

Airport City Link

Monthly EM&A Report for October 2023 November 2023

Airport Authority Hong Kong

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Airport Authority Hong Kong

Airport City Link

Monthly EM&A Report for October 2023

November 2023

This Submission of Construction Phase Monthly Environmental Monitoring and Audit (EM&A) Report for October 2023

has been reviewed and certified by

the Environmental Team Leader (ETL) in accordance with

Condition 3.5 of Environmental Permit No. EP-581/2020 and

Section 11.2 of the EM&A Manual of the Project.

Certified by:

Mum Clea

Ir Thomas Chan Environmental Team Leader (ETL) Mott MacDonald Hong Kong Limited

Date

10 November 2023



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By Email

Capital Works Management Department Level 6, HKIA Tower 2, 15 Cheong Tat Road, Hong Kong International Airport, Lantau, Hong Kong

Attn: Collin Chan (Manager, Civil)

13 November 2023

Dear Sir,

Contract C21C02 – Independent Environmental Checker Consultancy Services for Airport City Link

Monthly Environmental and Audit (EM&A) Report for October 2023

Reference is made to the Environmental Team's submission of Monthly EM&A Report for October 2023 in accordance with Condition 3.5 of the Environmental Permit (No: EP-581/2020) and Section 11.2 of the EM&A Manual of the Project certified by the ET Leader on 10 November 2023.

We would like to inform you that we have verified on the captioned submission in accordance with the requirement stipulated in Condition 1.9 of EP-581/2020.

Should you have any queries, please feel free to contact the undersigned at 3922 9366.

Yours faithfully, AECOM Asia Co. Ltd.

Y W Fung Independent Environmental Checker

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Executive summary

In July 2020, a Project Profile (PP) (Register No.: PP-606/2020) of the Airport City Link (ACL) (hereinafter as "the Project") was submitted for the application for permission to apply directly for an Environmental Permit (EP), which was approved by Environmental Protection Department (EPD) in August 2020. The EP of the Project (EP No.: EP-581/2020) was obtained in October 2020.

On 10 June 2021, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by Airport Authority Hong Kong (AAHK) to provide Environmental Team (ET) consultancy services for the implementation of an Environmental Monitoring and Audit (EM&A) programme of the Project in accordance with the EP requirements throughout the Pre-construction, Construction and Post-construction phases.

The construction phase EM&A programme of the Project started on 26 July 2022. The construction of marine section was commenced on 26 July 2022, while the construction of the land section was commenced on 20 February 2023.

This is the 15th Monthly EM&A Report for the construction phase of the Project which summaries findings of the EM&A programme during the reporting period from 1 to 31 October 2023.

Key Construction Works in the Reporting Period

A summary of construction activities undertaken during the reporting period is presented below:

Marine Section

- Plant mobilization and material delivery for works
- Marine substructure works
- Marine pier construction works

Land Section

- GI works
- Underground utilities diversion work
- Bored pile work
- Socketed H-Pile
- Pile cap

Environmental Monitoring and Audit Progress

The monthly EM&A programme was undertaken by ET in accordance with the approved EM&A Manual. A summary of the monitoring activities during the reporting period is presented below:

Table I: Summary Table for EM&A Activities in the Reporting Period

EM&A Activities	Number of Sessions	
Water quality monitoring	12	
Weekly environmental site inspections (Marine Section)	5	
Weekly environmental site inspections (Land Section)	5	

Breaches of Action and Limit Levels

Water Quality

The water quality monitoring results for dissolved oxygen (DO), turbidity and suspended solids (SS) obtained during the reporting period were within the corresponding Action and Limit Levels.

Complaint Log

There was no complaint in relation to the environmental impact received during the reporting period.

Notifications of Summons and Successful Prosecutions

There was no notifications of summons or successful prosecutions received during this reporting period.

Reporting Changes

There was no reporting change during the reporting period.

Future Key Issues

The future key issues to be undertaken in the upcoming month are:

Marine Section

- Plant mobilization and material delivery
- Marine substructure works
- Marine pier construction works
- Segment construction works

Land Section

- GI works
- Underground utilities diversion work
- Bored pile work
- Socketed H-Pile
- Pile cap
- ELS
- Water mains installation

1 Introduction

1.1 Background

In July 2020, a Project Profile (PP) (Register No.: PP-606/2020) of the Airport City Link (ACL) (hereinafter as "the Project") was submitted for the application for permission to apply directly for an Environmental Permit (EP), which was approved by Environmental Protection Department (EPD) in August 2020. The EP of the Project (EP No.: EP-581/2020) was obtained in October 2020.

The Project is situated between the Airport Island and Hong Kong Port (HKP) Island, at the south of existing SkyPier on the Airport Island. To enhance vehicular mobility and walkability between HKP Island and the SKYCITY, the Project serves as a connection bridge providing shuttle services and pedestrian pathway.

The construction for the Project consists of a marine section in a marine area between the Airport Island and HKP Island, and a land section on the Airport Island and HKP Island. The connection bridge comprises of approximately 400m long marine section and 450m long land section. The construction works of marine section will be carried out by marine works Contractor, while the construction works of land section will be carried out by land works Contractor.

On 10 June 2021, Mott MacDonald Hong Kong Limited (MMHK) was commissioned by Airport Authority Hong Kong (AAHK) to provide Environmental Team (ET) consultancy services for the implementation of an Environmental Monitoring and Audit (EM&A) programme in accordance with the EP requirements throughout the Pre-construction, Construction and Post-construction phases.

The construction phase EM&A programme of the Project started on 26 July 2022. The construction of marine section was commenced on 26 July 2022, while the construction of the land section was commenced on 20 February 2023.

This is the 15th Monthly EM&A report summarising the key findings of the construction phase EM&A programme from 1 to 31 October 2023 (the reporting period) and is submitted to fulfil requirements in Condition 3.5 of EP and Section 11.2 of EM&A Manual of the Project.

1.2 Project Organisation

The organisation chart and lines of communication with respect to the on-site environmental management structure of the key personnel are shown in **Appendix A**. The key personnel contact names and numbers are summarized in **Table 1.1**.

Party	Position	Name	Telephone
Project Manager's Representative (Airport Authority Hong Kong)	Senior Project Engineer, Environment	Becky Yan	2183 2773
Environmental Team (ET)	Environmental Team Leader	Thomas Chan	2828 5967
(Mott MacDonald Hong Kong Limited)	Deputy Environmental Team Leader	Gary Chow	2828 5874

Table 1.1: Contact Information of Key Personnel

Party	Position	Name	Telephone
Independent Environmental Checker (IEC)	Independent Environmental Checker	Y W Fung	3922 9366
(AECOM Asia Company Limited)	Deputy Independent Environmental Checker	Lemon Lam	3922 9381
Main Contractor – Marine Section	Senior Project Manager	Brian Ho	9041 7535
(Gammon Engineering & Construction Company Limited)	Environmental Officer	Elena Lai	6841 3324
Main Contractor – Land Section	Project Manager	Kingsley Chiang	9424 8437
(China State Construction Engineering (HK) Ltd.)	Senior Environmental Officer	William Chan	5408 3045

1.3 Construction Works Programme and Construction Works Area

The construction phase EM&A programme of the Project started on 26 July 2022. The construction of marine section was commenced on 26 July 2022, while the construction of the land section was commenced on 20 February 2023.

The construction works programme and the construction works area of the Project are shown in **Appendix B** and **Appendix C** respectively.

1.4 Construction Works undertaken during the Reporting Period

A summary of construction activities undertaken during this reporting period is presented below:

Marine Section

- Plant mobilization and material delivery for works
- Marine substructure works
- Marine pier construction works

Land Section

- GI works
- Underground utilities diversion work
- Bored pile work
- Socketed H-Pile
- Pile cap

2 Water Quality

2.1 Baseline Water Quality Monitoring

As stipulated in the EM&A Manual, the construction activities under sea water level for the Project will commence in a month after completion of that of Intermodal Transfer Terminal Bonded Vehicular Bridge (ITT-BVB). Therefore, it is likely that the period for baseline monitoring would overlap with the construction activities under sea water level of ITT-BVB, which may influence the baseline water quality for the Project.

Since the baseline monitoring of ITT-BVB project has been carried out at the same proposed baseline monitoring locations of the Project during 15 August 2019 – 10 September 2019, and 28 November 2019 – 24 December 2019 covering both dry and wet seasons, which was carried out before any marine construction activities in the vicinity of the Project. Hence, the baseline monitoring data from ITT-BVB would be the most recent and representative to the baseline condition of the water quality in the vicinity of the Project without any interference. Thus, the baseline monitoring data from ITT-BVB would be adopted for the Project.

ET submitted the baseline monitoring report of the Project on 12 November 2021 and EPD expressed no comment on 24 November 2021.

2.2 Impact Water Quality Monitoring

2.2.1 Monitoring Requirement

The impact water quality monitoring was conducted three days per week at mid-flood and midebb tides, at 5 water quality monitoring stations. Samples were taken at three depths, namely, 1m below water surface, mid-depth and 1m above sea bed, except where the water depth less than 6m, the mid-depth station was omitted. For locations with water depth less than 3m, only the mid-depth station was monitored. Duplicate in-situ measurements and water samples were collected from each independent monitoring event for all parameters to ensure a robust statistically interpretable dataset.

2.2.2 Monitoring Locations

The water quality monitoring was conducted at three locations in the sea channel between the HKIA and the HKBCF (M1, M2 and M3) and two control stations (C1 and C2), locations are shown in **Figure 2.1** and summarized in **Table 2.1**.

ID	Monitoring Station	Easting	Northing
M1	Impact Station	812423	819635
M2 ⁽¹⁾	Impact Station	812629	819845
M3 ⁽²⁾	Impact Station	812586	820069
C1	Control Station - West	812419	820670
C2	Control Station - East	813072	820595

Table 2.1: Locations of Marine Water Quality Monitoring Stations

Notes:

1. As updated in the baseline monitoring report, the water quality monitoring at M2 station was shifted to bring it closer to the Project site and away from the SkyPier ferry movements for better representation.

As updated in the baseline monitoring report, the water quality monitoring at M3 station was shifted to the 2. location near the seawater intake of HKBCF to better represent the potential water quality impacts at the nearby sensitive receiver

2.2.3 **Monitoring Parameters**

For the 3 impact stations (M1 to M3) and 2 control stations (C1 and C2), monitoring of DO, DO%, pH, temperature, turbidity, salinity, SS and water depth were undertaken.

Other relevant data were also recorded, including monitoring location, time, tidal stages, weather conditions and any special phenomena or work during the monitoring.

2.2.4 **Monitoring Schedule for the Reporting Period**

Construction impact monitoring for water quality was undertaken in compliance with the EM&A Manual during the reporting period. Due to Tropical Cyclone Warning Signal No. 3 being in force on 7 October 2023, ebb and flood tide water quality monitoring for that day was cancelled.

The schedule for water quality monitoring of the reporting period is presented in Appendix D.

2.2.5 **Monitoring Equipment**

Water samples for all monitoring parameters were collected, stored, preserved and analysed according to the Standard Methods, APHA 21st ed. and/or other methods as agreed by the EPD. In-situ measurements at monitoring locations including dissolved oxygen (DO), dissolved oxygen saturation (DO%), pH, temperature, turbidity, salinity and water depth were collected using the equipment listed in Table 2.2.

Water samples for suspended solids (SS) analysis were stored in suitable containers provided by the HOKLAS laboratory with no preservative added, packed in ice (cooled to 4°C without being frozen) and delivered to the HOKLAS laboratory as soon as possible after collection.

Table 2.2: Impact Water Quality Monitoring Equipment				
Equipment	Brand and Model	Quantity		
Water Sampler	Van Dorn Water Sampler	2		
Monitoring Position Equipment (measurement of DGPS)	Garmin eTrex 20x	1		
Water Depth Detector (measurement of water depth)	Garmin STRIKER [™] Series	1		

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Multifunctional Meter (measurement of DO, DO%,

temperature, turbidity, salinity and pH)

2.2.6 Maintenance and Calibration of In-situ Instruments

In-situ monitoring instruments for water quality parameters were 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.

YSI ProDSS (Multiparameter

Sampling Instrument)

1

Wet bulb calibration for DO measurement was carried out before commencement of monitoring and after completion of all measurements each day. The turbidity meter was calibrated in order to establish the relationship between NTU units and the levels of suspended solids. 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. Standard buffer solutions of at least pH 7 and pH 10 was used for calibration of the pH instrument before and after use on each monitoring dav.

Calibration certificates of the monitoring equipment used in the monitoring for water quality parameters are provided in **Appendix E**.

2.2.7 Laboratory Measurement / Analysis

Analysis of SS was out in a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd (Reg. No. HOKLAS 066). Sufficient water samples were collected at each of the control stations and impact stations for carrying out the laboratory SS determination.

The SS determination works started within 24 hours after collection of the water samples. The analysis followed the APHA 2540D analytical method with a detection limit of 1 mg/L.

2.3 Event and Action Plan

2.3.1 Action and Limit Levels

The Action and Limit Levels for the impact monitoring stations were extracted from Table 2.8 of the Baseline Monitoring Report of ITT-BVB. The derived Action and Limit Levels are summarized in **Table 2.3**.

Table 2.3: Derived Action and Limit Levels

Parameters	Action Level	Limit Level
Impact Stations M1 and M2		
DO in mg/L		
Surface & Middle	4.3	4.0
Bottom	3.8	3.0
SS in mg/L	14.2	17.4
	AND	AND
	120% of upstream control station at the same tide of the same day	130% of upstream control station at the same tide of the same day
Turbidity in NTU	11.0	16.3
	AND	AND
	120% of upstream control station at the same tide of the same day	130% of upstream control station at the same tide of the same day
Impact Station M3		
SS in mg/L	33	42

Notes:

1. For DO measurement, non-compliance occurs when the monitoring result is lower than the limits.

2. For parameters other than DO, non-compliance of water quality occurs when the monitoring result is higher than the limits.

3. Depth-averaged results are used unless specified otherwise.

4. Impact station M3 is represents the impact station SR1A of "Expansion of Hong Kong International Airport into a Three-Runway System". The AL levels for M3 in Table 2.3 is referencing the agreed and adopted AL levels of SR1A from the Updated EM&A Manual for Expansion of Hong Kong International Airport into a Three-Runway System.

2.3.2 Event and Action Plan

In the event of water quality monitoring results at impact stations exceeding the Action and/or Limit levels for water quality as defined in **Table 2.3**, the actions in accordance with the Event and Action Plan presented in **Appendix F** shall be carried out.

2.4 Water Quality Monitoring Results

2.4.1 Impact Water Quality Monitoring

The water quality monitoring results for dissolved oxygen (DO), turbidity and suspended solids (SS) obtained during the reporting period were within the corresponding Action and Limit Levels.

Table 2.4 presents the summary of exceedances during the reporting period. Detailed impact monitoring results and relevant graphical plots are presented in **Appendix G**.

Table 2.4: Summary of Exceedances

Date	Parameter(s)	Affected Station(s)	Tide	Exceedance Type
N/A	N/A	N/A	N/A	N/A

2.5 Conclusion

The water quality monitoring results for dissolved oxygen (DO), turbidity and suspended solids (SS) obtained during the reporting period were within the corresponding Action and Limit Levels.

In the meantime, the Contractor was reminded to implement and maintain all mitigation measures during weekly site inspection and regular environmental management meetings. These include maintaining mitigation measures properly as recommended in the EM&A Manual.

3 Environmental Site Inspection and Audit

3.1 Environmental Site Inspection

Site inspections for marine and land section were carried out by ET on a weekly basis to monitor the implementation of proper environmental pollution control mitigation measures for the Project. Key observations were recorded in the site inspection checklist and passed to the Contractors together with the appropriate recommended mitigation measures where necessary.

Marine Section

During the reporting period, site inspections were carried out on 3, 11, 17, 24 and 31 October 2023 for marine section. Joint IEC site inspection for marine section was carried out on 17 October 2023. Monthly landscape and visual site audit was carried out on 17 October 2023.

Land Section

During the reporting period, site inspections were carried out on 5, 11, 16, 25 and 30 October 2023 for land section. Joint IEC site inspection for land section was carried out 16 October 2023. Monthly landscape and visual site audit was carried out on 16 October 2023.

Key observations and reminders during the site inspections and landscape and visual site audit are described in **Table 3.1**.

Marine Section					
Inspection Date	Key Observations / Reminders	Recommendations / Actions	Close-Out Date		
17 Oct 2023	Construction debris were observed on the pile cap of Pier 6.	The Contractor should clear the debris and prevent any construction materials from falling into the sea to minimise potential floating refuse.	24 Oct 2023		
24 Oct 2023	Some loose C&D material was observed at Pier 5. (Reminder)	The Contractor was reminded to provide regular cleaning at Pier 5 to avoid potential dust nuisance.	24 Oct 2023		
31 Oct 2023	Construction debris were observed on the deck of barge No. 268.	The Contractor should keep the deck clear of debris to prevent any materials from washing into the sea.	Ongoing		
Land Section	l .				
Inspection Date	Key Observations / Reminders	Recommendations / Actions	Close-Out Date		
25 Sep 2023	The maintenance record of the wastewater treatment facility was not duly completed.	The Contractor should properly complete the maintenance record of the wastewater treatment facility daily.	5 Oct 2023		

Table 3.1: Summary of Site Inspections and Recommendations

5 Oct 2023	Tarpaulin was provided	The stockpiling area for uptreated	Ongoing
5 OCI 2023	Tarpaulin was provided underneath the stockpiling area for untreated marine sediment and the mitigation measures was observed inadequate.	The stockpiling area for untreated marine should be completely paved to avoid potential contamination to underlying soil or groundwater.	Ongoing
5 Oct 2023	No proper anchor was provided to secure the tarpaulin for covering the stockpile of untreated marine sediment.	The Contractor should ensure proper covering for the stockpile of untreated marine sediment to prevent generation of leachates.	Ongoing
5 Oct 2023	Oil stain was observed on the ground.	The Contractor should remove the oil stain and treat as chemical waste.	11 Oct 2023
5 Oct 2023	No drip tray was provided for oil drums and oil spillage was observed.	The Contractor should provide drip tray for the oil drums to prevent oil spillage and clear the oil spill and treat as chemical waste.	11 Oct 2023
5 Oct 2023	Site runoff was at potential risk of entering the public drain untreated. (Reminder)	The Contractor was reminded to provide proper runoff control measures to prevent any site runoff from entering the public drain.	5 Oct 2023
11 Oct 2023	Wastewater in settling chamber was observed turbid. No discharge was observed during site inspection.	The Contractor should arrange maintenance for the wastewater treatment facility and ensure discharge quality could meet the discharge licence requirement.	16 Oct 2023
16 Oct 2023	Oil stain was observed underneath the refilling valve of drilling machine.	The Contractor should provide mitigation measures for chemical refilling to prevent spillage.	25 Oct 2023
16 Oct 2023	Level of sandy stockpile was higher than the concrete block bunding.	The Contractor should level down the stockpile to prevent washout to the public road.	25 Oct 2023
16 Oct 2023	Wastewater from the piling works and site runoff during rainy event would require on-site treatment before discharge. (Reminder)	The Contractor was reminded to divert all wastewater from the piling works and site runoff during rainy event to wastewater treatment facility when discharge is required.	16 Oct 2023
25 Oct 2023	Water control measure at the marine sediment storage area was not properly implemented.	The Contractor should provide a secure bunding to prevent any seepage of wastewater from the marine sediment storage area.	30 Oct 2023
25 Oct 2023	Oil spill was observed from the excavator.	The Contractor should remove the oil stain and provide maintenance for the machinery to prevent oil spillage.	30 Oct 2023
25 Oct 2023	The marine sediment storage area was at risk of producing leachate. (Reminder)	The Contractor was reminded that all leachate from the marine sediment storage area should be collected, and no discharge was allowed.	25 Oct 2023
25 Oct 2023	Adequate surface protection measures shall be arranged well before the arrival of a rainstorm. (Reminder)	The Contractor was reminded to cover the soil stockpile with tarpaulin to prevent washout by rainstorm.	25 Oct 2023

Land Section	1		
25 Oct 2023	Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving a construction site. (Reminder)	The Contractor was reminded to provide proper wheel washing operation at all site exit and keep the public road free of dust.	25 Oct 2023
30 Oct 2023	No protection measure was provided from the gully.	The Contractor should intercept the gully to prevent any construction debris and soil from entering the public drainage system.	Ongoing
30 Oct 2023	Exposed site area was observed dusty. (Reminder)	The Contractor was reminded to provide regular water spraying for the exposed site area for dust suppression.	30 Oct 2023

3.2 Advice on the Solid and Liquid Waste Management Status

The Contractors were registered as chemical waste producers for the Project. Construction and demolition (C&D) material sorting was carried out on site. Sufficient numbers of receptacles were provided for general refuse collection and sorting. Excavated inert C&D materials were reused to minimise the disposal of C&D waste to public fill. The Contractors were reminded to maintain on site waste sorting and recording system and maximize reuse / recycling of C&D wastes, whenever these are generated.

The monthly summary of waste flow table for marine and land section are detailed in **Appendix H**.

The valid environmental licenses and permits for the Project during the reporting period are summarized in **Appendix I**.

3.3 Implementation Status of Environmental Mitigation Measures

In response to the site audit findings, the Contractors carried out corrective actions.

A summary of the environmental mitigation measures implementation status is presented in **Appendix J**. Necessary mitigation measures were implemented properly, observations and reminders were issued to the Contractors where actions were taken by the Contractors to rectify the identified issues.

3.4 Summary of Exceedance of the Environmental Quality Performance Limit

Water Quality

The water quality monitoring results for dissolved oxygen (DO), turbidity and suspended solids (SS) obtained during the reporting period were within the corresponding Action and Limit Levels.

Detailed impact monitoring results and relevant graphical plots are presented in Appendix G.

3.5 Summary of Complaints, Notifications of Summons and Successful Prosecutions

Complaint Log

There was no complaint received in relation to the environmental impact during the reporting period.

Notifications of Summons or Status of Prosecution

There was no notification of summons or prosecutions received during the reporting period.

Cumulative Statistics

Statistics on complaints, notifications of summons and successful prosecutions are summarized in **Table 3.2**.

Table 3.2: Statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Environmental Complaints	Notifications of Summons	Successful Prosecutions
This reporting period (Oct 2023)	0	0	0
From commencement date of construction to end of reporting period	0	0	0

4 Future Key Issues

4.1 Construction Programme for the Coming Month

As informed by the Contractors, the major construction activities for the next reporting period (November 2023) are summarized in **Table 4.1**.

Marine Section	
Period	Description of Activities
Nov 2023	 Plant mobilization and material delivery Marine substructure works Marine pier construction works Segment construction works
Land Section	
Period	Description of Activities
Nov 2023	 GI works Underground utilities diversion work Bored pile work Socketed H-Pile Pile cap ELS Water mains installation

4.2 Environmental Site Inspection and Monitoring Schedule for the Next Reporting Period

The tentative schedule for weekly site inspection and water quality monitoring for the next reporting period is provided in **Appendix D**.

5 Conclusions

General

The construction works for the Project commenced on 26 July 2022. The ET of the Project has undertaken environmental site inspections and water quality monitoring under the construction phase EM&A programme during the reporting period.

Water Quality Monitoring

The water quality monitoring results for dissolved oxygen (DO), turbidity and suspended solids (SS) obtained during the reporting period were within the corresponding Action and Limit Levels.

Environmental Site Inspections

Environmental site inspections were carried out 5 times for marine section and 5 times for land section during the reporting period. Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site inspections.

Complaint Log

There was no complaint received in relation to the environmental impact during the reporting period.

Reporting Changes

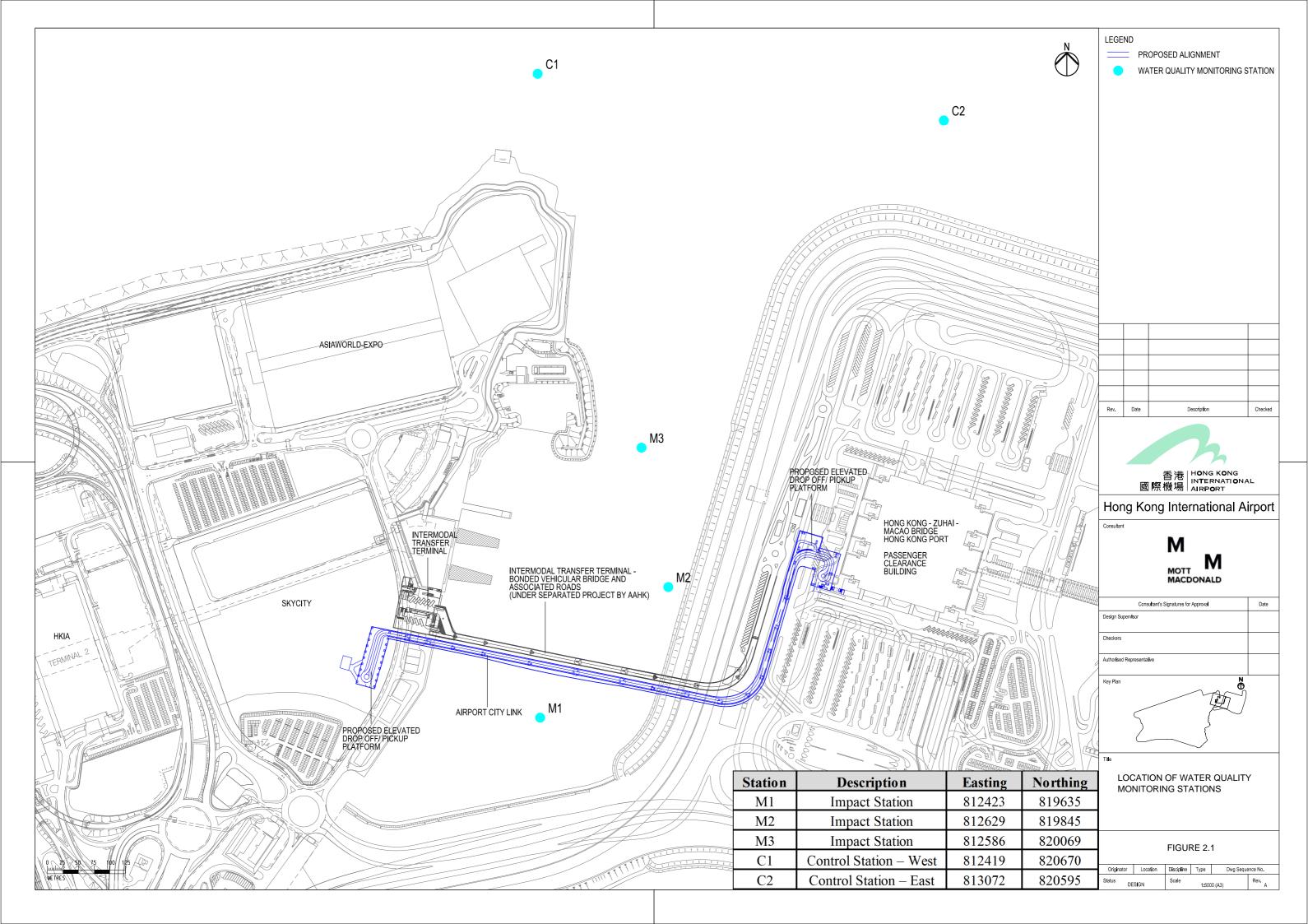
There was no reporting change during the reporting period.

Notifications of Summons and Successful Prosecutions

There was no notification of summons or successful prosecutions received during the reporting period.



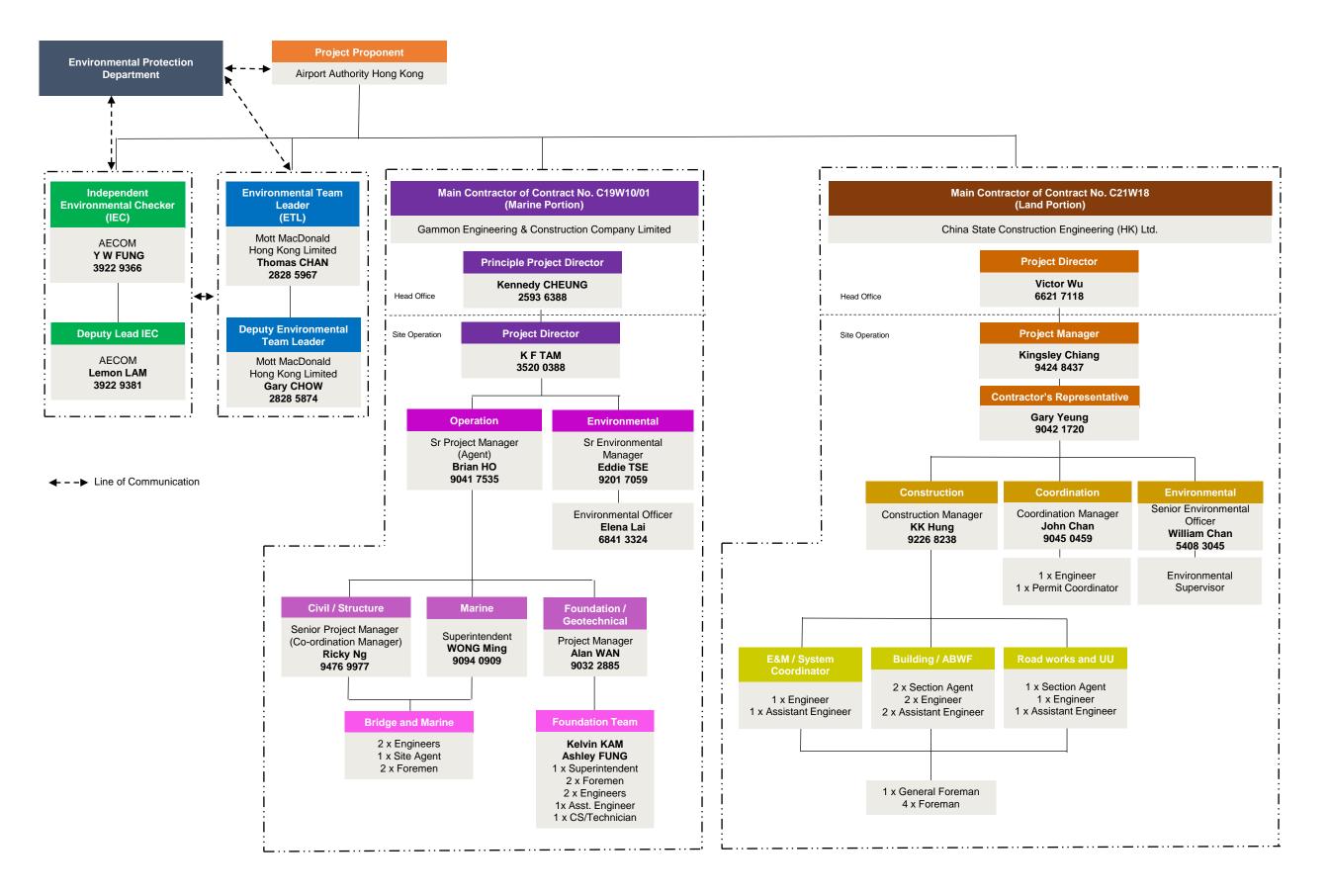
Figure 2.1 Water Quality Monitoring Locations



Appendices

Appendix A. Project Organisation

Management Organizations for EP Condition 2.3



Appendix B. Construction Works Programme

Marine Section

iy ID	Activity Name	Orig Dur	DWP Rev.B Start	DWP Rev.B Finish	Start	Finish	Total Float	Physical % Complete	Oct 21	2023 Nov 22
9W10/01 - ACL - Monthly Pr	rogramme Rev.D Updated as of 26 Oct 2023				1		-11			
Contract Dates										
Statutory Submission										
19W10.A.C0W895	Design Preparation, Submissoin and Approval for Navigation Aids	100	02-Feb-23	29-May-23	01-May-23 A	29-Nov-23	-38	50%		
Marine Substructure Works										
P7 Substructure	1			1	1	1				
19W10.U.SD132	P7 Pier Erection	21	30-May-23	24-Jun-23	21-Aug-23 A	06-Nov-23	-53	50%		
P8 Substructure				1						
19W10.U.SD172	P8 Cofferdam Installation and Pile Cap Construction		30-Jun-23	31-Jul-23	14-Sep-23 A	24-Oct-23 A	_	100%		
19W10.U.SD192	P8 Pier Erection	21	01-Aug-23	25-Aug-23	26-Oct-23	18-Nov-23	-5	0%	P8 Pier Erection	
P4 Substructure										
19W10.U.SD98	P4 Pier Erection	21	28-Apr-23	24-May-23	06-Jun-23 A	30-Oct-23	-52	90%		
P3 Substructure										
19W10.U.SD162	P3 Pier Erection	20	30-Jun-23	27-Jul-23	26-Oct-23 A	17-Nov-23	-32	5%	P3 Pier Erection	
Marine Viaduct Erection										
ACL P5 Span			04.04 F	00.11 57	10.5			,		
19W10.U.SD242	Erection of Hammer Head		31-Mar-23	08-May-23	18-Sep-23 A	26-Oct-23 A	_	100%		
19W10.U.SD252	Erection of Travelling Formworks TF1 for Segment N-1		09-May-23	13-May-23	26-Oct-23	31-Oct-23	-115	0%	ravelling Formworks TF1 for Segment N-1	
19W10.U.SD253	Erect Segment N-1	10	15-May-23	27-May-23	01-Nov-23	11-Nov-23	-115	0%	ErectSegme	ent N-1
19W10.U.SD254	Erection of Travelling Formworks TF2 for Segment N+1	5	29-May-23	02-Jun-23	13-Nov-23	17-Nov-23	-115	0%	Erection of Travelling Formwor	ks TF2 for Segment N+1
19W10.U.SD255	Erect Segment N+1	10	03-Jun-23	15-Jun-23	18-Nov-23	29-Nov-23	-115	0%		Erect Segment N+1
19W10.U.SD262	Cantilever Segment Erection (7 Cycles, 10 days per cycle)	70	16-Jun-23	14-Sep-23	30-Nov-23	26-Feb-24	-115	0%	Cantilev	er Segment Erection (7 Cycles, 10 day
ACL P6 Span										
19W10.U.SD272	Erection of Hammer Head	28	03-Mar-23	04-Apr-23	19-Jun-23 A	16-Oct-23 A		100%		
19W10.U.SD282	Erection of Travelling Formworks TF3 for Segment N-1	5	06-Apr-23	14-Apr-23	26-Oct-23	31-Oct-23	-130	0%	ravelling Formworks TF3 for Segment N-1	
19W10.U.SD283	Erect Segment N-1	10	15-Apr-23	26-Apr-23	01-Nov-23	11-Nov-23	-130	0%	ErectSegme	ent N-1
19W10.U.SD284	Erection of Travelling Formworks TF4 for Segment N+1	5	27-Apr-23	03-May-23	13-Nov-23	17-Nov-23	-130	0%	Erection of Travelling Formwor	ks TF4 for Segment N+1
19W10.U.SD285	Erect Segment N+1		04-May-23	15-May-23	18-Nov-23	29-Nov-23	-130	0%		Erect Segment N+1
19W10.U.SD292	Cantilever Segment Erection (7 Cycles, 10 days per cycle)		16-May-23	14-Aug-23	30-Nov-23	26-Feb-24	-130	0%	Cantiley	er Segment Erection (7 Cycles, 10 day
ACL P4 Span		10	To May 20	117/03/20	001107 20	2010021	100	070		······································
19W10.U.SD302	Erection of Hammer Head	28	25-May-23	30-Jun-23	31-Oct-23	01-Dec-23	-52	0%	Erection of Hammer	Head
ACL P7 Span		20	20 110 20	00 00.1 20	01 000 20	0. 200 20	02	0,0		
19W10.U.SD332	Erection of Hammer Head	28	26-Jun-23	01-Aug-23	07-Nov-23	08-Dec-23	-53	0%	Erection o	Hammer Head
ACL P3 Span		20	20 0011 20	01710g 20	01 1107 20	00 200 20	00	070		
19W10.U.SD367	Fabrication and Delivery of Bearing (for P3 & P8)	200	01-Nov-22	21-Jun-23	15-Feb-23 A	08-Nov-23	29	90%		
19W10.U.SD362	Erection of Scaffolding Tower		28-Jul-23	31-Aug-23	18-Nov-23	20-Dec-23	-32	0%		Erection of Scaffolding Tower
19W10.U.SD372	Installation of Permanent Bearing at P3		01-Sep-23	01-Sep-23	21-Dec-23	21-Dec-23	-4	0%		······································
19W10.U.SD382	Erect of Pier Head Diaphragm		01-Sep-23 02-Sep-23	28-Sep-23	21-Dec-23	18-Jan-24	-4	0%		
ACL P8 Span		21	02-06 9- 20	20-060-20	22-060-20	10-Jaii-24	-4	U 70		
19W10.U.SD392	Erection of Scaffolding Tower	25	01-Sep-23	04-Oct-23	21-Dec-23	22-Jan-24	-32	0%		
19W10.U.SD392	Installation of Permanent Bearing at P8		01-Sep-23 05-Oct-23	04-0d-23 06-0d-23	21-Dec-23 23-Jan-24	22-Jan-24 24-Jan-24	-32	0%	·	
				_						
19W10.U.SD412	Erect of Pier Head Diaphragm	25	07-Oct-23	07-Nov-23	25-Jan-24	26-Feb-24	-32	0%		
/iaduct Parapet Erection	Off eith Echricotion and Dollings of Descent Descent	400	06 May 02	20 Dec 02	26.04.02	07 hur 04	0.4	00/	abrication and Delivery of Precast Parapet	
19W10.A.C0W555	Off-site Fabrication and Delivery of Precast Parapet	180	06-May-23	20-Dec-23	26-Oct-23	07-Jun-24	-94	U%		
Top Railing and Road Lightin		100	06 May: 02	20 Dec 22	26.0+02	07 him 04	50	00/	ite Eabrication and Delivery of Top Poiling	
19W10.A.C0W790	Off-site Fabrication and Delivery of Top Railing	180	06-May-23	20-Dec-23	26-Oct-23	07-Jun-24	-58	U%	ite Fabrication and Delivery of Top Railing	
Fender Installation	Fonder Installation at D2	00	00 Aug 00	02 Car 02	06.0-4.00	47 Nov 00	7	00/	Fonder Installation -t D2	
19W10.A.C0W865	Fender Installation at P3		29-Aug-23	23-Sep-23	26-Oct-23	17-Nov-23	7	0%	Fender Installation at P3	
19W10.A.C0W915	Fender Installation at P4		25-Sep-23	20-Oct-23	18-Nov-23	11-Dec-23	7	0%		Fender Installation at P4
4014/40 4 0014/005	Fender Installation at P5	20	21-Oct-23	14-Nov-23	12-Dec-23	06-Jan-24	7	0%	1	
19W10.A.C0W925									+	
19W10.A.C0W925 19W10.A.C0W935	Fender Installation at P6		15-Nov-23	07-Dec-23	08-Jan-24	30-Jan-24	7	0%		

	Adual LOE Remaining LOE Actual Work Remaining Work Critical Remaining Work	◆ ◆ ▽ √	 ♦ Crit Milestone ♦ Adual Milestone Start Constraint ♥ Finish Constraint No Predecessors 	Project ID: C19W10/01-DWP-D-M20 Three-Month Rolling Programme (as of 31 October 2023)	Data Date: 26-Oct-23 Printed: 25-Oct-23 08:33 Layout: C19W10/01 ACL 3MR M20 TASK filter: 3 Mths Rolling.	Da 26-Feb 10-May 22-Aug 31-Mar
	Critical Remaining Work	٩	No Predecessors	rage i oi i		31-Mar-
•	Milestone		No Successors			31-Oct-2

			2024
	Dec		Jan
	23		24
yde)			
yoloj			
ycle)			
tallation	of Permanent Bearing at P3		
	Erect of Pier Head Diaphragm		
E	rection of Scaffolding Tower		
		tallation of Permanent	Bearing at P8
			Head Diaphragm
ender Ins	tallation at P5		
	Fender Ins	tallation at P6	
ivery			
ate	Revision	Checked	Approved
o-22	Initial Works Programme	DW	BH
y-22	Detailed Works Programme	DW	BH
g-22	Detailed Works Programme	DW	RN
r-23	Detailed Works Programme	DW	RN
t-23	3MRP - Update	DW	BH
	•	•	•

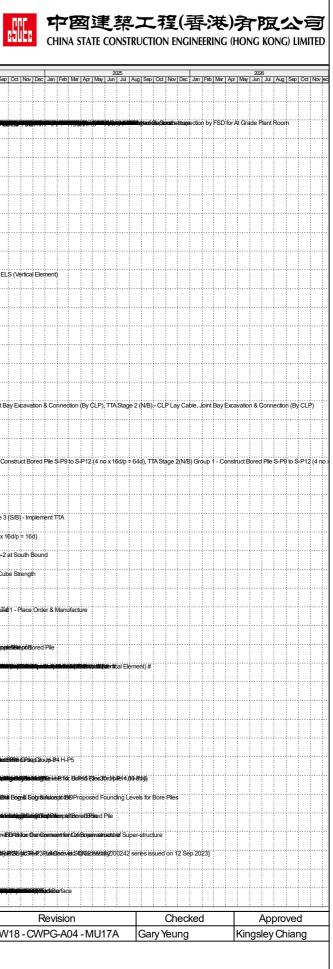
Land Section



Contract C21W18 - Airportcity Link - Land Viaducts at Hong Kong Port and Airport Island MU17A - Works Programme Update (CWPG-A04) DD 31-Oct-23



(成场 旨 垤	ActivelyName	OD	Remaining	CWPG-A04	CWPG-A04	Start	Finish	Variance-	Variance-	Physical % Total Float	
1031 - Airportcity Link(2023-05-2		624.0	Duration 507.0	Start 06-Jun-22	Finish	12-Jan-22 A	17-Jul-25	CWPG-A04 Start Date 113.0	CWPG-A04 FinishDate -302.0	Complete Apr Ma	2022 2023 201 Jul Jul Jaug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb Mar Arr May Jun Jul Aug Sep Oct Nov Dec, Jan Feb
tract Dates		32.0				12-Jan-22 A		261.0	-331.0	780.0	
urement		624.0		· · ·		06-Jun-22 A	17-Jul-25	0.0	-302.0	-186.0	
truction		414.0				06-Jun-22 A		0.0	-231.0	386.0	
- Demolition of TPSO (3 Dec 2022)		26.0				18-Oct-22A			0.0		
	iated Road Works, Facilities & At-Grade Plant Room	414.0				06-Jun-22 A		0.0	-231.0	7.0	
S Design & BD Approval - Sky City & HKPPle		76.0				17-Oct-22A			-183.0		
KD2_ELS_1020		60.0	0.0			17-Oct-22A			18.0	100%	
	BD Review & Approve the ELS Design										BO Review & Adprove the ELS Design
KD2_ELS_1030	Submit BA8 for Consent for Commencement of ELS Works (Vertical Element Part)	7.0	0.0			17-Dec-22 A			12.0	100%	Submit BAB for Consent/for Gommencement of ELS Works (Vertical Element Part)
KD2_ELS_1040	BD Review & Issue the Consent for ELS (Vertical Element)	28.0	0.0			26-Dec-22 A			7.0	100%	BD Réview & Issue the Consent for ELS (Vertical Element)
KD2_ELS_1050	Submit BA10 SSP to BD Prior to Commencement of ELS (Vertical Element)	7.0	0.0	09-Feb-23	15-Feb-23	18-Sep-23 A	26-Sep-23 A	-221.0	-223.0	100%	 Submit BA10 SSP to BD Prior to Commencement of ELS
y City Platform										8.0	
Sky City Platform - Foundation		175.0	98.0	01-Sep-22	04-May-23	03-Oct-22 A	29-Feb-24	-25.0	-246.0	-213.0	
TTA Stage 2 - Full Contra-Flow of North Bo	bund Fast Lane to South Bound	175.0	98.0	01-Sep-22	18-Mar-23	03-Oct-22A	29-Feb-24	-25.0	-281.0	-213.0	
TTA Stage 2 - North Bound		175.0	98.0	01-Sep-22	01-Mar-23	03-Oct-22 A	29-Feb-24	-25.0	-296.0	-296.0	
North Bound - TTA Stage 2 - G.I. Wor	rks	67.0	0.0	01-Sep-22	21-Nov-22	03-Oct-22A	24-May-23 A	-25.0	-147.0		
North Bound - TTA Stage 2 - UU Dive	ersion	124.0	34.0	29-Sep-22	09-Dec-22	15-Apr-23 A	10-Dec-23	-158.0	-296.0	-296.0	
KD2_SCP_F_1400	TTA Stage 2 (N/B) - CLP Lay Cable, Joint Bay Excavation & Connection (By CLP)	60.0	40.0	29-Sep-22	27-Nov-22	15-Apr-23 A	10-Dec-23	-198.0	-378.0	62.5% -366.0	TTA Slage 2 (NB) - CLP Lay Cable, Joint Ba
KD2_SCP_F_1410	TTAStage 2 (N/B) - Gas Main Diversion	30.0	0.0	28-Nov-22	09-Dec-22	01-Sep-23 A	29-Sep-23 A	-224.0	-238.0	100%	🗕 TIA Stage 2 ((NB) - Gas Main Diversion
North Bound - TTA Stage 2 - Bored F	Piling Works	64.0	64.0	10-Dec-22	01-Mar-23	11-Dec-23	29-Feb-24	-296.0	-296.0	-296.0	
KD2_SCP_F_1000	TTAStage 2(N/B) Group 1 - Construct Bored Pile S-P9 to S-P12 (4 no x 16d/p = 64d)	64.0	64.0	10-Dec-22	01-Mar-23	11-Dec-23	29-Feb-24	-296.0	-296.0	0% -296.0	TTA Stage 2(NB) Group 1 - Con
TTA Stage 2 - South Bound		80.0	0.0	30-Nov-22	18-Mar-23	31-Jul-23 A	25-Oct-23 A	-194.0	-178.0		
TTA Stage 3 -Shift Turning Forward to Sou	uth Side for Construction of S-P1	64.0	7.0			31-Jul-23 A	08-Nov-23	-114.0	-155.0	-127.0	
KD2_SCP_F_1110	TTAStage 3 (S/B) - Implement TTA	7.0	7.0			01-Nov-23	08-Nov-23	-191.0	-191.0	0% -161.0	■ TTA Stage 3 (SB) - Implement TTA, TTA Stage 3 (SB) - Implement TTA, TTA Stage 3 (
						31-Jul-23 A			-141.0	100%	
KD2_SCP_F_1120	TTA Stage 3 (S/B) - Construct Bored Pile S-P1 (1 no x 16d/p = 16d)	16.0	0.0	10-11/01-23		31-JUE23A					TTA Stage 3 (SB)- Construct Bored Pile S-P1: (1 nb x 16
KD2_SCP_F_1220	TTA Stage 3 (S/B) - Completion of Bored Piles Group-2 at South Bound	0.0	0.0		06-Apr-23		26-Sep-23 A		-141.0	100%	TIA Stage 3 (SIB) - Completion of Bored Piles Group-2 a
KD2_SCP_F_1310	TTA Stage 2 (S/B) Group 2 - 28 days Concrete Cube Strength	28.0	0.0			27-Sep-23 A			-173.0	100%	TTA/Stage 2 (SIB) Group 2 + 28 days/Concrete/Cube
Sky City - Lift LT-01						07-Mar-23 A			-169.0	8.0	
Sky City - Lift LT-01 - E&M Installation		321.0	170.0	02-Dec-22	01-Nov-23	07-Mar-23 A	30-May-24	-75.0	-169.0	8.0	
City Viaduct										-68.0	
Sky City Viaduct - Foundation		86.0	24.0	10-Oct-22	26-Jan-23	28-Mar-23 A	28-Nov-23	-139.0	-251.0	-39.0	Manak y Sign Chylefordi. FEL Talak sin kenel af tysk fan Bellander.
Sky City Viaduct - Superstructure				16-Feb-23	17-May-23	01-Nov-23	31-Jan-24			-68.0	
										-87.0	
HKP Platform - Foundation		237.0	113.0	28-Oct-22	23-Nov-23	04-Feb-23 A	18-Mar-24	-79.0	-93.0	-87.0	
HKP Platform - Bored Piling Works		237.0	113.0	28-Oct-22	23-Nov-23	04-Feb-23 A	18-Mar-24	-79.0	-93.0	-87.0	
Stage ATTA at Grid R19 & R20 - Pile H-P	м-н.р5, н. р6 -н. р 9	136.0	80.0	14-Jan-23	24-Aug-23	24-Jul-23 A	05-Feb-24	-152.0	-135.0	-96.0	
Stage 1A - TTA - Pile H-P1~H-P5, H-P6	6-H P8,HP9	136.0	80.0	14-Jan-23	24-Aug-23	24-Jul-23 A	05-Feb-24	-152.0	-135.0	-96.0	Methologia en Courte de Courte
Stage B TTA from Grid R21 to R26		237.0	113.0	28-Oct-22	23-Nov-23	04-Feb-23 A	18-Mar-24	-79.0	-93.0	-87.0	Intervice a material state in the second state of t
Reprovison of Vertical Circulation - Stain	ircase	175.0	103.0	27-Feb-23	23-Sep-23	30-Jun-23 A	06-Mar-24	-99.0	-132.0	-132.0	In the second
HKP Platform - Statutory Submission for C	Completion	37.0	37.0	07-Mar-23	21-Apr-23	24-Nov-23	09-Jan-24	-214.0	-215.0	-146.0	and the second
HKP Platform - Superstructure		32.0	32.0	03-Apr-23	12-May-23	21-Dec-23	30-Jan-24	-214.0	-216.0	-146.0	1 🛲 Høferhesburtse Porte Portsofmet
KP Platform - External Works at Ground Level										15.0	
(P Viaduct										-183.0	
		407.0								-165.0	
HKP Viaduct Pile Group 1 & 3 - UU Diversion - N	Water Main Diversion	203.0	59.0	12-Jui-22	26-Nov-22	05-Aug-22 A	11-Jan-24	-21.0	-332.0	-244.0	
Actual Work	♦ ♦ Milestone			Dr		ID· MI	117/ /	CWPG-			Data Date: 31-Oct-23 Date
Remaining Work	Primary Baseline	104	۱		-						Printed: 08-Nov-2309:09 31-Oct-23 C21W1
Critical Remaining	-	A04	- VV	Orks	Progr				variai	nce Report	Layout: C21W18-WPU Layout_MU17A
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Contract C21W18 - Airportcity Link - Land Viaducts at Hong Kong Port and Airport Island MU17A - Works Programme Update (CWPG-A04) DD 31-Oct-23



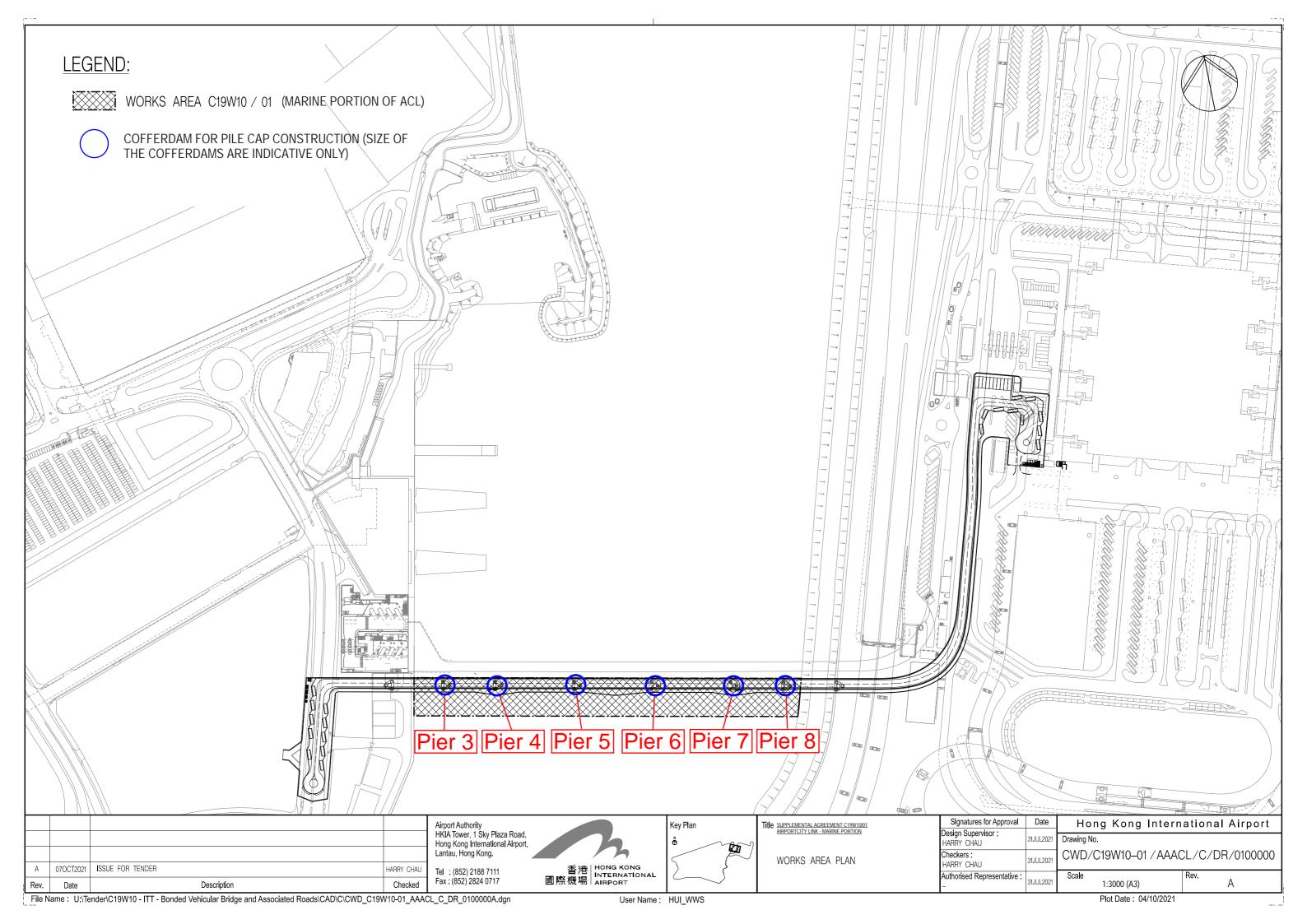
Activity ID		ActivityName	OD	Remaining	CWPG-A04	CWPG-A04	Start	Finish	Variance-	Variance-	Physical % Total Float	
				Duration	Start	Finish			CWPG-A04 Start	CWPG-A04	Complete	2022 2023 2024
									Date	FinishDate		Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan
	HKP Viaduct Pile Group 1 & 3 - UU Diversion - LV	/, ELV, CT Cable Duct Diversion	121.0	97.0	22-Sep-22	02-Feb-23	27-Jun-23 A	07-Mar-24				
	HKP Vaduct - Foundation		319.0		03-Feb-23	14-Sep-23	31-Jul-23 A	04-Sep-24	-144.0	-288.0		
	HKP Viaduct - Bored Pile Group 1 & 3 - P11 to	P15	196.0	147.0	03-Feb-23	13-Sep-23	25-Aug-23 A	04-Sep-24	-166.0	-289.0	-289.0	
	HKP Viaduct Pile Group 1- Pile P12 to P15		159.0	147.0	07-Feb-23	13-Sep-23	12-Sep-23 A	04-Sep-24	-178.0	-289.0	-289.0	
	HKP Viaduct Pile Group 3 - Pier P11		121.0	5.0	03-Feb-23	05-Jul-23	25-Aug-23 A	22-Apr-24	-166.0	-237.0	-267.0	HKP Vaduct Pie P11-2 - Construct Bored }
	HKP Viaduct - Bored Pile Group 2 - P3, P10		116.0	60.0	28-Mar-23	14-Sep-23	31-Jul-23 A	12-Jan-24	-99.0	-97.0	-14.0	
	HKP Viaduct Pile Group 2 - Bored Pile Con	istruction - Pile P9 to P10	85.0	12.0	28-Mar-23	19-Jul-23	31-Jul-23 A	14-Nov-23	-99.0	-98.0	-48.0	HKP Vieduct P10-3- Construct Bored Pile
		mission for Completion of Bored Plie Works (P9 to P10)	84.0	60.0	20-Jul-23	14-Sep-23	26-Sep-23 A	12-Jan-24	-58.0	-97.0	-14.0	
	HKP Vaduct - Super-structure											
												Intertacing Contractor Start Marine Viadutt Dec
	KD3 - Statutory Submission & Approval for Cor	mpletion of Testing & Commissioning	35.0	35.0	06-Jun-22	15-Oct-22	01-Nov-23	11-Dec-23	-419.0	-344.0	144.0	

Actual Work	٠	♦ Milestone	Project ID: MU17A-CWPG-A04D	Data Date: 31-Oct-23	Date	Revisio
Remaining Work		Primary Baseline			31-Oct-23	C21W18-CWPG-A
6	•	,	A04 - Works Programme Update with Variance Report	Layout: C21W18-WPU Layout MU17A		
Critical Remaining Work	\diamond	Baseline Milestone	Page 2 of 2	TASK filters: C21W18 - 3 M, without LOE,		
			1 496 2 61 2	TASK litters: C21 w 18 - 3 M, without LOE,		

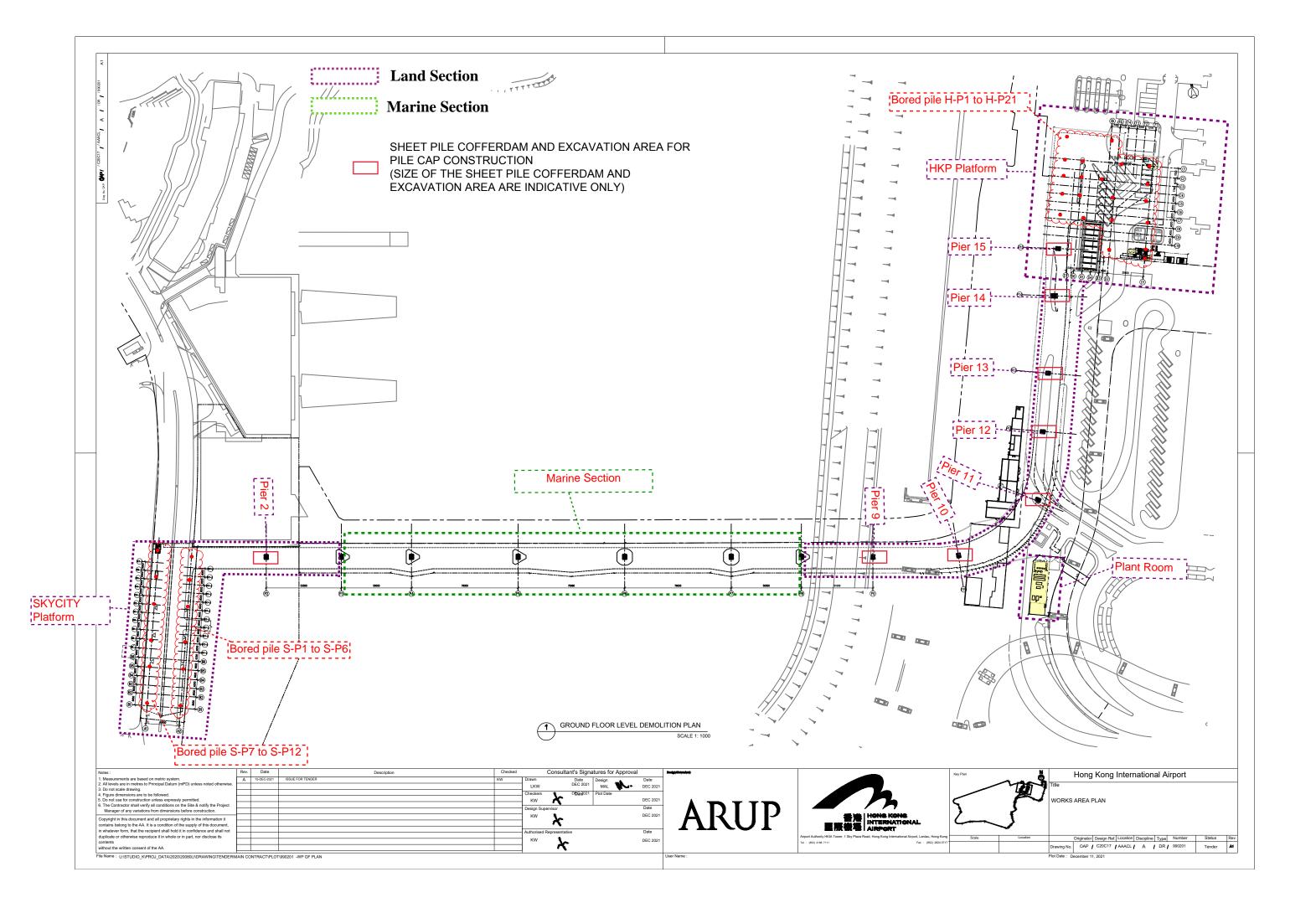
	エ程(香港 RUCTION ENGINEERING)
2025 an [Feb] Mar [Apr] May] Jun] Jul] Au	ug]Sep]Oct_Nov_Dec_Jan_Feb_Mar_	2026 Apr May Jun Jul Aug Sep Oct Nov
	, puis	
	DUTODALLAN	
Here (2000) (4 no.	is. P15(@300/pile)	
u riie (+ 1105.101, riiei, r 11)		
iBofeadFeiel Pile		
Contractore		
Deck construction (Assume 01 Ap	or 2023)	
		\$84(ap8)down)
vision G-A04 - MU17A	<u>Checked</u> Gary Yeung	Approved Kingsley Chiang

Appendix C. Construction Works Area

Marine Section



Land Section



Appendix D. Environmental Site Inspection and Monitoring Schedule

ACL Environmental Monitoring and Site Inspection Schedule for Oct 2023

Oct-23

Sunday	Monday	Tuesday		Wednesday	Thurso	day	Friday	Saturd	ay
1	2	3		4	5		6	7	
		ACL (Marine) Environmental Sit	e Inspection		ACL (Land) Environme	ental Site Inspection			
									(1)
		Water Quality Moni	itoring		Water Quality	Monitoring		Water Quality	Monitoring
		mid- ebb:	15:27		mid- ebb:	16:38		mid- ebb:	06:36
		mid- flood:	09:53		mid- flood:	12:02		mid- flood:	19:24
8	9	10		11	12		13	14	
				ACL (Land) Environmental Site Inspection					
		Water Quality Moni	itoring	ACL (Marine) Environmental Site Inspection	Water Quality	Monitoring		Water Quality	Monitoring
		mid- ebb:	10:30		mid- ebb:	11:48		mid- ebb:	12:53
		mid- flood:	17:46		mid- flood:	18:18		mid- flood:	06:44
15	16	17		18	19		20	21	
	ACL (Land) Environmental Site Inspection	ACL (Marine) Environmental Sit	e Inspection						
		Water Quality Moni	itoring		Water Quality	Monitoring		Water Quality	Monitoring
		mid- ebb:	14:30		mid- ebb:	15:50		mid- ebb:	04:51
		mid- flood:	08:44		mid- flood:	10:29		mid- flood:	17:17
22	23	24		25	26		27	28	
		ACL (Marine) Environmental Sit	e Inspection	ACL (Land) Environmental Site Inspection					
		Water Quality Moni	itoring		Water Quality	Monitoring		Water Quality	Monitoring
		mid- ebb:	08:51		mid- ebb:	10:53		mid- ebb:	12:24
		mid- flood:	16:40		mid- flood:	17:41		mid- flood:	18:29
29	30	31							
	ACL (Land) Environmental Site Inspection	ACL (Marine) Environmental Sit	e Inspection						
		Water Quality Moni	itoring						
		mid- ebb:	14:29						
		mid- flood:	09:03						
		Notes:	20.00						
			nonitoring	on 7 October 2023 was cancell	ed due to Strong V	Wind Signal No	.3 in force and safety conce	ern.	
		(,		,					

ACL Environmental Monitoring and Site Inspection Schedule for Nov 2023

Nov-23

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
			1	2	3	4	
				Water Quality Monitoring		Water Quality Monito	oring
				mid- ebb: 15:39		mid- ebb:	04:51
				mid- flood: 10:50		mid- flood:	17:10
5	6	7	8	9	10	11	17.10
•	ACL (Land) Environmental Site Inspection	ACL (Marine) Environmental Site Inspection	•	-			
		Water Quality Monitoring		Water Quality Monitoring		Water Quality Monito	orina
		mid- ebb: 08:21		mid- ebb: 10:26		mid- ebb:	11:45
		mid- flood: 16:30		mid- flood: 17:01		mid- flood:	17:39
12	13	14	15	16	17	18	
	ACL (Land) Environmental Site Inspection	ACL (Marine) Environmental Site Inspection					
		Water Quality Monitoring		Water Quality Monitoring		Water Quality Monito	oring
		mid- ebb: 13:38		mid- ebb: 14:59		mid- ebb:	03:49
		mid-flood: 08:06		mid-flood: 09:44		mid- flood:	16:12
19	20	21	22	23	24	25	
	ACL (Land) Environmental Site Inspection	ACL (Marine) Environmental Site Inspection					
		Water Quality Monitoring		Water Quality Monitoring		Water Quality Monito	oring
		mid- ebb: 06:53		mid- ebb: 09:27		mid- ebb:	11:17
		mid-flood: 15:09		mid-flood: 16:21		mid- flood:	17:15
26	27	28	29	30			
	ACL (Land) Environmental Site Inspection	ACL (Marine) Environmental Site Inspection					
		Water Quality Monitoring		Water Quality Monitoring			
		mid- ebb: 13:33		mid- ebb: 14:43			
		mid-flood: 08:18		mid-flood: 09:52			
		Notes:					

Appendix E. Calibration Certificates



REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. Date of Issue Page No. : R-BC090045 : 15 September 2023 : 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

PART B - SAMPLE INFORMATION

Name of Equipment :	YSI ProDSS (Multi-Parameters)
Manufacturer :	YSI (a xylem brand)
Serial Number :	21K101468
Date of Received :	15 September 2023
Date of Calibration :	15 September 2023
Date of Next Calibration :	14 December 2023
Request No. :	D-BC090045

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

<u>Test Parameter</u>	Reference Method
pH value	APHA 21e 4500-H ⁺ B
Temperature	Section 6 of international Accreditation New Zealand Technical Guide no. 3 Second edition March
	2008: Working Thermometer Calibration Procedure
Salinity	APHA 21e 2520 B
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Turbidity	APHA 21e 2130 B (Nephelometric Method)
Conductivity	APHA 21e 2510 B

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance	Result
4.00	4.04	0.04	Satisfactory
7.42	7.50	0.08	Satisfactory
10.01	10.07	0.06	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading (°C)	Tolerance	Result
12	12.0	0.0	Satisfactory
26	26.1	0.1	Satisfactory
39	38.9	-0.1	Satisfactory

Tolerance of Temperature should be less than \pm 2.0 ($^{\circ}C$)

(3) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.94	-0.60	Satisfactory
20	20.09	0.45	Satisfactory
30	30.16	0.53	Satisfactory

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

--- CONTINUED ON NEXT PAGE ----

AUTHORIZED SIGNATORY:

LEE Chun-ning

Assistant Manager

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REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

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(4) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance	Result
7.97	8.27	0.30	Satisfactory
6.81	6.47	-0.34	Satisfactory
4.65	4.60	-0.05	Satisfactory
0.17	0.40	0.23	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	Result
0	0.10		Satisfactory
10	10.09	0.90	Satisfactory
20	18.88	-5.60	Satisfactory
100	96.8	-3.20	Satisfactory
800	820.31	2.50	Satisfactory

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

(6) Conductivity

Expected Reading (µS/cm at 25°C)	Display Reading	Tolerance (%)	Result
146.9	151	2.79	Satisfactory
1412	1278	-9.49	Satisfactory
12890	12906	0.12	Satisfactory
58670	59334	1.13	Satisfactory
111900	112867	0.86	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 form relevant international standards. •The results relate only to the calibrated equipment as received

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

• "Displayed Reading" denotes the figure shown on item under calibration/ checking regardless of equipment precision or significant figures. • The "Tolerance Limit" mentioned is the acceptance criteria applicable for similar equipment used by Quality Pro Test-Consult Ltd. or quoted form relevant international standards.

---- END OF REPORT ----

Appendix F. Event and Action Plan

	Action						
Event	ET	IEC	AAHK / PM	Contractor			
Action level being exceeded by one sampling day	 Repeat <i>in-situ</i> measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Repeat measurement on next day of exceedance. 	Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise AAHK / PM accordingly; 3. Assess the effectiveness of the implemented	 Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. 	 Inform the AAHK / PM and confirm notification of the non-compliance in writing; Rectify unacceptabl practice; Check all plant and equipment; Consider changes c working methods; Discuss with ET and IEC and propose mitigation measures 			
Action level being exceeded by two or more consecutive sampling days	 Repeat <i>in-situ</i> measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; Repeat measurement on next day of exceedance. 	Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the AAHK / PM accordingly; 3. Assess the effectiveness of the implemented	 Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. 	 Inform the AAHK / PM and confirm notification of the non-compliance in writing; Rectify unacceptabl practice; Check all plant and equipment Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and AAHK / PM within 3 working days; Implement the agreed mitigation measures. 			
Limit level being exceeded by one sampling day	 Repeat <i>in-situ</i> measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IEC, Contractor and EPD Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, AAHK / PM and 	 Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the AAHK / PM accordingly; Assess the effectiveness of the implemented 	mitigation measures;2. Request Contractor	 Inform the AAHK / PM and confirm notification of the non-compliance in writing; Rectify unacceptabl practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEt and AAHK / PM and propose mitigation measures to IEC an AAHK / PM within 			

Table F.1: Event and Action Plan for Marine Water Quality

		Ac	tion	
Event	ET	IEC	AAHK / PM	Contractor
	Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of limit level.	,		three working days; 6. Implement the agreed mitigation measures.
Limit level being exceeded by two or more consecutive sampling days	 Repeat <i>in-situ</i> measurement to confirm findings; Identify reasons for non-compliance and source(s) of impact; Inform IEC, Contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, AAHK / PM and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. 	PM accordingly; 3. Assess the effectiveness of implemented mitigation measures.	 and Contractor on the proposed mitigation measures Request Contractor to critically review th working methods; Make agreement on the mitigation measures to be implemented; Assess the 	 and confirm notification of non- compliance in writing; e 2. Rectify unacceptabl practices; 3. Check all plant and equipment; 4. Consider changes of working method; 5. Discuss with ET, IE and AAHK / PM and propose mitigation measures to IEC ar AAHK / PM within 3 working days; 6. Implement the agreed mitigation measures:

Appendix G. Monitoring Data and Graphical Plots

Water Quality Monitoring

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

Monitoring	Weather	Sea Condition	Sampling	Water Depth	Sampling Dep	oth (m)		emperature (°C)		pН	Salin	ity (ppt)	DO Satu	ration (%)	Dissolv Oxygen (Turbidity	(NTU)	Suspende (mg,	
Station	Condition		Time	(m)			Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	24.9	24.9	8.1	8.1	28.0 28.0	28.0	83.1	82.6	5.9		2.3		1.8	l
					Cunado	1.0	24.9	21.0	8.1	0.1		20.0	82.0	02.0	5.8	5.9	2.3		2.6	↓
C1	Sunny	Moderate	14:18	8.0	Middle	4.0	25.0	25.0	8.1 8.1	8.1	27.9 28.1	28.0	83.7	82.9	5.9	0.0	3.1	3.3	1.7	1.9
	,					4.0	24.9						82.1		5.8		3.0		1.5	ł
					Bottom	7.0	25.0	25.0	8.1	8.1	27.8	28.0	84.1	83.2	5.9	5.9	4.5		1.7	ł
				1		7.0	24.9		8.1		28.1		82.3		5.8		4.5		2.3	
					Surface	1.0	24.8	24.8	8.1 8.1	8.1	28.2 28.1	28.2	84.0	83.6	5.9		5.5		1.2	ł
						1.0	24.8						83.1		5.9	5.9	5.4		1.9	ł
C2	Sunny	Moderate	14:35	9.2	Middle	4.6 4.6	24.8 24.8	24.8	8.1 8.1	8.1	28.2 28.2	28.2	84.6 83.4	84.0	6.0 5.9	-	6.0 6.0	6.4	1.9 2.0	1.8
						8.2	24.8		8.1				85.6		5.9 6.1		6.0 7.7		2.0	ł
					Bottom	8.2	24.8	24.8	8.1	8.1	28.2 28.2	28.2	83.6	84.6	5.9	6.0	7.7		1.8	1
						1.0	25.1		8.0		27.9		93.2		6.6		8.3		1.8	
					Surface	1.0	25.1	25.1	8.0	8.0	27.9	27.9	93.5	93.4	6.6		8.3		3.0	í
						-	-		-		-		-		-	6.6	-		-	
M1	Sunny	Calm	14:26	4.4	Middle	-	-	-	-	-	-	-	-	-	-	-	-	8.7	-	2.6
					Bottom	3.4	25.1	25.1	8.0	8.0	27.9	27.9	92.5	92.3	6.5	6.5	9.0		3.0	i I
					DOLLOITI	3.4	25.1	25.1	8.0	0.0	27.9	27.9	92.1	92.3	6.5	0.5	9.1		2.6	1
					Surface	1.0	24.8	25.0	8.0	8.1	27.9	27.8	90.7	90.8	6.4	_	7.5		2.0	l
					Guildee	1.0	25.1	20:0	8.1	0.1	27.7	21.0	90.9	50.0	6.4	6.4	7.4		2.5	i I
M2	Sunny	Calm	14:29	5.2	Middle		-	-	-	-	-	-	-	-	-	0.1	-	7.7	-	2.5
	Culling	Call		0.2			-		-		-		-		-		-		-	
					Bottom	4.2	24.6	24.9	8.0 8.0	8.0	28.1 27.7	27.9	88.0	88.1	6.2	6.2	8.0		2.5	ł I
			-			4.2	25.1	-				-	88.1		6.2	-	8.0		3.0	
					Surface	1.0	24.9	25.0	8.1	8.1	28.0 27.8	27.9	83.7	84.2	5.9	-	4.9		2	ł I
						1.0	25.0		8.0				84.6		6.0	6.0	4.8		3	ł 🛛
M3	Sunny	Calm	14:22	7.2	Middle	3.6	24.9 24.9	24.9	8.1	8.1	28.0	28.0	86.9	85.6	6.1	-	5.7	5.8	3	3
						3.6			8.1		27.9		84.3		6.0		5.6		3	ł
					Bottom	6.2 6.2	24.9 24.9	24.9	8.1 8.1	8.1	27.9 28.0	28.0	88.1 84.1	86.1	6.2 5.9	6.1	7.0 7.0		3	ł
						0.2	24.9		0.1		∠0.0		64.1		5.9		1.0		2	

DA: Depth-averaged

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

Water Quality Monitoring

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

Monitoring	Weather	Sea Condition	Sampling		Sampling Dep	oth (m)		emperature (°C)		рН	Salin	iity (ppt)	DO Satu	ration (%)	Dissolv Oxygen (Turbidity	(NTU)	Suspende (mg/	
Station	Condition		Time	(m)			Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	24.8	24.8	8.1	8.1	28.2	28.2	88.3	88.5	6.2		5.0		2.7	
					Guildee	1.0	24.8	24.0	8.1	0.1	28.1	20.2	88.7	00.0	6.2	6.1	4.9		3.3	
C1	Sunny	Moderate	10:55	8.2	Middle	4.1	24.8	24.8	8.1	8.1	28.2	28.2	83.2	83.3	5.9	0.1	5.6	5.5	2.2	2.4
0.	Curry	modorato	10.00	0.2		4.1	24.8	21.0	8.1	0.1	28.1	20.2	83.4	00.0	5.9		5.5	0.0	2.1	
					Bottom	7.2	24.8	24.8	8.1	8.1	28.2	28.2	82.0	82.2	5.8	5.9	6.1		2.2	,
					Bottom	7.2	24.8	21.0	8.1	0.1	28.1	20.2	82.3	02.2	5.9	0.0	6.1		2.1	
					Surface	1.0	25.0	25.1	8.1	8.1	27.6	27.6	89.6	87.6	6.3		3.3		2.6	
						1.0	25.1		8.1	-	27.5	-	85.6		6.1	6.2	3.3		3.4	
C2	Sunny	Moderate	10:36	9.4	Middle	4.7	24.9	25.0	8.1	8.1	27.6	27.6	86.6	86.3	6.1		4.3	4.4	2.5	2.4
	2					4.7	25.0		8.1		27.5		85.9		6.1		4.3		<1.0	i
					Bottom	8.4	24.9	25.0	8.1 8.1	8.1	27.6 27.5	27.6	85.1	85.6	6.0	6.1	5.7		2.9 1.7	
						8.4	25.0		-		-		86.1		6.1		5.6 6.3			
					Surface	1.0	25.2 25.2	25.2	8.0 8.0	8.0	27.7 27.7	27.7	89.9 88.2	89.1	6.3 6.2		6.3		3.7 2.2	
						-	- 25.2		- 0.0		21.1		- 00.2		- 0.2	6.3	0.3		- 2.2	
M1	Sunny	Calm	10:47	4.2	Middle	-	-	-	-		-	-	-		-	-	-	6.7	-	2.9
						3.2	25.1		8.0		27.7		91.2		6.4		7.0		3.0	
					Bottom	3.2	25.2	25.2	8.0	8.0	27.7	27.7	88.7	90.0	6.3	6.4	7.0		2.5	
						1.0	25.0		8.0		27.7		86.1		6.1	İ.	6.2		2.3	
					Surface	1.0	25.0	25.0	8.0	8.0	27.7	27.7	85.2	85.7	6.0		6.3		2.2	
	_						-		-		-		-		-	6.1	-		-	
M2	Sunny	Calm	10:44	5.0	Middle		-	-	-	-	-	-	-	-	-		-	6.9	-	2.3
					5.4	4.0	25.0		8.0		27.7		88.0		6.2		7.6		2.0	
					Bottom	4.0	25.0	25.0	8.0	8.0	27.7	27.7	85.8	86.9	6.1	6.2	7.5		2.7	
					Ounterer	1.0	24.9	24.9	8.1	0.4	28.0	28.0	90.0	89.8	6.3		5.7		3	
					Surface	1.0	24.9	24.9	8.1	8.1	27.9	28.0	89.6	89.8	6.3	6.2	5.6		2	
МЗ	Sunny	Calm	10:51	7.6	Middle	3.8	24.8	24.9	8.1	8.1	28.0	28.0	84.8	84.7	6.1	0.2	6.0	5.9	2	3
1713	Sunny	Calm	10.51	7.0	widdle	3.8	24.9	24.9	8.1	0.1	27.9	28.0	84.6	04.7	6.0		6.0	5.9	2	3
					Bottom	6.6	24.8	24.9	8.1	8.1	28.0	28.0	83.1	83.1	5.9	5.9	6.1		3	
					Bollom	6.6	24.9	24.3	8.1	0.1	28.0	20.0	83.0	03.1	5.9	5.9	6.2		3	

DA: Depth-averaged

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

Water Quality Monitoring ...

Nater Qua		loning Resu		1	05 October 23	during Mid-							1			-			<u> </u>	
Monitoring	Weather	Sea Condition	Sampling	Water Depth	Sampling De	pth (m)	Water Te	emperature (°C)		pН	Salin	ity (ppt)	DO Satur	ation (%)	Dissolved ((mg/l		Turbidity(NTU)	Suspende (mg/	
Station	Condition		Time	(m)		F ()	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	29.2	29.2	8.1	8.1	22.5	22.6	81.9	79.1	5.5		1.2		2.1	
					Sunace	1.0	29.1	23.2	8.1	0.1	22.6	22.0	76.2	73.1	5.2	5.2	1.2	1	1.9	
C1	Misty	Moderate	16:00	8.2	Middle	4.1	29.1	29.1	8.1	8.1	24.5	24.7	76.3	76.3	5.1	5.2	2.8	2.6	1.7	1.9
01	wiisty	Moderate	10.00	0.2	Middle	4.1	29.0	23.1	8.1	0.1	24.9	24.7	76.3	70.5	5.1		2.7	2.0	2.0	1.5
					Bottom	7.2	29.1	29.1	8.1	8.1	24.7	24.7	76.4	76.7	5.1	5.2	3.7	1	2.0	
					Dottoin	7.2	29.1	2011	8.1	0	24.7		76.9		5.2	0.2	3.7	<u> </u>	1.5	<u> </u>
					Surface	1.0	30.1	29.6	8.1	8.1	20.3	20.4	100.7	100.4	6.8		3.0	1	1.9	
					Ganado	1.0	29.1	20.0	8.1	0.1	20.4	20.1	100.0	100.1	6.8	6.3	2.9	1	2.1	1
C2	Misty	Moderate	16:17	9.2	Middle	4.6	28.1	28.4	8.1	8.1	23.8	23.9	84.0	84.0	5.7	0.0	3.5	3.7	1.9	1.9
				•		4.6	28.7		8.1		23.9		83.9		5.7		3.5		2.2	
					Bottom	8.2	28.0	28.3	8.1	8.1	26.7	26.8	76.5	76.7	5.1	5.1	4.7	1	1.6	1
			n			8.2	28.5		8.1	-	26.8		76.8	-	5.1	-	4.7		1.5	<u> </u>
					Surface	1.0	29.2	29.3	8.1	8.1	22.0	22.1	104.6	104.4	7.1		3.5		1.7	4
						1.0	29.4		8.1		22.1		104.2		7.0	7.1	3.5	1	1.7	
M1	Misty	Calm	16:08	5.2	Middle	-	-	-	-	-	-	-	-	-	-		-	3.9	-	2.0
						-	-		-		-		-		-		-	1	-	1
					Bottom	4.2	29.0 29.4	29.2	8.1 8.1	8.1	24.1 22.2	23.2	102.3 102.4	102.4	6.9 6.9	6.9	4.2 4.2	1	2.2 2.4	4
							-						-							┝───
					Surface	1.0	29.2 29.3	29.3	8.1 8.0	8.1	21.0 20.4	20.7	102.6 99.1	100.9	7.0 6.8	-	2.4 2.4	1	1.9 1.5	1
						1.0	- 29.5		- 0.0		20.4		- 99.1		0.0	6.9	- 2.4	1	-	1
M2	Misty	Calm	16:11	4.6	Middle		-	-	-	-	-	-	-	-				3.0		1.9
						3.6	29.0		8.1		22.5		91.4		6.2		3.7	1	1.7	1
					Bottom	3.6	29.2	29.1	8.1	8.1	24.0	23.3	88.2	89.8	5.9	6.1	3.6		2.4	1
						1.0	29.1		8.1		21.6		99.0		6.7		1.2		2	<u> </u>
					Surface	1.0	29.3	29.2	8.1	8.1	20.7	21.2	99.1	99.1	6.7	1	1.2	i	2	
						3.5	28.7		8.1		22.6		89.9		6.1	6.4	2.1		2	- I
M3	Misty	Calm	16:04	7.0	Middle	3.5	28.9	28.8	8.1	8.1	21.5	22.1	89.9	89.9	6.1	1	2.1	2.4	2	2
					D	6.0	28.6		8.0		25.4		75.0		5.0		3.8	i	2	1
					Bottom	6.0	29.1	28.9	8.1	8.1	23.8	24.6	75.2	75.1	5.0	5.0	3.7	1	2	1

DA: Depth-averaged

Water Quality Monitoring Results on 05 October 23 during Mid-Flood Tide Dissolved Oxygen Suspended Solids Turbidity(NTU) Water Temperature (°C) pН Salinity (ppt) DO Saturation (%) Water Depth (mg/L) (mg/L) Monitoring Weather Sampling Sea Condition Sampling Depth (m) Station Condition Time (m) Value Value Value Value Average Value DA Value DA Value DA Average Average Average 1.0 29.1 8.1 23.1 81.2 5.5 3.7 1.8 29.1 8.1 22.9 81.2 Surface 1.0 8.1 22.7 29.1 81.2 5.5 3.8 2.2 5.3 4.1 29.0 25.1 76.2 5.1 4.3 1.8 8.1 4.2 C1 Mistv Moderate 13:30 8.2 Middle 29.1 8.1 24.9 76.2 1.9 4.1 29.1 8.1 24.6 76.2 5.1 4.3 1.8 7.2 4.6 29.0 8.1 25.3 76.2 5.1 1.8 29.1 8.1 24.9 76.2 5.1 Bottom 7.2 29.2 8.1 24.4 76.2 5.1 4.6 1.9 1.0 29.3 23.2 83.1 5.6 1.0 1.8 8.1 29.3 8.1 23.4 82.3 Surface 1.0 29.2 8.1 23.6 81.4 5.5 1.0 2.5 5.5 4.6 29.2 8.1 23.4 83.4 5.6 2.0 2.3 C2 13:10 9.2 Middle 29.2 8.1 23.8 81.9 2.2 2.0 Misty Moderate 4.6 29.1 8.1 24.1 80.3 5.4 2.0 2.0 8.2 29.1 24.1 80.5 5.4 3.5 1.4 8.1 29.2 8.1 24.0 79.6 5.4 Bottom 23.9 8.2 29.2 8.1 78.6 5.3 3.5 2.2 1.0 29.3 82.2 2.9 8.0 23.2 5.5 1.7 29.3 8.1 23.2 82.2 Surface 23.1 1.0 29.3 8.1 82.2 5.5 2.9 2.1 5.5 --------5.2 3.4 2.0 M1 Mistv Calm 13:21 Middle --------. -4.2 29.2 8.0 23.6 81.5 5.5 3.8 2.0 29.3 8.0 23.5 82.0 5.6 Bottom 4.2 8.0 23.3 82.5 5.6 3.9 2.3 29.3 1.0 29.3 23.0 84.9 5.7 2.6 8.1 3.1 Surface 29.3 8.1 23.2 83.0 23.3 1.0 29.3 8.0 81.1 5.5 2.0 2.7 5.6 -------2.7 2.4 M2 Mistv Calm 13:18 4.2 Middle ----------3.2 29.3 23.3 85.0 5.7 2.7 1.8 8.0 8.0 23.4 82.6 5.6 Bottom 29.3 3.2 29.3 8.0 23.5 80.2 5.4 2.8 2.8 1.0 29.2 8.0 22.9 83.3 5.6 1.1 2 29.2 8.1 23.0 82.0 Surface 23.0 1.0 29.2 8.1 80.7 5.5 1.1 2 5.5 3.8 29.2 8.0 23.4 80.1 5.4 1.6 2 23.2 M3 Misty Calm 13:25 7.6 Middle 29.2 8.0 80.6 1.8 2 3.8 29.2 8.0 23.0 81.0 5.5 1.5 2 6.6 29.2 8.0 23.7 5.5 2.6 2 81.3 Bottom 29.2 8.0 23.3 81.7 5.5 6.6 29.2 8.0 22.8 82.0 5.5 2.7 3

DA: Depth-averaged

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

Water Quality Monitoring ...

Vater Qua		loning Resu			10 October 23	during Mid-					1									
Monitoring	Weather	Sea Condition	Sampling	Water Depth	Sampling De	epth (m)	Water Te	emperature (°C)	pl	н	Salin	ity (ppt)	DO Satur	ation (%)	Dissolved (mg/l		Turbidity(NTU)	Suspende (mg	
Station	Condition		Time	(m)	Camping 20	Span ()	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	26.4	26.4	8.2	8.2	28.4	28.4	81.2	81.2	5.6		3.3		1.9	
					Guilace	1.0	26.4	20.4	8.2	0.2	28.4	20.4	81.2	01.2	5.6	5.6	3.2		2.8	
C1	Cloudy	Rough	10:01	9.9	Middle	5.0	26.8	26.8	8.2	8.2	29.4	29.4	80.8	80.8	5.5	0.0	3.3	3.2	2.6	2.8
01	Cloudy	Rough	10.01	5.5	Wilddie	5.0	26.8	20.0	8.2	0.2	29.4	23.4	80.8	00.0	5.5		3.3	5.2	2.5	2.0
					Bottom	8.9	26.8	26.8	8.2	8.2	29.7	29.7	82.8	82.7	5.6	5.6	3.2		3.5	
					Dottoini	8.9	26.8	20.0	8.2	0.2	29.7	2011	82.6	02	5.6	0.0	3.1		3.4	
					Surface	1.0	26.1	26.1	8.2	8.2	28.6	28.6	87.7	87.8	6.0		1.3		2.8	1
					Ganado	1.0	26.1	20.1	8.2	0.2	28.6	20.0	87.8	01.0	6.1	6.0	1.3		2.9	1
C2	Cloudy	Rough	09:33	10.1	Middle	5.1	26.1	26.1	8.2	8.2	28.9	28.9	86.3	86.4	5.9	0.0	1.5	2.6	3.4	3.2
	,	g.				5.1	26.1		8.2	•=	28.9		86.4		5.9		1.5		3.5	
					Bottom	9.1	26.8	26.8	8.2	8.2	29.9	29.9	82.9	82.9	5.6	5.6	5.1		3.2	4
						9.1	26.8		8.2	-	29.9		82.8		5.6		5.1		3.3	<u> </u>
					Surface	1.0	26.0	26.0	8.2	8.2	28.1	28.1	88.2	88.2	6.1		1.4		3.8	4
						1.0	26.0		8.2		28.1		88.2		6.1	6.1	1.4		4.6	4
M1	Cloudy	Moderate	09:48	5.2	Middle	-	-	-	-	-	-	-	-	-	-		-	1.4	-	4.6
	-					-	-		-		-		-		-		-		-	
					Bottom	4.2	26.0 26.0	26.0	8.2 8.2	8.2	28.9 28.9	28.9	87.3	87.3	6.0	6.0	1.4		4.6	4
	-					4.2							87.3		6.0		1.4		5.4	<u> </u>
					Surface	1.0	26.0 26.0	26.0	8.2 8.2	8.2	29.0 29.0	29.0	86.5 86.6	86.6	6.0 6.0		1.5 1.5		3.0 3.4	4
						1.0	20.0				29.0		- 00.0		0.0	6.0	-		- 3.4	1
M2	Cloudy	Moderate	09:44	4.4	Middle			-	-	-	-	-	-	-	-		-	2.4	-	3.7
						3.4	26.4		8.2		29.5		83.2		5.7		3.2		3.6	1
					Bottom	3.4	26.4	26.4	8.2	8.2	29.5	29.5	83.2	83.2	5.7	5.7	3.2		4.6	1
						1.0	26.2		8.2		27.4		83.5		5.8		2.0		3	<u> </u>
					Surface	1.0	26.2	26.2	8.2	8.2	27.4	27.4	83.5	83.5	5.8		2.1		3	
140	Olevel	Davish	00.54		N 41 - 11 - 11 -	3.5	26.4	00.4	8.2	0.0	28.7	00.7	83.3	00.0	5.7	5.8	3.6	4.5	3	_
M3	Cloudy	Rough	09:54	6.9	Middle	3.5	26.4	26.4	8.2	8.2	28.7	28.7	83.3	83.3	5.7	1	3.6	4.5	3	3
					Dettern	5.9	26.6	20.0	8.2	0.0	29.3	20.2	83.6	02.6	5.7	<i>E</i> 7	7.7		3	1
	1				Bottom	5.9	26.6	26.6	8.2	8.2	29.3	29.3	83.6	83.6	5.7	5.7	7.7		3	1

DA: Depth-averaged

Water Quality Monitoring Results on 10 October 23 during Mid-Flood Tide Dissolved Oxygen Suspended Solids Turbidity(NTU) Water Temperature (°C) pН Salinity (ppt) DO Saturation (%) Water Depth (mg/L) (mg/L) Monitoring Weather Sampling Sea Condition Sampling Depth (m) Station Condition Time (m) Value Value Value Value Average Value DA Value DA Value DA Average Average Average 1.0 26.1 8.2 29.2 88.3 6.1 1.9 1.6 26.1 8.2 29.2 88.4 Surface 1.0 8.2 29.2 26.1 88.4 6.1 1.9 2.3 6.1 4.8 26.1 8.2 29.3 87.6 6.0 2.6 2.1 Cloudy Rough 3.0 C1 16:52 9.6 Middle 26.1 8.2 29.3 87.6 2.4 8.2 29.3 4.8 26.1 87.6 6.0 2.6 2.8 8.6 8.2 2.5 26.1 29.5 86.7 6.0 4.5 6.0 26.1 8.2 29.5 86.7 Bottom 8.2 29.5 4.6 2.8 8.6 26.1 86.7 5.9 1.0 89.2 6.2 26.1 8.2 28.4 1.4 3.0 26.1 8.2 28.4 89.2 Surface 1.0 26.1 8.2 28.4 89.2 6.2 1.4 2.9 6.0 4.7 26.2 8.2 29.3 85.1 5.8 2.8 2.5 C2 17:22 9.3 Middle 26.2 8.2 29.3 85.1 2.5 2.8 Cloudy Rough 4.7 26.2 8.2 29.3 85.1 5.8 2.8 3.1 8.3 26.3 8.2 29.5 81.8 5.5 2.6 3.3 26.3 8.2 29.5 81.8 5.5 Bottom 29.5 8.3 26.3 8.2 81.8 5.5 3.3 2.6 1.0 26.1 4.2 8.2 29.6 86.1 5.9 2.8 Surface 26.1 8.2 29.6 86.1 8.2 29.6 1.0 26.1 86.1 5.9 4.2 2.8 5.9 --------5.6 2.8 M1 Cloudv Rough 17:05 4.4 Middle ---------. -3.4 26.2 8.2 29.7 85.6 5.9 7.0 2.4 26.2 8.2 29.7 85.6 5.9 Bottom 3.4 8.2 29.7 85.5 5.9 7.0 3.0 26.2 1.0 26.1 29.5 86.0 5.9 2.2 2.2 8.2 Surface 26.1 8.2 29.5 86.0 8.2 29.5 1.0 26.1 86.0 5.9 2.5 2.1 5.9 -------2.8 2.4 M2 Cloudv Rough 17:10 4.1 Middle ----------3.1 26.2 29.7 84.5 5.8 3.5 2.6 8.2 8.2 29.7 84.5 5.8 Bottom 26.2 3.1 26.2 8.2 29.7 84.5 5.8 3.4 2.4 1.0 26.1 8.2 29.2 88.8 6.1 8.1 2 26.1 8.2 29.2 88.8 Surface 8.2 29.2 1.0 26.1 88.8 6.1 8.1 3 6.1 3.1 26.1 8.2 29.2 88.1 6.1 2.0 3 Rough 8.2 29.2 M3 Cloudy 16:59 6.2 Middle 26.1 88.1 4.8 2 3.1 26.1 8.2 29.2 88.1 6.1 2.0 2 5.2 26.1 8.2 29.5 5.9 4.4 2 86.1 Bottom 26.1 8.2 29.5 86.1 5.9 5.2 26.1 8.2 29.5 86.1 5.9 4.3 3

DA: Depth-averaged

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

Water Qua	lity Moni	toring Resu	ilts on		12 October 23	during Mid	-Ebb Tid	le												
Monitoring	Weather	Sea Condition	Sampling		Sampling De	epth (m)	Water Te	emperature (°C)	F	эΗ	Salin	nity (ppt)	DO Satu	ration (%)	Dissolved (mg/		Turbidity((NTU)	Suspende (mg/	
Station	Condition		Time	(m)			Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	26.9	26.9	8.1	8.1	29.2	29.2	83.4	83.0	5.7		1.2		2.6	
					Sullace	1.0	26.9	20.9	8.1	0.1	29.2	29.2	82.5	03.0	5.6	5.7	1.2		2.8	1
C1	Fine	Moderate	10:59	9.0	Middle	4.5	26.8	26.8	8.1	8.1	29.2	29.2	83.6	83.0	5.7	0.7	2.0	1.9	4.3	3.4
01	1 110	modorato	10.00	0.0		4.5	26.8	20.0	8.1	0.1	29.2	20.2	82.4	00.0	5.6		2.0	1.0	3.8	0.1
					Bottom	8.0	26.8	26.9	8.1	8.1	29.2	29.2	85.2	84.2	5.8	5.8	2.5		3.8	1
		1		1		8.0	26.9		8.1		29.2		83.1		5.7		2.5		3.3	
					Surface	1.0 1.0	27.0 27.1	27.1	8.1 8.1	8.1	28.7 28.6	28.7	89.3 91.6	90.5	6.1 6.2	-	2.5 2.4		2.7 2.2	1
						5.0	26.9		8.1		20.0		84.5		5.8	6.0	3.7		2.2	1
C2	Fine	Moderate	10:40	10.0	Middle	5.0	26.9	26.9	8.1	8.1	29.1	29.1	84.1	84.3	5.7		3.7	3.4	2.4	2.9
					D. //	9.0	27.1	07.4	8.1		29.1	00.0	85.7		5.8	5.0	4.1		3.8	1
					Bottom	9.0	27.0	27.1	8.1	8.1	28.8	29.0	84.0	84.9	5.7	5.8	4.1		3.4	1
					Surface	1.0	26.9	27.0	8.1	8.1	29.5	29.5	85.6	85.4	5.8		1.1		2.5	
					Guildee	1.0	27.0	27.0	8.1	0.1	29.4	20.0	85.2	00.4	5.8	5.8	1.1		3.6	1
M1	Fine	Calm	10:50	5.2	Middle	-	-	-	-	-	-	-	-	-	-	0.0	-	1.8	-	3.0
						-	-		-		-		-		-		-		-	
					Bottom	4.2	26.5	26.8	8.1 8.1	8.1	29.8	29.6	86.2	85.7	5.9	5.9	2.4		3.0	1
						4.2	27.0 27.1		8.1		29.4 29.2		85.2 88.0		5.8 6.0		2.5 2.1		2.8 2.9	
					Surface	1.0	27.1	27.1	8.1	8.1	29.2	29.2	87.5	87.8	5.9	-	2.1		2.9	1
						1.0	-		-		-		-		-	6.0	-		-	1
M2	Fine	Calm	10:48	5.4	Middle		-	-	-	-	-	-	-	-	-		-	2.7	-	2.6
					Bottom	4.4	27.0	27.1	8.1	8.1	29.4	29.3	88.5	88.2	6.0	6.0	3.3		2.8	1
					Bollom	4.4	27.1	27.1	8.1	0.1	29.2	29.3	87.8	00.2	6.0	0.0	3.3		2.6	
					Surface	1.0	26.8	26.9	8.1	8.1	29.5	29.5	85.6	85.4	5.8		1.3		2	
					Guildoo	1.0	26.9	20.0	8.1	0.1	29.5	20.0	85.2	00.4	5.8	5.7	1.3		3	1
M3	Fine	Calm	10:55	8.2	Middle	4.1	26.6	26.7	8.1	8.1	30.2	29.9	79.1	81.6	5.4		2.8	2.5	3	3
						4.1	26.8		8.1		29.6		84.1		5.7		2.7		3	1
					Bottom	7.2	26.6	26.8	8.1 8.1	8.1	30.3	29.9	79.8	79.1	5.4	5.4	3.6		3	1
						7.2	26.9		8.1		29.4		78.4	1	5.3		3.5		3	

DA: Depth-averaged

Water Quality Monitoring Results on 12 October 23 during Mid-Flood Tide Dissolved Oxygen Suspended Solids Turbidity(NTU) Water Temperature (°C) pН Salinity (ppt) DO Saturation (%) Water Depth (mg/L) (mg/L) Monitoring Weather Sampling Sea Condition Sampling Depth (m) Station Condition Time (m) Value Value Value Value Average Value DA Value DA Value DA Average Average Average 1.0 26.9 8.1 29.3 82.1 5.6 1.0 4.3 26.9 8.1 29.3 82.0 Surface 1.0 8.1 29.3 26.9 81.8 5.6 0.9 3.1 5.6 4.5 26.8 8.1 29.3 82.0 5.6 1.4 2.4 1.6 C1 Mistv Moderate 17:30 9.0 Middle 26.9 8.1 29.3 82.3 2.9 4.5 29.3 26.9 8.1 82.5 5.6 1.3 2.4 8.0 2.3 26.8 8.1 29.3 83.7 5.7 2.6 5.7 26.9 8.1 29.3 83.3 Bottom 26.9 8.1 29.2 82.9 2.6 3.0 8.0 5.6 1.0 27.1 6.2 28.9 91.8 2.3 1.9 8.1 27.2 8.1 28.9 92.5 Surface 1.0 27.3 8.1 28.8 93.1 6.3 2.4 2.3 6.1 4.6 26.9 8.1 29.2 85.2 5.8 3.6 1.8 C2 17:47 9.2 Middle 27.1 8.1 29.1 86.5 3.5 2.5 Misty Moderate 4.6 27.2 8.1 28.9 87.8 6.0 3.2 3.0 8.2 27.0 29.1 85.4 5.8 4.7 3.2 8.1 27.2 8.1 29.0 86.3 5.9 Bottom 28.8 8.2 27.3 8.1 87.1 5.9 4.7 2.9 1.0 27.0 87.3 0.7 8.1 29.3 5.9 3.4 Surface 27.1 8.1 29.2 87.7 29.1 1.0 27.1 8.1 88.0 6.0 0.8 3.2 6.0 --------5.2 0.9 3.1 M1 Mistv Calm 17:38 Middle ---------. -4.2 26.8 8.1 29.5 87.4 5.9 1.1 3.8 27.0 8.1 29.4 87.5 5.9 Bottom 4.2 8.1 29.2 87.5 5.9 1.0 27.1 1.8 1.0 27.0 29.1 89.0 2.9 8.1 6.1 1.1 Surface 27.0 8.1 29.1 88.7 1.0 29.1 27.0 8.1 88.3 6.0 2.7 1.1 6.1 -------1.2 2.7 M2 Mistv Calm 17:41 5.2 Middle ----------4.2 27.0 90.4 6.1 1.3 3.1 8.1 29.2 8.1 29.2 89.5 6.1 Bottom 27.0 4.2 27.0 8.1 29.1 88.6 6.0 1.1 2.2 1.0 27.0 8.1 29.1 84.7 5.8 1.0 3 27.0 8.1 29.2 84.7 Surface 29.3 1.0 27.0 8.1 84.7 5.8 1.0 3 5.8 3.7 26.8 8.1 29.7 83.6 5.7 1.1 3 29.5 1.2 M3 Misty Calm 17:34 7.4 Middle 26.9 8.1 83.6 3 3.7 27.0 8.1 29.2 83.6 5.7 1.1 3 6.4 26.6 8.1 29.9 78.2 5.3 1.5 2 Bottom 26.8 8.1 29.5 78.2 5.3 6.4 27.0 8.1 29.1 78.2 5.3 1.4 3

DA: Depth-averaged

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

Water Qua	lity Moni	toring Resu	ilts on		14 October 23	during Mid	-Ebb Tid	le												
Monitoring	Weather	Sea Condition	Sampling		Sampling De	epth (m)	Water Te	emperature (°C)	р	H	Salir	nity (ppt)	DO Satu	ration (%)	Dissolved (mg/		Turbidity(NTU)	Suspende (mg.	
Station	Condition		Time	(m)		,	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	26.6	26.6	8.1	8.1	29.8	29.8	82.8	82.8	5.6		0.2		6.3	í –
					Sunace	1.0	26.6	20.0	8.1	0.1	29.8	29.0	82.8	02.0	5.6	5.6	0.2		6.5	l
C1	Fine	Moderate	11:55	8.2	Middle	4.1	26.7	26.7	8.1	8.1	29.7	29.7	83.4	83.4	5.6	0.0	1.0	1.2	6.0	5.9
01	1 110	modorato	11.00	0.2		4.1	26.7	20.1	8.1	0.1	29.7	20.1	83.4	00.1	5.6		1.0	1.2	5.7	0.0
					Bottom	7.2	26.7	26.7	8.1	8.1	29.6	29.6	83.8	83.8	5.7	5.7	2.4		5.5	ł
				1		7.2	26.7		8.1		29.6		83.8		5.7		2.4		5.2	
					Surface	1.0	26.5 26.5	26.5	8.1 8.1	8.1	30.0 30.0	30.0	83.7 83.7	83.7	5.7 5.7	-	3.4 3.4		5.8 5.4	ł
						4.8	26.5		8.1		30.0		84.3		5.7	5.7	3.9		4.6	ł
C2	Fine	Moderate	12:12	9.6	Middle	4.8	26.5	26.5	8.1	8.1	30.0	30.0	84.3	84.3	5.7		3.9	4.3	5.0	4.7
					D. //	8.6	26.5	00.5	8.1		30.0	00.0	85.3	05.0	5.8	5.0	5.6		3.6	ł
					Bottom	8.6	26.5	26.5	8.1	8.1	30.0	30.0	85.3	85.3	5.8	5.8	5.6		4.0	1
					Surface	1.0	26.8	26.8	8.1	8.1	29.7	29.7	92.9	92.9	6.3		6.2		5.0	1
					Odilacc	1.0	26.8	20.0	8.1	0.1	29.7	20.1	92.9	52.5	6.3	6.3	6.2		4.6	1
M1	Fine	Calm	12:03	4.8	Middle	-	-	-	-	-	-	-	-		-	0.0	-	6.6	-	4.4
						-	-		-		-		-		-		-		-	1
					Bottom	3.8	26.8	26.8	8.1 8.1	8.1	29.7	29.7	92.2	92.2	6.2 6.2	6.2	6.9		3.8	1
						3.8	26.8 26.5		8.1 8.1		29.7 29.7		92.2 90.4		6.2		6.9 5.4		4.1 4.2	<u> </u>
					Surface	1.0	26.5	26.5	8.1	8.1	29.7	29.7	90.4	90.4	6.1	-	5.4		4.2	ł
						1.0	-		-		-		-		-	6.1	-		-	1
M2	Fine	Calm	12:06	5.4	Middle		-	-	-	-	-	-	-	-	-		-	5.7	-	4.8
					Bottom	4.4	26.3	26.3	8.1	8.1	29.9	29.9	87.7	87.7	6.0	6.0	5.9		5.2	ł
					BOILOIN	4.4	26.3	20.3	8.1	0.1	29.9	29.9	87.7	07.7	6.0	0.0	5.9		5.0	I
					Surface	1.0	26.6	26.6	8.1	8.1	29.8	29.8	83.4	83.4	5.6		2.8		5	
					Guildee	1.0	26.6	20.0	8.1	0.1	29.8	20.0	83.4	00.4	5.6	5.8	2.8		5	1
M3	Fine	Calm	11:59	7.6	Middle	3.8	26.6	26.6	8.1	8.1	29.8	29.8	86.6	86.6	5.9		3.6	3.8	6	6
						3.8	26.6		8.1		29.8		86.6		5.9		3.6		6	ł
					Bottom	6.6	26.6	26.6	8.1 8.1	8.1	29.7	29.7	87.8	87.8	6.0	6.0	4.9		7	l
			1			6.6	26.6		8.1		29.7		87.8		6.0		4.9		6	1

DA: Depth-averaged

Water Quality Monitoring Results on 14 October 23 during Mid-Flood Tide Dissolved Oxygen Suspended Solids Turbidity(NTU) Water Temperature (°C) pН Salinity (ppt) DO Saturation (%) Water Depth (mg/L) (mg/L) Monitoring Weather Sampling Sea Condition Sampling Depth (m) Station Condition Time (m) Value Value Value Value Average Value DA Value DA Value DA Average Average Average 1.0 26.5 8.1 30.0 88.0 6.0 2.9 4.8 26.5 8.1 30.0 88.2 Surface 1.0 8.1 29.9 26.5 88.4 6.0 2.8 5.0 5.8 4.2 26.5 8.1 30.0 82.9 5.6 3.5 4.6 3.4 C1 Fine Moderate 07:59 8.4 Middle 26.5 8.1 30.0 83.0 4.4 4.2 29.9 26.5 8.1 83.1 5.6 3.4 4.3 7.4 4.0 26.5 8.1 30.0 81.7 5.5 3.8 26.5 8.1 30.0 81.9 5.6 Bottom 7.4 8.1 29.9 82.0 5.6 4.0 26.5 4.1 1.0 1.2 26.7 29.4 89.3 6.1 3.5 8.1 8.1 29.4 87.3 Surface 26.8 1.0 26.8 8.1 29.3 85.3 5.8 1.2 3.9 5.9 4.9 26.6 8.1 29.4 86.3 5.9 2.2 4.5 C2 07:40 9.8 Middle 26.7 8.1 29.4 86.0 2.3 4.4 Fine Moderate 2.2 4.9 26.7 8.1 29.3 85.6 5.8 4.3 8.8 26.6 29.4 84.8 5.8 3.6 4.8 8.1 26.7 8.1 29.4 85.3 5.8 Bottom 29.3 8.8 26.7 8.1 85.8 5.8 3.5 5.2 1.0 26.9 4.2 8.1 29.5 89.6 6.1 3.8 26.9 8.1 29.5 88.8 Surface 29.5 1.0 26.9 8.1 87.9 5.9 4.2 3.4 6.0 --------4.6 M1 Fine Calm 07:50 4.4 Middle ---4.0 ------. -3.4 26.8 8.1 29.5 90.9 6.1 4.9 4.6 26.9 8.1 29.5 89.7 Bottom 6.1 3.4 8.1 29.5 88.4 6.0 4.9 4.3 26.9 1.0 26.7 29.5 85.8 4.7 8.1 5.8 4.1 Surface 26.7 8.1 29.5 85.4 29.5 1.0 26.7 8.1 84.9 5.8 4.2 5.2 5.8 -------4.8 4.5 M2 Fine Calm 07:48 5.4 Middle ----------4.4 26.7 87.7 5.9 5.5 4.2 8.1 29.5 8.1 29.5 86.6 5.9 Bottom 26.7 4.4 26.7 8.1 29.5 85.5 5.8 5.4 4.0 1.0 26.6 8.1 29.8 89.7 6.1 3.6 4 26.6 8.1 29.8 89.5 Surface 29.7 1.0 26.6 8.1 89.3 6.1 3.5 5 5.9 4.0 26.5 8.1 29.8 84.5 5.7 3.9 5 29.8 M3 Fine Calm 07:55 8.0 Middle 26.6 8.1 84.4 3.8 5 4.0 26.6 8.1 29.7 84.3 5.7 3.9 5 7.0 26.5 8.1 29.8 82.8 5.6 4.0 6 Bottom 26.6 8.1 29.8 82.8 5.6 7.0 26.6 8.1 29.8 82.7 5.6 4.1 6

DA: Depth-averaged

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

Water Quality Monitoring Results on 17 October 23 during Mid-Ebb Tide Dissolved Oxygen Suspended Solids Turbidity(NTU) Water Temperature (°C) pН Salinity (ppt) DO Saturation (%) Water Depth (mg/L) (mg/L) Monitoring Weather Sampling Sea Condition Sampling Depth (m) Station Condition Time (m) Value Value Value Average Value Average Value DA Value DA Value DA Average Average 1.0 26.9 8.1 30.3 84.4 5.7 3.1 7.9 Surface 27.0 8.1 30.3 83.7 8.1 30.2 83.0 1.0 27.0 5.6 3.1 9.0 5.7 4.5 26.9 8.1 30.3 85.0 5.7 4.6 8.6 C1 8.1 30.3 84.3 4.4 Fine Moderate 13:11 9.0 Middle 26.9 8.1 4.5 8.1 30.3 83.5 4.6 7.7 26.9 5.6 8.0 26.9 8.1 30.3 86.6 5.8 5.4 7.9 26.9 8.1 30.3 85.4 5.8 Bottom 8.0 26.9 8.1 30.3 84.1 5.7 5.4 7.2 1.0 27.0 30.3 82.7 5.6 3.3 8.6 8.1 27.0 8.1 30.3 82.3 Surface 1.0 27.0 8.1 30.3 5.5 9.7 81.8 3.3 5.6 4.7 26.9 8.1 30.3 82.7 5.6 4.1 8.2 C2 Fine 13:33 9.4 Middle 27.0 8.1 30.3 82.4 4.3 8.4 Moderate 4.7 27.0 8.1 30.3 82.1 5.5 4.1 9.1 8.4 30.3 6.9 26.9 8.1 83.8 5.6 5.6 Bottom 27.0 8.1 30.3 83.3 5.6 30.3 8.4 27.0 8.1 82.7 5.6 5.5 7.7 1.0 26.9 90.3 8.0 8.1 30.1 6.1 4.3 26.9 8.1 30.1 90.3 Surface 1.0 26.9 8.1 30.1 90.3 6.1 4.3 8.8 6.1 --------M1 13:22 4.8 Middle 4.7 7.8 Fine Calm --------3.8 26.8 29.8 93.0 6.3 5.1 7.2 8.1 26.9 8.1 30.0 93.0 6.3 Bottom 3.8 26.9 8.1 30.1 93.0 6.3 5.1 7.0 1.0 26.9 8.1 30.1 85.1 5.7 5.4 9.4 Surface 26.9 8.1 30.1 83.8 1.0 26.9 8.1 30.1 82.4 5.6 5.5 10.0 5.7 -------Fine 6.0 M2 Calm 13:26 5.4 Middle 9.9 --------4.4 27.0 8.1 30.1 87.6 5.9 6.6 9.9 27.0 8.1 30.1 86.4 5.8 Bottom 4.4 26.9 8.1 30.1 85.2 5.7 6.5 10.2 1.0 26.9 30.1 85.2 5.8 3.9 8 8.1 27.0 8.1 30.1 85.6 Surface 1.0 27.0 8.1 30.1 86.0 5.8 3.9 9 5.9 3.6 26.9 30.2 5.8 4.2 8.1 86.0 9 M3 13:17 7.2 Middle 26.9 8.1 30.2 87.2 4.6 8 Fine Calm 30.1 4.2 3.6 26.9 8.1 88.4 6.0 8 6.2 26.9 30.1 88.4 6.0 5.7 8.1 7 88.2 6.0 26.9 8.1 30.1 Bottom 6.2 26.9 8.1 30.1 87.9 5.9 5.6 7

DA: Depth-averaged

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

Water Quality Monitoring Results on 17 October 23 during Mid-Flood Tide Dissolved Oxygen Suspended Solids Turbidity(NTU) Water Temperature (°C) pН Salinity (ppt) DO Saturation (%) Water Depth (mg/L) (mg/L) Monitoring Weather Sampling Sea Condition Sampling Depth (m) Station Condition Time (m) Value Value Value Value Average Value DA Value DA Value DA Average Average Average 1.0 26.9 8.1 30.2 86.7 5.9 2.2 9.2 26.9 8.1 30.2 86.6 Surface 1.0 8.1 30.2 26.9 86.5 5.8 2.2 8.7 5.9 4.5 26.9 8.1 30.1 88.3 6.0 3.6 8.4 3.4 C1 Fine Moderate 10:04 9.0 Middle 26.9 8.1 30.2 88.6 8.6 4.5 30.2 26.9 8.1 88.9 6.0 3.5 7.9 8.0 8.2 26.9 8.1 30.1 90.5 6.1 4.5 26.9 8.1 30.2 90.5 6.1 Bottom 8.1 30.2 90.4 6.1 4.5 8.0 26.9 9.0 1.0 84.2 26.8 5.7 3.0 8.1 8.0 30.1 26.9 8.0 30.1 84.4 Surface 1.0 26.9 8.0 30.1 84.5 5.7 3.0 8.7 5.8 4.8 26.8 8.0 30.1 86.1 5.8 4.3 8.7 C2 09:46 9.6 Middle 26.8 8.0 30.1 86.0 4.3 8.1 Fine Moderate 4.8 26.8 8.0 30.1 85.9 5.8 4.3 8.7 8.6 26.8 30.1 87.9 6.0 5.4 7.4 8.1 26.8 8.1 30.1 88.1 6.0 Bottom 8.6 26.8 8.0 30.1 88.3 6.0 5.5 6.9 1.0 26.8 30.0 2.1 7.0 8.0 86.2 5.8 26.8 8.0 30.0 86.3 Surface 30.0 1.0 26.8 8.0 86.3 5.9 2.1 6.7 5.9 --------09:53 2.8 7.3 M1 Fine Calm 4.8 Middle ----------. 3.8 26.8 8.0 30.1 89.5 6.1 3.5 7.3 26.8 8.0 30.1 89.5 6.1 Bottom 3.8 8.0 30.0 6.1 8.0 26.8 89.4 3.6 1.0 26.7 30.0 86.4 5.9 8.7 8.1 2.1 Surface 26.7 8.1 30.1 86.2 1.0 30.1 26.7 8.1 85.9 5.8 2.2 9.2 5.9 -------2.8 8.5 M2 Fine Calm 09:56 5.2 Middle ----------4.2 26.7 29.7 90.4 6.2 3.5 7.6 8.1 8.1 29.9 90.4 6.2 Bottom 26.7 4.2 26.7 8.1 30.0 90.3 6.1 3.4 8.6 1.0 26.8 8.1 29.9 81.1 5.5 3.1 9 26.8 8.1 30.0 81.3 Surface 30.0 1.0 26.8 8.1 81.5 5.5 3.1 9 5.6 3.9 26.8 8.1 29.9 82.7 5.6 4.2 8 M3 Fine Calm 10:00 7.8 Middle 26.8 8.1 30.0 82.4 4.1 8 3.9 26.8 8.1 30.0 82.0 5.6 4.2 8 6.8 26.8 8.1 29.9 89.3 6.1 5.0 9 Bottom 26.8 8.1 30.0 89.3 6.1 6.8 26.8 8.1 30.0 89.3 6.1 5.0 8

DA: Depth-averaged

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

Water Qua	lity Moni	toring Resu	ilts on		19 October 23	during Mid	-Ebb Tid	le												
Monitoring	Weather	Sea Condition	Sampling		Sampling De	epth (m)	Water Te	emperature (°C)	p	эΗ	Salir	nity (ppt)	DO Satu	ration (%)	Dissolved (mg/		Turbidity(NTU)	Suspende (mg/	
Station	Condition		Time	(m)			Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	26.5	26.5	8.1	8.1	32.4	32.4	91.8	91.5	6.2		4.3		11.9	
					Suilace	1.0	26.5	20.5	8.1	0.1	32.4	32.4	91.2	91.5	6.1	6.2	4.3		11.4	1
C1	Misty	Moderate	14:36	8.8	Middle	4.4	26.5	26.5	8.1	8.1	32.4	32.4	92.4	91.9	6.2	0.2	5.8	5.6	10.2	10.3
01	moty	moderate		0.0		4.4	26.5	2010	8.1	0.1	32.4	02.11	91.4	0.10	6.1		5.9	0.0	9.8	
					Bottom	7.8	26.5	26.5	8.1	8.1	32.4	32.4	93.1	92.3	6.2	6.2	6.6		9.5	1
		1		1		7.8	26.5		8.1		32.4		91.5		6.1		6.5		9.2	
					Surface	1.0 1.0	26.4 26.4	26.4	8.1 8.1	8.1	32.2 32.1	32.2	90.7 89.0	89.9	6.1 6.0	-	4.6 4.6		9.9 9.5	1
						4.6	26.4		8.1		32.1		91.7		6.2	6.1	5.9		9.3	1
C2	Misty	Moderate	14:48	9.2	Middle	4.6	26.4	26.4	8.1	8.1	32.1	32.2	89.3	90.5	6.0		5.9	5.8	9.2	9.2
					D	8.2	26.4		8.1		32.3		92.6		6.2		7.0		8.7	1
					Bottom	8.2	26.4	26.4	8.1	8.1	32.2	32.3	89.7	91.2	6.0	6.1	6.9		8.4	1
					Surface	1.0	26.3	26.3	8.1	8.1	32.1	32.1	92.8	91.2	6.3		4.7		8.8	
					Guilace	1.0	26.3	20.5	8.1	0.1	32.1	52.1	89.5	31.2	6.0	6.2	4.7		8.4	1
M1	Misty	Calm	14:39	4.4	Middle	-	-	-	-	-	-	-	-		-	0.2	-	5.1	-	9.0
	moty	Call				-	-		-		-		-		-		-	0	-	0.0
					Bottom	3.4	26.3	26.3	8.1 8.1	8.1	32.2 32.1	32.2	94.0	92.9	6.3	6.3	5.4		9.2	1
		1				3.4	26.3 26.3						91.8 90.4		6.2 6.1		5.5 6.7		9.4 6.9	
					Surface	1.0	26.3	26.3	8.1 8.1	8.1	32.1 32.1	32.1	90.4 88.5	89.5	6.0		6.7		6.9 7.3	1
						1.0	-		-		-		-		-	6.1	-		-	1
M2	Misty	Calm	14:44	5.4	Middle		-	-	-	-	-	-	-	-	-	-	-	7.2	-	8.2
					Bottom	4.4	26.3	26.3	8.1	8.1	32.1	32.1	91.8	90.8	6.2	6.1	7.7		9.1	1
					Bollom	4.4	26.3	20.3	8.1	0.1	32.1	32.1	89.7	90.8	6.0	0.1	7.7		9.4	
					Surface	1.0	26.6	26.6	8.1	8.1	32.4	32.4	90.7	90.7	6.1		4.0		8	
					Guilace	1.0	26.6	20.0	8.1	0.1	32.4	52.4	90.7	30.7	6.1	6.1	4.0		8	1
M3	Misty	Calm	14:33	7.4	Middle	3.7	26.6	26.6	8.1	8.1	32.4	32.4	90.8	90.8	6.1		5.1	5.1	9	9
						3.7	26.6		8.1	-	32.4	-	90.7		6.1		5.1		8	-
					Bottom	6.4	26.6	26.6	8.1 8.1	8.1	32.4	32.4	90.9	90.8	6.1	6.1	6.1		10	1
						6.4	26.6		8.1		32.4		90.7	1	6.1	1	6.0		9	

DA: Depth-averaged

Water Quality Monitoring Results on 19 October 23 during Mid-Flood Tide Dissolved Oxygen Suspended Solids Turbidity(NTU) Water Temperature (°C) pН Salinity (ppt) DO Saturation (%) Water Depth (mg/L) (mg/L) Monitoring Weather Sampling Sea Condition Sampling Depth (m) Station Condition Time (m) Value Value Value Value Average Value DA Value DA Value DA Average Average Average 1.0 26.6 8.1 32.4 91.8 6.1 5.1 8.3 26.6 8.1 32.4 91.4 Surface 1.0 8.1 32.4 26.6 91.0 6.1 5.1 8.6 6.1 3.9 26.5 8.1 32.4 92.8 6.2 6.2 8.0 C1 Mistv Moderate 11:54 7.8 Middle 26.6 8.1 32.4 92.1 6.1 7.9 8.1 32.4 3.9 26.6 91.3 6.1 6.2 7.7 6.8 26.5 8.1 32.4 93.7 6.3 7.0 7.1 26.6 8.1 32.4 92.6 6.2 Bottom 32.4 8.1 91.4 6.1 7.0 7.5 6.8 26.6 1.0 26.4 91.9 6.2 32.4 4.3 8.8 8.1 26.5 8.1 32.4 91.5 Surface 1.0 26.5 8.1 32.4 91.1 6.1 4.3 9.2 6.2 4.7 26.4 8.1 32.4 93.1 6.3 5.4 8.1 C2 11:20 9.4 Middle 26.5 8.1 32.4 92.2 5.3 8.3 Misty Moderate 4.7 26.5 8.1 32.4 91.2 6.1 5.4 8.4 8.4 26.4 32.4 93.5 6.3 6.2 7.4 8.1 26.5 8.1 32.4 92.5 6.2 Bottom 8.4 26.5 8.1 32.4 91.5 6.1 6.2 7.7 1.0 26.3 32.0 91.3 6.2 6.2 8.9 8.1 Surface 26.3 8.1 32.0 90.4 32.0 89.4 1.0 26.3 8.1 6.0 6.2 8.5 6.1 --------7.0 9.1 M1 Mistv Calm 11:38 4.4 Middle -------. --3.4 26.3 8.1 32.0 92.3 6.2 7.7 9.7 26.3 8.1 32.0 91.5 6.2 Bottom 3.4 8.1 32.0 90.6 6.1 7.7 9.2 26.3 1.0 26.3 32.1 90.2 5.1 8.0 6.1 9.0 Surface 26.3 8.1 32.1 89.3 1.0 32.0 26.3 8.1 88.3 6.0 8.6 5.1 6.1 -------6.0 M2 Mistv Calm 11:35 4.6 Middle 9.1 ----------3.6 26.3 90.9 6.1 6.8 9.3 8.0 32.1 8.1 32.1 90.0 6.1 Bottom 26.3 3.6 26.3 8.1 32.1 89.1 6.0 6.8 9.6 1.0 26.4 8.1 32.2 89.9 6.0 3.4 9 26.4 8.1 32.2 89.5 Surface 32.2 1.0 26.4 8.1 89.0 6.0 3.4 9 6.0 3.7 26.5 8.1 32.3 90.1 6.0 4.0 9 32.3 M3 Misty Calm 11:42 7.4 Middle 26.5 8.1 89.6 4.4 9 3.7 26.5 8.1 32.3 89.1 6.0 4.0 10 6.4 26.4 8.1 32.4 91.4 5.7 10 6.1 Bottom 26.4 8.1 32.4 90.2 6.1 6.4 26.4 8.1 32.3 88.9 6.0 5.6 10

DA: Depth-averaged

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

Water Quality Monitoring ...

Vater Qua	lity Moni	toring Resu	Its on		21 October 23	during Mid	-Ebb Tic	le											-	
Monitoring	Weather	Sea Condition	Sampling	Water Depth	Sampling De	epth (m)	Water Te	emperature (°C)	l	рH	Salin	ity (ppt)	DO Satur	ration (%)	Dissolved (mg/		Turbidity	NTU)	Suspende (mg	
Station	Condition		Time	(m)			Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	25.4	25.5	8.1	8.1	30.3	30.3	84.9	84.9	5.9		1.2		6.0	
					Sullace	1.0	25.5	25.5	8.1	0.1	30.3	30.3	84.9	04.9	5.9	5.9	1.2		5.6	
C1	Misty	Moderate	06:00	7.8	Middle	3.9	25.4	25.5	8.1	8.1	30.3	30.3	84.9	85.0	5.9	5.5	2.8	2.6	6.7	6.5
CI	wisty	Moderate	00.00	7.0	Wildule	3.9	25.5	25.5	8.1	0.1	30.3	30.3	85.0	05.0	5.9		2.8	2.0	6.3	0.5
					Bottom	6.8	25.4	25.5	8.2	8.2	30.4	30.4	85.0	85.0	5.9	5.9	3.7		7.0	
					Dottom	6.8	25.5	20.0	8.1	0.2	30.3	00.1	85.0	00.0	5.9	0.0	3.7		7.4	
					Surface	1.0	25.3	25.3	8.1	8.1	30.4	30.4	84.1	83.3	5.8		3.2		5.8	
					Canado	1.0	25.3	20.0	8.1	0.1	30.4	00.1	82.4	00.0	5.7	5.8	3.2		5.3	
C2	Misty	Moderate	05:43	9.4	Middle	4.7	25.3	25.3	8.0	8.1	30.4	30.4	84.7	83.7	5.9	0.0	4.1	4.2	5.0	4.8
						4.7	25.3		8.1		30.4		82.7		5.7		4.1		4.6	
					Bottom	8.4	25.3	25.3	8.0	8.1	30.4	30.4	85.8	84.4	5.9	5.8	5.4		3.8	_
						8.4	25.3		8.1	-	30.4		83.0	-	5.7		5.4		4.2	
					Surface	1.0	25.3	25.3	8.0	8.1	30.2	30.2	83.3	82.4	5.8		2.1		6.3	-
						1.0	25.3		8.1		30.2		81.5		5.7	5.8	2.2		6.7	-
M1	Misty	Calm	05:52	4.4	Middle	-	-	-	-	-	-	-	-	-	-		-	2.7	-	6.8
	-					-	-		-		-		-		-		-		-	-
					Bottom	3.4	25.2	25.3	8.0	8.0	30.2	30.2	85.2	84.0	5.9	5.8	3.2		7.0	-
						3.4	25.3		8.0		30.2		82.7		5.7		3.2		7.3	
					Surface	1.0	25.4 25.4	25.4	8.0 8.1	8.1	30.2 30.2	30.2	83.3 81.6	82.5	5.8 5.6		4.0		6.0 5.7	-
						1.0	25.4		0.1		30.2		- 01.0		0.0	5.7	3.9		5.7	•
M2	Misty	Calm	05:49	4.6	Middle		-	-	-	-	-	-	-	-	-		-	4.0	-	6.3
						3.6	25.4		8.0		30.2		83.8		5.8		4.1		6.6	•
					Bottom	3.6	25.4	25.4	8.1	8.1	30.2	30.2	82.5	83.2	5.7	5.8	4.0		7.0	•
						1.0	25.4		8.1		30.3		83.9		5.8		2.1		7	1
					Surface	1.0	25.4	25.4	8.1	8.1	30.3	30.3	82.7	83.3	5.7	1	2.1		6	1
						3.7	25.4		8.1		30.3		84.7		5.9	5.8	3.3		7	1
M3	Misty	Calm	05:56	7.4	Middle	3.7	25.4	25.4	8.1	8.1	30.3	30.3	82.8	83.8	5.7	1	3.4	3.3	7	7
					5	6.4	25.4		8.1		30.3		85.1		5.9		4.3		8	
					Bottom	6.4	25.4	25.4	8.1	8.1	30.3	30.3	83.1	84.1	5.7	5.8	4.4		8	1

DA: Depth-averaged

Water Quality Monitoring Results on 21 October 23 during Mid-Flood Tide Dissolved Oxygen Suspended Solids Turbidity(NTU) Water Temperature (°C) pН Salinity (ppt) DO Saturation (%) Water Depth (mg/L) (mg/L) Monitoring Weather Sampling Sea Condition Sampling Depth (m) Station Condition Time (m) Value Value Value Value Average Value DA Value DA Value DA Average Average Average 1.0 25.4 8.1 30.3 85.2 5.9 2.1 7.7 25.4 8.1 30.3 84.1 Surface 1.0 8.1 30.3 25.4 83.0 5.7 2.1 7.9 5.8 4.4 25.4 8.1 30.3 85.7 5.9 3.8 7.4 3.4 C1 Mistv Moderate 16:08 8.8 Middle 25.4 8.1 30.3 84.5 7.5 4.4 8.1 30.3 25.4 83.2 5.8 3.8 7.5 7.8 7.0 25.4 8.1 30.3 86.3 6.0 4.4 5.9 25.4 8.1 30.3 85.0 Bottom 7.8 25.4 8.1 30.3 83.6 5.8 4.4 7.3 1.0 25.4 30.4 84.1 5.8 4.3 8.1 8.1 25.4 8.1 30.4 83.2 Surface 1.0 25.4 8.1 30.3 82.3 5.7 4.2 8.1 5.8 4.6 25.4 8.1 30.4 84.9 5.9 4.3 8.3 C2 16:26 9.2 Middle 25.4 8.1 30.4 83.7 4.6 8.4 Misty Moderate 4.6 25.4 8.1 30.3 82.5 5.7 4.3 8.4 8.2 25.3 30.4 85.5 5.9 5.1 8.8 8.1 25.4 8.1 30.4 84.2 5.8 Bottom 8.2 25.4 8.1 30.3 82.9 5.7 5.1 8.6 1.0 25.3 83.4 4.7 8.7 8.1 30.2 5.8 Surface 25.3 8.1 30.2 82.5 30.2 1.0 25.3 8.1 81.6 5.7 4.7 8.9 5.8 --------4.9 8.5 M1 Mistv Calm 16:17 4.4 Middle -------. --3.4 25.2 8.1 30.1 84.6 5.9 5.0 8.1 25.3 8.1 30.2 83.6 5.8 Bottom 3.4 8.1 30.2 82.6 5.7 8.3 25.3 5.0 1.0 25.2 30.2 83.4 5.8 2.8 8.2 8.1 Surface 25.2 8.1 30.2 82.4 1.0 30.2 25.2 8.1 81.3 5.6 8.6 2.7 5.7 -------3.4 M2 Mistv Calm 16:20 5.4 Middle 8.1 ----------4.4 25.2 84.5 5.9 4.0 7.8 8.1 30.1 8.1 30.2 83.4 5.8 Bottom 25.2 4.4 25.2 8.1 30.2 82.2 5.7 4.0 7.6 1.0 25.4 8.1 30.3 83.5 5.8 1.1 8 25.4 8.1 30.3 83.7 Surface 8.1 30.3 1.0 25.4 83.8 5.8 1.1 8 5.8 3.7 25.4 8.1 30.3 83.9 5.8 2.9 7 30.3 M3 Misty Calm 16:13 7.4 Middle 25.4 8.1 83.7 2.5 7 3.7 25.4 8.1 30.3 83.5 5.8 2.9 7 6.4 25.4 8.1 30.3 84.8 5.9 3.4 6 Bottom 25.4 8.1 30.3 84.0 5.8 6.4 25.4 8.1 30.3 83.1 5.7 3.4 6

DA: Depth-averaged

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

Water Quality Monitoring ...

Nater Qua	lity Monit	oring Resu	Its on		24 October 23	during Mid-	Ebb Tic	le	-											
Monitoring	Weather	Sea Condition	Sampling	Water Depth	Sampling De	epth (m)	Water Te	emperature (°C)	F	рΗ	Salin	ity (ppt)	DO Satur	ration (%)	Dissolved (mg/l		Turbidity(NTU)	Suspende (mg	
Station	Condition		Time	(m)			Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	25.3	25.3	8.1	8.1	30.1	30.1	84.4	83.9	5.9		2.0		6.5	
					Guilace	1.0	25.3	20.0	8.1	0.1	30.1	50.1	83.3	00.9	5.8	5.9	2.0		6.1	
C1	Sunny	Calm	10:22	7.8	Middle	3.9	25.3	25.3	8.1	8.1	30.2	30.2	84.8	84.1	5.9	0.0	3.2	3.1	6.7	6.8
01	Gunny	Calli	10.22	7.0	Wilddie	3.9	25.3	20.0	8.1	0.1	30.1	50.2	83.3	04.1	5.8		3.2	5.1	6.9	0.0
					Bottom	6.8	25.3	25.3	8.1	8.1	30.2	30.2	85.9	85.1	6.0	5.9	4.1		7.3	
					2011011	6.8	25.3	2010	8.1	0	30.1	00.2	84.3		5.8	0.0	4.0		7.1	
					Surface	1.0	25.3	25.3	8.1	8.1	30.1	30.1	88.0	87.5	6.1		1.1		7.9	
					Ganado	1.0	25.2	20.0	8.1	0.1	30.0	00.1	87.0	07.0	6.0	6.1	1.1		7.6	
C2	Sunny	Calm	10:07	10.2	Middle	5.1	25.2	25.2	8.1	8.1	30.1	30.1	88.2	87.8	6.1	0.1	3.0	2.8	6.1	6.5
						5.1	25.2		8.1		30.0		87.3		6.1		3.0		6.5	
					Bottom	9.2	25.2	25.3	8.1	8.1	30.1	30.1	88.7	88.2	6.2	6.2	4.3		5.2	
						9.2	25.3		8.1	-	30.0		87.6		6.1	-	4.4		5.6	
					Surface	1.0	25.9	25.8	8.1	8.1	29.9	30.0	84.7	84.2	5.8		5.4		5.7	_
						1.0	25.6		8.1		30.1		83.6		5.8	5.8	5.4		6.3	
M1	Sunny	Calm	10:18	5.4	Middle	-	-	-	-	-	-	-	-		-		-	6.1	-	5.6
	,					-	-		-		-		-		-		-		-	-
					Bottom	4.4	26.3	26.0	8.0	8.1	29.7	29.9	86.0	85.1	5.9	5.9	6.8		5.3	_
						4.4	25.7		8.1		30.0		84.2		5.8		6.8		4.9	
					Surface	1.0 1.0	25.4 25.4	25.4	8.1 8.1	8.1	30.0 30.0	30.0	85.8 85.0	85.4	5.9		4.7		6.0	
						1.0	- 25.4		-		30.0				5.9	5.9	4.7		6.2	-
M2	Sunny	Calm	10:16	4.0	Middle		-	-	-	-	-	-	-		-		-	5.1	-	6.4
						3.0	25.4		8.1		30.0		86.2		6.0		- 5.4		6.5	_
					Bottom	3.0	25.4	25.4	8.1	8.1	30.0	30.0	85.4	85.8	5.9	6.0	5.4		6.8	
						1.0	25.4		8.1		30.0		86.4		6.0		2.9		6	
					Surface	1.0	25.3	25.3	8.1	8.1	30.0	30.0	84.6	85.5	5.9	1	3.0		6	-
						3.7	25.3		8.1		29.9		87.4		6.1	6.0	3.7		6	-
M3	Sunny	Calm	10:13	7.4	Middle	3.7	25.3	25.3	8.1	8.1	30.1	30.0	84.5	86.0	5.9		3.7	3.7	6	6
						6.4	25.3		8.1		29.9		88.3		6.1		4.4		7	-
					Bottom	6.4	25.3	25.3	8.1	8.1	30.0	30.0	85.0	86.7	5.9	6.0	4.4		7	-

DA: Depth-averaged

Nater Qua	lity Moni	toring Resu	lts on		24 October 23	during Mid	-Flood T	ide												
Monitoring	Weather	Sea Condition		Water Depth	Sampling De	epth (m)	Water Te	emperature (°C)	p	ъH	Salir	nity (ppt)	DO Satu	ration (%)	Dissolved (mg/		Turbidity(NTU)	Suspende (mg.	
Station	Condition		Time	(m)			Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	25.3	25.3	8.1	8.1	30.0	30.0	86.6	86.3	6.0		3.4		5.2	
					Sunace	1.0	25.2	25.5	8.1	0.1	29.9	30.0	86.0	00.3	6.0	6.0	3.4		5.4	
C1	Sunny	Calm	15:14	8.2	Middle	4.1	25.2	25.3	8.1	8.1	30.0	30.0	87.6	86.9	6.1	0.0	5.4	5.0	5.6	5.9
0.	Calling	Cant		0.2		4.1	25.3	20.0	8.1	0.1	29.9	00.0	86.2	00.0	6.0		5.5	0.0	6.0	0.0
					Bottom	7.2	25.2	25.3	8.1	8.1	30.0	30.0	88.9	87.7	6.2	6.1	6.0		6.8	
						7.2	25.3		8.1		29.9		86.4		6.0		6.0		6.3	
					Surface	1.0	25.3	25.3	8.1	8.1	30.0	30.0	86.4	86.2	6.0		1.3		5.4	
						1.0	25.3		8.1		30.0		86.0		6.0	6.0	1.3		5.5	
C2	Sunny	Calm	15:32	9.8	Middle	4.9 4.9	25.3 25.3	25.3	8.1 8.1	8.1	30.0 30.0	30.0	87.3 86.0	86.7	6.1 6.0		1.4 1.5	1.6	5.7 6.1	6.0
						8.8	25.3		8.1		30.0		86.0		6.1		2.1		6.7	
					Bottom	8.8	25.3	25.3	8.1	8.1	30.0	30.0	86.1	86.9	6.0	6.1	2.1		6.4	
						1.0	25.4		8.1		30.0		87.7		6.1		2.0		6.2	
					Surface	1.0	25.4	25.4	8.1	8.1	29.9	30.0	86.8	87.3	6.0		2.0		5.7	
	0	Quiter	45.04		Middle	-	-		-		-		-		-	6.1	-	0.4	-	5.0
M1	Sunny	Calm	15:21	4.4	IVIIddie	-	-	-	-	-	-	-	-	-	-		-	2.1	-	5.6
					Bottom	3.4	25.4	25.4	8.1	8.1	30.0	30.0	88.8	88.1	6.2	6.2	2.1		5.4	
					Dottom	3.4	25.4	23.4	8.1	0.1	30.0	30.0	87.4	00.1	6.1	0.2	2.1		5.1	
					Surface	1.0	25.6	25.6	8.1	8.1	30.1	30.1	87.7	86.9	6.1		3.7		5.9	
						1.0	25.5		8.1		30.1		86.0		5.9	6.0	3.7		5.7	
M2	Sunny	Calm	15:23	4.0	Middle		-	-	-	-	-	-	-		-		-	4.1	-	6.3
	,			-			-		-		-		-		-		-		-	
					Bottom	3.0	25.6	25.6	8.0	8.1	30.1	30.1	89.0	87.9	6.1	6.1	4.4		6.8	
						3.0	25.6		8.1		30.1	1	86.8		6.0		4.5		6.6	
					Surface	1.0	25.2 25.2	25.2	8.1 8.1	8.1	29.9 29.9	29.9	87.8 86.3	87.1	6.1 6.0	-	3.2 3.2		7	
							-		-							6.1	4.0		7	
M3	Sunny	Calm	15:16	7.4	Middle	3.7 3.7	25.2 25.2	25.2	8.1 8.1	8.1	29.9 29.9	29.9	88.7 86.4	87.6	6.2 6.0	-	4.0	4.3	6	6
						6.4	25.2		8.1		29.9		86.1		6.0		4.0 5.7		6	
					Bottom	6.4	25.2	25.3	8.1	8.1	29.9	29.9	86.7	86.4	6.0	6.0	5.6		6	

DA: Depth-averaged

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

Monitoring Station Weather Condition Sea Condition Sampling Time Water (m) Sampling Depth (m) Sampling Depth (m) Water Imperature (C) pin Sampling Depth (m) Water Imperature (C) Water Imperature (C) <th>Nater Qua</th> <th>lity Moni</th> <th>toring Resu</th> <th>ilts on</th> <th></th> <th>26 October 23</th> <th>during Mid</th> <th>-Ebb Tid</th> <th>e</th> <th></th>	Nater Qua	lity Moni	toring Resu	ilts on		26 October 23	during Mid	-Ebb Tid	e												
Station Condim<			Sea Condition			Sampling De	epth (m)	Water Te	emperature (°C)	F	эΗ	Salir	nity (ppt)	DO Satu	ration (%)			Turbidity(NTU)	Suspende (mg	
C1 Sunny Caim 12:15 8.0 Suntace 1.0 25.9 2.5 8.1 8.1 29.1 29.2 84.0 64.6 5.6 5.6 6.6 5.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 6.6 <th>Station</th> <th>Condition</th> <th></th> <th>Time</th> <th>(m)</th> <th></th> <th></th> <th>Value</th> <th>Average</th> <th>Value</th> <th>Average</th> <th>Value</th> <th>Average</th> <th>Value</th> <th>Average</th> <th>Value</th> <th>DA</th> <th>Value</th> <th>DA</th> <th>Value</th> <th>DA</th>	Station	Condition		Time	(m)			Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
Alia						Surface	1.0	25.9	25.0	8.1	0.4	29.2	20.2	85.1	04.6	5.9		1.1		5.6	
C1 Suny Calm 12:15 8.0 Midde 4.0 25.9 25.9 8.1 8.1 29.3 88.5 8.8 5.8 7 2.3 2.2 8.6 8.1 2.3 8.0 8.6 5.8 7.2 2.3 2.5 8.1 8.1 2.3 8.6 8.6 8.6 6.6 6.0 3.1 7.7 C2 Sunny Calm 12:00 Calm 5.0 Calm 10 25.9 8.1 8.1 2.3 2.3 88.6 8.0 8.6 6.0 5.0 2.3 3.1 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 7.7 <td></td> <td></td> <td></td> <td></td> <td></td> <td>Sunace</td> <td>1.0</td> <td>25.9</td> <td>25.9</td> <td>8.1</td> <td>0.1</td> <td>29.1</td> <td>29.2</td> <td>84.0</td> <td>04.0</td> <td></td> <td>59</td> <td>1.1</td> <td></td> <td>6.0</td> <td>]</td>						Sunace	1.0	25.9	25.9	8.1	0.1	29.1	29.2	84.0	04.0		59	1.1		6.0]
1 1 1 1 1 2 2 4 0 5.8 2.3 0 6.8 7.0 2.5 3.1 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 2.3 <td>C1</td> <td>Suppy</td> <td>Calm</td> <td>12.15</td> <td>8.0</td> <td>Middle</td> <td></td> <td></td> <td>25.9</td> <td></td> <td>81</td> <td></td> <td>20.3</td> <td></td> <td>84.8</td> <td></td> <td>5.5</td> <td></td> <td>22</td> <td>6.5</td> <td>6.4</td>	C1	Suppy	Calm	12.15	8.0	Middle			25.9		81		20.3		84.8		5.5		22	6.5	6.4
1 1 1 1 1 1 2 1 2 2 5 6 3.1 6 6 3.1 6 6 3.1 6 6 3.1 6 6 3.1 6 6 7.0 25.9 8.1 8.1 29.1 29.1 88.7 88.2 6.6.1 6.1 6.1 29.1 88.7 88.2 6.6.1 6.1 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 <	01	Cunny	Califi	12.10	0.0	Widdle			20.0	-	0.1		20.0		04.0				2.2	6.2	0.4
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						Bottom			25.9		8.1		29.2		85.8		6.0			7.2	1
C2 Sunny Caim 12:00 10.0 Sunace 10.0 25.8 25.8 25.8 8.1 8.1 29.1 29.2 88.9 88.5 6.1 2.1 21.1 21.1 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 21.2 2							-			-		-						-		6.8	Ļ
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						Surface			25.9		8.1		29.1		88.2		-			8.6	4
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$														-			6.2			8.2	4
M1 Sunny Calm 12:01 Bottom 9.0 25.8 25.9 8.1 8.1 29.2 29.2 89.4 88.9 6.2 6.1 3.4 3.4 3.7 7 M1 Sunny Calm 12:11 5.2 Surface 1.0 26.5 26.4 8.1 8.1 84.3 88.9 6.2 6.1 3.4 3.6 7 M1 Sunny Calm 12:11 5.2 Middle - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -	C2	Sunny	Calm	12:00	10.0	Middle			25.8		8.1		29.2		88.5		-		1.9	7.4	7.7
M1 Sunny Calm 12:11 5.2 Surface 1.0 25.9 25.9 8.1 8.1 29.1 29.2 88.3 88.9 6.1 6.2 3.5 7 M1 Sunny Calm 12:11 5.2 Surface 1.0 26.5 26.4 8.1 8.1 88.9 6.1 5.9 5.8 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 <td></td> <td>7.1</td> <td>1</td>																				7.1	1
M1 = M2 = M2 = M3 = M3 = M3 = M3 = M3 = M3						Bottom			25.9		8.1		29.2		88.9		6.2			7.1	1
M1 Sunny Calm 12:11 5.2 Sunace 1.0 26.2 26.4 8.1 6.1 29.2 29.1 84.3 64.3 5.8 5.9 4.5 7 M1 Sunny Calm 12:11 5.2 Middle - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>7.1</td><td><u> </u></td></t<>																				7.1	<u> </u>
$ M 1 \\ M 1 \\ M 2 \\ M 2 \\ M 3 \\ M 2 \\ M 3 \\ M 3 \\ Sunny \\ M 3 \\ Sunny \\ Calm \\ Lam \\ Calm \\ Lam \\ Calm \\ Lam \\ Lam \\ Lam \\ Calm \\ Lam \\ Lam \\ Lam \\ Lam \\ Lam \\ Calm \\ Lam \\ Lam \\ Lam \\ Lam \\ Lam \\ Calm \\ Lam \\ Lam \\ Lam \\ Lam \\ Lam \\ Calm \\ Lam $						Surface			26.4		8.1		29.1		84.9		1			7.9	1
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $		-										-					5.9			-	1
M2 Sunny Calm 12:09 4.2 3.6 26.6 8.1 8.1 29.1 28.9 84.9 85.8 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 <t< td=""><td>M1</td><td>Sunny</td><td>Calm</td><td>12:11</td><td>5.2</td><td>Middle</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td>-</td><td></td><td>-</td><td>5.2</td><td>-</td><td>8.8</td></t<>	M1	Sunny	Calm	12:11	5.2	Middle	-	-	-	-	-	-	-	-	-	-		-	5.2	-	8.8
M2 Image: Calm Im						Dettern	4.2	26.9	26.6	8.1	0.4	28.7	20.0	86.7	05.0	5.9	5.0	5.9		10.0	1
M2 M2 M3 M3 Max M						Bottom	4.2	26.3	26.6	8.1	8.1	29.1	28.9	84.9	85.8	5.9	5.9	5.9		9.7	
$ M2 M3 Sunny Calm 12:09 4.2 Middle 1.0 26.0 8.1 29.1 85.7 5.9 6.0 3.8 \\ \hline 12:09 4.2 Middle - - - - - - - - - $						Surface			26.0		8.1		20.1		86.1					8.6	
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $						Suilace	1.0	26.0	20.0	8.1	0.1	29.1	23.1	85.7	00.1	5.9	6.0	3.8		8.3	1
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	M2	Sunny	Calm	12.09	42	Middle		-	-	-	-	-		-	_	-	0.0	-	42	-	8.0
M3 Sunny Calm 12:06 7.2 Middle 3.2 26.0 26.0 8.1 8.1 29.1 29.1 86.1 86.5 6.0 6.0 4.5 7 M3 Sunny Calm 12:06 7.2 Middle 3.6 25.9 25.9 8.1 8.1 29.0 87.1 86.2 6.0 4.5 7 M3 Sunny Calm 12:06 7.2 Middle 3.6 25.9 25.9 8.1 8.1 29.0 87.1 86.2 6.0 2.0 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1		canny	Call	.2.00								-								-	0.0
$ M3 Sunny Calm 12:06 7.2 Middle 1.0 25.9 \\ \hline Middle 3.6 25.9 \\ \hline Middle -6.2 -6.2 -6.1 \\ \hline Sunny -6.1 \\ \hline S$						Bottom			26.0		8.1		29.1		86.5		6.0			7.7	4
$M3 Sunny Calm 12:06 7.2 \hline Middle \hline 3.6 25.9 \\ \hline Middle \hline 3.6 25.9 \\ \hline 3.6 $																	-			7.4	
M3 Sunny Calm 12:06 7.2 Middle 3.6 25.9 8.1 8.1 29.0 88.1 86.7 6.1 6.0 2.8 2.8 M3 Sunny Calm 12:06 7.2 Middle 3.6 25.9 8.1 8.1 29.1 88.1 86.7 6.1 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8 2.8						Surface			25.9		8.1		29.0		86.2		-		i.	6	i –
M3 Sunny Caim 12:06 7.2 Middle <u>3.6 25.9 8.1 8.1 29.1 85.2 86.7 5.9 2.8</u> 2.8 5.2 5.9 2.8 5.2 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9 5.9										-							6.0		i.	7	i –
	M3	Sunny	Calm	12:06	7.2	Middle			25.9		8.1		29.1		86.7		-		2.8	7	7
							6.2	25.9		8.1		29.1		85.2 89.0		5.9 6.2		3.5	i.	8	i –
						Bottom			25.9		8.1		29.1		87.4		6.1			8	i

DA: Depth-averaged

Water Qua	lity Moni	toring Resu	ilts on		26 October 23	during Mid	-Flood T	ïde												
Monitoring	Weather	Sea Condition	Sampling		Sampling De	Water Te	emperature (°C)	F	bН	Salir	Salinity (ppt)		ration (%)	Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspende (mg.		
Station	Condition		Time	(m)			Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	25.9	25.9	8.1	8.1	29.0	29.0	87.3	87.0	6.1		2.5		5.2	
					Surface	1.0	25.8 23.9 8	8.1	0.1	29.0	29.0	86.7	07.0	6.0	6.1	2.5		5.1	ĺ	
C1	Sunny	Calm	16:25	8.0	Middle	4.0	25.8	25.9	8.1	8.1	29.1	29.1	88.3	87.6	6.1	0.1	4.5	4.1	5.4	5.5
C. Culling	Curry	C G IIII	.0.20	0.0		4.0	25.9	20.0	8.1	0.1	29.0	20.1	86.9	01.0	6.0		4.6	-+.1	5.6	0.0
					Bottom	7.0	25.8	25.9	8.1	8.1	29.1	29.1	89.6	88.4	6.2	6.1	5.1		5.8	1
						7.0	25.9		8.1		29.0	1	87.1		6.0		5.1 0.4		5.7	<u> </u>
					Surface	1.0 1.0	25.9 25.9	25.9	8.1 8.1	8.1	29.1 29.0	29.1 <u>87.1</u> 86.7	86.9	6.0 6.0	-	0.4		5.9 5.5	i	
						5.0	25.9		8.1		29.0	88.0		6.0	6.0	0.4		7.3	·	
C2	Sunny	Calm	16:45	10.0	Middle	5.0	25.9	25.9	8.1	8.1	29.1	29.1	86.7	87.4	6.0	1	0.6	0.7	6.9	7.0
					D //	9.0	25.9	05.0	8.1	0.4	29.1	20.1	88.4	07.0	6.1 6.1	0.4	1.2		8.2	1
					Bottom	9.0	25.9	25.9	8.1	8.1	29.1	29.1	86.8	87.6	6.0	6.1	1.3		7.9	
					Surface Middle Bottom	1.0		26.0	8.1	8.1	29.0	29.0	88.4	88.0	6.1	_	1.1		7.6	
				5.0		1.0	26.0	20.0	8.1	0.1	29.0	20.0	87.5	00.0	6.1	6.1	1.1		7.6	1
M1	Sunny	Calm	16:34			-	-		-	-	-		-		-	0	-	1.2	-	7.2
	,					-	-		-		-		-		-		-		-	-
						4.0	26.0 26.0	26.0	8.1 8.1	8.1	29.1 29.0	29.1	89.5 88.1	88.8	6.2	6.2	1.2 1.2		6.7 7.0	
						1.0	26.0		8.1	0.1	29.0		88.4		6.1 0.2 6.1		2.8	\rightarrow	4.8	<u> </u>
				4.2	Surface	1.0	26.1	26.2	8.1	8.1	29.2	29.2	86.7	8/6	6.0		2.8		5.2	Í
					Middle		-		-		-		-		-	6.1	-		-	1
M2	Sunny	Calm	16:36				-	-	-	-	-	- 1	-	-	-	-	-	3.2	-	5.8
					Bottom	3.2	26.2	26.2	8.1	8.1	29.2	29.2	89.7	88.6	6.2	6.1	3.5		6.5	i i
					Bollom	3.2	26.2	20.2	8.1	0.1	29.2	29.2	87.5	88.0	6.0	6.1	3.6		6.7	L
					Surface	1.0	25.8	25.8	8.1	8.1	29.0	29.0	88.5	87.8	62		2.3		7	
					Sunace	1.0	25.8		8.1	0.1	28.9	23.0	87.0	07.0	6.1	6.2	2.3		7	1
M3	Sunny	Calm	16:28	7.6	Middle	3.8	25.8		8.1	8.1	29.0	29.0	89.4	88.3	6.2		3.1	3.4	7	8
						3.8	25.8	5.8	8.1	0.1	29.0	20.0	87.1		6.1		3.1		8	1
					Bottom	6.6 6.6	25.9 25.8	25.9	8.1 8.1	8.1	28.9 29.0	29.0	86.8 87.4	87.1	6.0 6.1	6.1	4.8 4.7		8	i i
						0.0	20.Ö		Ö. I		29.0		07.4		0.1		4./		Э	1

DA: Depth-averaged

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

Water Quality Monitoring ...

Nater Qua	lity Moni	toring Resu	its on		28 October 23	during Mid-		le									-		-	
	Weather	Sea Condition	Sampling		Sampling De	epth (m)	Water Temperature (°C)		рН		Salinity (ppt)		DO Saturation (%)		Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspended S (mg/L)	
Station	Station Condition		Time	(m)	5	()	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	26.7	6.7 26.8	8.0	8.0	30.5	30.5	92.3	91.5	6.2		1.0		6.2	
						1.0	26.8	8.0	0.0	30.5	00.0	90.6	31.5	6.1	6.2	1.0		6.2		
C1	C1 Misty	Calm	13:42	8.0	Middle	4.0	26.7	26.7	8.1	8.1	30.6	30.6	92.9	92.0	6.3	0.2	2.6	2.4	6.2	6.1
C i iviisty	Calli	10.42	0.0	Middle	4.0	26.7	20.7	8.0	0.1	30.5	30.6	91.0	32.0	6.1		2.5	2.4	6.0	0.1	
				Bottom	7.0	26.7	26.7	8.1	8.1	30.6	30.6	93.7	92.7	6.3	6.3	3.6		6.1		
					2011011	7.0	26.7	2011	8.0	0.1	30.5	00.0	91.7	02	6.2	0.0	3.7		5.8	
C2 Misty					Surface	1.0	26.7	26.8	8.1	8.1	30.8	30.8	91.4	91.0	6.2		2.8		6.2	
				1	Cunado	1.0	26.8	26.7	8.1	0.1	30.8	00.0	90.5	01.0	6.1	6.2	2.8		5.9	4
	Mistv	Calm	13:26	9.2	Middle	4.6	26.5		8.1	8.1	31.0	30.9	91.9	91.4	6.2	0.2	3.1	3.1	5.9	6.2
						4.6	26.8		8.1		30.8		90.8		6.1		3.0		5.7	
					Bottom	8.2	26.4	26.6	8.1	8.1	31.1	31.0	93.3	92.3	6.3	6.3	3.3		6.4	
						8.2	26.8		8.1	-	30.8		91.3		6.2		3.3		7.0	
					Surface	1.0	26.6	26.7	8.0	8.0	30.9	30.9	91.5	91.1	6.2		2.3		6.4	6.1
						1.0	26.7	-	8.0		30.9		90.6	-	6.1	6.2	2.3		6.3	
M1	Misty	Calm	13:35	5.0	Middle	-	-		-	-	-	-	-	-	-		-	2.9	-	
	,					-	-	4 26.5	-		-	31.1 9	-		-		-		-	
					Bottom	4.0	26.5		8.0	8.1	31.0		92.2	93.2	6.2	6.3	3.5	_	5.5	
						4.0	26.4		8.1		31.1		94.2		6.4		3.6	$\vdash \!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	6.2	
					Surface	1.0	26.7 26.7	26.7	8.0 8.0	8.0	30.9 30.9	30.9	90.2 89.2	89.7	6.1	4	4.5		5.8	-
						1.0	-				30.9				6.0	6.1	4.5		6.7	
M2	Misty	Calm	13:33	5.8	Middle		-		-	-	-	-	-	-	-	-	-	4.8	-	6.4
						4.8	- 26.5		8.0		- 31.0		- 91.3		6.2		- 5.1		6.2	-
					Bottom	4.8	26.5	26.6	8.0	8.0	31.0	31.0	91.3	90.7	6.1	6.2	5.1		6.8	4
						1.0	26.7		8.0		30.9		89.8		6.1		1.4		6	
					Surface	1.0	26.7	26.7	8.0	8.0	30.8	30.9	89.0	89.5	6.0	1	1.4		6	1
						3.5	26.5		8.0		30.9		90.0		6.1	6.1	3.1		6	1
M3	Misty	Calm	13:39	7.0	Middle	3.5	26.7	26.6	8.0	8.0	30.9	30.9	89.5	89.8	6.0	1	3.1	3.0	6	6
					Bottom	6.0	26.3	.3 26.5	8.0		31.0		90.7		6.0		4.3		6	
	1					6.0	26.3 26.7		8.0 8.0	30.8	309	89.6	90.2	6.0	6.1	4.4		6	-	

DA: Depth-averaged

Water Qua	lity Moni	toring Resu	Its on		28 October 23	during Mid	-Flood T	ide							-		-		-	
Monitoring	Weather	Sea Condition	Sampling		Sampling Depth (m)		Water Temperature (°C)		F	эΗ	Salir	Salinity (ppt)		ration (%)	Dissolved Oxygen (mg/L)		Turbidity(NTU)		Suspende (mg	
Station C	Condition		Time	(m)		····(···)	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	26.8	26.8	8.0	8.0	30.5	30.5	91.3	90.9	6.2		1.7		5.6	
					Sunace	1.0	26.8	8.0	0.0	30.4	30.5	90.5	90.9	6.1	6.2	1.7		5.9		
C1	Misty	Calm	17:17	7.8	Middle	3.9	26.7	26.8	8.0	8.0	30.5	30.5	91.7	91.2	6.2	0.2	2.2	2.4	5.8	6.0
0.	moty	Call				3.9	26.8	20.0	8.0	0.0	30.5	00.0	90.7	01.2	6.1		2.2		6.2	0.0
					Bottom	6.8	26.7	26.8	8.0	8.0	30.6	30.6	92.5	91.8	6.2	6.2	3.3		6.0	-
					2011011	6.8	26.8		8.0		30.5		91.1		6.1	_	3.2		6.6	┝───
					Surface	1.0 1.0	26.7 26.8	26.8	8.1 8.1	8.1	30.5	30.5	93.2 91.7	92.5	6.3 6.2	_	3.0 3.0		6.5 6.8	6.5
						4.6	26.8		8.1		30.4 30.5		91.7		93.1 6.2 6.2	6.3	3.0 4.1	-	6.8	
C2	Misty	Calm	17:35	9.2	Middle	4.6	26.8	26.8	8.1	8.1	30.5	30.5	93.8	93.1			4.1	4.3	6.8	
						8.2	26.7		8.1		30.5		95.0		6.4		5.8		6.2	•
					Bottom	8.2	26.8	26.8	8.1	8.1	30.5	30.5	92.9	94.0	6.3	6.4	5.8		6.3	•
	1				Surface	1.0	26.6	26.7	8.1	8.1	30.9	30.9	93.4	92.3	6.3		4.2		7.5	
				4.8	Middle	1.0	26.7	20.7	8.1	0.1	30.9	30.9	91.2	92.3	6.2	6.3	4.1		8.2	
M1	Misty	Calm	17:23			-	-	-	-	-	-		-	_	-	0.5	-	4.2	-	7.7
	Miloty	Call	11.20			-	-		-		-		-		-		-		-	
						3.8		30.9	30.9	95.6	93.9	6.5 6.4		4.3		8.0	-			
						3.8	26.6	.6	8.1	30	30.9		92.1	<u> </u>	6.2		4.3		7.2	<u> </u>
					Surface	1.0 1.0	26.5 26.7	26.6	8.0 8.0	8.0	31.0 30.9	31.0	91.9 91.9		6.2 6.2	4	2.9 2.9		7.2 8.0	-
				4.8	Middle	1.0	- 20.7	-			30.9				- 0.2	6.2				•
M2	Misty	Calm	17:25				-		-	-	-	-	-	-	-	-	-	3.2	-	7.2
						3.8	26.4		8.1		31.0		93.9		6.4		3.5	•	6.8	1
					Bottom	3.8	26.6	26.5	8.0	8.1	30.9	31.0	93.9	93.9	6.3	6.4	3.4	-	6.6	
						1.0	26.8	26.8	8.1		30.5		91.4		6.2		2.5		6	+
					Surface	1.0	26.8		8.1	8.1	30.4	30.5	90.7	91.1	6.1		2.6		7	
M3	Misty	Calm	17:20	6.6	Middle	3.3	26.8	26.8	8.1	8.1	30.5	30.5	91.5	91.2	6.2	6.2	3.3	31	6	6
IVIS	iviisty	Calli	17.20	6.6		3.3	26.8		8.1	0.1	30.5	30.5	90.8	91.2	6.1		3.4	3.4	6	- 6
						5.6	26.8 26.8	26.8	8.1	8.1	30.6	30.6	91.9	91.5	6.2	6.2	4.3		6	
					Dottom	5.6	26.8	20.0	8.1 8	0.1	30.5	00.0	91.1	01.0	6.1	0.2	4.3		6	

DA: Depth-averaged

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

Water Quality Monitoring ...

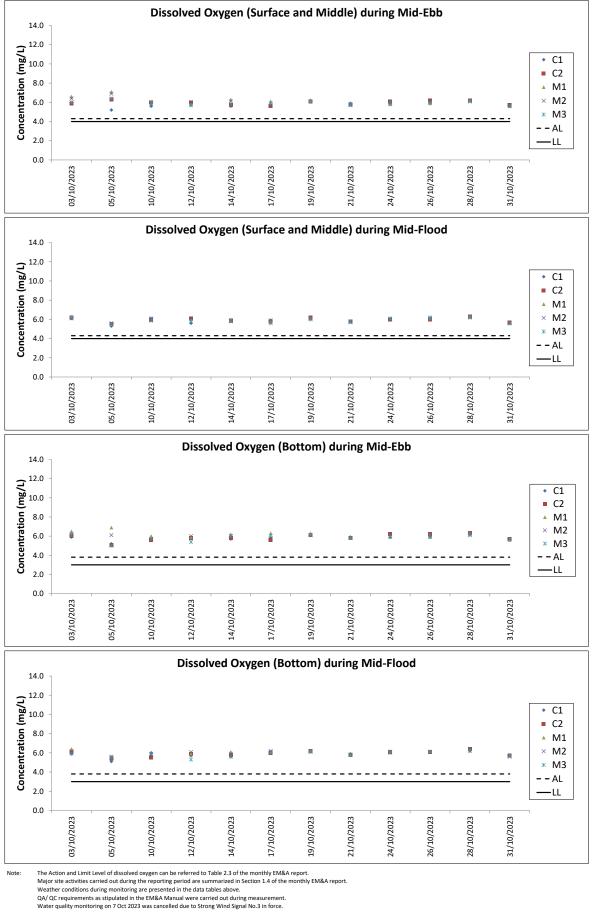
Water Qua	lity Monit	toring Resu	ilts on		31 October 23	during Mid-	Ebb Tio	de												
Monitoring	Weather	Sea Condition	Sampling		Sampling De	epth (m)	Water Temperature (°C)		рН		Salinity (ppt)		DO Saturation (%)		Dissolved Oxyger (mg/L)		Turbidity(NTU)		Suspended So (mg/L)	
Station Condition	Condition		Time	(m)	5	F ()	Value	Average	Value	Average	Value	Average	Value	Average	Value	DA	Value	DA	Value	DA
					Surface	1.0	26.2	2 26.2	8.1	8.1	28.5	28.5	82.8	82.8	5.7		4.3		7.1	
						1.0	26.1	8.1	0.1	28.5	20.0	82.7	02.0	5.7	5.7	4.2		6.8		
C1	Sunny	Moderate	13:51	11.4	Middle	5.7	26.0	26.1	8.1	8.1	28.5	28.5	81.7	82.1	5.7	5.7	3.9	5.5	6.4	6.5
Sunny	Sunny	Moderate	10.01	11.4	Middle	5.7	26.1	20.1	8.1	0.1	28.5	20.5	82.4	02.1	5.7		4.3		6.6	0.5
					Bottom	10.4	26.0	26.0	8.1	8.1	28.5	28.5	81.5	81.7	5.6	5.7	8.1		6.2	
					Bottom	10.4	26.0		8.1	0.1	28.5	20.0	81.9	01.1	5.7	0.1	7.9		5.9	
C2 Sunny					Surface	1.0	26.1	26.2	8.1	8.1	28.5	28.6	82.3	82.5	5.7		5.5		6.4	
						1.0	26.2		8.1	0	28.6	20.0	82.6	02.0	5.7	5.7	6.1		6.1	4
	Sunny	Moderate	14:13	11.3	Middle	5.7	26.0		8.1	8.1	28.6	28.6	82.0	81.9	5.7	0	4.7	4.7	6.7	7.0
	y					5.7	26.0		8.1		28.6		81.7		5.6		4.6		7.0	
					Bottom	10.3	26.0	26.1	8.1	8.1	28.5	28.5	82.4	82.4	5.7	5.7	3.8		8.0	_
						10.3	26.1		8.1	-	28.5		82.4	-	5.7	-	3.5		7.6	
					Surface	1.0	26.1	1 26.1 - 0 26.1 1 26.1	8.1	8.1	28.6	28.6	81.3	81.3	5.6		5.4		5.8	
						1.0	26.1		8.1		28.6		81.3		5.6	5.6	5.0		5.5	5.9
M1	Sunny	Moderate	14:01	5.6	Middle Bottom	-	-		-	-	-	-	-	-	-		-	5.6	-	
						-	-		-		-		-		-	+	-		-	
						4.6 4.6	26.0 26.1		8.1 8.1	8.1	28.6 28.6	28.6	81.6 81.5 81	81.6	5.6 5.6 5.6	5.6	5.9 6.0	-	6.3 6.0	
						4.6	26.1		8.1				81.5		5.6		6.0 3.9	_	6.0	
					Surface	1.0	26.0	26.0	8.1	8.1	28.6 28.5	28.6	81.6	81.9	5.6	-	3.9 4.7		7.2	_
						1.0	- 20.0		-		20.0		-		- 5.7	5.7	4.7		-	
M2	Sunny	Moderate	14:05	5.5	Middle		-	-	-	-	-	-		-	-		-	4.6	_	6.5
						4.5	26.1		8.1		28.5		82.3		5.7		4.8		5.7	-
					Bottom	4.5	25.9	26.0	8.1	8.1	28.6	28.6	82.6	82.5	5.7	5.7	5.1		6.1	
						1.0	26.0		8.1		28.5		81.5		5.6		6.0		6	
					Surface	1.0	26.1	26.1	8.1	8.1	28.4	28.5	82.6	82.1	57	1	5.2		6	
			10.55		Middle	3.8	26.0		8.1		28.5		81.4		5.6	5.6	5.7		5	
M3	Sunny	Moderate	13:57	7.5		3.8	26.0	26.0	8.1	8.1	28.5	28.5	81.4	81.4	5.6	1	5.8	5.0	6	6
					Detterr	6.5	26.0		8.1		28.5	00.0	82.3	04.7	57		3.9		5	
					Bottom	6.5	25.9	26.0	8.1	8.1	28.6	28.6	81.0	81.7	5.6	5.7	3.5		5	

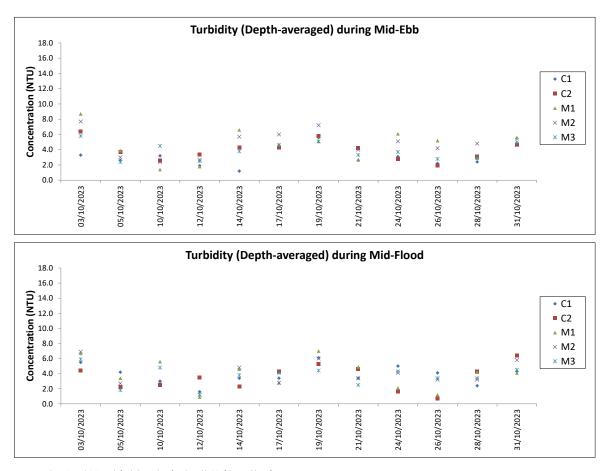
DA: Depth-averaged

Water Quality Monitoring Results on 31 October 23 during Mid-Flood Tide Dissolved Oxygen Suspended Solids Turbidity(NTU) Water Temperature (°C) pН Salinity (ppt) DO Saturation (%) Water Depth (mg/L) (mg/L) Monitoring Weather Sampling Sea Condition Sampling Depth (m) Station Condition Time (m) Value Value Value Value Average Value DA Value DA Value DA Average Average Average 1.0 26.0 8.1 28.5 82.3 5.7 4.3 6.0 26.0 8.1 28.5 82.5 Surface 1.0 8.1 28.5 26.0 82.7 5.7 4.4 6.3 5.7 5.5 25.9 8.1 28.5 82.1 5.7 4.1 6.7 4.3 C1 Sunnv Moderate 08:55 11.0 Middle 26.0 8.1 28.5 82.3 6.7 5.5 28.5 26.0 8.1 82.5 5.7 4.4 7.0 10.0 4.4 25.9 8.1 28.5 82.1 5.7 7.1 25.9 8.1 28.5 82.6 5.7 Bottom 25.9 8.1 28.5 83.0 5.7 4.3 7.3 10.0 1.0 82.2 26.0 28.6 5.7 3.9 6.4 8.1 8.1 28.6 82.3 Surface 26.0 1.0 26.0 8.1 28.6 82.3 5.7 3.9 6.7 5.7 5.7 25.9 8.1 28.6 81.9 5.7 7.5 6.0 C2 08:30 11.3 Middle 25.9 8.1 28.6 82.2 6.4 Sunny Moderate 6.1 5.7 25.9 8.1 28.6 82.4 5.7 7.6 6.3 10.3 25.9 28.6 81.9 5.7 7.5 5.8 8.1 25.9 8.1 28.6 82.2 5.7 Bottom 10.3 25.9 8.1 28.6 82.4 5.7 7.8 5.4 1.0 81.9 5.7 3.8 26.0 8.1 28.6 6.4 26.1 8.1 28.6 81.6 Surface 1.0 8.1 28.6 26.1 81.3 5.6 3.5 6.0 5.6 3.7 5.6 25.9 8.1 28.6 81.3 4.6 -8.1 28.6 80.9 4.1 M1 Sunnv Moderate 08:44 7.4 Middle 25.9 6.6 3.7 25.9 8.1 28.6 80.4 5.6 4.4 -6.4 25.9 8.1 28.6 82.2 5.7 3.8 6.7 26.0 8.1 28.6 81.7 5.7 Bottom 6.4 8.1 28.6 81.1 5.6 7.1 26.0 4.3 1.0 26.1 28.6 81.6 7.1 8.1 5.6 3.1 Surface 26.1 8.1 28.6 81.2 1.0 26.0 8.1 28.6 80.8 5.6 2.8 6.9 5.6 --------5.8 M2 Sunnv Moderate 08:39 5.3 Middle 6.8 -----------4.3 25.9 81.5 5.6 8.9 6.8 8.1 28.6 8.1 28.6 80.9 5.6 Bottom 26.0 4.3 26.0 8.1 28.6 80.2 5.5 8.4 6.5 1.0 26.0 8.1 28.6 80.5 5.6 5.5 6 26.0 8.1 28.6 80.8 Surface 1.0 26.0 8.1 28.6 81.0 5.6 5.3 5 5.6 ----7 ---M3 Sunnv Moderate 08:47 5.8 Middle -4.5 6 -------7 -4.8 26.0 8.1 28.6 80.6 3.6 7 5.6 Bottom 26.0 8.1 28.6 81.5 5.7 4.8 26.0 8.1 28.6 82.3 5.7 3.5 7

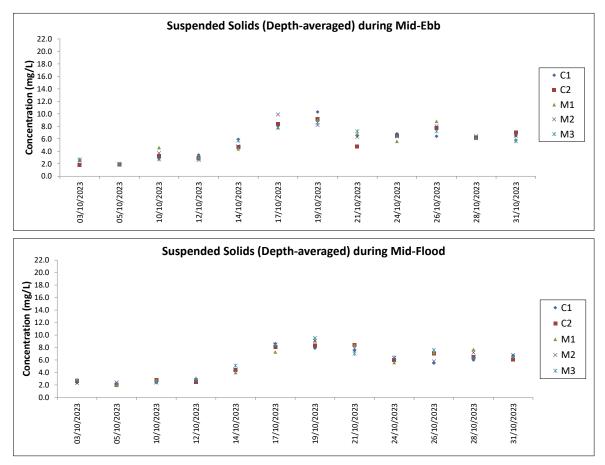
DA: Depth-averaged

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





The Action and Limit Level of turbidity can be referred to Table 2.3 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. Water quality monitoring on 7 Oct 2023 was cancelled due to Strong Wind Signal No.3 in force. Note:



The Action and Limit Level of suspended solids can be referred to Table 2.3 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. Water quality monitoring on 7 Oct 2023 was cancelled due to Strong Wind Signal No.3 in force. Note

Appendix H. Waste Flow Table

Marine Section

		Actual Quar		&D Materials (e s) e.g. broken co		vated waste)	Ac	tual Quantities	of Non-inert C8	D Waste (tonn	es)		
Month	Excavated Waste (tonnes)	(a) Total inert C&D material generated (a) = (b) + (c) + (d) + (e)	(b) Reused in contract	(c) Reused in other projects	(d) Sent to recycling company	(e) Disposed to public fill	(f) Recycled scrap metal	(g) Reused / recycled timber	(h) Chemical waste	(i) Other waste disposed to landfill	(j) Total non- inert C&D material generated (j) = (f) + (g) +	(k) Total recyclable waste (k) = (b) + (c) + (d) + (f) +	(I) Total construction waste generated (I) = (a) + (j)
											(h) + (i)	(g)	() (-) ()
Apr-22	<u>0.00</u>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
May-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jun-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jul-22	<u>0.00</u>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug-22	<u>2591.67</u>	2591.67	0.00	0.00	1584.00	1007.67	0.00	0.00	0.00	0.00	0.00	1584.00	2591.67
Sep-22	<u>1340.00</u>	1340.00	0.00	0.00	1340.00	0.00	0.00	0.00	0.36	0.00	0.36	1340.00	1340.36
Oct-22	<u>1385.00</u>	1385.00	0.00	0.00	1385.00	0.00	0.00	0.00	0.00	0.00	0.00	1385.00	1385.00
Nov-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec-22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jan-23	<u>1814.47</u>	1814.47	0.00	0.00	1814.47	0.00	0.00	0.00	0.36	0.00	0.36	1814.47	1814.83
Feb-23	<u>761.45</u>	761.45	0.00	0.00	0.00	761.45	0.00	0.00	0.00	0.00	0.00	0.00	761.45
Mar-23 Apr-23	<u>939.46</u> 0.00	939.46 0.00	0.00	0.00	<u>939.46</u> 0.00	0.00	0.00	0.00	0.25	0.00	0.25	939.46 0.00	939.71 0.00
May-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jun-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jul-23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.99	2.99	0.00	2.99
Aug-23	<u>16.16</u>	16.16	0.00	0.00	0.00	16.16	0.00	0.00	0.00	16.83	16.83	0.00	32.99
Sep-23	95.49	95.49	0.00	0.00	0.00	95.49	0.00	0.00	0.00	4.25	4.25	0.00	99.74
Oct-23	<u>69.96</u>	69.96	0.00	0.00	0.00	69.96	0.00	0.00	0.00	0.00	4.12	0.00	74.08
Total	9013.66	9013.66	0.00	0.00	7062.93	1950.73	0.00	0.00	0.97	24.07	29.16	7062.93	9042.82

AAHK Supplemental Contract No. C19W10/01 Airport City Link - Marine Portion Monthly Waste Flow Table

*Chemical waste, Wasted oil density 0.9kg/L

Land Section

AAHK Supplemental Contract No. C21W18 Airport City Link - Land Portion Monthly Waste Flow Table

		-	ties of Inert Con Generated Montl	struction Waste 1ly		Actual Quanti	ties of Non-inert	Construction Was	te Generated Monthl	у
	Month	(a)=(b)+(c)	(b)	(c)	Recycled	Recycled	Recycled	Recycled		General Refuse
		Total Quantity Generated	Reused in other Projects	Disposed of as Public Fill	Timber	Metals	Paper/ cardboard	Plastic	Chemical Waste	disposed of at Landfill
Year		(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)
	Jan	-	-	-	-	-	-	-	-	-
	Feb	754.38	0	754.38	0	0.017	0.129	0.038	0	22.27
	Mar	1464.86	0	1464.86	0	0.014	0.087	0.024	0	13.51
	Apr	1005.98	0	1005.98	0	0.007	0.025	0.013	0	11.94
	May	1723.58	0	1723.58	0	0.008	0.039	0.018	0	14.46
	Jun	944.13	0	944.13	0	0.025	0.022	0.102	0	14.01
2023	Sub-total	5892.93	0	5892.93	0	0.071	0.302	0.195	0	76.19
2025	Jul	1174.60	0	1174.60	0	0.012	0.044	0.012	0	31.92
	Aug	2287.72	0	2287.72	0	0.023	0.075	0.02	0	37.33
	Sep*	1932.55	0	1932.55	0	0.007	0.022	0.015	0	5.85
	Oct*	2959.92	0	2959.92	0	0.007	0.015	0.021	0	9.36
	Nov									
	Dec									
	Sub-total	8354.79	0	8354.79	0	0.049	0.156	0.068	0	84.46
1	Total	14247.72	0.00	14247.72	0.00	0.12	0.46	0.26	0.00	160.65

* Due to the system failure, the update of the waste transaction records from EPD is temporarily suspended, therefore waste data of public fill and landfill in are updated from 25 Sep 2023 to 19 Oct 2023.

Appendix I. Status of Environmental Permits and Licences

Reference No.	Valid From	Valid Until	Remark
EP-581/2020	5 Oct 2020	End of Project	N/A
7043487	18 Mar 2022	End of Project	N/A
477560	10 Mar 2022	N/A	N/A
GW-RS0644-23	15 Aug 2023	14 Feb 2024	N/A
GW-RS0797-23	16 Sep 2023	14 Mar 2024	Superseded by GW- RS0895-23 during the reporting month
GW-RS0895-23	20 Oct 2023	17 Apr 2024	Replaces GW- RS0797-23
5213-951-G2961-01	19 Apr 2022	End of Project	N/A
WT00044182-2023	23 Aug 2023	31 Aug 2028	N/A
	EP-581/2020 7043487 477560 GW-RS0644-23 GW-RS0797-23 GW-RS0895-23 5213-951-G2961-01	EP-581/2020 5 Oct 2020 7043487 18 Mar 2022 477560 10 Mar 2022 GW-RS0644-23 15 Aug 2023 GW-RS0797-23 16 Sep 2023 GW-RS0895-23 20 Oct 2023 5213-951-G2961-01 19 Apr 2022	EP-581/2020 5 Oct 2020 End of Project 7043487 18 Mar 2022 End of Project 477560 10 Mar 2022 N/A GW-RS0644-23 15 Aug 2023 14 Feb 2024 GW-RS0797-23 16 Sep 2023 14 Mar 2024 GW-RS0895-23 20 Oct 2023 17 Apr 2024 5213-951-G2961-01 19 Apr 2022 End of Project

Table I.1: Summary of Environmental Licenses and Permits - Marine Section (October 2023)

Table I.2: Summary of Environmental Licenses and Permits - Land Section (October 2023)

Type of Licence / Permit	Reference No.	Valid From	Valid Until	Remark
Environmental Permit	EP-581/2020	5 Oct 2020	End of Project	N/A
Billing Account for Disposal of Construction Waste	7044291	27 Jun 2022	End of Project	N/A
Construction Dust Notification under APCO	480843	10 Jun 2022	N/A	N/A
Construction Noise Permit	GW-RS0630-23	31 Jul 2023	30 Jan 2024	N/A
Chemical Waste Producer	5213-951-C1169-68	23 Jun 2022	End of Project	N/A
Water Discharge Lisense	WT00042879-2022	17 Apr 2023	31 Jan 2028	Variation of discharge license WT00042879-2022 granted on 4 Jan 2023.
Water Discharge License	WT00042680-2022	29 Aug 2023	31 Jan 2028	Variation of discharge license WT00042680-2022 granted on 9 Jan 2023.

Appendix J. Environmental Mitigation Measures Implementation Status

Environmental Mitigation Measures Implementation Status (October 2023)

Recommended Mitigation Measures for Air Quality Impact

PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
		 Relevant control measures as required in the Air Pollution Control (Construction Dust) Regulation shall be implemented to minimise dust impact. 	N/A	Rem
		Skip hoist for material transport should be totally enclosed by impervious sheeting.	N/A	Yes
		• All dusty materials should be sprayed with water prior to any loading, unloading or transfer operation to maintain the dusty materials wet.	N/A	Yes
		 All stockpiles of aggregate or spoil should be covered and/or water applied. 	N/A	Yes
S6.1.1	S4.2.1	 The height from which excavated materials are dropped should be controlled to a minimum practical height to limit fugitive dust generation from unloading. 	N/A	Yes
		 Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty materials from its body and wheels. 	N/A	Rem
		• The load of dusty materials carried by a vehicle leaving a construction site should be covered entirely by clean impervious sheeting to ensure dust materials do not leak from the vehicle.	N/A	Yes
		• All NRMMs operated on-site are approved or exempted (as the case may be) and affixed with the requisite approval/exemption labels under the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, or are in the process of application for such approval/exemption during the relevant grace period.	Yes	Yes
ecomme	ended Mitig	gation Measures for Noise Impact		
PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^	Mitigation Measures Implemented? ^
			(Marine Section)	(Land Section)
		Only well-maintained plant should be operated on-site and plant should be serviced regularly.	Yes	Yes
6.2.1	S5.2.1	Silencers or mufflers on construction plant should be utilised.	Yes	N/A
		 Mobile plant should be sited as far away from sensitive uses as possible. 	Yes	Yes

		 Machines and plant that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum. 	Yes	Yes
		• Plant known to emit noise strongly in one direction should, where possible, be orientated so that noise is directed away from the nearby sensitive uses.	Yes	Yes
		• Material stockpiles and other structures such as site hoarding should be effectively utilised to screen noise from on-site construction activities.	N/A	Yes
		 Noisy construction activities such as road breaking, should be scheduled to less sensitive hours during the day, e.g. midday. 	Yes	Yes
Recomm	ended Miti	gation Measures for Water Quality Impact		
PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
S6.3.1	S6.2.1	 Steel pile casing and watertight cofferdam should be installed at the pier site and seawater trapped inside the casing and cofferdam should be pumped out to generate a dry working environment prior to carrying out sediment excavation. 	Yes	N/A
S6.3.1	S6.2.1	• During dewatering of the cofferdam, appropriate desilting or sedimentation device should be provided on site for treatment before discharge. The Contractor should ensure discharge water from the sedimentation tank meeting the WPCO / TM-DSS requirements before discharge.	Yes	N/A
S6.3.1- S6.3.2	S6.2.1	• To minimise any adverse water quality impact during the excavation of sediment, a funnel should be placed at the top of pile casing during excavation and silt curtains should be deployed to completely enclose the cofferdam and steel pile casing. Silt curtains should be deployed prior to installation of temporary platform on barge, cofferdam and steel pile casing. Silt curtains should be responsible for the design, installation and maintenance of the silt curtain to minimise the impacts on water quality. The design and specification of the silt curtains should be submitted by the Contractor to the Project Manager or Project Manager's Representative of AAHK for approval. The marine bridge piers should not be constructed at the same time to avoid adverse hydrodynamic impact due to flow blockage increase during the interim construction stages. All vessels should be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash.	Yes	N/A
S6.3.1	S6.2.1	• For in-situ construction method, concrete would be delivered from existing concrete batching plants off-site to avoid on site concrete batching activity. During the in-situ bridge deck concreting, the concrete should be pumped or lifted inside an enclosed container for concreting the deck. Tarpaulin plastic sheet should be mounted at the bottom of the temporary working platform for concreting to prevent concrete from falling to the sea.	Yes	N/A

PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
S6.3.1	S6.2.1	 The marine works of the Project should be proactively planned and coordinated to avoid any concurrent marine works below seawater level with those of ITT-BVB to minimise cumulative water quality impact during construction phase. 	Yes	N/A
S6.3.1	S6.2.1	• Surface run-off from construction sites should be discharged into storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels or earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels at site boundaries should be provided on site boundaries where necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	Yes	Rem
S6.3.1	S6.2.1	• Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to prevent local flooding. Before disposal at the public fill reception facilities, the deposited silt and grit should be solicited in such a way that it can be contained and delivered by dump truck instead of tanker truck. Any practical options for the diversion and re-alignment of drainage should comply with both engineering and environmental requirements in order to provide adequate hydraulic capacity of all drains.	Yes	Yes
S6.3.1	S6.2.1	• Construction works should be programmed to minimise soil excavation works in rainy seasons (April to September). If excavation in soil cannot be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporary exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest / edge of excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place in such a way that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm.	N/A	Obs / Rem
S6.3.1	S6.2.1	• Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary.	N/A	Yes
S6.3.1	S6.2.1	 Measures should be taken to minimise the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities. 	N/A	Yes
S6.3.1	S6.2.1	 Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and 	N/A	Obs

PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
		to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.		
S6.3.1	S6.2.1	 Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis. Also, the following mitigation measures related to the transportation of the sediment should be implemented to minimise the potential water quality impact: Loading of the excavated marine-based sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water/ storm drains; The barge/ dump truck transporting the excavated marine-based sediment/ land-based sediment to the designated disposal sites shall be equipped with tight fitting seals to prevent leakage and shall not be filled to a level that would cause overflow of materials or laden water during loading or transportation; and Monitoring of the barge/ dump truck loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels/ dump truck shall be equipped with automatic self-monitoring devices as specified by the Director of Environmental Protection (DEP). 	N/A	Yes
S6.3.1	S6.2.1	• Water used in ground boring and drilling for site investigation or rock/soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities.	Yes	Yes
S6.3.1	S6.2.1	• All vehicles and plant should be cleaned before they leave a construction site to minimise the deposition of earth, mud, debris on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be paved with backfall to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	N/A	Yes
S6.3.1	S6.2.1	• There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the relevant WPCO license.	Yes	Obs / Rem
S6.3.1	S6.2.1	 No discharge of sewage to the storm water system and marine water will be allowed. Sufficient chemical toilets should be provided in the works areas to handle the sewage generated from the 	Yes	Yes

PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
		construction workforce. A licensed waste collector should be deployed to clean the chemical toilets on a regular basis.		
S6.3.1	S6.2.1	 Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment. Regular environmental audit of the construction site will provide an effective control of any malpractices and can encourage continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the project would not cause water pollution problem after undertaking all required measures. 	Yes	Yes
S6.3.1	S6.2.1	 Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes. 	Yes	Yes
S6.3.1	S6.2.1	• Any service shop and maintenance facilities should be located on hard standings within a bonded area, and sumps should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	Yes	Yes
S6.3.1	S6.2.1	• Suitable containers should be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.	Yes	Obs
ecomm	ended Miti	gation Measures for Waste Management		
PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
S6.4.1- S6.4.2	07.0.4	 <u>Good Site Practices:</u> Nomination of approved personnel, such as a site manager, to be responsible for implementation of good site practices, arrangements for waste collection and effective disposal to an appropriate facility. 	Yes	Yes
	S7.2.1	• Training of site personnel in site cleanliness, concepts of waste reduction, reuse and recycling, proper waste management and chemical waste handling procedures.	Yes	Yes
		Provision of sufficient waste reception/ disposal points, and regular collection of waste.	Obs	Yes

PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
		• Adoption of appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	Yes	Yes
		• Provision of regular cleaning and maintenance programme for drainage systems and sumps.	Yes	Yes
		• Adoption of a recording system for the amount of wastes generated, recycled and disposed (including the disposal sites).	Yes	Yes
		 Preparation of Waste Management Plan (WMP), as part of the Environmental Management Plan (EMP). 	Yes	Yes
		 Waste Reduction Measures: Segregate and store different types of construction related waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal. 	Yes	Yes
	S7.2.1	 Provide separate labelled bins to segregate recyclable waste such as aluminium cans from other general refuse generated by the work force, and to encourage collection by individual collectors. 	N/A	N/A
		Recycle any unused chemicals or those with remaining functional capacity.	N/A	N/A
S6.4.1		Maximise the use of reusable steel formwork to reduce the amount of C&D materials.	Yes	N/A
		• Adopt proper storage and site practices to minimise the potential for damage to, or contamination of construction materials.	Yes	Yes
		• Plan the delivery and stock of construction materials carefully to minimise the amount of waste generated.	Yes	Yes
		Minimise over ordering and wastage through careful planning during purchasing of construction materials.	Yes	Yes
S6.4.1	S7.2.1	 <u>C&D materials:</u> The C&D materials generated should be sorted on-site into inert C&D materials (that is, public fill) and non-inert (C&D waste). 	Yes	Yes
S6.4.1	S7.2.1	• To minimise the impact resulting from collection and transportation of C&D materials as far as practicable, C&D waste, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed to landfill.	N/A	N/A
S6.4.1	S7.2.1	• Proper handling and storage of waste such as soil by means of covers and/or water spraying system to minimise the potential environmental impact and to prevent materials from wind-blown or being washed away.	Rem	Yes
00.7.1	07.2.1	Covering materials during heavy rainfall.	N/A	Yes
		Locating stockpiles to minimise potential visual impacts.	Yes	Yes

PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
		Minimising land intake of stockpile areas as far as possible.	N/A	Yes
		 Adopting GPS or equivalent system for tracking and monitoring of all dump trucks engaged for the Project in recording their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials. 	N/A	N/A
		• Keeping record and analysis of data collected by GPS or equivalent system related to travel routings and parking locations of dump trucks engaged on site.	Yes	N/A
		<u>General Refuse:</u> • General refuse should be stored in covered bins or compaction units separately from C&D materials. A reputable waste collector should be employed by the Contractor to remove general refuse from the site regularly, separately from C&D materials. An enclosed and covered area is preferred to reduce the occurrence of "wind blown" light materials.	Yes	Yes
S6.4.1	S7.2.1	• The recyclable component of general refuse, such as aluminium cans, paper and cleansed plastic containers shall be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste shall be set up by the Contractor. The Contractor shall also be responsible for arranging recycling companies to collect these materials.	N/A	N/A
		• The Contractor should carry out an education programme for workers in avoiding, reducing, reusing and recycling of materials generation. Posters and leaflets advising on the use of the bins should also be provided in the site as reminders.	N/A	Yes
		<u>Chemical Waste:</u> • If chemical wastes were to be produced, the Contractor would be required to register with the EPD as a Chemical Waste Producer, and to follow the guidelines stated in the <i>Code of Practice on the</i> <i>Packaging, Labelling and Storage of Chemical Wastes.</i>	Yes	Obs
S6.4.1- S6.4.2	S7.2.1	• Appropriate containers with proper labels should be used for storage of chemical wastes. Chemical wastes should be collected and delivered to designated outlet by a licensed collector. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the CWTC, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Yes	Yes
		• Any unused chemicals or those with remaining functional capacity should be collected for reuse as far as practicable.	Yes	N/A
		• Trip ticket system shall be implemented to prevent illegal dumping in accordance with the "Trip Ticket System for Disposal of Construction and Demolition Materials'.	Yes	Yes

PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
		 <u>Sediment:</u> The sediment should be excavated, handled, treated, transported and/or disposed of in a manner that would minimise adverse environmental impacts. 	N/A	Yes
		• Relevant ordinances (such as Waste Disposal Ordinance, Air Pollution Ordinance (Construction Dust) Regulation and Water Pollution Control Ordinance) shall be complied with during the excavation and handling of the sediment.	N/A	Yes
S6.4.1 & S6.4.3	S7.2.1	• The temporary stockpiling area should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and surrounding water bodies. The temporary stockpiling area should be completely paved in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas should be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, should be collected, treated and discharged according to the Water Pollution Control Ordinance (WPCO). In order to minimise the exposure to contaminated materials, workers shall, if necessary, wear appropriate personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities shall also be provided on site.	N/A	Obs / Rem
S6.4.1	S7.2.1	• For off-site disposal, the basic requirements and procedures specified under PNAP No. 252 (ADV-21) shall be followed. Marine Fill Committee (MFC) of CEDD is managing the disposal facilities in Hong Kong for the excavated sediment, while EPD is the authority of issuing marine dumping permit under the Dumping at Sea Ordinance (DASO).	N/A	N/A
S6.4.1, 6.4.3	\$7.2.1	• For the purpose of site allocation and application of marine dumping permit and if considered necessary by Dumping at Sea Ordinance (DASO) Team/EPD, separate submissions (e.g. SSTP/SQR) shall be submitted to DASO team/EPD for agreement under DASO. Additional SI works, based on the SSTP, shall then be carried out in order to confirm the disposal arrangements of the excavated sediment. A Sediment Quality Report (SQR), reporting the chemical and biological screening results and the estimated quantities of sediment under different disposal options, shall then be submitted to DASO team/EPD for agreement under DASO.	N/A	N/A
		• To ensure disposal space is allocated for the Project, the Project Proponent should be responsible for obtaining agreement from MFC on the allocation of the disposal site. The contractor(s), on the other hand, should be responsible for the application of the marine dumping permit under DASO from EPD for the sediment disposal.	N/A	N/A
S6.4.1	S7.2.1	• The excavated sediments is expected to be loaded onto the barge and transported to the designated disposal sites allocated by MFC. The excavated sediment would be disposed of according to its determined disposal options and PNAP No. 252 (ADV-21).	N/A	N/A
_		• Stockpiling of contaminated sediments should be avoided as far as possible. If temporary stockpiling of contaminated sediments is necessary, the excavated sediment should be covered and the area	N/A	Obs / Rem

EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
	should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and surrounding water bodies. The stockpiles area should be completely paved in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas should be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, should be collected and discharged according to the Water Pollution Control Ordinance (WPCO).		
	 In order to minimise the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediments shall be wetted during excavation / material handling and shall be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge/ dump truck shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water/ storm drains. 	N/A	Yes
	• The barge/ dump truck transporting the sediments to the designated disposal sites shall be equipped with tight fitting seals to prevent leakage and shall not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, monitoring of the barge/ dump truck loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels/ dump truck shall be equipped with automatic self-monitoring devices as specified by the DEP.	N/A	Yes
S7.2.1	 Potential Floating Refuse: Proper management and education should be given to construction site workers such that accidental release or intentional disposal would be avoided. The refuse should be stored in enclosed bin to avoid adverse impacts to the surroundings including marine environment. Regular checking should also be carried out to ensure that the refuse is stored properly. 	Obs	N/A
ended Miti	gation Measures for Marine Ecological Impact		
EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
-	 No underwater percussive piling shall be conducted in this Project 	Yes	N/A
S8.2.1	 Based upon a precautionary approach, a speed limit of 10 knots should be strictly enforced on all construction-related vessels. 	Yes	N/A
S8.2.1	 Good site practices, guidelines and mitigation measures detailed in Water Quality Sections 6.3.1 of the Project Profile should be adopted to further alleviate water quality impacts. 	Yes	N/A
	Ref. S7.2.1 Ended Miti EM&A Ref. - S8.2.1	Ref. Recommended Mitigation Measures should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and surrounding water bodies. The stockpiles area should be completely paved in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas should be collected and discharged according to the Water Pollution Control Ordinance (WPCO). • In order to minimise the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediments shall be wetted during excavation / material handling and shall be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge/ dump truck shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water / storm drains. • The barge/ dump truck transporting the sediments to the designated disposal sites shall be equipped with tight fitting seals to prevent leakage and shall not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, monitoring of the barge/ dump truck loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels/ dump truck shall be equipped with automatic self-monitoring devices as specified by the DEP. Potential Floating Refuse: Proper management and education should be given to construction site workers such that accidental release or intentional disposal would be avoided. The refuse should be stored in enclosed bin to avoid adverse impacts to the surroundings including marine environment. Regular checking should also be carried out to ensure that the refuse is stored properly. S7.2.1	EM&A Ref. Recommended Mitigation Measures Measures Implemented? ^ (Marine Section) should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and surrounding water bodies. The stockpiles area should be completely paved in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas should be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, should be collected and discharged according to the Water Pollution Control Ordinance (WPCO). N/A • In order to minimise the potential dodur / dust emissions during excavation and transportation of the sediment, the excavated sediments shall be wetted during excavation and transportation of the sediment, the excavated sediments shall be wetted during excavation and transportation of the surrounding water/ stom drains. N/A • The barge/ dump truck transporting the sediments to the designated disposal sites shall be equipped with tight fitting seals to prevent leakage and shall not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, monitoring of the barge/ dump truck loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels/ dump truck shall be equipped with automatic self- monitoring devices as specified by the DEP. N/A \$7.2.1 Proper management and education should be given to construction site workers such that accidental release or intentional disposal would be avoided. The refuse should be stored in enclosed bin to avoid adverse impacts to the surroundings including marine environment. Regular checking should also be carried out to ensure that t

PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
S6.6.1	S9.3.1	All affected trees will be felled and compensated, no transplantation is required.	N/A	Yes
S6.6.1	S9.3.1	 Optimising construction activities, e.g. minimising extent of temporary works area, installing site hoardings and minimising illumination on non-target areas. 	Yes	Yes
S6.6.1	S9.3.1	Minimise construction periods where possible.	Yes	Yes
S6.6.1	S9.3.1	Early establishment of planting areas as far as appropriate.	N/A	Yes
S6.6.1	S9.3.1	Erection of decorative mesh screen or construction hoardings.	N/A	Yes
S6.6.1	S9.3.1	Control of night-time lighting.	N/A	N/A
S6.6.1	S9.3.1	• Temporary vertical greening, screen / buffer at-grade planting to soften the engineering structure of construction works.	N/A	N/A
S6.6.1	S9.3.1	Tree preservation in accordance with Development Bureau Technical Circular (Works) No. 4/2020 (ref: DEVB(GLTM) 200/2/1/1).	N/A	Yes
S6.6.1	S9.3.1	Proposed tree felling / tree compensation.	N/A	Yes
Others				
			Mitigation	Mitigation

Recommended Mitigation Measures for Landscape and Visual Impact

PP Ref.	EM&A Ref.	Recommended Mitigation Measures	Mitigation Measures Implemented? ^ (Marine Section)	Mitigation Measures Implemented? ^ (Land Section)
-	-	 A copy of the valid Environmental Permit shall be displayed conspicuously on the Project site(s) at all vehicular site entrances/exits or at a convenient location for public's information at all times. The most updated information about the Permit, including any amended Permit, shall be displayed at such locations. If the Permit Holder surrenders a part or whole of the Permit, the notice he send to the Director shall also be displayed at the same locations as the original Permit. The suspended, varied or cancelled Permit shall be removed from display at the Project site(s). 	Yes	Yes
-	-	 The required licences should be obtained by the Contractor (including CNP (if any), WPCO licence, etc. 	Yes	Yes

Notes:

- Yes = Implemented where applicable
- Obs/Rem = Observations or reminders were issued, and items were rectified
- N/A = Not applicable to the construction works implemented during the reporting period
- ^ = Checked by ET through site inspection and record provided by the Contractor