.7	3.7	3.7	13.3	7.4	5				

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

Water Quality Monitoring

Water Quality Monitoring Results on 30 June 22 during Mid-Ebb Tide

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA				
IM10	Rainy	Moderate	13:48	8.6	Surface	1.0	0.7	103	26.8	26.8	8.2	8.2	18.2	18.2	121.9	120.6	8.8	7.9	3.1	4.3	4	822228	809858			
						1.0	0.7	105	26.8	8.2	8.2	18.2	18.2	119.2	120.6	8.6	7.9	3.2	4.3	3						
					Middle	4.3	0.6	117	26.7	26.7	8.1	8.1	19.0	19.0	101.3	99.2	7.3	7.0	4.1	4.3	4					
						4.3	0.7	116	26.7	26.7	8.1	8.1	19.0	19.0	97.1	99.2	7.0	7.0	4.1	4.3	3					
					Bottom	7.6	0.7	106	26.8	26.9	8.0	8.0	22.5	22.5	93.2	95.9	6.6	6.8	5.7	4.3	4					
						7.6	0.7	110	27.0	26.9	8.0	8.0	22.4	22.5	98.5	95.9	6.9	6.8	5.6	4.3	4					
IM11	Rainy	Moderate	13:41	8.2	Surface	1.0	0.7	99	26.8	26.8	8.3	8.3	17.2	17.3	116.5	114.7	8.5	7.3	3.4	4.6	5	821492	810544			
						1.0	0.6	99	26.8	26.8	8.3	8.3	17.3	17.3	112.9	114.7	8.2	7.3	3.4	4.6	4					
					Middle	4.1	0.7	79	26.8	26.8	8.0	8.0	20.0	20.1	87.8	87.6	6.3	6.6	4.7	4.6	4					
						4.1	0.7	84	26.8	26.8	8.0	8.0	20.2	20.1	87.4	87.6	6.2	6.6	4.7	4.6	4					
					Bottom	7.2	0.7	93	26.9	26.9	8.0	8.0	22.3	22.3	92.8	94.1	6.5	6.6	5.6	4.6	4					
						7.2	0.7	100	26.9	26.9	8.0	8.0	22.3	22.3	95.3	94.1	6.7	6.6	5.6	4.6	4					
IM12	Rainy	Moderate	13:33	8.4	Surface	1.0	0.9	103	27.3	27.3	8.3	8.3	17.3	17.4	124.8	124.6	9.0	8.1	3.2	4.7	3	821172	811517			
						1.0	0.9	98	27.2	27.3	8.3	8.3	17.4	17.4	124.3	124.6	9.0	8.1	3.3	4.7	4					
					Middle	4.2	0.8	110	26.9	26.9	8.2	8.2	18.2	18.0	100.8	98.8	7.3	6.7	4.9	4.7	5					
						4.2	0.9	105	26.9	26.9	8.2	8.2	17.9	18.0	96.7	98.8	7.0	6.7	4.9	4.7	4					
					Bottom	7.4	0.9	98	27.2	27.3	8.0	8.0	22.7	22.6	92.8	95.5	6.5	6.7	6.0	4.7	4					
						7.4	0.9	104	27.3	27.3	8.0	8.0	22.5	22.6	98.1	95.5	6.9	6.7	5.8	4.7	5					
SR1A	Rainy	Moderate	13:15	4.8	Surface	1.0	0.0	100	27.3	27.3	8.2	8.2	18.5	18.5	114.5	114.5	8.2	8.2	4.3	5.0	4	819975	812664			
						1.0	-	95	27.3	27.3	8.2	8.2	18.5	18.5	114.4	114.5	8.2	8.2	4.4	5.0	4					
					Middle	2.4	0.0	109	-	-	-	-	-	-	-	-	-	-	-	-	-			-	5.0	-
						2.4	-	103	-	-	-	-	-	-	-	-	-	-	-	-	-			-	5.0	-
					Bottom	3.8	0.0	98	27.5	27.5	8.2	8.2	19.9	19.7	114.6	114.6	8.1	8.1	5.8	4.6	4					
						3.8	0.0	99	27.5	27.5	8.2	8.2	19.6	19.7	114.6	114.6	8.1	8.1	5.6	4.6	4					
SR2	Rainy	Moderate	12:53	5.4	Surface	1.0	0.6	67	27.3	27.3	8.2	8.2	18.5	18.5	117.0	116.8	8.4	8.4	3.1	3.8	3	821474	814146			
						1.0	0.7	66	27.3	27.3	8.2	8.2	18.5	18.5	116.6	116.8	8.3	8.4	3.1	3.8	4					
					Middle	-	0.7	37	-	-	-	-	-	-	-	-	-	-	-	-	-			-	3.8	-
						-	0.6	42	-	-	-	-	-	-	-	-	-	-	-	-	-			-	3.8	-
					Bottom	4.4	0.7	45	27.3	27.3	8.2	8.2	18.6	18.6	113.0	113.0	8.1	8.1	4.6	4.6	4					
						4.4	0.7	41	27.2	27.3	8.2	8.2	18.6	18.6	112.9	113.0	8.1	8.1	4.6	4.6	4					
SR3	Cloudy	Moderate	13:35	8.6	Surface	1.0	0.7	151	27.9	27.9	8.0	8.0	18.6	18.6	106.6	106.6	7.5	6.4	1.8	3.3	5	822147	807579			
						1.0	0.7	155	27.8	27.9	8.0	8.0	18.6	18.6	106.5	106.6	7.5	6.4	1.8	3.3	5					
					Middle	4.3	0.7	154	26.9	26.9	8.1	8.1	22.0	22.0	73.4	73.2	5.2	4.6	3.1	3.3	6					
						4.3	0.7	157	26.8	26.9	8.1	8.1	22.1	22.0	73.0	73.2	5.2	4.6	3.2	3.3	6					
					Bottom	7.6	0.6	162	26.6	26.6	8.0	8.0	25.2	25.2	65.7	65.8	4.6	4.6	5.2	4.6	7					
						7.6	0.7	156	26.6	26.6	8.0	8.0	25.2	25.2	65.9	65.8	4.6	4.6	5.0	4.6	6					
SR4A	Cloudy	Moderate	12:13	9.0	Surface	1.0	0.0	101	26.8	26.8	7.9	7.9	22.4	22.4	92.2	92.0	6.5	5.7	5.8	10.1	4	817196	807796			
						1.0	0.0	106	26.7	26.8	8.0	8.0	22.4	22.4	91.7	92.0	6.5	5.7	5.3	10.1	4					
					Middle	4.5	0.0	112	26.4	26.4	8.0	8.0	25.4	25.4	68.4	68.5	4.8	4.3	9.7	10.1	3					
						4.5	0.0	114	26.4	26.4	8.0	8.0	25.4	25.4	68.5	68.5	4.8	4.3	9.6	10.1	4					
					Bottom	8.0	0.1	80	26.1	26.1	7.9	7.9	27.4	27.4	62.4	62.5	4.3	4.3	15.0	4.3	4					
						8.0	0.1	74	26.1	26.1	7.9	7.9	27.4	27.4	62.5	62.5	4.3	4.3	15.1	4.3	3					
SR8	Rainy	Moderate	13:29	5.6	Surface	1.0	-	-	27.6	27.6	8.3	8.3	17.7	17.7	123.9	123.7	8.8	8.8	3.1	4.0	4	820412	811608			
						1.0	-	-	27.6	27.6	8.3	8.3	17.8	17.7	123.5	123.7	8.8	8.8	3.1	4.0	4					
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	4.0	-
						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	4.0	-
					Bottom	4.6	-	-	27.6	27.6	8.3	8.3	17.9	17.8	122.6	122.7	8.8	8.8	4.9	8.8	4					
						4.6	-	-	27.6	27.6	8.3	8.3	17.7	17.8	122.8	122.7	8.8	8.8	4.8	8.8	5					

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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 June 22 during Mid-Flood Tide**

Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)		
									Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA						
C1	Cloudy	Moderate	20:41	8.8	Surface	1.0	0.3	31	27.6	27.6	8.0	8.0	19.5	19.5	121.8	121.7	8.6	7.5	2.2	8.3	6	6	815625	804238		
						1.0	0.3	31	27.5		8.0		19.5		121.6		8.6		2.3		6					
					Middle	4.4	0.3	49	26.7	26.7	8.0	8.0	22.3	22.5	90.5	90.1	6.4	4.9	10.4	4.9	6	5			5	5
						4.4	0.3	42	26.6		8.0		22.8		89.7		6.4		10.1		6					
					Bottom	7.8	0.4	52	26.4	26.4	8.0	8.0	26.1	26.1	70.0	70.0	4.9	4.9	12.7	4.9	5	5			5	5
						7.8	0.4	47	26.4		8.0		26.1		70.0		4.9		12.1		5					
C2	Cloudy	Moderate	19:41	11.0	Surface	1.0	0.1	191	27.4	27.4	7.9	7.9	19.1	19.1	88.7	88.8	6.3	5.4	3.0	4.6	6	6	825683	806959		
						1.0	0.1	184	27.4		7.9		19.1		88.9		6.3		3.0		7					
					Middle	5.5	0.1	196	26.7	26.7	8.0	8.0	25.4	25.4	63.3	63.3	4.4	4.0	4.7	4.0	6	6			6	6
						5.5	0.2	190	26.7		8.0		25.4		63.2		4.4		4.9		6					
					Bottom	10.0	0.1	189	26.6	26.6	8.0	8.0	28.1	28.1	58.9	59.0	4.0	4.0	6.0	4.0	6	6			6	6
						10.0	0.1	190	26.6		8.0		28.1		59.0		4.0		5.8		6					
C3	Rainy	Moderate	20:31	9.0	Surface	1.0	0.5	254	25.0	25.0	8.0	8.0	23.7	23.7	83.2	83.3	6.0	6.0	4.1	5.3	3	3	822093	817804		
						1.0	0.5	252	25.0		8.0		23.7		83.4		6.0		4.1		4					
					Middle	4.5	0.5	253	24.9	24.9	8.0	8.0	26.8	26.8	84.1	84.3	6.0	6.2	5.6	6.2	4	6.2			3	3
						4.5	0.5	254	24.9		8.0		26.9		84.5		6.0		5.5		3					
					Bottom	8.0	0.4	273	25.0	25.0	8.0	8.0	26.8	26.6	85.7	86.3	6.1	6.2	6.3	6.2	3	6.2			3	3
						8.0	0.4	268	25.0		8.0		26.3		86.8		6.2		6.2		3					
IM1	Cloudy	Moderate	20:27	6.8	Surface	1.0	0.2	13	27.2	27.2	8.2	8.2	22.8	22.8	110.4	110.2	7.7	6.0	2.2	4.9	4	5	818342	806466		
						1.0	0.3	6	27.1		8.2		22.8		110.0		7.7		2.2		5					
					Middle	3.4	0.2	10	26.2	26.2	8.2	8.2	26.2	26.2	61.8	61.4	4.3	4.0	4.7	4.0	5	4.0			5	5
						3.4	0.2	5	26.1		8.2		26.2		61.0		4.3		5.0		6					
					Bottom	5.8	0.2	34	26.1	26.1	8.1	8.1	28.8	28.8	57.5	57.7	4.0	4.0	7.4	4.0	5	4.0			6	6
						5.8	0.2	36	26.1		8.1		28.9		57.8		4.0		7.6		6					
IM2	Cloudy	Moderate	20:22	6.9	Surface	1.0	0.2	307	27.0	27.0	8.3	8.3	22.9	22.9	111.8	111.7	7.8	6.2	2.8	7.7	4	6	819161	806246		
						1.0	0.2	304	27.0		8.3		22.9		111.6		7.8		2.8		5					
					Middle	3.5	0.2	334	26.2	26.2	8.3	8.3	25.5	25.5	66.1	65.8	4.6	4.0	7.4	4.0	6	4.0			6	6
						3.5	0.2	331	26.2		8.3		25.5		65.4		4.6		8.2		6					
					Bottom	5.9	0.1	333	26.1	26.1	8.3	8.3	28.5	28.5	57.1	57.2	3.9	4.0	12.6	4.0	7	4.0			6	6
						5.9	0.1	332	26.1		8.3		28.5		57.3		4.0		12.7		6					
IM7	Cloudy	Moderate	20:02	7.8	Surface	1.0	0.3	269	27.7	27.7	8.1	8.1	19.3	19.3	111.5	111.4	7.9	6.9	2.1	2.7	7	6	821365	806823		
						1.0	0.3	271	27.7		8.2		19.3		111.3		7.9		2.1		6					
					Middle	3.9	0.2	240	26.6	26.6	8.2	8.2	23.0	23.0	83.2	82.9	5.9	4.8	2.7	4.8	7	4.8			5	5
						3.9	0.2	242	26.6		8.2		23.0		82.5		5.8		2.9		6					
					Bottom	6.8	0.3	252	26.5	26.6	8.1	8.1	25.6	25.6	68.6	68.8	4.8	4.8	3.3	4.8	5	4.8			6	6
						6.8	0.3	256	26.6		8.1		25.6		68.9		4.8		3.3		6					

DA: Depth-Averaged

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

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

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

**Water Quality Monitoring**

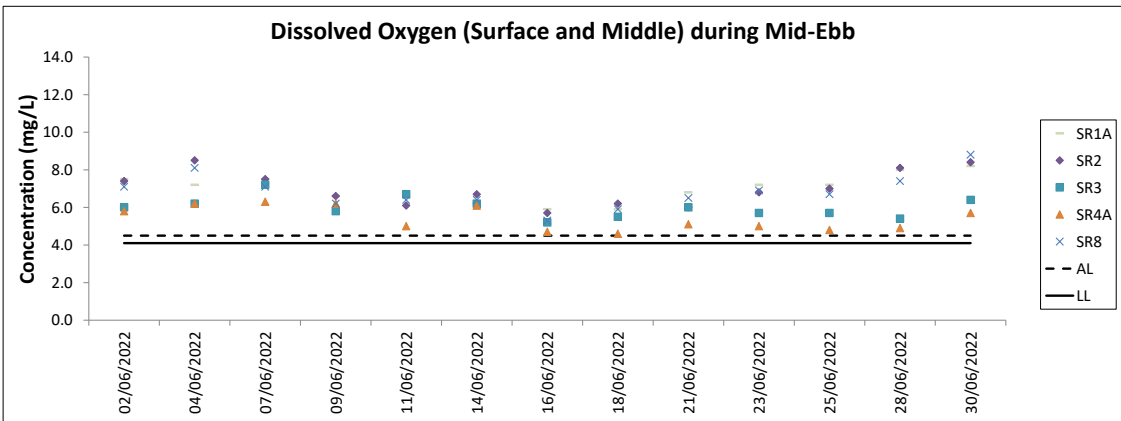
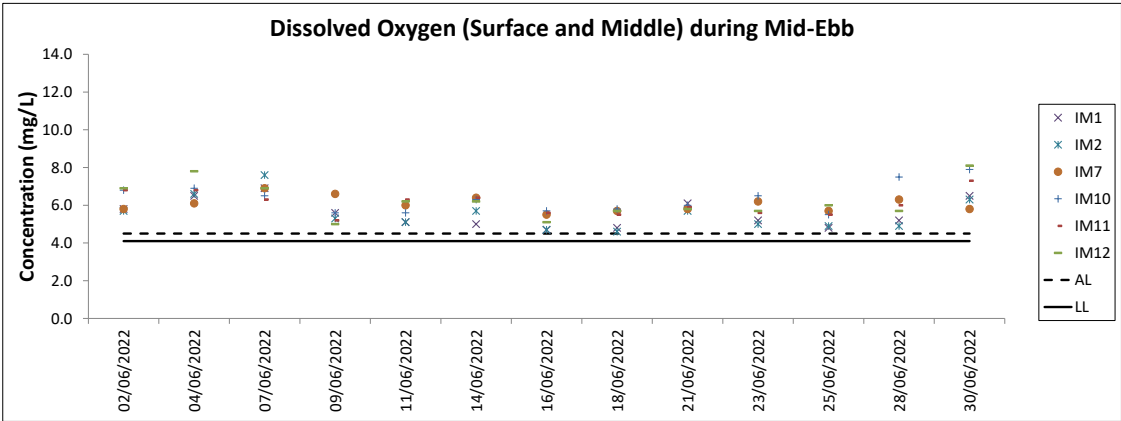
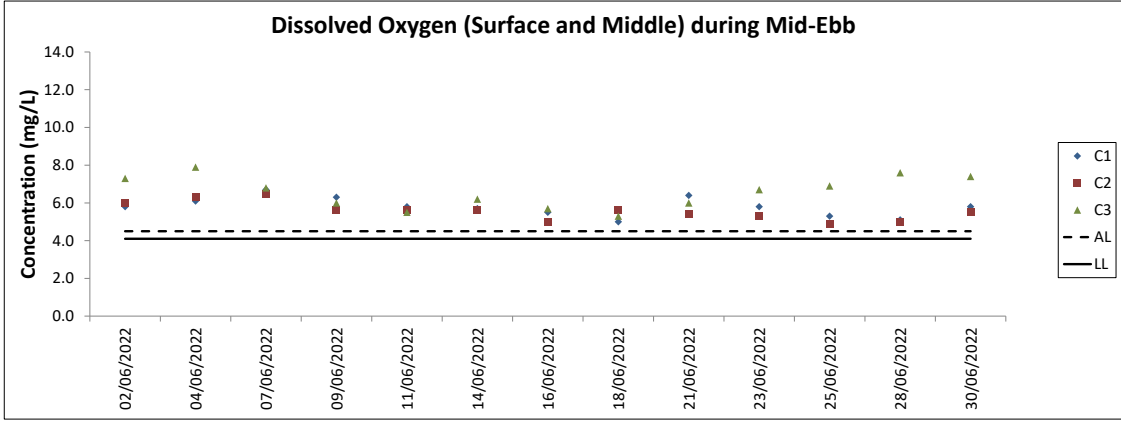
**Water Quality Monitoring Results on 30 June 22 during Mid-Flood Tide**

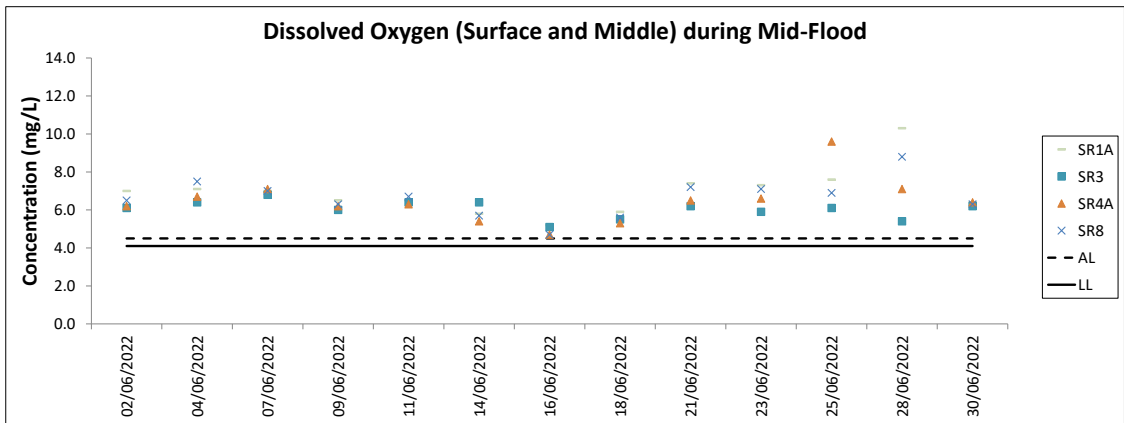
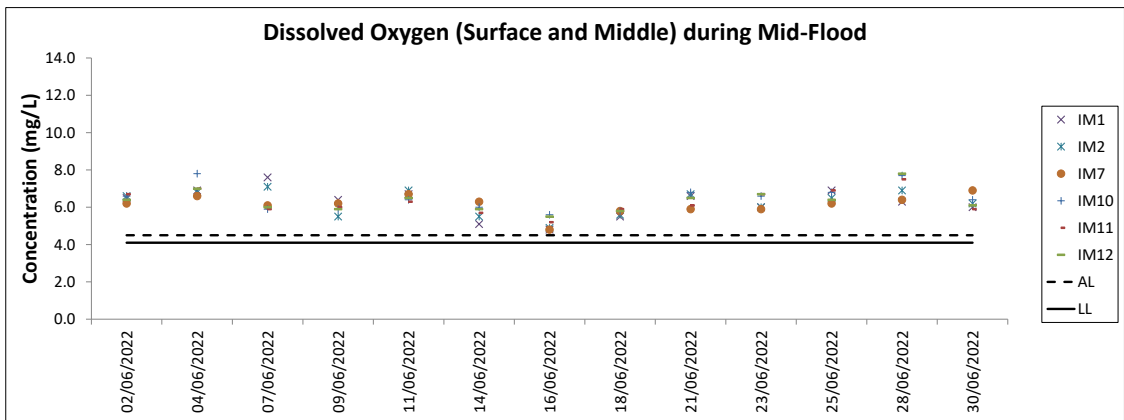
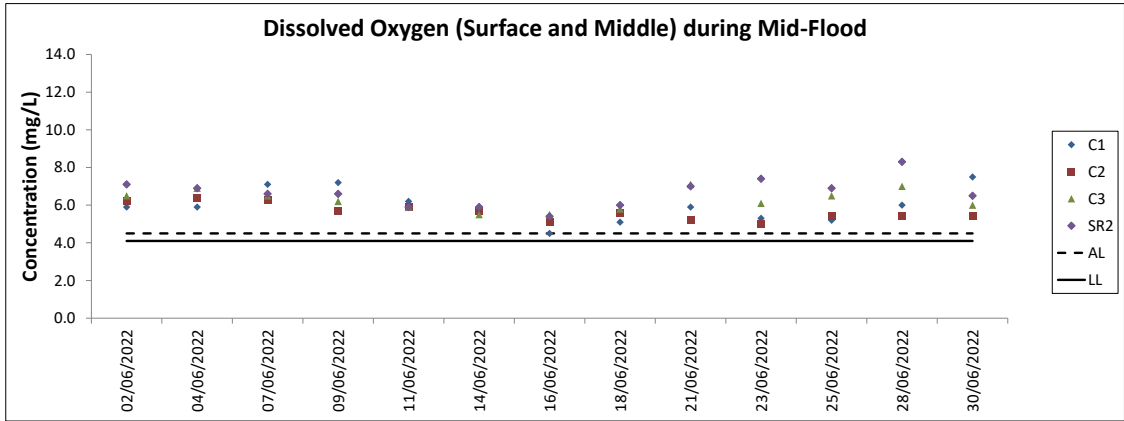
Monitoring Station	Weather Condition	Sea Condition	Sampling Time	Water Depth (m)	Sampling Depth (m)		Current Speed (m/s)	Current Direction	Water Temperature (°C)		pH		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen		Turbidity(NTU)		Suspended Solids (mg/L)		Coordinate HK Grid (Northing)	Coordinate HK Grid (Easting)			
									Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA					
IM10	Rainy	Moderate	19:35	8.0	Surface	1.0	0.2	237	25.4	25.4	8.1	8.1	16.3	16.3	86.5	86.4	6.5	6.4	5.4	6.2	4	4	822262	809819			
						1.0	0.1	241	25.4		8.1		16.3		86.3		6.5		5.3		3						
					Middle	4.0	0.1	244	25.4	25.4	8.1	8.0	16.6	16.6	84.8	84.7	6.3	6.4	6.1	6.4	4	6.5			4	6.0	3
						4.0	0.1	241	25.4		7.9		16.6		84.6		6.3		6.1		4						
					Bottom	7.0	0.2	241	25.5	25.5	7.9	8.0	19.0	18.9	84.4	86.3	6.2	6.4	7.1	6.4	7.1	6.4			5	6.0	4
						7.0	0.1	244	25.5		8.0		18.9		88.2		6.5		7.1		4						
IM11	Rainy	Moderate	19:40	7.0	Surface	1.0	0.2	276	25.3	25.3	8.0	8.0	16.8	16.8	79.7	79.6	6.0	5.9	5.7	6.5	3	3	821477	810529			
						1.0	0.2	283	25.3		8.0		16.9		79.4		6.0		5.6		2						
					Middle	3.5	0.2	291	25.3	25.3	8.0	8.0	19.8	19.9	79.1	79.2	5.8	6.0	6.1	6.0	6.0	6.0			3	6.0	4
						3.5	0.2	296	25.3		8.0		20.0		79.2		5.8		6.0		4						
					Bottom	6.0	0.3	280	25.3	25.3	8.0	8.0	21.9	21.9	80.8	81.6	5.9	6.0	7.9	6.0	7.9	6.0			3	6.0	4
						6.0	0.3	273	25.3		8.0		21.8		82.3		6.0		7.8		4						
IM12	Rainy	Moderate	19:45	8.2	Surface	1.0	0.3	281	25.4	25.4	8.0	8.0	15.4	15.4	85.6	85.2	6.4	6.1	4.2	6.1	4	4	821180	811511			
						1.0	0.3	286	25.4		8.0		15.4		84.7		6.4		4.2		4						
					Middle	4.1	0.3	300	25.3	25.3	8.0	8.0	19.5	19.2	79.1	79.1	5.8	6.0	6.6	6.0	6.5	6.0			4	6.0	4
						4.1	0.3	295	25.3		8.0		18.9		79.1		5.9		7.7		4						
					Bottom	7.2	0.3	298	25.3	25.3	8.0	8.0	21.6	21.6	81.5	81.7	6.0	6.0	7.7	6.0	7.7	6.0			4	6.0	4
						7.2	0.3	301	25.3		8.0		21.6		81.8		6.0		7.7		4						
SR1A	Rainy	Moderate	20:03	4.2	Surface	1.0	0.0	192	25.6	25.6	8.0	8.0	17.9	18.0	85.9	86.0	6.4	6.4	3.7	6.4	3	4.3	819971	812665			
						1.0	0.0	197	25.5		8.0		18.0		86.0		6.4		3.8		3						
					Middle	2.1	0.0	190	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4
						2.1	0.0	182	-		-		-		-		-		-		-						
					Bottom	3.2	0.0	214	25.2	25.3	8.0	8.0	21.5	21.4	87.0	87.3	6.3	6.4	4.8	6.4	4.8	6.4			5	6.4	4
						3.2	0.1	213	25.3		8.0		21.3		87.6		6.4		4.8		4						
SR2	Rainy	Moderate	20:14	5.0	Surface	1.0	0.0	286	25.4	25.4	8.0	8.0	15.3	15.1	85.9	85.8	6.5	6.5	3.1	6.5	4	3.7	821455	814156			
						1.0	0.0	287	25.4		8.0		15.0		85.7		6.4		3.1		4						
					Middle	-	0.1	265	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	4
						-	0.0	268	-		-		-		-		-		-		-						
					Bottom	4.0	0.1	291	25.3	25.3	8.0	8.0	20.4	20.3	87.9	88.8	6.4	6.5	4.3	6.5	4.2	6.5			4	6.5	4
						4.0	0.2	296	25.3		8.0		20.2		88.8		6.5		4.2		4						
SR3	Cloudy	Moderate	19:57	8.8	Surface	1.0	0.1	178	27.6	27.6	8.0	8.0	19.5	19.5	113.4	113.3	8.0	6.2	2.2	6.2	6	3.4	822133	807594			
						1.0	0.2	176	27.6		8.0		19.5		113.1		8.0		2.2		6						
					Middle	4.4	0.1	197	26.5	26.5	8.0	8.0	25.0	25.1	62.5	62.5	4.4	4.3	3.8	4.3	3.9	4.3			6	4.3	6
						4.4	0.1	202	26.5		8.0		25.2		62.5		4.4		3.9		6						
					Bottom	7.8	0.1	191	26.4	26.5	8.0	7.9	26.0	26.0	61.7	62.0	4.3	4.3	4.5	4.3	4.3	4.3			6	4.3	7
						7.8	0.1	197	26.5		7.9		26.0		62.0		61.9		4.3		4.2				7		
SR4A	Cloudy	Moderate	21:00	8.6	Surface	1.0	0.0	152	27.2	27.2	7.7	7.7	22.0	22.0	109.7	109.7	7.7	6.4	4.9	9.3	4	5	817198	807791			
						1.0	0.0	155	27.2		7.7		22.0		109.6		7.7		5.0		4						
					Middle	4.3	0.0	145	26.4	26.4	7.8	7.8	24.5	24.5	70.8	70.5	5.0	4.0	8.8	4.0	9.5	4.0			5	4.0	4
						4.3	0.0	138	26.4		7.8		24.5		70.5		5.0		9.5		4						
					Bottom	7.6	0.0	139	26.3	26.3	7.7	7.7	27.7	27.7	57.1	57.5	4.0	4.0	13.8	4.0	13.8	4.0			6	4.0	5
						7.6	0.0	135	26.3		7.7		27.7		57.5		4.0		13.8		5						
SR8	Rainy	Moderate	19:50	4.8	Surface	1.0	-	-	25.7	25.7	8.0	8.0	17.2	17.1	84.9	84.9	6.3	6.3	3.5	6.3	3	4.1	820376	811634			
						1.0	-	-	25.7		8.0		17.1		84.8		6.3		3.4		3						
					Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	3
						-	-	-	-		-		-		-		-		-		-						
					Bottom	3.8	-	-	26.0	26.0	8.0	8.0	19.4	19.4	85.4	86.0	6.2	6.3	4.7	6.3	4.7	6.3			3	6.3	4
						3.8	-	-	26.0		8.0		19.4		86.0		6.3		4.7		4						

DA: Depth-Averaged

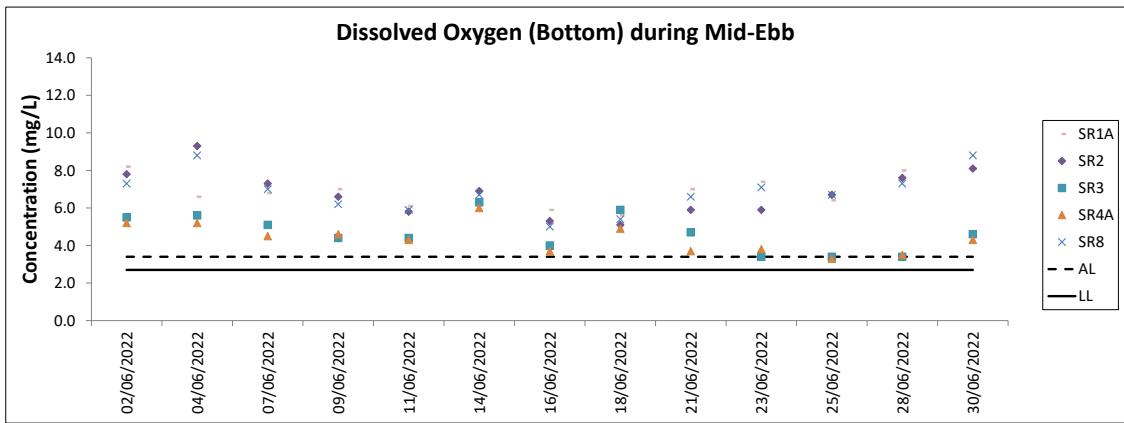
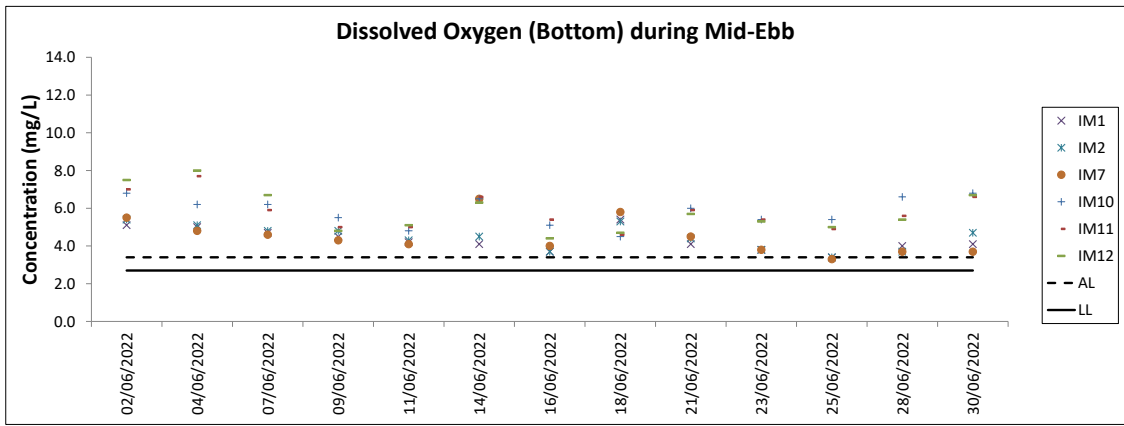
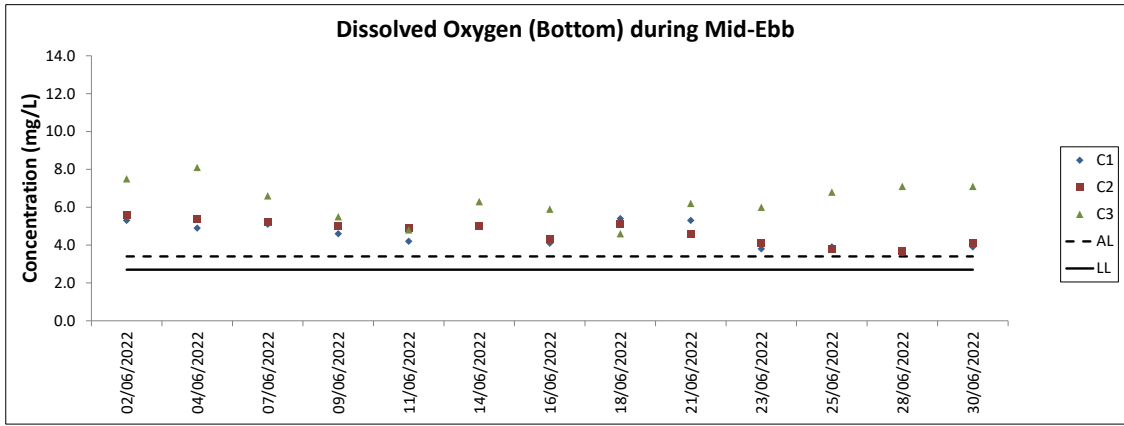
Calm: Small or no wave; Moderate: Between calm and rough; Rough : White capped or rougher

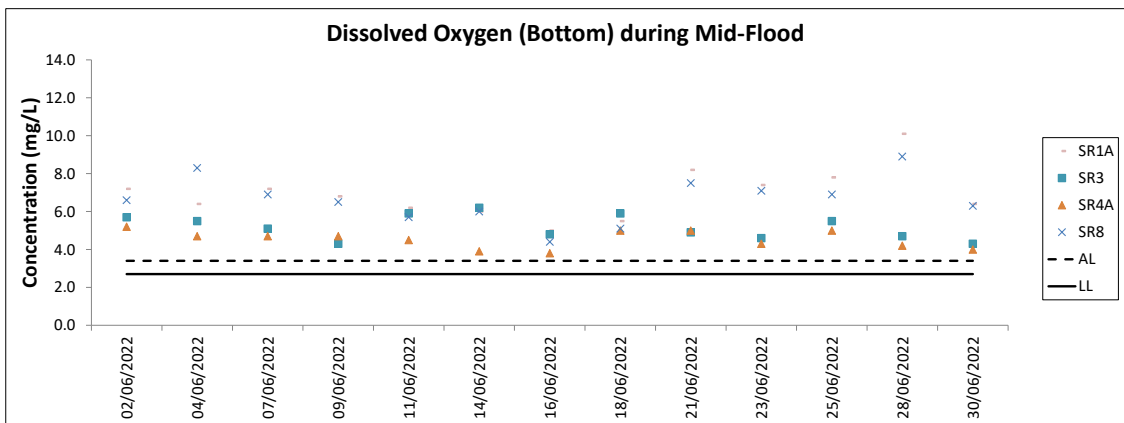
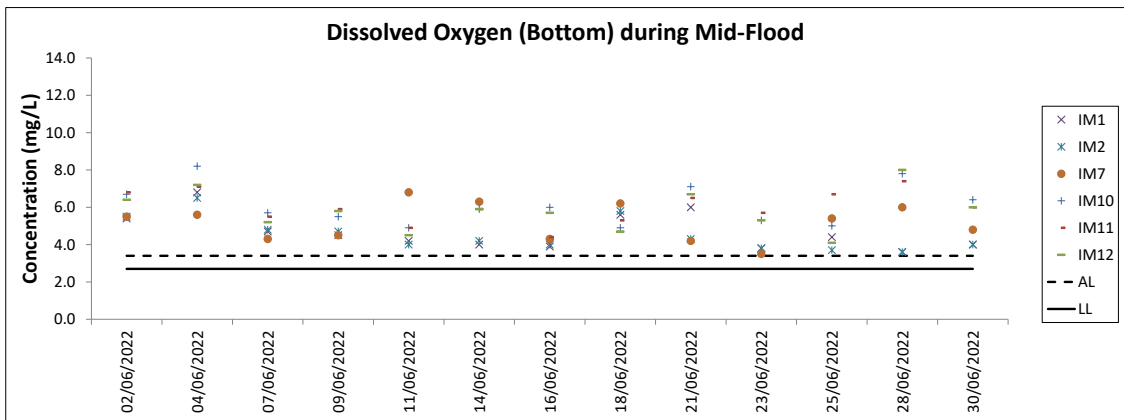
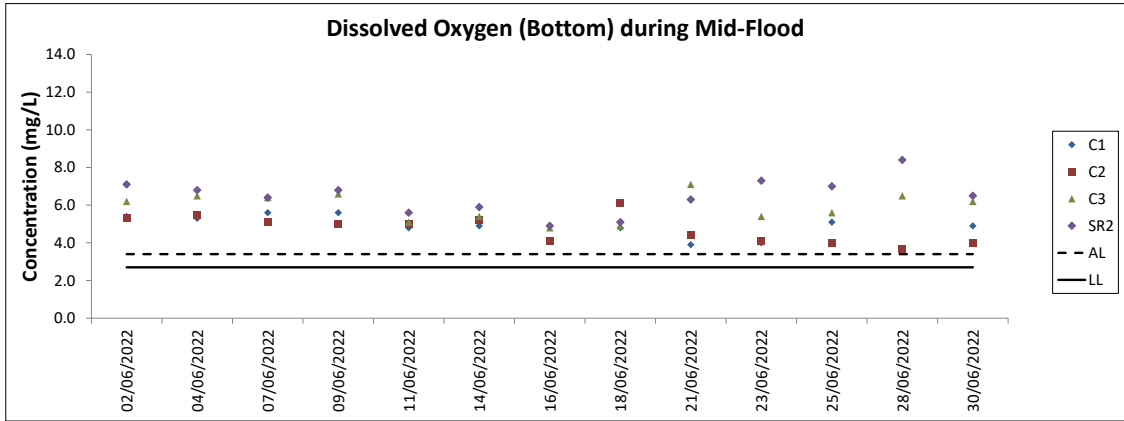
Value exceeding Action Level is underlined; Value exceeding Limit Level is bolded and underlined

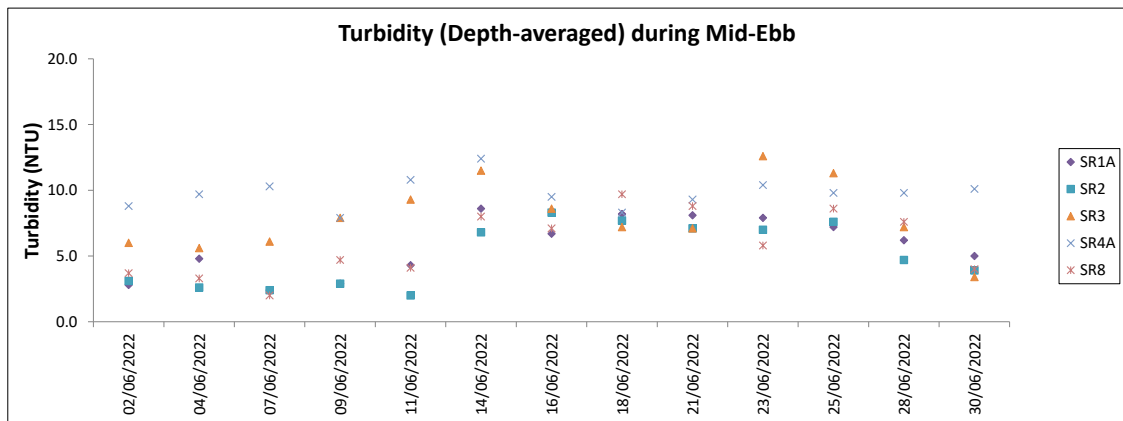
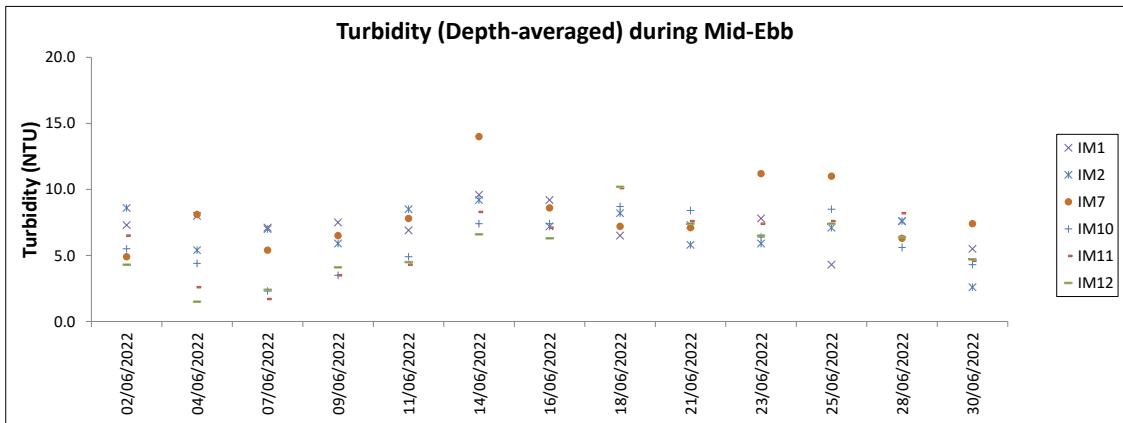
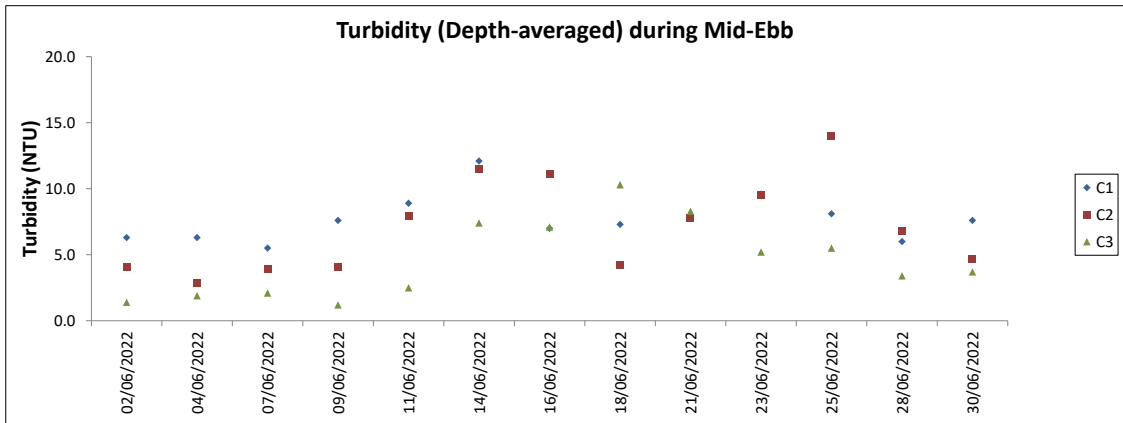




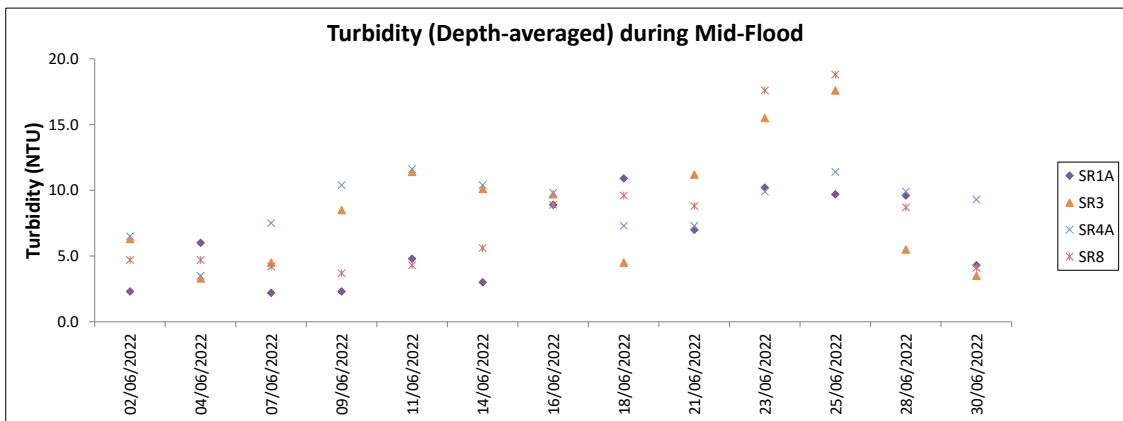
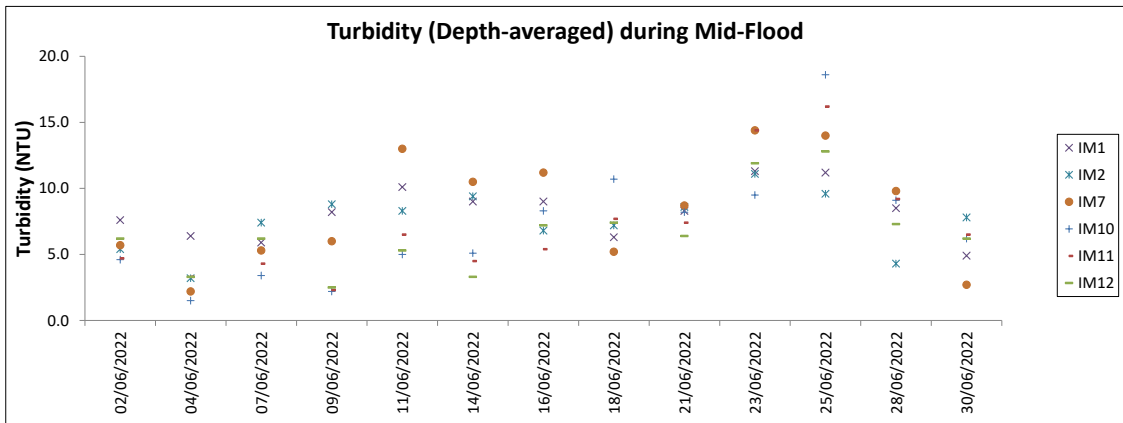
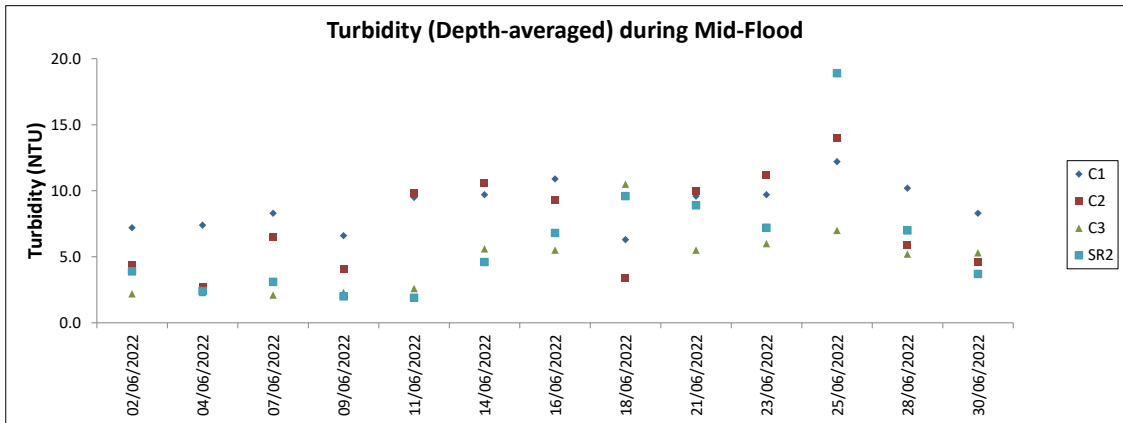




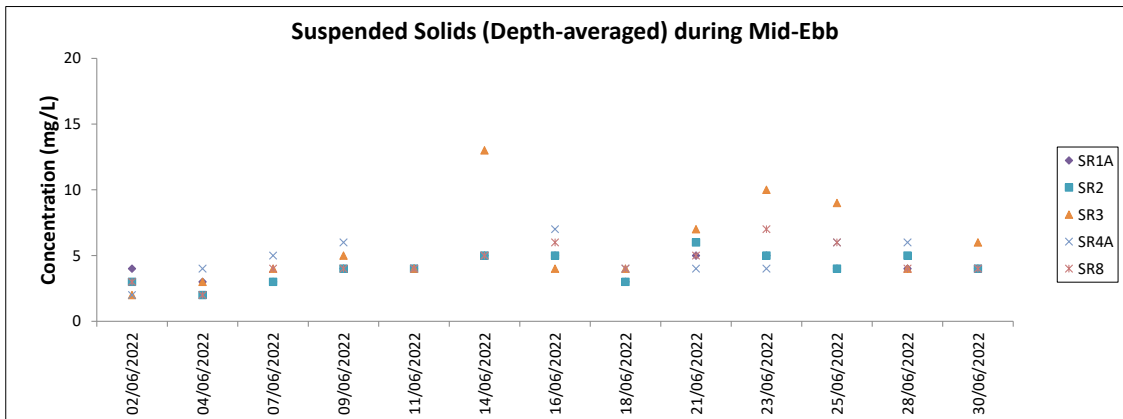
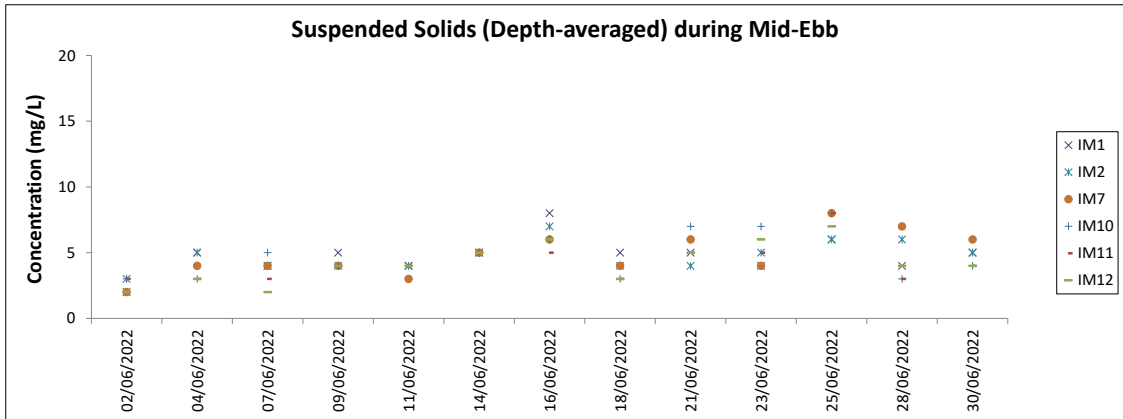
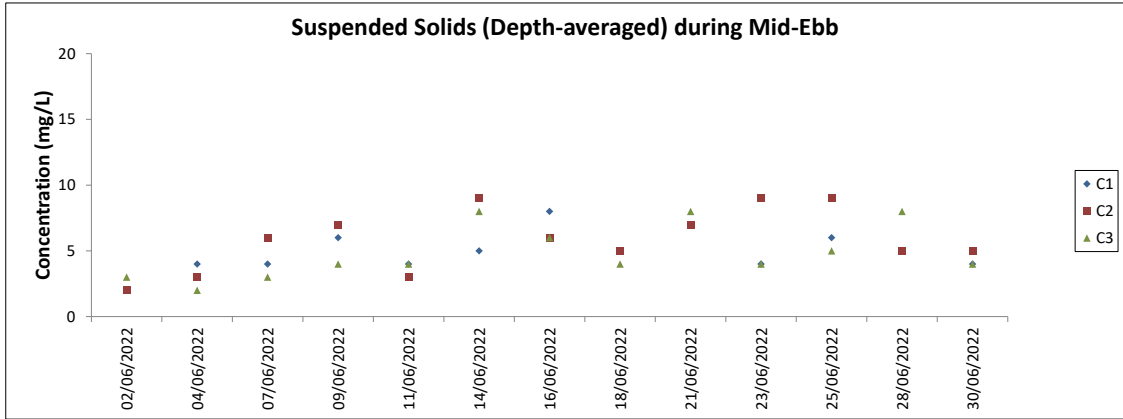




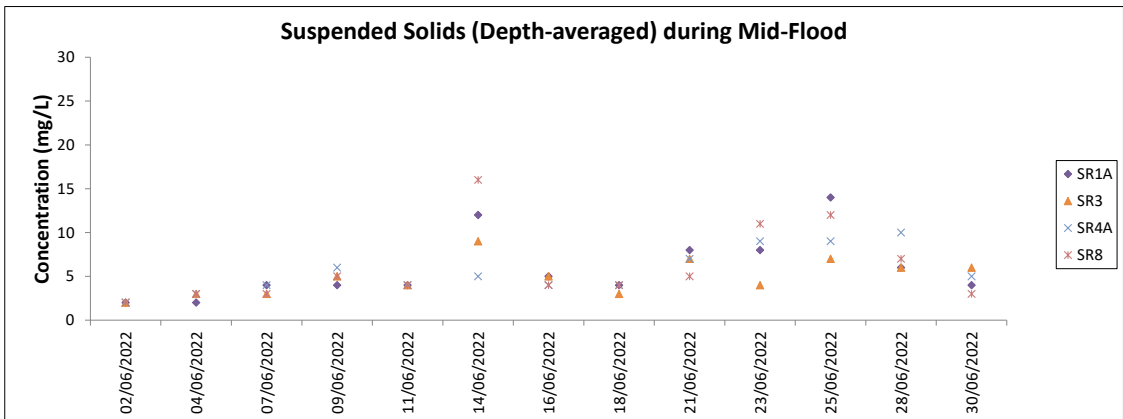
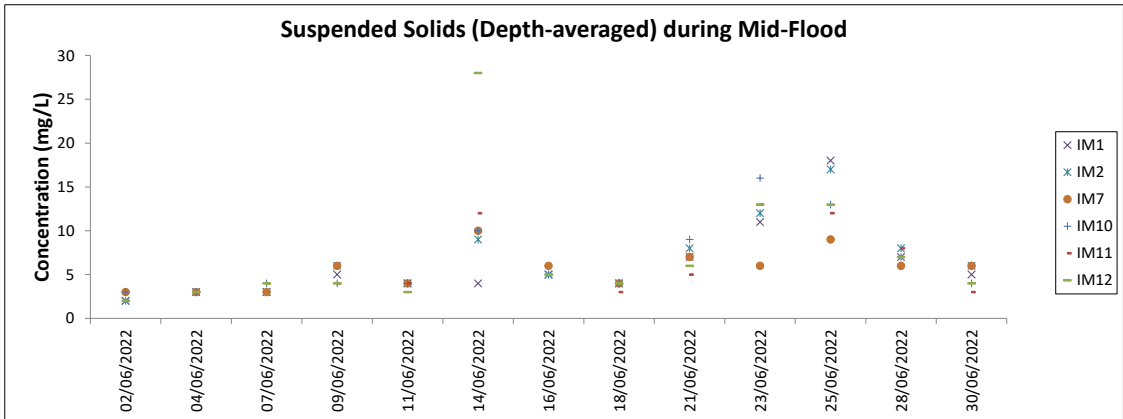
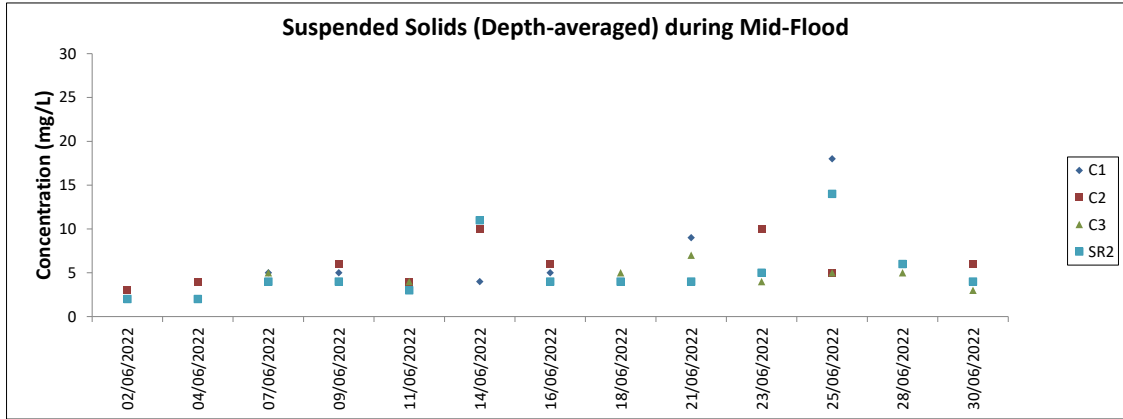
Note: The Action and Limit Level of turbidity can be referred to Table 4.2 of the monthly EM&A report.



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



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



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

# **Chinese White Dolphin Monitoring Results**

## CWD Small Vessel Line-transect Survey

## Survey Effort Data

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
06-Apr-22	SWL	2	23.067	SPRING	32166	3RS ET	P
06-Apr-22	SWL	3	31.346	SPRING	32166	3RS ET	P
06-Apr-22	SWL	2	9.583	SPRING	32166	3RS ET	S
06-Apr-22	SWL	3	6.754	SPRING	32166	3RS ET	S
07-Apr-22	NWL	2	57.470	SPRING	32166	3RS ET	P
07-Apr-22	NWL	3	6.100	SPRING	32166	3RS ET	P
07-Apr-22	NWL	2	10.531	SPRING	32166	3RS ET	S
07-Apr-22	NWL	3	1.000	SPRING	32166	3RS ET	S
11-Apr-22	SWL	1	8.575	SPRING	32166	3RS ET	P
11-Apr-22	SWL	2	44.677	SPRING	32166	3RS ET	P
11-Apr-22	SWL	1	0.902	SPRING	32166	3RS ET	S
11-Apr-22	SWL	2	13.602	SPRING	32166	3RS ET	S
14-Apr-22	AW	3	4.910	SPRING	32166	3RS ET	P
14-Apr-22	WL	3	19.290	SPRING	32166	3RS ET	P
14-Apr-22	WL	3	9.650	SPRING	32166	3RS ET	S
19-Apr-22	NEL	2	23.100	SPRING	32166	3RS ET	P
19-Apr-22	NEL	3	14.150	SPRING	32166	3RS ET	P
19-Apr-22	NEL	2	4.100	SPRING	32166	3RS ET	S
19-Apr-22	NEL	3	5.850	SPRING	32166	3RS ET	S
20-Apr-22	NEL	2	37.370	SPRING	32166	3RS ET	P
20-Apr-22	NEL	2	9.830	SPRING	32166	3RS ET	S
22-Apr-22	WL	2	14.921	SPRING	32166	3RS ET	P
22-Apr-22	WL	3	3.677	SPRING	32166	3RS ET	P
22-Apr-22	WL	2	6.456	SPRING	32166	3RS ET	S
22-Apr-22	WL	3	4.163	SPRING	32166	3RS ET	S
22-Apr-22	AW	1	3.220	SPRING	32166	3RS ET	P
22-Apr-22	AW	2	1.590	SPRING	32166	3RS ET	P
27-Apr-22	NWL	1	4.250	SPRING	32166	3RS ET	P
27-Apr-22	NWL	2	32.750	SPRING	32166	3RS ET	P
27-Apr-22	NWL	3	24.650	SPRING	32166	3RS ET	P
27-Apr-22	NWL	4	1.000	SPRING	32166	3RS ET	P
27-Apr-22	NWL	2	6.100	SPRING	32166	3RS ET	S
27-Apr-22	NWL	3	5.840	SPRING	32166	3RS ET	S
05-May-22	AW	2	2.920	SPRING	32166	3RS ET	P
05-May-22	AW	3	2.000	SPRING	32166	3RS ET	P
05-May-22	WL	2	5.195	SPRING	32166	3RS ET	P
05-May-22	WL	3	9.037	SPRING	32166	3RS ET	P
05-May-22	WL	4	2.510	SPRING	32166	3RS ET	P
05-May-22	WL	2	3.705	SPRING	32166	3RS ET	S
05-May-22	WL	3	4.821	SPRING	32166	3RS ET	S
05-May-22	WL	4	0.950	SPRING	32166	3RS ET	S
06-May-22	AW	2	2.930	SPRING	32166	3RS ET	P
06-May-22	AW	3	1.880	SPRING	32166	3RS ET	P
06-May-22	WL	2	6.666	SPRING	32166	3RS ET	P
06-May-22	WL	3	6.387	SPRING	32166	3RS ET	P
06-May-22	WL	2	3.577	SPRING	32166	3RS ET	S
06-May-22	WL	3	1.092	SPRING	32166	3RS ET	S



DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
06-May-22	WL	4	1.192	SPRING	32166	3RS ET	S
10-May-22	NWL	2	12.600	SPRING	32166	3RS ET	P
10-May-22	NWL	3	48.400	SPRING	32166	3RS ET	P
10-May-22	NWL	4	2.200	SPRING	32166	3RS ET	P
10-May-22	NWL	2	3.100	SPRING	32166	3RS ET	S
10-May-22	NWL	3	9.200	SPRING	32166	3RS ET	S
11-May-22	NWL	3	48.600	SPRING	32166	3RS ET	P
11-May-22	NWL	4	15.800	SPRING	32166	3RS ET	P
11-May-22	NWL	3	10.300	SPRING	32166	3RS ET	S
11-May-22	NWL	4	1.000	SPRING	32166	3RS ET	S
16-May-22	NEL	2	28.540	SPRING	32166	3RS ET	P
16-May-22	NEL	3	9.600	SPRING	32166	3RS ET	P
16-May-22	NEL	2	10.460	SPRING	32166	3RS ET	S
17-May-22	NEL	2	31.980	SPRING	32166	3RS ET	P
17-May-22	NEL	3	4.880	SPRING	32166	3RS ET	P
17-May-22	NEL	2	10.340	SPRING	32166	3RS ET	S
27-May-22	SWL	2	21.030	SPRING	32166	3RS ET	P
27-May-22	SWL	3	32.180	SPRING	32166	3RS ET	P
27-May-22	SWL	2	3.980	SPRING	32166	3RS ET	S
27-May-22	SWL	3	12.230	SPRING	32166	3RS ET	S
30-May-22	SWL	2	37.268	SPRING	32166	3RS ET	P
30-May-22	SWL	3	13.317	SPRING	32166	3RS ET	P
30-May-22	SWL	2	10.802	SPRING	32166	3RS ET	S
30-May-22	SWL	3	4.900	SPRING	32166	3RS ET	S
08-Jun-22	NEL	2	33.490	SUMMER	32166	3RS ET	P
08-Jun-22	NEL	3	4.100	SUMMER	32166	3RS ET	P
08-Jun-22	NEL	2	9.710	SUMMER	32166	3RS ET	S
10-Jun-22	NEL	2	8.150	SUMMER	32166	3RS ET	P
10-Jun-22	NEL	3	29.260	SUMMER	32166	3RS ET	P
10-Jun-22	NEL	2	2.100	SUMMER	32166	3RS ET	S
10-Jun-22	NEL	3	8.090	SUMMER	32166	3RS ET	S
13-Jun-22	NWL	3	44.400	SUMMER	32166	3RS ET	P
13-Jun-22	NWL	4	19.600	SUMMER	32166	3RS ET	P
13-Jun-22	NWL	3	8.700	SUMMER	32166	3RS ET	S
13-Jun-22	NWL	4	2.900	SUMMER	32166	3RS ET	S
16-Jun-22	NWL	2	5.000	SUMMER	32166	3RS ET	P
16-Jun-22	NWL	3	56.100	SUMMER	32166	3RS ET	P
16-Jun-22	NWL	4	2.200	SUMMER	32166	3RS ET	P
16-Jun-22	NWL	3	11.300	SUMMER	32166	3RS ET	S
16-Jun-22	NWL	4	1.200	SUMMER	32166	3RS ET	S
21-Jun-22	WL	2	2.300	SUMMER	32166	3RS ET	P
21-Jun-22	WL	3	18.350	SUMMER	32166	3RS ET	P
21-Jun-22	WL	3	10.750	SUMMER	32166	3RS ET	S
21-Jun-22	AW	3	2.840	SUMMER	32166	3RS ET	P
21-Jun-22	AW	4	2.030	SUMMER	32166	3RS ET	P
22-Jun-22	SWL	2	53.159	SUMMER	32166	3RS ET	P
22-Jun-22	SWL	2	14.980	SUMMER	32166	3RS ET	S
23-Jun-22	SWL	2	44.900	SUMMER	32166	3RS ET	P
23-Jun-22	SWL	3	1.800	SUMMER	32166	3RS ET	P

DATE	AREA	BEAU	KM SEARCHED	SEASON	VESSEL	TYPE	P/S
23-Jun-22	SWL	2	11.271	SUMMER	32166	3RS ET	S
23-Jun-22	SWL	3	2.000	SUMMER	32166	3RS ET	S
24-Jun-22	AW	2	4.280	SUMMER	32166	3RS ET	P
24-Jun-22	WL	2	7.205	SUMMER	32166	3RS ET	P
24-Jun-22	WL	3	11.842	SUMMER	32166	3RS ET	P
24-Jun-22	WL	2	2.828	SUMMER	32166	3RS ET	S
24-Jun-22	WL	3	7.080	SUMMER	32166	3RS ET	S
24-Jun-22	SWL	3	3.901	SUMMER	32166	3RS ET	P
24-Jun-22	SWL	3	0.965	SUMMER	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
06-Apr-22	1	1102	FP	2	SWL	2	114	ON	3RS ET	22.1544	113.9361	SPRING	NONE	P
06-Apr-22	2	1110	FP	1	SWL	2	24	ON	3RS ET	22.1434	113.9286	SPRING	NONE	S
06-Apr-22	3	1323	FP	2	SWL	3	385	ON	3RS ET	22.1544	113.8971	SPRING	NONE	P
06-Apr-22	4	1423	FP	4	SWL	3	4	ON	3RS ET	22.1604	113.8785	SPRING	NONE	P
07-Apr-22	1	1057	CWD	2	NWL	2	1080	ON	3RS ET	22.3097	113.8709	SPRING	NONE	S
07-Apr-22	2	1113	CWD	1	NWL	2	741	ON	3RS ET	22.3132	113.8695	SPRING	NONE	S
11-Apr-22	1	1043	FP	1	SWL	2	38	ON	3RS ET	22.1788	113.9359	SPRING	NONE	P
11-Apr-22	2	1112	FP	2	SWL	2	20	ON	3RS ET	22.1666	113.9277	SPRING	NONE	P
11-Apr-22	3	1212	FP	4	SWL	2	101	ON	3RS ET	22.1538	113.9075	SPRING	NONE	P
11-Apr-22	4	1315	FP	4	SWL	2	65	ON	3RS ET	22.1495	113.8975	SPRING	NONE	P
11-Apr-22	5	1318	FP	2	SWL	2	72	ON	3RS ET	22.1490	113.8956	SPRING	NONE	S
11-Apr-22	6	1403	FP	2	SWL	1	255	ON	3RS ET	22.1871	113.8777	SPRING	NONE	P
11-Apr-22	7	1407	FP	3	SWL	1	12	ON	3RS ET	22.1821	113.8777	SPRING	NONE	P
11-Apr-22	8	1409	FP	2	SWL	1	444	ON	3RS ET	22.1788	113.8782	SPRING	NONE	P
11-Apr-22	9	1417	FP	1	SWL	1	206	ON	3RS ET	22.1643	113.8781	SPRING	NONE	P
11-Apr-22	10	1425	FP	5	SWL	1	216	ON	3RS ET	22.1632	113.8686	SPRING	NONE	P
11-Apr-22	11	1428	FP	3	SWL	1	207	ON	3RS ET	22.1656	113.8687	SPRING	NONE	P
11-Apr-22	12	1436	FP	4	SWL	1	580	ON	3RS ET	22.1799	113.8684	SPRING	NONE	P
11-Apr-22	13	1455	FP	8	SWL	2	61	ON	3RS ET	22.1867	113.8586	SPRING	NONE	P
11-Apr-22	14	1501	FP	3	SWL	2	318	ON	3RS ET	22.1760	113.8590	SPRING	NONE	P
11-Apr-22	15	1514	FP	2	SWL	2	14	ON	3RS ET	22.1831	113.8492	SPRING	NONE	P
11-Apr-22	16	1519	CWD	1	SWL	2	207	ON	3RS ET	22.1914	113.8495	SPRING	NONE	P
14-Apr-22	1	1126	CWD	5	WL	3	77	ON	3RS ET	22.2320	113.8365	SPRING	NONE	P
14-Apr-22	2	1233	CWD	2	WL	3	521	ON	3RS ET	22.1968	113.8423	SPRING	NONE	P
22-Apr-22	1	1112	CWD	1	WL	2	174	ON	3RS ET	22.2325	113.8348	SPRING	NONE	P
22-Apr-22	2	1133	CWD	1	WL	2	729	ON	3RS ET	22.2289	113.8378	SPRING	NONE	S
22-Apr-22	3	1145	CWD	7	WL	2	575	ON	3RS ET	22.2242	113.8250	SPRING	NONE	P
27-Apr-22	1	1111	CWD	2	NWL	2	179	ON	3RS ET	22.3302	113.8781	SPRING	NONE	P
05-May-22	1	1014	CWD	6	WL	3	800	ON	3RS ET	22.2777	113.8513	SPRING	PURSE SEINER	S
05-May-22	2	1039	CWD	2	WL	2	91	ON	3RS ET	22.2613	113.8501	SPRING	NONE	P
05-May-22	3	1059	CWD	2	WL	2	165	ON	3RS ET	22.2579	113.8374	SPRING	NONE	S
05-May-22	4	1104	CWD	1	WL	3	192	ON	3RS ET	22.2549	113.8353	SPRING	NONE	S

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
05-May-22	5	1143	CWD	6	WL	3	192	ON	3RS ET	22.2241	113.8335	SPRING	PURSE SEINER	P
05-May-22	6	1201	CWD	1	WL	3	283	ON	3RS ET	22.2238	113.8234	SPRING	NONE	P
05-May-22	7	1222	CWD	1	WL	3	135	ON	3RS ET	22.2148	113.8345	SPRING	NONE	P
06-May-22	1	1036	CWD	2	WL	2	169	ON	3RS ET	22.2631	113.8562	SPRING	NONE	S
06-May-22	2	1043	CWD	1	WL	2	717	ON	3RS ET	22.2606	113.8529	SPRING	NONE	P
06-May-22	3	1102	CWD	8	WL	2	394	ON	3RS ET	22.2418	113.8436	SPRING	NONE	P
06-May-22	4	1139	CWD	2	WL	2	1	ON	3RS ET	22.2269	113.8376	SPRING	NONE	S
06-May-22	5	1149	CWD	5	WL	2	95	ON	3RS ET	22.2236	113.8340	SPRING	NONE	P
06-May-22	6	1201	CWD	1	WL	3	335	ON	3RS ET	22.2175	113.8195	SPRING	NONE	S
06-May-22	7	1214	CWD	5	WL	3	221	ON	3RS ET	22.2145	113.8246	SPRING	NONE	P
06-May-22	8	1231	CWD	2	WL	3	132	ON	3RS ET	22.2058	113.8358	SPRING	NONE	P
06-May-22	9	1245	CWD	6	WL	3	32	ON	3RS ET	22.1964	113.8374	SPRING	NONE	P
27-May-22	1	1101	FP	1	SWL	3	52	ON	3RS ET	22.1438	113.9277	SPRING	NONE	S
27-May-22	2	1416	CWD	12	SWL	3	582	ON	3RS ET	22.1595	113.8736	SPRING	NONE	S
30-May-22	1	1053	FP	2	SWL	2	100	ON	3RS ET	22.1613	113.9363	SPRING	NONE	P
30-May-22	2	1403	CWD	2	SWL	2	817	ON	3RS ET	22.1782	113.8783	SPRING	NONE	P
30-May-22	3	1512	CWD	1	SWL	3	779	ON	3RS ET	22.1781	113.8497	SPRING	NONE	P
30-May-22	4	1534	CWD	10	SWL	3	145	ON	3RS ET	22.1869	113.8496	SPRING	PURSE SEINER	P
13-Jun-22	1	1214	CWD	3	NWL	3	105	ON	3RS ET	22.3813	113.8885	SUMMER	NONE	P
22-Jun-22	1	1037	FP	3	SWL	2	59	ON	3RS ET	22.1877	113.9363	SUMMER	NONE	P
22-Jun-22	2	1040	FP	11	SWL	2	130	ON	3RS ET	22.1821	113.9364	SUMMER	NONE	P
22-Jun-22	3	1044	FP	2	SWL	2	79	ON	3RS ET	22.1776	113.9364	SUMMER	NONE	P
22-Jun-22	4	1058	FP	3	SWL	2	238	ON	3RS ET	22.1418	113.9330	SUMMER	NONE	S
22-Jun-22	5	1124	FP	2	SWL	2	272	ON	3RS ET	22.1928	113.9273	SUMMER	NONE	P
22-Jun-22	6	1151	FP	4	SWL	2	126	ON	3RS ET	22.1717	113.9189	SUMMER	NONE	S
22-Jun-22	7	1246	CWD	2	SWL	2	573	ON	3RS ET	22.2123	113.8992	SUMMER	NONE	S
22-Jun-22	8	1446	CWD	2	SWL	2	890	ON	3RS ET	22.1927	113.8685	SUMMER	NONE	P
22-Jun-22	9	1508	CWD	1	SWL	2	119	ON	3RS ET	22.1967	113.8588	SUMMER	NONE	P
23-Jun-22	1	1124	CWD	1	SWL	2	61	ON	3RS ET	22.2000	113.9276	SUMMER	NONE	P
23-Jun-22	2	1140	CWD	5	SWL	2	80	ON	3RS ET	22.2055	113.9218	SUMMER	NONE	S
23-Jun-22	3	1437	CWD	1	SWL	2	291	ON	3RS ET	22.1739	113.8783	SUMMER	NONE	P
23-Jun-22	4	1457	CWD	1	SWL	2	1334	ON	3RS ET	22.1603	113.8698	SUMMER	NONE	S
23-Jun-22	5	1525	CWD	18	SWL	2	253	ON	3RS ET	22.1991	113.8607	SUMMER	NONE	S

DATE	STG #	TIME	CWD/FP	GP SZ	AREA	BEAU	PSD	EFFORT	TYPE	DEC LAT	DEC LON	SEASON	BOAT ASSOC.	P/S
24-Jun-22	1	1140	CWD	1	WL	2	124	ON	3RS ET	22.2142	113.8296	SUMMER	NONE	P
24-Jun-22	2	1151	CWD	2	WL	2	100	ON	3RS ET	22.2141	113.8335	SUMMER	NONE	P
24-Jun-22	3	1223	CWD	2	WL	3	495	ON	3RS ET	22.1986	113.8268	SUMMER	NONE	S
24-Jun-22	4	1237	CWD	11	WL	3	114	ON	3RS ET	22.1962	113.8295	SUMMER	NONE	P
24-Jun-22	5	1316	CWD	7	SWL	3	64	ON	3RS ET	22.1935	113.8498	SUMMER	NONE	P
24-Jun-22	6	1341	CWD	2	SWL	3	61	ON	3RS ET	22.1743	113.8499	SUMMER	NONE	P
24-Jun-22	7	1358	CWD	9	SWL	3	526	ON	3RS ET	22.1862	113.8586	SUMMER	NONE	P

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

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 420.851 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 16 on-effort sightings and total number of 68 dolphins from on-effort sightings were collected under such condition. Calculation of the encounter rates in June 2022 are shown as below:

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

$$STG = \frac{16}{420.851} \times 100 = 3.80$$

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

$$ANI = \frac{68}{420.851} \times 100 = 16.16$$

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

A total of 1284.242 km of survey effort was collected under Beaufort Sea State 3 or below with favourable visibility; total no. of 45 on-effort sightings and total number of 166 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)









$$STG = \frac{45}{1284.242} \times 100 = 3.50$$









Running Quarterly Encounter Rate by Number of Dolphins (ANI)

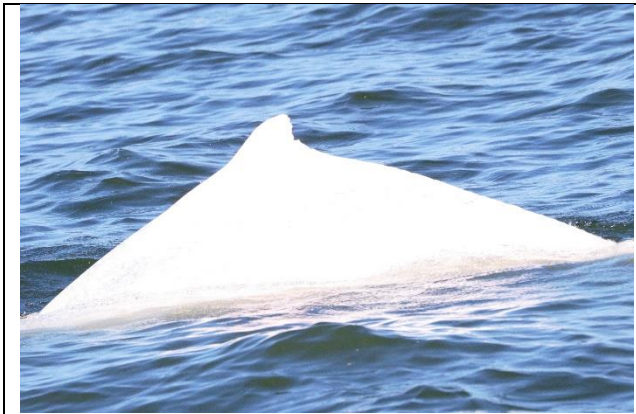
$$ANI = \frac{166}{1284.242} \times 100 = 12.93$$

CWD Small Vessel Line-transect Survey

Photo Identification

	
NLMM009_20220613_1_2	NLMM015_20220613_1_5
	
WLMM164_20220613_1_2	WLMM131_20220622_7_1
	
SLMM012_20220622_8_4	SLMM037_20220622_8_9
	
SLMM060_20220622_9_2	WLMM003_20220623_1_5

	
SLMM025_20220623_2_1	SLMM014_20220623_3_1
	
SLMM050_20220623_5_1	WLMM019_20220623_5_2
	
WLMM049_20220623_5_1	WLMM071_20220623_5_3
	
WLMM079_20220623_5_3	WLMM147_20220623_5_3_Lower



WLMM163\_20220623\_5\_3



WLMM013\_20220624\_2\_2



NLMM069\_20220624\_4\_2



WLMM013\_20220624\_4\_3



WLMM052\_20220624\_4\_2



WLMM176\_20220624\_4\_2\_Right



SLMM002\_20220624\_5\_3



SLMM012\_20220624\_5\_6





SLMM034\_20220624\_5\_8



SLMM037\_20220624\_5\_4



WLMM056\_20220624\_5\_2



NLMM027\_20220624\_7\_3



NLMM040\_20220624\_7\_3



NLMM085\_20220624\_7\_6



SLMM074\_20220624\_7\_4



SLMM075\_20220624\_7\_13



SLMM076\_20220624\_7\_6



WLMM049\_20220624\_7\_10

**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
22-Jun-22	Lung Kwu Chau	8:51	14:51	6:00	1-2	3	0	-
24-Jun-22	Sha Chau	10:45	16:45	6:00	2	2	0	-

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

## **Appendix D. Calibration Certificates**



## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

**Test Report No.** : R-BB060021  
**Date of Issue** : 13 June 2022  
**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 : 16H104233  
 Date of Received : 10 June 2022  
 Date of Calibration : 10 June 2022  
 Date of Next Calibration : 09 September 2022

### PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

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

### PART D - CALIBRATION RESULT

#### (1) Turbidity

EXPECTED READING (NTU)	DISPLAY READING (NTU)	TOLERANCE (%)	RESULT
0	0.03	--	Satisfactory
10	9.98	-0.2	Satisfactory
20	20.16	0.8	Satisfactory
100	107.6	7.6	Satisfactory
800	796	-0.5	Satisfactory

Tolerance of Turbidity should be less than  $\pm 10.0$  (%)

#### (2) Dissolved oxygen

EXPECTED READING (MG/L)	DISPLAY READING (MG/L)	TOLERANCE	RESULT
7.78	7.81	0.03	Satisfactory
4.72	4.92	0.20	Satisfactory
2.60	2.38	-0.22	Satisfactory
0.09	0.30	0.21	Satisfactory

Tolerance of Dissolved oxygen should be less than  $\pm 0.5$  (mg/L)

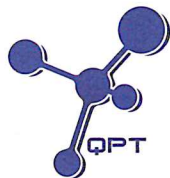
#### (3) pH value

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
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AUTHORIZED  
SIGNATORY:

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 Assistant Manager (Chemical Testing)



專業化驗有限公司  
QUALITY PRO TEST-CONSULT LIMITED

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## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB060021

Date of Issue : 13 June 2022

Page No. : 2 of 2

TARGET (PH UNIT)	DISPLAY READING (PH UNIT)	TOLERANCE	RESULT
4.00	3.96	-0.04	Satisfactory
7.42	7.48	0.06	Satisfactory
10.01	9.95	-0.06	Satisfactory

Tolerance of pH value should be less than  $\pm 0.2$  (pH unit)

### (4) Salinity

EXPECTED READING (G/L)	DISPLAY READING (G/L)	TOLERANCE (%)	RESULT
10	9.92	-0.80	Satisfactory
20	20.20	1.00	Satisfactory
30	30.22	0.73	Satisfactory

Tolerance of Salinity should be less than  $\pm 10.0$  (%)

### (5) Temperature

READING OF REF. THERMOMETER (°C)	DISPLAY READING (°C)	TOLERANCE	RESULT
10	10	0	Satisfactory
20	20	0	Satisfactory
40	40	0	Satisfactory

Tolerance of Temperature should be less than  $\pm 2.0$  (°C)

### (6) Conductivity

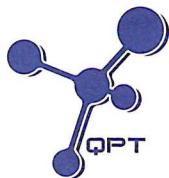
EXPECTED READING (MS/CM AT 25°C)	DISPLAY READING	TOLERANCE (%)	RESULT
146.9	137.1	-6.67	Satisfactory
1412	1328.2	-5.93	Satisfactory
12890	12567.8	-2.50	Satisfactory
58670	57574	-1.87	Satisfactory
111900	109783	-1.89	Satisfactory

Tolerance of Conductivity should be less than  $\pm 10.0$  (%)

### Remark(s)

- The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
- The results relate only to the calibrated equipment as received
- The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
- "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
- The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.

--- END OF REPORT ---



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## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB060020

Date of Issue : 13 June 2022

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 : 10 June 2022

Date of Calibration : 10 June 2022

Date of Next Calibration : 09 September 2022

### PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter

Reference Method

Turbidity

APHA 21e 2130B

Dissolved oxygen

APHA 21e 4500 O

pH value

APHA 21e 4500 H+

Salinity

APHA 21e 2520B

Temperature

Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March 2008: Working Thermometer Calibration Procedure

Conductivity

APHA 21e 2510B

### PART D - CALIBRATION RESULT

#### (1) Turbidity

EXPECTED READING ( NTU )	DISPLAY READING ( NTU )	TOLERANCE ( % )	RESULT
0	0.03	--	Satisfactory
10	9.85	-1.5	Satisfactory
20	20.2	1.0	Satisfactory
100	108.4	8.4	Satisfactory
800	797	-0.4	Satisfactory

Tolerance of Turbidity should be less than  $\pm 10.0$  ( % )

#### (2) Dissolved oxygen

EXPECTED READING ( MG/L )	DISPLAY READING ( MG/L )	TOLERANCE	RESULT
7.78	7.86	0.08	Satisfactory
4.72	4.91	0.19	Satisfactory
2.60	2.33	-0.27	Satisfactory
0.09	0.30	0.21	Satisfactory

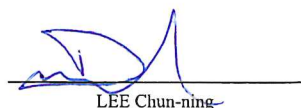
Tolerance of Dissolved oxygen should be less than  $\pm 0.5$  ( mg/L )

#### (3) pH value

TARGET ( PH UNIT )	DISPLAY READING ( PH UNIT )	TOLERANCE	RESULT
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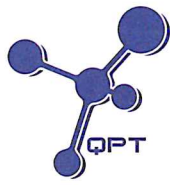
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## REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BB060020  
Date of Issue : 13 June 2022  
Page No. : 2 of 2

TARGET ( PH UNIT )	DISPLAY READING ( PH UNIT )	TOLERANCE	RESULT
4.00	4.08	0.08	Satisfactory
7.42	7.46	0.04	Satisfactory
10.01	9.94	-0.07	Satisfactory

Tolerance of pH value should be less than  $\pm 0.2$  ( pH unit )

### (4) Salinity

EXPECTED READING ( G/L )	DISPLAY READING ( G/L )	TOLERANCE ( % )	RESULT
10	9.90	-1.00	Satisfactory
20	19.91	-0.45	Satisfactory
30	30.29	0.97	Satisfactory

Tolerance of Salinity should be less than  $\pm 10.0$  ( % )

### (5) Temperature

READING OF REF. THERMOMETER ( °C )	DISPLAY READING ( °C )	TOLERANCE	RESULT
10	10	0	Satisfactory
20	20	0	Satisfactory
40	40	0	Satisfactory

Tolerance of Temperature should be less than  $\pm 2.0$  ( °C )

### (6) Conductivity

EXPECTED READING ( MS/CM AT 25°C )	DISPLAY READING	TOLERANCE ( % )	RESULT
146.9	136.7	-6.94	Satisfactory
1412	1329.7	-5.83	Satisfactory
12890	12608.3	-2.19	Satisfactory
58670	57422	-2.13	Satisfactory
111900	109847	-1.83	Satisfactory

Tolerance of Conductivity should be less than  $\pm 10.0$  ( % )

### Remark(s)

- The "Date of Next Calibration" is recommended according to best practice principals as practiced by QPT or quoted from relevant international standards.
- The results relate only to the calibrated equipment as received
- The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.
- "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures.
- The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted from relevant international standards.

--- END OF REPORT ---



## Appendix E. Status of Environmental Permits and Licenses

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

Contract No.	Description	Location	Permit/ Reference No.	Status
3206	Notification of Construction Work under APCO	Works area of 3206	409237	Receipt acknowledged by EPD on 25 Oct 2016
	Registration as Chemical Waste Producer	Site office of 3206	WPN 5213-951-Z4035-01	Completion of Registration on 18 Nov 2016
		Works area of 3206	WPN 5213-951-Z4035-02	Completion of Registration on 18 Nov 2016
	Construction Noise Permit (General Works)	Works Area of 3206	GW-RS0190-22	Valid from 28 Mar 2022 to 27 Sep 2022
	Bill Account for disposal	Works area of 3206	A/C 7026398	Approval granted from EPD on 16 Nov 2016
3301	Notification of Construction Work under APCO	Works area of 3301	415821	Receipt acknowledged by EPD on 19 Apr 2017
	Registration as Chemical Waste Producer	Works area of 3301	WPN 5213-951-F2718-02	Completion of Registration on 9 Jun 2017
	Discharge License under WPCO	Works area of 3301	WT00029286-2017	Valid from 20 Sep 2017 to 30 Sep 2022
	Bill Account for disposal	Works area of 3301	A/C 7027728	Approval granted from EPD on 8 May 2017
3302	Notification of Construction Work under APCO	Works area of 3302	479483	Receipt acknowledged by EPD on 6 May 2022
		Staging area of 3302	479482	Receipt acknowledged by EPD on 6 May 2022
			479479	Receipt acknowledged by EPD on 6 May 2022
			479481	Receipt acknowledged by EPD on 6 May 2022
	Registration as Chemical Waste Producer	Works area of 3302	5296-951-C4331-01	Completion of Registration on 4 Jan 2019
	Discharge License under WPCO	Works area of 3302	WT00034539-2019	Valid from 11 Mar 2020 to 31 Mar 2025
		Works area of 3302	WT00034541-2019	Valid from 14 Oct 2019 to 31 Oct 2024
	Bill Account for disposal	Works area of 3302	A/C 7032881	Approval granted from EPD on 8 Jan 2019

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3302	GW-RS0242-22	Valid from 20 Apr 2022 to 19 Oct 2022
GW-RS1005-21			Superseded by GW-RS0427-22	
GW-RS0427-22			Valid from 3 Jun 2022 to 2 Nov 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-RS0291-22	Valid from 16 May 2022 to 14 Nov 2022
Works area of 3303 (Reclamation area)		GW-RS0066-22	Valid from 31 Jan 2022 to 30 Jul 2022	
3305	Notification of Construction Work under APCO	Works area of 3305	460857	Receipt acknowledged by EPD on 12 Oct 2020
	Registration as Chemical Waste Producer	Works area of 3305	5213-951-A3024-01	Completion of Registration on 13 Nov 2020
	Bill Account for disposal	Works area of 3305	A/C 7035360	Approval granted from EPD on 9 Oct 2019
3306	Registration as Chemical Waste Producer	Works area of 3306	8335-951-C4434-01	Completion of Registration on 1 Apr 2020
	Bill Account for disposal	Works area of 3306	A/C 7035868	Approval granted from EPD on 27 Nov 2019
3307	Notification of Construction Work under APCO	Works area of 3307	454964	Receipt acknowledged by EPD on 6 Apr 2020
	Registration as Chemical Waste Producer	Works area of 3307	5211-951-P3379-01	Completion of Registration on 8 Jun 2020
	Discharge License under WPCO	Works area of 3307	WT00036926-2020	Valid from 31 Dec 2020 to 31 Dec 2025
	Bill Account for disposal	Works area of 3307	A/C 7037129	Approval granted from EPD on 5 May 2020
	Construction Noise Permit (General Works)	Works area of 3307	GW-RS0052-22	Valid from 6 Feb 2022 to 5 Aug 2022
3308	Bill Account for disposal	Works area of 3308	A/C 7038988	Approval granted from EPD on 24 Nov 2020
	Construction Noise Permit (General Works)	Works area of 3308	GW-RS0109-22	Valid from 1 Mar 2022 to 31 Jul 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
3310	Notification of Construction Work under APCO	Works area of 3310	474782	Receipt acknowledged by EPD on 10 Dec 2021
	Registration as Chemical Waste Producer	Works area of 3310	5213-951-C4682-01	Completion of Registration on 21 Dec 2021
	Discharge License under WPCO	Works area of 3310	WT00039654-2021	Valid from 31 Dec 2021 to 31 Dec 2026
	Bill Account for disposal	Works area of 3310	A/C 7042793	Approval granted from EPD on 4 Jan 2022
	Construction Noise Permit (General Works)	Works area of 3310 (Existing airport)	GW-RS1046-21	Superseded by GW-RS0499-22
			GW-RS0499-22	Valid from 19 Jun 2022 to 13 Dec 2022
		Works area of 3310 (Reclamation area)	GW-RS0367-22	Valid from 14 May 2022 to 11 Nov 2022
Construction Noise Permit (Percussive Piling)	Works area of 3310 (Reclamation area)	PP-RS0006-22	Valid from 4 Apr 2022 to 30 Sep 2022	
3402	Bill Account for disposal	Works area of 3402	A/C 7032577	Approval granted from EPD on 27 Nov 2018
3403	Notification of Construction Work under APCO	Works area of 3403	450860	Receipt acknowledged by EPD on 11 Nov 2019
		Works area of 3403 (with Area 17 and Area 15)	475369	Receipt acknowledged by EPD on 28 Dec 2021
	Registration as Chemical Waste Producer	Works area of 3403	WPN 5213-951-S4218-01	Completion of Registration on 9 Jan 2020
	Discharge License under WPCO	Works area of 3403	WT00035841-2020	Valid from 5 Jun 2020 to 30 Jun 2025
	Bill Account for disposal	Works area of 3403	A/C 7035267	Approval granted from EPD on 30 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3403	GW-RS0083-22	Valid from 1 Mar 2022 to 31 Aug 2022
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	Works area of 3405	GW-RS0241-22	Valid from 16 Apr 2022 to 11 Oct 2022
3408	Notification of Construction	Works area of 3408	461958	Receipt acknowledged by EPD on 17 Nov 2020

Contract No.	Description	Location	Permit/ Reference No.	Status
	Work under APCO			
	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-RS0268-22	Valid from 16 Apr 2022 to 30 Sep 2022
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-RS0233-22	Valid from 13 Apr 2022 to 12 Oct 2022
		Works area of 3508	GW-RS0166-22	Valid from 18 Mar 2022 to 16 Sep 2022
		Works area of 3508	GW-RS0415-22	Valid from 29 May 2022 to 19 Nov 2022
		Works area of 3508 (Special Case)	GW-RS0309-22	Valid from 16 May 2022 to 31 Jul 2022
		Works area of 3508 (Special Case)	GW-RS0486-22	Valid from 23 Jun 2022 to 5 Oct 2022
3601	Notification of Construction Work under APCO	Works area of 3601	451762	Receipt acknowledged by EPD on 10 Dec 2019
	Registration as Chemical Waste Producer	Works area of 3601	WPN 7119-951-C4421-01	Completion of Registration on 9 Jan 2020
	Bill Account for disposal	Works area of 3601	A/C 7029991	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3601	GW-RS0370-22	Valid from 1 Jun 2022 to 30 Nov 2022

Contract No.	Description	Location	Permit/ Reference No.	Status
3602	Notification of Construction Work under APCO	Works area of 3602	421278	Receipt acknowledged by EPD on 18 Sep 2017
	Registration as Chemical Waste Producer	Works area of 3602	WPN 5296-951-N2673-01	Completion of Registration on 9 Oct 2017
		Site office of 3602	WPN 5296-951-N2673-02	Completion of Registration on 11 Dec 2017
	Bill Account for disposal	Works area of 3602	A/C 7028942	Approval granted from EPD on 6 Oct 2017
	Construction Noise Permit (General Works)	Works area of 3602	GW-RS0126-22	Valid from 1 Mar 2022 to 31 Aug 2022
Works area of 3602		GW-RS0172-22	Valid from 28 Mar 2022 to 27 Sep 2022	
3603	Notification of Construction Work under APCO	Site office of 3603	433604	Receipt acknowledged by EPD on 16 May 2018
	Registration as Chemical Waste Producer	Site office of 3603	5296-951-S4069-01	Completion of Registration on 22 Jan 2018
		Test Loop Site of 3603	8334-512-S4273-01	Completion of Registration on 17 Sep 2020
	Bill Account for disposal	Works area of 3603	A/C 7030002	Approval granted from EPD on 1 Feb 2018
	Construction Noise Permit (General Works)	Works area of 3603	GW-RS0335-22	Valid from 24 May 2022 to 23 Nov 2022
3721	Notification of Construction Work under APCO	Works area of 3721	448657	Receipt acknowledged by EPD on 02 Sep 2019
	Registration as Chemical Waste Producer	Works area of 3721	WPN 5218-951-C4412-01	Completion of Registration on 9 Dec 2019
	Bill Account for disposal	Works area of 3721	A/C 7035234	Approval granted from EPD on 25 Sep 2019
	Construction Noise Permit (General Works)	Works area of 3721	GW-RS0058-22	Valid from 31 Jan 2022 to 30 Jun 2022
		Works area of 3721	GW-RS0436-22	Valid from 10 Jun 2022 to 10 Nov 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
	Registration as Chemical Waste Producer	3723A	WPN 5218-951-T3920-01	Completion of Registration on 9 Feb 2021
		3723B	WPN 5218-951-T3921-01	Completion of Registration on 9 Feb 2021
	Discharge License under WPCO	Works area of 3723A & 3723B	WT00039451-2021	Valid from 28 Oct 2021 to 31 Oct 2023
	Bill Account for disposal	Works area of 3723A	A/C 7039755	Approval granted from EPD on 24 Feb 2021
		Works area of 3723B	A/C 7039754	Approval granted from EPD on 24 Feb 2021

Contract No.	Description	Location	Permit/ Reference No.	Status
	Construction Noise Permit (General Works)	Works area of 3723A & 3723B	GW-RS1013-21	Valid from 14 Jan 2022 to 13 Jul 2022
3728	Registration as Chemical Waste Producer	Works area of 3728	WPN 5111-951-S3467-03	Completion of Registration on 7 May 2021
	Discharge License under WPCO	Works area of 3728	WT00037809-2021	Valid from 27 Jul 2021 to 31 Jul 2026
	Bill Account for disposal	Works area of 3728	A/C 7039409	Approval granted from EPD on 22 Jan 2021
3733	Notification of Construction Work under APCO	Works area of 3733	472772	Receipt acknowledged by EPD on 18 Oct 2021
	Registration as Chemical Waste Producer	Works area of 3733	474728	Receipt acknowledged by EPD on 9 Dec 2021
	Bill Account for disposal	Works area of 3733	7041945	Approval granted from EPD on 21 Oct 2021
	Construction Noise Permit (General Works)	Works area of 3733	GW-RS0440-22	Valid from 10 Jun 2022 to 9 Dec 2022
3801	Notification of Construction Work under APCO	Works area of 3801	451991	Receipt acknowledged by EPD on 18 Dec 2019
			477839	Receipt acknowledged by EPD on 21 Mar 2022
		Stockpiling area of 3801	454269	Receipt acknowledged by EPD on 12 Mar 2020
	Registration as Chemical Waste Producer	Works area of 3801	WPN 5296-951-C1169-53	Completion of Registration on 14 Aug 2018
	Discharge License under WPCO	Works and stockpiling area of 3801	WT00029535-2017	Valid from 30 Jul 2019 to 30 Nov 2022
		Stockpiling area of 3801	WT00037354-2021	Valid from 8 Mar 2021 to 31 Mar 2026
	Bill Account for disposal	Works area of 3801	A/C 7028254	Approval granted from EPD on 3 Jul 2017
	Construction Noise Permit (General Works)	Works area of 3801	GW-RS0240-22	Valid from 10 Apr 2022 to 3 Oct 2022 Superseded by GW-RS0470-22
		Works area of 3801	GW-RS0470-22	Valid from 9 Jun 2022 to 6 Dec 2022
	Construction Noise Permit (Special Case)	Works area of 3801 (Box Jacking)	GW-RS0288-22	Valid from 9 May 2022 to 8 Aug 2022
3802	Notification of Construction Work under APCO	Works area of 3802	458122	Receipt acknowledged by EPD on 14 Jul 2020
	Registration as Chemical Waste Producer	Works area of 3802	WPN 5218-951-G2895-01	Completion of Registration on 28 Aug 2020
		Works area of 3802 (Existing Airport)	WPN 5218-951-G2945-01	Completion of Registration on 29 Sep 2020
		Works area of 3802	WT00037032-2020	Valid from 25 May 2021 to 31 May 2026

Contract No.	Description	Location	Permit/ Reference No.	Status
	Discharge License under WPCO	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-RS0248-22	Valid from 16 Apr 2022 to 11 Oct 2022
Works area of 3802 (Ventilation Building)		GW-RS0247-22	Valid from 16 Apr 2022 to 10 Oct 2022	
Works area of 3802		GW-RS0353-22	Valid from 20 May 2022 to 19 Nov 2022	
3901A	Notification of Construction Work under APCO	Works area of 3901A	466883	Receipt acknowledged by EPD on 26 Apr 2021
	Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations	Works area of 3901A	EP/RS/0000443 053	Approval granted on 11 Dec 2020
	Specified Process license under APCO	Works area of 3901A	L-3-261(1)	Valid from 14 Sep 2020 to 13 Sep 2024
	Registration as Chemical Waste Producer	Works area of 3901A	WPN 5218-951-K3400-01	Completion of Registration on 17 Jul 2020
	Bill Account for disposal	Works area of 3901A	A/C 7037889	Approval granted from EPD on 20 Jul 2020
	Construction Noise Permit (General Works)	Works area of 3901A	GW-RS0059-22	Valid from 5 Feb 2022 to 4 Aug 2022
3901B	Notification of Construction Work under APCO	Works area of 3901B	466885	Receipt acknowledged by EPD on 26 Apr 2021
	Air Pollution Control (Furnaces, Ovens and Chimneys) (Installation and Alteration) Regulations	Works area of 3901B	EP/RS/0000438 488	Approval granted on 26 Jun 2020
	Specified Process license under APCO	Works area of 3901B	L-3-262(1)	Valid from 17 Nov 2020 to 16 Nov 2024
	Registration as Chemical Waste Producer	Works area of 3901B	WPN 5218-951-G2880-01	Completion of Registration on 17 Jan 2020
	Bill Account for disposal	Works area of 3901B	A/C 7032417	Approval granted from EPD on 13 Nov 2018
	Construction Noise Permit (General Works)	Works area of 3901B	GW-RS0128-22	Valid from 14 Mar 2022 to 13 Sep 2022

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

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

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

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

### Statistics for Complaints, Notifications of Summons and Prosecutions

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Prosecutions
This reporting period	3	0	0
From 28 December 2015 to end of the reporting period	55	2	2