Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Monthly EM&A Report (May 2025)

Drainage Services Department

2025-06-10

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MOTT MACDONALD

Contract No. SPW 04/2024

Independent Environmental Checker for Construction of Yuen Long Effluent Polishing Plant Stage 1 (2024-2025)

Environmental Permit No. EP-565/2019/A

EP Condition 3.4 – Monthly EM&A Report for May 2025

10 June 2025

By Hand and By E-mail

AECOM Asia Co. Ltd.
12/F, Grand Central Plaza, Tower 2
138 Shatin Rural Committee Road
Shatin, Hong Kong

For the attention of: Mr. Simon H.M. YEUNG – CRE(C)

Dear Sir,

I refer to the captioned Monthly EM&A Report for May 2025 (Revision 2) which was received via e-mail and certified by the Environmental Team Leader on 10 June 2025 (ref.: PL-202506003).

I have no comment on the captioned report and hereby verify that this submission has complied with the requirements set out in the EM&A Manual (in particular Sections 12.4.1 and 12.4.4) for the captioned project, in accordance with Condition 3.4 of Environmental Permit No. EP-565/2019/A.

Should you have any queries regarding the captioned or require any further information, please contact the undersigned at 2828 5875.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

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	Paul Y – CREC Joint Venture	Mr. Gabriel WONG – Environmental Specialist (by e-mail)

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Ref: PL-202506003

By Email

10 June 2025

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

Attn: Mr. Brandon Wong, IEC

Dear Sir,

Contract No. SPW 02/2023
Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1
Environmental Permit No. EP-565/2019/A
EP Condition 3.4 – Monthly EM&A Report for May 2025

Pursuant to Clause 3.4 of Environmental Permit No. EP-565/2019/A for the captioned project, we are pleased to submit the certified Monthly EM&A Report for May 2025 (Rev.2) for your verification.

Should you have any queries regarding the captioned or require any further information, please contact the undersigned at 2531 0243.

Yours faithfully,
For and on behalf of
Aurecon Hong Kong Limited

Vincent M. J. Lu
Environmental Team Leader

Encl.

cc. AECOM – Mr. Patrick Leung (patrick.leung@ylepp-aecom.com)
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Reviewer's signature		Approver's signature	
Name	Joe Ho	Name	Vincent Lu
Title	Senior Environmental Consultant	Title	Environmental Team Leader

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EXECUTIVE SUMMARY

This Monthly Environmental Monitoring and Audit (EM&A) Report is prepared for Contract No. SPW 02/2023 “Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1”. Drainage Services Department (DSD) has appointed Aurecon Hong Kong Limited (Aurecon) to undertake the Environmental Team services for the project and implement the EM&A works.

This is the 50th Monthly EM&A Report for the construction phase which summaries findings of the EM&A programme during the reporting period from 1 May 2025 to 31 May 2025. As informed by the Contractor, major activities in the reporting month were:

- Fixing GRC panel at CLP Substation
- ELS works and pipeworks at emergency bypass chamber
- ABWF, E&M work at IW
- ABWF and E&M works at PST
- ELS work at SDB
- External works at site-wide of predrilling at walkway and water meter cabinet
- ELS work at AGS
- RC structure at TTS
- ABWF and E&M works at STB
- Demolish Existing SDT 1-4
- RC work at Sludge Digester no. 1-3
- E&M work at Biogas Holder no. 1
- Disposal of construction waste as indicated in **Appendix I**.

Breaches of Environmental Quality Performance Limits (AL levels)

No Action and Limit Level exceedance was recorded for air quality monitoring and construction noise monitoring in the reporting month.

No Action and Limit Level exceedance was recorded for water quality monitoring in the reporting month.

No Action / Limit exceedance was recorded for noise levels at stations (NMS1 and NMS2) in close proximity to the two active ardeid night roosts (ANR1 and ANR2) observed within the Survey Area during the reporting month.

No Action / Limit exceedance for the ecological monitoring of birds in the reporting month.

No corrective actions were required according to the Event and Action Plans for the Monitoring Parameters.

Land Contamination

Regular site inspection was carried out to ensure the recommended mitigation measures are properly implemented. The signed final Contamination Assessment Report (CAR) for “Main Storeroom & Workshops”, “Mechanical Workshop”, “Waste Storage Area”, “SAS Thickener House-1”, “SAS Thickener House-2”and “Screening Press House” were

submitted to EPD respectively on 1st November 2021, 23rd November 2021, 29th April 2022, 6th July 2022, 19th June 2023 and 29th October 2024. No contaminated soil and ground water was found within the Main Storeroom & Workshop, Mechanical Workshop, Waste Storage Area, SAS Thickener House-1, SAS Thickener House-2 and Screening Press House, and no remedial action is required for these locations.

Complaint Log

No complaints were received in the reporting period.

Notifications of Summons and Successful Prosecutions

No notifications of summons and successful prosecutions were received in the reporting period.

Reporting Change

There were no reporting changes during the reporting month.

Future Key Issues

The main works will be anticipated in the next three months are as follow:

- Fixing GRC panel at CLP Substation
- pipeworks and manhole installation at emergency bypass chamber
- ABWF and E&M works at IW
- Remaining ELS and RC works at IW
- ABWF and E&M works at PST
- ELS work and RC work at SDB
- Predrill works at ADB
- External works at site-wide include water meter cabinet
- ELS work and RC structure at AGS
- RC structure at TTS
- ABWF and E&M work at STB
- Demolish Existing SDT 1-4 and Gas Holder GH2
- RC structure at Sludge Digester no. 1-3 with PP1
- ELS work at Sludge Digester no. 4-6
- RC work at Biogas Holder no. 2-3 foundation

1 INTRODUCTION

1.1 Background

1.1.1 The existing Yuen Long Sewage Treatment Works (YLSTW) is a secondary sewage treatment works, located at Yuen Long Industrial Estate serves Yuen Long Town, Yuen Long Industrial Estate and Kam Tin areas with a design capacity of 70,000 m^3 per day. Based on the latest planning data, the volume of sewage generation from the YLSTW catchment is estimated to increase to 150,000 m^3 per day after 20 years. In addition, since YLSTW has been operating for over 30 years and most of its facilities are of out-dated design and reaching the end of their design life, the environmental facilities of the plant will also be upgraded and hence improving the adjacent environment through upgrading the YLSTW to Yuen Long Effluent Polishing Plant (YLEPP). The Location of Proposed Yuen Long Effluent Polishing Plant is given in **Figure 1**.

1.1.2 YLSTW will be reconstructed in two stages to increase its capacity to 150,000 m^3 per day. The proposed works, as Stage 1 of the project, will firstly increase the treatment capacity to 100,000 m^3 per day. In the course of Stage 1 construction, about half of the existing facilities of YLSTW would be demolished, while the other half would be kept in operation to maintain the sewage treatment service for Yuen Long area. This 72-month works contract commenced on 9 November 2020. Demolition of existing YLSTW for construction of new treatment facilities are in progress.

1.1.3 The Project is a designated project under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) for which Environmental Impact Assessment (EIA) report and Environmental Monitoring and Audit (EM&A) Manual was approved by EPD (Register No.: AEIAR-220/2019) on 25 April 2019. The Environmental Permit (EP) (EP No. EP-565/2019) was issued by EPD on 26 April 2019. Variation of the Environmental Permit (EP) (EP No. EP-565/2019/A) was issued by EPD on 26 November 2024.

1.1.4 Fugro Technical Services Limited was appointed as the Environmental Team (ET) by Drainage Services Department (DSD) to undertake the Environmental Team services for the Project and implement the EM&A works under the Contract No. DC/2019/10 Yuen Long Effluent Polishing Plant -Main Works for Stage 1 (hereinafter referred as “the Contract”) for the period from July 2020 to 6 July 2023.

1.1.5 Aurecon Hong Kong Limited (Aurecon) has been appointed as the Environmental Team (ET) by Drainage Services Department (DSD) to undertake the Environmental Team services for the Project and implement the EM&A works under the Contract from July 2023. Air quality, noise, water quality and ecological monitoring, site inspections and auditing (as scheduled) under EM&A programme with effect from 7 July 2023 was conducted by Aurecon. Aurecon is undertaking the preparation (including reporting of monitoring results), certification by ET Leader and submission of this report to EPD.

1.1.6 All ET roles and responsibilities under the EP for this Project were undertaken by Fugro up to 6 July 2023 and by Aurecon with effect from 7 July 2023. Air quality, noise, water quality and ecological monitoring, site inspections and auditing (as scheduled) under EM&A programme up to 6 July 2023 was conducted by Fugro, and the corresponding monitoring results were shared with Aurecon for the purposes of reporting in this report.

1.1.7 This is the 50th Monthly EM&A report to document the findings of site inspection activities and EM&A programme for this project from 1 May 2025 to 31 May 2025 (reporting period) and is submitted to fulfil Condition 3.4 of the EP and Section 12.4.1 of the EM&A Manual. According to Condition 4 of the EP, electronic reporting is provided on the internet website to facilitate public inspection of the report.

1.2 Project Organization

1.2.1 The Project Organization structure is shown in **Appendix B**. The key personnel contact names and numbers are summarized in **Table 1**.

Table 1 Contact Information of Key Personnel

Party	Position	Name	Telephone
Project Proponent (Drainage Services Department)	Engineer	Mr. Wallace Cheng	2594 7473
Engineer's Representative (AECOM Asia Co. Ltd.)	Chief Resident Engineer	Mr. Simon Yeung	9075 7172
	Senior Resident Engineer	Mr. Patrick Leung	6124 8838
Independent Environmental Checker (Mott MacDonald Hong Kong Limited)	Independent Environmental Checker (IEC)	Mr. Brandon Wong	2828 5875
Contractor (Paul Y. - CREC Joint Venture)	Environmental Specialist	Mr. Gabriel Wong	5269 5723
	Environmental Officer	Mr. Henry Lau	5490 5271
Environmental Team (Aurecon Hong Kong Limited)	Environmental Team Leader (ETL)	Mr. Vincent Lu	6346 5908

1.3 Construction Programme and Activities

1.3.1 The construction programme of this project is shown in **Appendix A**.

1.4 Works undertaken during the month

1.4.1 The main construction works carried out in the reporting period were as follow:

- Fixing GRC panel at CLP Substation
- ELS works and pipeworks at emergency bypass chamber
- ABWF, E&M work at IW
- ABWF and E&M works at PST
- ELS work at SDB
- External works at site-wide of predrilling at walkway and water meter cabinet
- ELS work at AGS
- RC structure at TTS
- ABWF and E&M works at STB
- Demolish Existing SDT 1-4
- RC work at Sludge Digester no. 1-3
- E&M work at Biogas Holder no. 1

1.4.2 The environmental mitigation measures corresponding to the main construction works implemented in the reporting period can be referred to **Appendix J**.

1.5 Status of Environmental Licences, Notification and Permits

1.5.1 A summary of the status of the relevant permits, licenses and/or notifications on environmental protection for this project is presented in **Table 2**.

Table 2 Environmental Licenses, Notification and Permits Summary

Permit/ Notification/ License	Reference No	Valid From	Valid Till
Environmental Permit	EP-565/2019/A	26-Nov-2024	The whole construction and operation period of the Project
Notification of Works under APCO	461616	6-Nov-2020	The whole construction and operation period of the Project
Construction Waste Disposal Billing Account	7038933	20-Nov-2020	The whole construction and operation period of the Project
Registration as Chemical Waste Producer under WDO	WPN5213-528-P2796-03	4-Feb-2021	The whole construction and operation period of the Project
Construction Noise Permit	GW-RN0246-25	11-Mar-2025	31-May-2025
Construction Noise Permit	GW-RN0063-25	6-Feb-2025	5-Aug-2025
Construction Noise Permit	GW-RN0367-25	17-Apr-2025	25-Sep-2025
Construction Noise Permit	PP-RN0012-25	11-Apr-2025	10-Jun-2025
Water Pollution Control Ordinance (WPCO) (CAP. 358) Licence pursuant to Section 20 (Variation of Licence Pursuant to Section 28 of WPCO)	WT00038102-2021	4-Aug-2021 (Variation approved on 11-Dec-2023 with immediate effect)	31-Aug-2026
Marine Dumping Permit (Excavated Sediment of Category L - Suitable for Capping Exhausted Contaminated Mud Pits)	EP/MD/25-054	26-Feb-2025	25-Aug-2025
Marine Dumping Permit (Type 1 – Open Sea Disposal (Dedicated Site) and Type 2 – Confined	EP/MD/25-059	28-Mar-2025	27-Jun-2025
Disposal of Special waste at Landfills Admission Ticket (Sludge)	Admission Ticket Number: 105973	11-Mar-2025	10-Jun-2025
Disposal of Special waste at Landfills Admission Ticket (Pond Sediment)	Admission Ticket Number: 107320	1-Apr-2025	30-Jun-2025
Disposal of Special waste at Landfills Admission Ticket (Sludge)	Admission Ticket Number: 107314	13-Mar-2025	12-Sep-2025
Revised Sediment Quality Report (SQR)	(35) in EP60/G1/12-583V	6-Dec-2024	3-Dec-2025

2 AIR QUALITY

2.1 Monitoring Requirement

2.1.1 In accordance with the EM&A Manual, 1-hour Total Suspended Particulates (TSP) levels should be measured at the designated air quality monitoring stations to ensure that any deteriorating air quality could be readily detected and timely action shall be undertaken to rectify such situation. Impact 1-hour TSP monitoring was conducted for at least three times every 6 days when the highest dust impact occurs.

2.2 Monitoring Equipment

2.2.1 A portable direct reading dust meter was used to carry out the 1-hour TSP monitoring at the designated monitoring stations.

2.2.2 Wind data monitoring equipment is provided at the conspicuous locations for logging wind speed and wind direction near to the dust monitoring locations. The equipment installation location is agreed with the ER and the IEC.

2.2.3 The details of the air quality monitoring equipment used are summarized in **Table 3**.

Table 3 Air Quality Monitoring Equipment

Item	Location	Brand	Model	Equipment	Serial No.
1	AM1	Sibata	Model LD-5R	SIBATA LD-5R Digital Dust Indicator	851816, 882106
2	AM2				

2.3 Monitoring Methodology for Direct Reading Dust Meter

2.3.1 SIBATA LD-5R Digital Dust Indicator complete with appropriate sampling inlets are employed for 1-hour TSP measurement.

Measuring Procedures

a) Pulling up the air sampling inlet cover

b) Changing the Mode 0 to BG

c) Pressing Start/Stop switch

d) Turning the knob to SENSI.ADJ and press it

e) Pressing Start/Stop switch again

f) Returning the knob to the position MEASURE slowly

g) Pressing the timer set switch to set measuring time

h) Removing the cap and start the measurement

Equipment Calibration

1-hour dust meter should be calibrated at 1 year intervals. The calibration certificates are presented in **Appendix D**.

2.4 Maintenance and Calibration for Direct Reading Dust Meter

2.4.1 ET shall submit sufficient information to the IEC to prove that the instrument is capable of achieving comparable results to the HVS. The instrument should also be calibrated regularly, and the 1-hour sampling shall be determined periodically by the HVS to check the validity and accuracy of the results measured by direct reading method. The calibration certificate for the direct reading dust meter is provided in **Appendix D**.

2.5 Monitoring Locations

2.5.1 In accordance with the EM&A Manual, two air quality monitoring locations, namely AM1, AM2 are covered under Contract No. SPW 02/2023 “Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1”.

2.5.2 The most updated locations are summarized in **Table 4** and the locations of the air monitoring stations shown in **Figure 2**.

Table 4 Air Quality Monitoring Location

Monitoring Station	Location
AM1	Topfine Machinery (China) Co. Ltd
AM2	Squatter house at the west of YLSTW

2.6 Monitoring Results

2.6.1 The schedule of air quality monitoring in reporting month is provided in **Appendix E**.

2.6.2 No Action / Limit Level exceedance was recorded for 1-hr TSP at AM1 and AM2.

2.6.3 No effect that arose from the other special phenomena and work progress of the concerned site was noted during the current monitoring month.

2.6.4 The weather and meteorological conditions during the monitoring are provided in **Appendix K**.

2.6.5 The Air Quality Monitoring Results of 1-hr TSP are summarized in **Table 5**. Detailed monitoring data are presented in **Appendix F**.

Table 5 Summary of Air Quality Monitoring Results

Monitoring Station	Average ($\mu g/m^3$)	Range ($\mu g/m^3$)	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
1-hour TSP				
AM1	35	25-41	291	500
AM2	36	28-44	296	

2.6.6 The Action and Limit Levels for air quality monitoring have been set and are presented in **Appendix C**.

2.6.7 The Event and Action Plan for air quality is given in **Appendix H**.

2.6.8 The wind data obtained from the on-site wind station during the reporting period is provided in **Appendix G**.

2.7 Comparison of 1-hr TSP Monitoring Results with EIA Predictions

2.7.1 The monitoring data of 1-hr TSP was compared with the EIA predictions as summarized in **Table 6**.

Table 6 Comparison of 1-hr TSP data with EIA predictions

Monitoring Station	EIA ID	Predicted Maximum Hourly Average TSP Concentration (µg/ m^3)	Maximum 1-hr TSP Monitoring Results in May 2025 (µg/ m^3)
Content			
AM1	ASR A09	205-451	41
AM2	ASR A11		44

Notes: Predicted TSP Concentration extracted from Table 3.20 of EIA Report, AEIAR-220/2019

2.7.2 The 1-hr TSP monitoring results at AM1 and AM2 were below the Predicted Maximum Hourly Average TSP Concentration in the approved Environmental Impact Assessment (EIA) Report.

3 NOISE

3.1 Monitoring Requirement

3.1.1 In accordance with the EM&A Manual, Leq (30min) monitoring is conducted at least once a week when there are Project-related construction activities being undertaken within a radius of 300 m from the monitoring stations. The monitoring is conducted during the construction phase between 0700 and 1900 on normal weekdays at the designated monitoring locations.

3.2 Monitoring Equipment

3.2.1 As referred to the requirements of the Technical Memorandum (TM) issued under the NCO, the sound level meters in compliance with the International Electro technical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications should be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement, the accuracy of the sound level meter should be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. The measurements may be accepted as valid only if the difference between calibration levels obtained before and after the noise measurement is less than 1.0 dB (94 dB ± 0.1 dB).

3.2.2 The details of the noise monitoring equipment used are summarized in **Table 7**.

Table 7 Construction Noise Monitoring Equipment

Item	Brand	Model	Equipment	Serial No.
1	RION	NL-53	RION NL-53 Sound Level Meter	01130785
2	RION	NL-53	RION NL-53 Sound Level Meter	01130783
3	RION	NL-53	RION NL-53 Sound Level Meter	01130784
4	RION	NC-75	RION NC-75 Acoustic Calibrator	34724244
5	RION	NC-75	RION NC-75 Acoustic Calibrator	34724245
6	RION	NC-75	RION NC-75 Acoustic Calibrator	34524163

3.3 Monitoring Parameters and Frequency

3.3.1 The parameters and frequencies of impact noise monitoring is summarized in **Table 8**.

Table 8 Monitoring Parameters and Frequencies of Noise Monitoring

Parameter	Frequency
LAeq (30 min) (L10 and L90 will be recorded for reference)	At each station at 0700-1900 hours on normal weekdays at a frequency of once a week when construction activities are underway

3.4 Monitoring Methodology

3.4.1 Noise measurement should be conducted as the following procedures:

- The monitoring station will set at a point 1m from the exterior of the sensitive receivers building façade and set at a position 1.2m above the ground. (In case façade measurement is not feasible on-site, a free field correction of +3dB(A) will be applied.)

- The battery condition was checked to ensure good functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time will set as follows:
    - frequency weighting: A
    - time weighting: Fast
    - measurement time: 30 minutes
- Prior to and after noise measurement, the meter shall be calibrated using the calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement will consider invalid and repeat of noise measurement is required after re-calibration or repair of the equipment.
- Noise measurement should be paused during periods of high intrusive noise if possible and observation shall be recorded when intrusive noise is not avoided.
- Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s. Calibration certificate of the anemometer is provided in **Appendix D**.

3.5 Maintenance and Calibration

3.5.1 Maintenance and calibration procedures should also be carried out, including:

- The microphone head of the sound level meter and calibrator should be cleaned with a soft cloth at quarterly intervals.
- The sound level meter and calibrator should be calibrated annually by a HOKLAS laboratory.
- Relevant calibration certificates are provided in **Appendix D**.

3.6 Monitoring Locations

3.6.1 In accordance with the EM&A Manual, three noise monitoring locations, namely CM1, CM2 and CM3 are covered under Contract No. SPW 02/2023 “Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1”.

3.6.2 The most updated locations are summarized in **Table 9** and the locations of the noise monitoring stations shown in **Figure 3**.

Table 9 Construction Noise Monitoring Location

Monitoring Station ID	Location	Measurements
CM1	Squatter house at the north of YLSTW	Free Field
CM2	Squatter house at the west of YLSTW	Free Field
CM3	Squatter house at the east of YLSTW	Free Field

Note: Correction of +3 dB(A) shall be made to the free field measurements.

3.7 Monitoring Results

3.7.1 The schedule of noise monitoring in reporting month is provided in **Appendix E**.

3.7.2 No Action / Limit Level exceedance of location CM1, CM2 and CM3 was recorded for construction noise in the reporting month.

3.7.3 During the monitoring month, at CM2, road traffic from the squatter house at the west of Yuen Long STW was observed, at CM3, road traffic from the Nam Sang Wai Road was observed. No effect that arose from the other special phenomena and work progress of the concerned site for CM1 was noted during the current monitoring month.

3.7.4 No raining and wind with speed over 5 m/s was observed during noise monitoring according to the onsite observation. The weather and meteorological conditions during the monitoring month are provided in **Appendix K**.

3.7.5 The Construction Noise Monitoring Results are summarized in **Table 10**. Detailed monitoring data are presented in **Appendix F**.

Table 10 Summary of Construction Noise Monitoring Results

Time Period	Noise Monitoring Stations	Leq (30min) dB(A) (Range)	Action Level	Limit Level dB(A)
0700-1900 hrs on normal weekdays	CM1	54.5 – 60.2	When one documented complaint is received	75
	CM2	58.2 – 61.2		75
	CM3	55.2 – 57.8		75

Remark: CM1, CM2 and CM3: Free-field measurement (+3 dB(A) correction has been applied).

3.7.6 The Action and Limit Levels for Construction Noise have been set and are presented in **Appendix C**.

3.7.7 The Event and Action Plan for Construction Noise is given in **Appendix H**.

3.8 Comparison of Noise Monitoring data with EIA Predictions

3.8.1 The noise monitoring data was compared with the EIA predictions as summarized in **Table 11**.

Table 11 Comparison of Noise monitoring data with EIA predictions

Monitoring Station	EIA ID	Maximum Predicted Mitigated Construction Noise Level L_{eq} (30min) dB(A)	Maximum Construction Noise Level in May 2025 L_{eq} (30min) dB(A)
CM1	NSR1	72	60.2
CM2	NSR2	74	61.2
CM3	NSR3	75	57.8

Notes: Predicted TSP Concentration extracted from Table 4.9 of EIA Report, AEIAR-220/2019

3.8.2 The construction noise monitoring results at CM1, CM2 and CM3 were below the Maximum Predicted mitigated Construction Noise Level in the approved Environmental Impact Assessment (EIA) Report (Register No.: AEIAR-220/2019).

4 WATER QUALITY

4.1 Monitoring Requirement

4.1.1 In accordance with the EM&A Manual, impact monitoring is conducted for three days per week at mid-flood and mid-ebb with sampling and measurement at the designated monitoring stations.

4.2 Monitoring Equipment

4.2.1 Equipment used for in-situ measurement and water sampling during impact water quality monitoring is summarised in **Table 12**. The equipment is in compliance with the requirements set out in the EM&A Manual. All in-situ monitoring instruments were calibrated by a HOKLAS- accredited laboratory. Calibration of temperature, DO, salinity, pH and turbidity is conducted in three-month interval. Calibration certificates for the water quality monitoring equipment are attached in **Appendix D**.

Table 12 Water Quality Monitoring and Sampling Equipment

Parameter	Equipment	Model	Range	Equipment Accuracy	Serial No.
Temperature Dissolved Oxygen Salinity pH Turbidity	YSI Water Quality Multiparameter Sonde	Xylem ProDSS	Tem: -5 to 50°C DO: 0-50mg/L DO%: 0-500% Sal: 0 to 70ppt pH: 0 to 14 pH units Turb: 0- 4000NTU	Temp: ±0.2°C; DO: ±0.1mg/L or 1% for 0-20mg/L; ±8% for 20-50mg/L Sal: ±1% of reading or 0.1 ppt (whichever is greater) pH: ±0.2 units Turb: ±3% or 0.3NTU (FNU) (whichever greater)	22D100436
Current Velocity and Direction	Current Meter	Valeport Model 106	Speed: 0.03 to 5 m/s Direction: 0 to 360	Speed: ± 1.5% of reading above 0.15m/s, ± 0.004 m/s below 0.15m/s Direction: ± 2.5o	N/A
Water Sampling	Water Sampler	Aquatic Research Instruments 2.2L Horizontal Water Sampler HWS2.2CP	N/A	N/A	N/A
Positioning	DGPS	GARMIN GPSMAP 78s	N/A	GPS: ±1m	N/A
Water Depth	Echo Sounder	Garmin ECHO 101	Maximum depth: 457.2 m	0.1 m	N/A

4.3 Equipment Calibration

4.3.1 All in-situ monitoring instruments shall be checked, calibrated and certified by a laboratory accredited under HOKLAS before use and subsequently re-calibrated at three monthly intervals throughout all stages of the water quality monitoring programme. Responses of sensors and electrodes shall be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring location.

4.3.2 Sufficient stocks of spare parts shall be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring is uninterrupted even when some equipment is under maintenance or calibration etc.

4.4 Monitoring Parameters

The monitoring parameters and frequency for both in-situ measurement and laboratory analysis are summarised in **Table 13**.

Table 13 Monitoring Parameters and Frequency

Parameters	Monitoring Frequency
In-situ Measurement Turbidity (in NTU), pH, DO (in mg/L and % of saturation), Temperature (in °C), Salinity (in ppt) Laboratory Analysis Suspended Solids	3 days per week, at mid-flood and mid-ebb tides (The interval between two sets of monitoring shall not be less than 36 hours.)

4.5 Monitoring Operation

4.5.1 The position of water monitoring station will be located by the Differential Global Positioning System (DGPS) or equivalent. The water depth of water monitoring station will be determined by the echo sounder affixed to the bottom of the monitoring vessel or a portable echo sounder depth detector.

4.5.2 Once the location and water depth are confirmed, water samples shall be collected at 3 depths (1m below the surface, mid-depth, and 1m above the seabed) of the water column at each location, except where water depth is less than 6m, the mid-depth will be omitted and if the water depth is less than 3m only the mid-depth station will be monitored. Duplicate marine samples will be collected in each sampling event. The water samples are decanted from the water sampler into the water sample bottles. The bottles are labelled, tightly sealed, placed into a cool-box and packed with ice ready for delivery to the laboratory.

4.5.3 Two consecutive measurements of water quality data, including pH, salinity, dissolved oxygen and turbidity will be recorded according to the monitoring locations. Separate deployment of the monitoring instruments and water samplers will be conducted for the consecutive measurements or samplings. The monitoring location / position, time, water depth, sampling depth, tidal stages, weather conditions, sea condition and any special phenomena or work underway nearby shall also be recorded. If the difference in value between the first and second measurement of DO or turbidity parameters is more than 25% of the value of the first reading, the reading shall be discarded and further readings should be taken.

4.6 Laboratory Measurement / Analysis

Background

4.6.1 Acumen Laboratory and Testing Limited (HOKLAS Reg: No.241) has been appointed to conduct the laboratory measurement or analysis of water sample in this project.

Quality Assurance / Quality Control

4.6.2 The laboratory incorporates a variety of QA/QC monitoring programme into their testing system. Where applicable or available, the quality of the analysis will be monitored by conducting the following QC analysis:

For each batch of 20 samples:

- A minimal of 1 laboratory method blank will be analyzed;
- A minimal of 1 sample duplicate will be analyzed;
- A minimal of 1 sample matrix spike will be analyzed.

4.7 Monitoring Locations

4.7.1 In accordance with the EM&A Manual, water quality monitoring should be carried out at 3 designated monitoring locations.

4.7.2 The coordinates of the monitoring location stated in the EM&A Manual is summarised in **Table 14** and the locations of the water quality monitoring stations shown in **Figure 4**.

Table 14 Coordinates of Water Quality Monitoring Locations

Sampling Location		Easting	Northing
M1	Serve as the control station at upstream location of construction site (Flood Tide) / Serve as the impact station at downstream location of construction site (Ebb Tide)	821 086	836 656
M2	Serve as the impact station at downstream location of construction site (Flood Tide)/ Serve as the control station at upstream location of construction site (Ebb Tide)	820 996	836 246
M3	Serve as the impact station at downstream location of construction site (Flood Tide) / Serve as the control station at upstream location of construction site (Ebb Tide)	820 645	820 335

4.8 Monitoring Results

4.8.1 The schedule of water quality monitoring in reporting month is provided in **Appendix E**.

4.8.2 Impact water quality monitoring was conducted at all designated monitoring stations in the reporting month. Impact water quality monitoring results and graphical presentations are provided in **Appendix F**.

4.8.3 The weather and meteorological conditions during the monitoring are provided in **Appendix K**.

4.8.4 Number of Action/ Limit exceedance recorded in the reporting month at each impact stations is summarized in **Table 15**.

Table 15 Summary of Water Quality Exceedance

Sampling Location	Exceedance Level	DO		Turbidity		Suspended Solids		Total	
		Flood	Ebb	Flood	Ebb	Flood	Ebb	Flood	Ebb
M1	Action	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0
M2	Action	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0
M3	Action	0	0	0	0	0	0	0	0
	Limit	0	0	0	0	0	0	0	0
Total	Action	0	0	0	0	0	0	0	
	Limit	0	0	0	0	0	0	0	

4.8.5 During the reporting period, no Action and Limit Level exceedance was recorded for water quality monitoring.

4.8.6 The Event and Action Plan for water quality is given in **Appendix H**.

4.9 WetSeps

Four WetSeps are deployed within the site for treatment of the site runoff prior to disposal in compliance with the conditions stipulated in the water discharge license (Variation of WPCO Discharge Licence was approved by EPD on 11 December 2023 with immediate effect).

5 ECOLOGY MONITORING

5.1 Ardeid Night Roost Monitoring

5.1.1 Monitoring Requirement

With reference to the Pre-construction Ardeid Night Roost survey (January 2021) findings that identified two active ardeid night roosts within 100 m from the Project boundary (one approximately 40 m east of the Project boundary and the other one approximately 45 m northeast of the Project boundary), consequent monthly monitoring of these active ardeid night roosts was done in accordance to the **EM&A Manual Sections 7.3.10** and **7.3.11**; and **EIA Report Section 8.12.1.3**.

The Ardeid Night Roost Monitoring survey was conducted with the following objectives:

- Check the status and location of any active ardeid night roosts within 100 m from the Project boundary (Survey Area) with reference to **EM&A Manual Section 7.3.10**;
- Monitor the effectiveness of proposed mitigation measures and detect any unpredicted indirect ecological impacts arising from the proposed Project as specified in **EIA Report Section 8.12.1.3**; and
- Recommend remedial actions, where appropriate, based on the impact monitoring results (**EIA Report Section 8.12.1.3**) for the implementation of the contractor as only necessary.

5.1.2 Monitoring Methodology

5.1.2.1 Monitoring Area

With reference from **Section 7.3.10** of the **approved EM&A Manual**, the monitoring was conducted in areas within 100 m from the Project boundary. The monitoring area and vantage points for direct observation of any active night roosts are shown in **Appendix O**.

5.1.2.2 Monitoring Activity

5.1.2.2.1 Active Ardeid Night Roost

Current Ardeid Night Roost Monitoring Survey focused on the two active night roosts within the Survey Area (100 m from the Project boundary) that were previously confirmed during the pre-construction Survey. These roosts include one that was approximately 40 m east of the Project boundary and another around 45 m northeast of the mentioned boundary (**Section 3** of the **approved Pre-construction Survey Report of Ardeid Night Roost**). Primary data collection with the use of 8x and 10x binoculars; and field guides including the Avifauna of Hong Kong (Carey et al., 2001) and The Birds of Hong Kong and South China (Viney et al., 2005), was from about one hour before sunset time until one hour after sunset with reference to **Section 7.3.10** of **the approved EM&A Manual**. Sunset time was according to Hong Kong Observatory (HKO). The survey was conducted on 12 May 2025.

Species composition, abundance and locations of night roosts were recorded. Species composition, abundance and location of pre-roosting aggregations (PRA) were also noted. PRAs are gatherings of avian individuals prior to flying into a night roost (Moore and Switzer, 1998). The time of return of the ardeids to the pre-roost and the final night roost were also recorded. Direct observations were made from vantage points adjacent the Project site with clear and unobstructed view of any active roosting location (s) within the Survey Area. However, aside from the established vantage points for the focused mangrove strips along Shan Pui River, observations were also conducted throughout the whole 100 m study site to cover other areas aside from the mangrove strips.

Observations such as any changes in site condition or disturbances detected or observed at the monitoring locations, including both construction and non-construction related activities, during the monitoring activity was recorded with reference to **Section 7.3.10** of the **approved EM&A Manual**. Additionally, other observations such as bird droppings on the ground which may possibly indicate presence of night roosts were noted in addition to noting of the roosting substrate (i.e. substrate species and approximate height). Any breeding activity usage of the roosting locations within the Survey Area was also noted.

5.1.2.2.2 Noise Monitoring

Monitoring Locations, Frequency, Time and Parameters

The noise monitoring locations were established at 22°28'4.25"N, 114°1'41.32"E; and 22°28'10.43"N, 114°1'42.17"E for NMS1 and NMS2 stations, respectively. Monitoring frequency was only once a month in concurrence with the construction phase monthly monitoring of the active night roosts for correlation. Monitoring time for both stations started around 19:13, the earliest final night roost period recorded during the survey and lasted for 30 minutes. **Table 16** presents the monitoring parameters.

Table 16 Noise Monitoring Parameters (For Active Ardeid Night Roost Survey)

Parameter	Frequency and Period
LAeq (30 min) (L10 and L90 will be recorded for reference)	Monthly in concurrence with the construction phase monthly monitoring of the active night roosts

The Action and Limit Levels for Active Ardeid Night Roost Survey have been set and are presented in **Appendix C**.

However, exceedances to the limit level were endeavoured to be prevented by the full implementation of mitigation measures (**Section 4.2** of the **approved Pre-construction Survey Report of Ardeid Night Roost** and **Sections 5.2.1-5.2.2** of this **Report**) during the construction phase.

Event and Action Plan

In instances of exceedance/s in the action and/or limit levels, the different measures as specified in **Table 3.3 Event and Action Plan for Construction Noise** of the **approved EM&A Manual** and likewise presented in **Appendix H** of this report shall be implemented as responses.

5.1.3 Monitoring Results

5.1.3.1 Active Ardeid Night Roost

The monitoring activity was conducted on 12 May 2025 and started around 17:54 (one hour before sunset) on a low tide condition. During the pre-roost period (PRP), the period when avian individuals gather first before flying into a night roost, individuals of Chinese Pond *Heron Ardeola bacchus* (4), Great Egret *Ardea alba* (9), Little Egret *Egretta garzetta* (7) and Grey Heron *Ardea cinerea* (1) were observed in pre-roost aggregate (PRA) around 18:30 at the mudflat east side ANR1 of the Project boundary while individuals of Chinese Pond *Heron Ardeola bacchus* (3), Great Egret *Ardea alba* (1) and Little Egret *Egretta garzetta* (1) were concurrently noted at the mudflat northeast side ANR2 of the Project boundary (Table 17).

For the final night roost at around 19:13, individuals of Chinese Pond Heron *Ardeola bacchus* (11) and Little Egret *Egretta garzetta* (2) were observed at the roosting area ANR1 utilizing the understory to canopy layer of the roosting substrate *Sonneratia apetala* and *S. caseolaris*; while other individuals of Great Egret *Ardea alba* (2) and Little Egret *Egretta garzetta* (2) were noted at ANR2 that utilized the understory to canopy layer of the aforementioned roosting substrate.

No disturbance (construction related and/or otherwise) to the active night roost areas was observed during the period. Bird droppings were observed within the vicinity of the roosting area located east of the Project boundary.

Table 17 Active Ardeid Night Roost Survey Findings

Date: 12 May 2025			**Sunset Time: 18:54** **Tidal Condition: Low Tide**		
Pre-roost Period			**Final roost Period**		
Time of Return:	Chinese Pond Heron *Ardeola bacchus*, Great Egret *Ardea alba,* Little Egret *Egretta garzetta* and Grey Heron *Ardea cinerea* (18:30)		**Time of Return:**	Chinese Pond Heron *Ardeola bacchus*, Great Egret *Ardea alba* and Little Egret *Egretta garzetta* (19:13)	
Parameters	**Location**		**Parameters**	**Location**	
	ANR1	**ANR2**		**ANR1**	**ANR2**
Pre-roost Aggregation (Y/N):	Y	N	**Substrate Species:**	*Sonneratia apetala* and *S. caseolaris*	*Sonneratia apetala* and *S. caseolaris*
Substrate Species:	*Sonneratia apetala* and *S. caseolaris*	*Sonneratia apetala* and *S. caseolaris*	**Substrate Height (m):**	Approx. 5 m.	Approx. 3-4 m.
Substrate Height (m):	Approx. 5 m.	Approx. 3-4 m.			
Ardeid Species Composition	**Abundance (individuals)**		**Ardeid Species Composition**	**Abundance (individuals)**	
	ANR1	**ANR2**		**ANR1**	**ANR2**
Chinese Pond Heron *Ardeola bacchus*	4	3	Chinese Pond Heron *Ardeola bacchus*	11	-
Great Egret *Ardea alba*	9	1	Great Egret *Ardea alba*	-	2
Little Egret *Egretta garzetta*	7	1	Little Egret *Egretta garzetta*	2	2
Grey Heron *Ardea cinerea*	1	-	Grey Heron *Ardea cinerea*	-	-
Breeding Activity (Y/N):	**ANR1**	N			
	ANR2	N			

Notes:

Pre-roost Period: Period when avian individuals gather first before flying into a night roost

ANR1: Active ardeid night roost area east of the Project boundary

ANR2: Active ardeid night roost area northeast of the Project boundary

-: not recorded

5.1.3.2 Noise Monitoring

Noise monitoring activities were conducted on 12 May 2025 in concurrence with the construction phase monthly monitoring of the pre-identified active night roosts. Noise monitoring started at 18:54 and lasted for 30 minutes, until 19:24.

Current survey results showed noise levels (LAeq (30 min.)) at both monitoring stations to be well below the action and limit levels as presented in **Table 18**.

Table 18 Noise Monitoring Parameters (For Active Ardeid Night Roost Survey)

Frequency and Period	Location	Start Time	LAeq (30 min.)	Action Level	Limit Level
Monthly in concurrence with the construction phase monthly monitoring of the active night roosts	NMS1	19:13	53.2	65.5 dB(A)[1]	72.2 dB(A)[2]
	NMS2	19:13	51.5		

Notes:

NMS1= Noise monitoring station 1 located east of the Project boundary

NMS2= Noise monitoring station 2 located northeast of the Project boundary

[1]= Behavioural response of some kind more likely to occur (Wright et al. 2010)

[2]= Flight with abandonment of the site becomes the most likely outcome of the disturbance (Wright et al. 2010)

No Action / Limit exceedance was recorded for noise levels at stations (NMS1 and NMS2) in close proximity to the two active ardeid night roosts (ANR1 and ANR2) observed within the Survey Area during the reporting month.

5.1.4 Detection of Any Unpredicted Indirect Ecological Impacts Arising from the Project

No unpredicted indirect ecological impacts that arose from the project were noted during the current monitoring period.

5.1.5 Summary

5.1.5.1 Status and Location of Any Active Ardeid Night Roost

Two active ardeid night roost areas (ANR1 and ANR2) were observed within the Survey Area during the May 2025 monitoring period. These roosts were located at the mangrove strips in the east and northeast portions of the Project boundary. These were used by individuals of Chinese Pond Heron *Ardeola bacchus,* Great Egret *Ardea alba*, Little Egret *Egretta garzetta* and Grey Heron *Ardea cinerea.*

5.1.5.2 Noise Monitoring Results

Both noise levels at each of the monitoring stations were below the action and limit levels.

5.2 Ecological Monitoring of Birds

5.2.1 Monitoring Requirement

With reference to **Section 7.3.6** of the **EM&A Manual**, monthly ecological monitoring of birds, focusing on avifauna species of conservation interest, and overwintering waterbirds utilising wetland habitats in Fung Lok Wai and Nam Sang Wai as well as along Shan Pui River and Kam Tin River within the monitoring area (500 m from the Project Boundary)

was conducted in addition to monitoring on the utilization of wetland habitats by birds also within the same monitoring area as required by **Section 7.3.1** of the **EM&A Manual**.

5.2.2 Monitoring Methodology

5.2.2.1 Monitoring Area

The monitoring area included wetland habitats in Fung Lok Wai and Nam Sang Wai as well as along Shan Pui River and Kam Tin River within 500m from the Project boundary with reference to **Section 7.3.6** of the **EM&A Manual**. The location of point count sites and transect routes is shown in **Appendix P**.

5.2.2.2 Monitoring Activity

Avifauna surveys on the different wetland habitats using the transect count and point count methods were conducted last 19 May 2025 (daytime) which started at around 07:15. Additionally, the survey overlooking the mudflats and mangroves in the Shan Pui River was concurrently conducted on the same date with the daytime survey during the low tide (generally 1.5m or below) period, and also started at around 07:15. The methodology for the monitoring activity followed **Sections 8.3.3.6** and **8.3.3.7** of the **EIA Report (AEIAR-220/2019)** and as detailed below.

For the transect count and point count methods, the presence and relative abundance of avifauna species at various wetland habitats were recorded visually and aurally.

Avifauna species were detected either by direct sighting or by their call and identified to species level. Any notable behaviours such as feeding, roosting and breeding were also recorded. Bird species encountered outside the point count locations and walk transects were also recorded. A comprehensive list of species recorded from the Assessment Area was prepared, with wetland-dependence, conservation and/or protection status indicated. Ornithological nomenclature in this report follows Carey et al. (2001), Viney et al. (2005) and the most recent updated list from Hong Kong Bird Watching Society (HKBWS).

Noise levels were recorded with the methodology and equipment as mentioned in **Section 3.4** and **Section 3.2**, respectively, of this EM&A report. The parameter as shown in was recorded at each of the point count locations.

Table 19 Noise Monitoring Parameters

Parameter	Frequency and Period
LAeq (30 min) (L10 and L90 will be recorded for reference)	Monthly in concurrence with the monthly ecological bird monitoring at the different point count locations

In addition to recording of noise levels, any changes in site condition or disturbances detected or observed at the monitoring locations, including both construction and non-construction related activities with reference to **Section 7.3.7** of the **EM&A Manual** were also noted.

5.2.2.3 Data Analysis

For the bird communities, the monitoring results were compared to pre-construction baseline condition during the dry and wet seasons as summarized in the Baseline Bird Survey Report with reference to **Section 7.3.8** of the **EM&A Manual**. However, to further account the seasonality, monitoring results of the current month were compared to the results of the corresponding month of the baseline data.

The data for point count method and transect walk method were presented separately to account for the difference in the survey effort of the two methods. For each method, abundance and species composition of the avifauna communities during the monitoring month were summarized.

To check the presence of variation in bird abundance between baseline and impact monitoring, t-test was applied (α = 0.05). Moreover, to check the presence of variation in bird species diversity, the two-sided Hutcheson t-test was also used. The two-sided Hutcheson t-test was developed as a method to compare the diversity of two community samples using the Shannon diversity index (Hutcheson 1970). Shannon diversity index will be computed using the formula, $H' = \sum_{i=1}^{s} p_i ln p_i$ where, H' = Shannon Diversity Index; *Pi* = proportion of the population of species; *i* = number of species in sample; *ln* = natural logarithm. Shannon diversity index is used as it accounts the proportion (relative abundance) of each species; thus, it gives a better description of diversity than a plain number of species (species richness).

The Action and Limit Levels for ecological monitoring of birds have been set and are presented in **Appendix C**.

Wetland habitat utilization during the construction phase monitoring shall only be compared seasonally, hence the comparison shall only be done after all the data (dry season and wet season) were collected with reference to **Appendix 8.5** of the approved **EIA Report**.

5.2.3 Monitoring Results

5.2.4 Results of the avifauna survey on the different habitats within the monitoring area using the transect count and point count methods as conducted last 19 May 2025 (daytime) which started at around 07:15 and are presented in **Sections 5.2.3.1** and **5.2.3.2**. Meanwhile, results for the surveys overlooking the mudflats and mangroves in the Shan Pui River, with monitoring activities conducted on similar date with the daytime survey during the low tide (generally 1.5m or below) period around 07:15 had results presented in **Section 5.2.3.3**.

5.2.3.1 Abundance

5.2.3.1.1 All Avifauna Species

An overall total of 390 avifauna individuals were recorded in the monitoring area during the May 2025 monitoring period, of which 274 individuals were recorded from the point count method and 116 individuals from the transect walk method. Relative to the May 2017 baseline data (point count method = 190; and transect walk = 2), increases were noted for both the point count and transect walk methods.

Details of these findings are summarized in **Table 20**.

Table 20 Abundance of all Avifauna Species

Abundance of all Avifauna Species				
EIA Report ID	**EM&A Manual ID**	**May-17**	**May-25**	**Remarks**
Point Count Method				
P1	FLW1	3	31	+
P2	FLW2	4	2	-
P3	FLW3	6	5	-
P4	FLW4	18	16	-
P5	FLW5	13	38	+
P6	FLW6	44	28	-
P7	FLW7	22	36	+
P9	SP/NSW3	26	39	+
P10	SP/NSW2	9	19	+
P11	NSW1	36	40	+
P12	SP/NSW1	9	20	+
Total		**190**	**274**	+
Mean		**17.27**	**24.91**	+
Transect Walk Method				
Fung Lok Wai	FLW	1	53	+
Nam Sang Wai	NSW	1	20	+
YLIE-CW	YLIE-CW	0	43	+
Total		**2**	**116**	+
Mean		**0.67**	**38.67**	+

Notes:
+ increased abundance;
- decreased abundance;
= no change in abundance.

No Action / Limit exceedance was recorded for the abundance of all avifauna species (including but not limited to overwintering waterbirds) for both the point-count and transect walk method.

5.2.3.1.2 Avifauna Species of Conservation Importance

Of the 390 avifauna individuals recorded in the monitoring area during the May 2025 monitoring period, 118 individuals (point count method = 91 individuals; transect walk method = 27 individuals) were of conservation importance. With reference to May 2017 data, (point count method = 71; and transect walk = 2), an increase was noted for both point count and transect walk method. Details of these findings are summarized in **Table 21**.

Table 21 Abundance of Species of Conservation Importance

Abundance of Species of Conservation Importance				
EIA Report ID	**EM&A Manual ID**	**May-17**	**May-25**	**Remarks**
Point Count Method				
P1	FLW1	2	1	-
P2	FLW2	0	0	=
P3	FLW3	0	2	+
P4	FLW4	9	3	-
P5	FLW5	5	3	-
P6	FLW6	21	24	+
P7	FLW7	0	12	+
P9	SP/NSW3	22	25	+
P10	SP/NSW2	3	3	=
P11	NSW1	4	4	=
P12	SP/NSW1	5	2	-
Total		**71**	**91**	+
Mean		**6.45**	**8.27**	+
Transect Walk Method				
Fung Lok Wai	FLW	1	6	+
Nam Sang Wai	NSW	1	6	+
YLIE-CW	YLIE-CW	0	15	+
Total		**2**	**27**	+
Mean		**0.67**	**9**	+

Notes:
+ increased abundance;
- decreased abundance;
= no change in abundance.

No Action / Limit exceedance was recorded for the abundance of Species of Conservation Importance in both point-count and transect walk method.

5.2.3.2 Diversity (Species Richness[1] and Shannon Diversity Index[2])

5.2.3.2.1 All Avifauna Species

A total of 37 avifauna species (species richness) were recorded during the May 2025 monitoring period, of which, 34 species were recorded by the point count method while 26 species were noted by the transect walk method. Relative to the baseline data (point count method = 35 species; transect walk method = 30 species), an increase in total species richness for both transect walk count and point count methods were recorded. In terms of Shannon diversity index (H') values, current result in point count method showed a slight decrease (t-value = 1.69; t-crit = 1.97; p-value = 9.23E-02; α = 0.05) relative to the baseline reference value. The current results in the transect walk method also showed a significant increase (t-value = 42.93; t-crit = 1.98; p-value = 1.25E-72; α = 0.05) from baseline reference value. Details of these findings are summarized in **Table 22**, **Appendix F.6.1**, and **Appendix F.6.2**.

[1] actual number of species

[2] use to account the proportion (in terms of relative abundance) of each species

Table 22 Shannon Diversity Index Value of all Avifauna Species

Shannon Diversity Index Value of all Avifauna Species				
EIA Report ID	**EM&A Manual ID**	**May-17**	**May-25**	**Remarks**
Point Count Method				
P1	FLW1	1.1	1.37	+
P2	FLW2	0.69	0.69	=
P3	FLW3	1.56	1.33	-
P4	FLW4	1.9	1.96	+
P5	FLW5	2.1	2.60	+
P6	FLW6	2.23	1.21	-
P7	FLW7	1.91	1.60	-
P9	SP/NSW3	1.56	1.93	+
P10	SP/NSW2	1.68	1.98	+
P11	NSW1	2.75	2.32	-
P12	SP/NSW1	1.21	2.04	+
Overall H'		**3.13**	**3.00**	-
Species Richness		**31**	**34**	+
Transect Walk Method				
Fung Lok Wai	FLW	0	2.82	+
Nam Sang Wai	NSW	0	2.03	+
YLIE-CW	YLIE-CW	**	2.39	+
Overall H'		**0**	**3.01**	+
Species Richness		**1**	**26**	+

Notes:

** result when no species recorded; + increased Shannon diversity index (H'); - decreased Shannon diversity index (H'); = no change in Shannon diversity index (H')

No Action / Limit exceedance was recorded for the species diversity of all avifauna species in both point count and transect walk method.

5.2.3.2.2 Avifauna Species of Conservation Importance

Of the 37 avifauna species identified during the May 2025 monitoring period, 12 species were of conservation importance (point count method = 11 species; transect walk method = 6 species). Meanwhile, relative to the baseline values in May 2017 (point count method = 7 species; transect walk method = 1 species), an increase in the number of species with conservation importance was recorded in both the point count and transect walk method. In terms of Shannon diversity index (H'), a slight decrease in point count method (t-value = 1.13; t-crit = 1.98; p-value = 2.58E-01; α = 0.05) and a significant increase in transect walk method (t-value = 9.78; t-crit = 2.05; p-value = 2.30E-10; α = 0.05) were noted relative to the baseline reference values. Details of these findings are summarized in **Table 23**, and **Appendix F.6.3**.

Table 23 Shannon Diversity Index Value of Species with Conservation Importance

Shannon Diversity Index Value of Species with Conservation Importance				
EIA Report ID	**EM&A Manual ID**	**May-17**	**May-25**	**Remarks**
Point Count Method				
P1	FLW1	0.69	0	-
P2	FLW2	**	**	=
P3	FLW3	**	0.69	+
P4	FLW4	0.68	1.10	+
P5	FLW5	1.33	1.10	-
P6	FLW6	1.13	0.82	-
P7	FLW7	**	0	+
P9	SP/NSW3	1.08	0.96	-
P10	SP/NSW2	1.1	0.64	-
P11	NSW1	1.39	1.04	-
P12	SP/NSW1	0.5	0.69	+
Overall H'		**1.72**	**1.57**	-
Species Richness		**7**	**11**	+
Transect Walk Method				
Fung Lok Wai	FLW	0	1.33	+
Nam Sang Wai	NSW	0	0.69	+
YLIE-CW	YLIE-CW	**	1.34	+
Overall H'		**0**	**1.48**	+
Species Richness		**1**	**6**	+

Notes:

** result when no species recorded; 0 computation result from only one recorded species;

+ increased Shannon diversity index (H'); - decreased Shannon diversity index (H'); = similar Shannon diversity index (H')

No Action / Limit exceedance was recorded for the species diversity of avifauna species with conservation importance in both point count and transect walk method.

5.2.3.3 Wetland Habitat Utilization

Avifauna communities were observed during the current monitoring period in the different wetland habitats, i.e. mangrove, modified watercourse, ponds, and reed bed.

With reference to **Section 7.3.1** of the **EM&A Manual**, the utilization of the wetland habitats by birds within the monitoring area was recorded and monitored.

5.2.3.3.1 All Avifauna Species

During the current monitoring period, majority of the different wetland habitats were observed with Very Low (VL) abundance. In terms of species richness, different wetland habitats were generally observed with Low (L) or Moderate (M) number of species (**Table 24**).

Table 24 Wetland habitat utilization of all avifauna species

Wetland Habitats	Area Description	Abundance[1]	Species Richness[2]
Modified Watercourse	Confluence of Shan Pui River and Kam Tin River	VL	L
	Shan Pui River adjacent to Project site	VL – L	H
	Upper course of Shan Pui River along YLIE	VL	M
Ponds	Active Ponds adjacent to Project site in Fung Lok Wai	VL	L
	Active Ponds North to Nullah 2 in Fung Lok Wai	L	M
	Inactive Ponds in Fung Lok Wai	VL – L	H – VH
	Active and Inactive Ponds in Nam Sang Wai	VL	L – M
Mangrove	Mangrove within Assessment Area	-	-
Reedbed	Reedbed in Nam Sang Wai	-	-

Notes:

1. Abundance of all avifauna species amongst wetland habitats within the assessment area: VL = Very Low (~<50 individuals); L = Low (~100 individuals); M = Moderate (~300 individuals); H = High (~500 individuals), VH = Very High (>700 individuals)
2. Species richness (total number of species) amongst wetland habitats within the assessment area: VL = Very Low (⩽5 species); L = Low (~10 species); M = Moderate (~15 species); H = High (~20 species), VH = Very High (>25 species)

-: no recorded individuals

Source: approved EIA Report (AEIAR-220/2019)

5.2.3.3.2 Avifauna Species of Conservation Importance

Majority of the different wetland habitats had Very Low (VL) abundance of avifauna species of conservation importance; and were generally utilized by Very Low (VL) number of species (**Table 25**).

Table 25 Wetland habitat utilization of avifauna species of conservation importance

Wetland Habitats	Area Description	Abundance[1]	Species Richness[2]
Modified Watercourse	Confluence of Shan Pui River and Kam Tin River	VL	VL
	Shan Pui River adjacent to Project site	VL	VL
	Upper course of Shan Pui River along YLIE	VL	VL
Ponds	Active Ponds adjacent to Project site in Fung Lok Wai	VL	VL
	Active Ponds North to Nullah 2 in Fung Lok Wai	VL	VL
	Inactive Ponds in Fung Lok Wai	VL	VL – L
	Active and Inactive Ponds in Nam Sang Wai	VL	VL
Mangrove	Mangrove within Assessment Area	-	-
Reedbed	Reedbed in Nam Sang Wai	-	-

Notes:

1. Abundance of avifauna species of conservation importance amongst wetland habitats within the assessment area: VL = Very Low (~<50 individuals); L = Low (~100 individuals); M = Moderate (~300 individuals); H = High (~500 individuals), VH = Very High (>700 individuals)
2. Species richness (total number of species) amongst wetland habitats within the assessment area: VL = Very Low (⩽5 species); L = Low (~10 species); M = Moderate (~15 species); H = High (~20 species), VH = Very High (>25 species)

-: no recorded individuals

Source: approved EIA Report (AEIAR-220/2019)

5.2.3.4 Noise Levels

Noise levels LAeq (30 min) recorded on 19 May 2025 (daytime) from each of the point count locations during the ecological bird monitoring are shown in **Table 26**.

Table 26 Noise Monitoring Results (For Ecological Monitoring of Birds)

Frequency and Period	Location	Day time (19/05/2025)	
		Start Time	LAeq (30 min) dB(A)
Monthly in concurrence with the ecological monitoring of birds	FLW1/ P1	07:31	51.6
	FLW2/ P2	08:09	53.2
	FLW3/ P3	08:46	52.4
	FLW4/ P4	07:21	52.9
	FLW5/ P5	07:59	51.6
	FLW6/ P6	08:42	53.2
	FLW7/ P7	09:19	52.9
	SP/NSW3/ P9	07:33	58.5
	SP/NSW2/ P10	08:07	57.5
	NSW1/ P11	08:41	58.4
	SP/NSW1/ P12	09:30	57.1

No Action / Limit exceedance was recorded for noise levels at all stations for the ecological monitoring of birds in the reporting month.

6 LANDSCAPE AND VISUAL

6.1 Audit Requirements

According to the EM&A Manual, a Landscape Architect or related professional shall be employed to audit the implementation of landscape construction works particularly during site clearance operations when the proposed tree felling and transplanting will take place and subsequent maintenance operations. Site audits should be undertaken every week during the construction phase to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. The mitigation measure recommended in the EIA Report as the audit requirements for landscape and visual, including: preservation of existing vegetation, transplanting of affected trees, compensatory tree planting, control of night-time lighting glare, erection of decorative screen hoarding and management of construction activities and facilities are summarized in **Appendix J**.

6.2 Results and Observations

To monitor and audit the implementation of landscape and visual mitigation measures, four weekly landscape and visual site audits were carried out on 8, 13, 21 and 28 May 2025.

No outstanding issues were reported during the reporting month. The ET Leader's Site Environmental Audit are summarized in **Appendix M**.

7 LAND CONTAMINATION

7.1 Contamination Assessment Report

7.1.1 Risk-Based Remediation Goals (RBRGs) for Industrial have been adopted for the “Main Storeroom & Workshops” and the laboratory results for the sampling works (conducted between 30 June 2021 to 16 July 2021) show that there are no exceedances of the adopted RBRGs for the “Main Storeroom & Workshops”. As no contaminated soil and groundwater was found within the “Main Storeroom & Workshops”, no remediation actions are required for contaminated soil and groundwater for the scheduled land use of the “Main Storeroom & Workshops”. Their findings are summarized in Contamination Assessment Report (CAR) and submitted to EPD on 1 November 2021.

7.1.2 Risk-Based Remediation Goals (RBRGs) for Industrial have been adopted for the “Mechanical Workshop” and the laboratory results for the sampling works (conducted between 23 July 2021 to 4 August 2021) show that there are no exceedances of the adopted RBRGs for the “Mechanical Workshop”. As no contaminated soil and groundwater was found within the “Mechanical Workshop”, no remediation actions are required for contaminated soil and groundwater for the scheduled land use of the “Mechanical Workshop”. Their findings are summarized in Contamination Assessment Report (CAR) and submitted to EPD on 23 November 2021.

7.1.3 Risk-Based Remediation Goals (RBRGs) for Industrial have been adopted for the “Waste Storage Area” and the laboratory results for the sampling works (conducted between 24 November 2021 to 6 January 2022) show that there are no exceedances of the adopted RBRGs for the “Waste Storage Area”. As no contaminated soil and groundwater was found within the “Waste Storage Area”, no remediation actions are required for contaminated soil and groundwater for the scheduled land use of the “Waste Storage Area”. Their findings are summarized in Contamination Assessment Report (CAR) and submitted to EPD on 29 April 2022.

7.1.4 Risk-Based Remediation Goals (RBRGs) for Industrial have been adopted for the “SAS Thickener House-1” and the laboratory results for the sampling works (conducted between 13 April 2022 to 16 May 2022) show that there are no exceedances of the adopted RBRGs for the “SAS Thickener House-1”. As no contaminated soil and groundwater was found within the “SAS Thickener House-1”, no remediation actions are required for contaminated soil and groundwater for the scheduled land use of the “SAS Thickener House-1” . Their findings are summarized in Contamination Assessment Report (CAR) and submitted to EPD on 6 July 2022.

7.1.5 Risk-Based Remediation Goals (RBRGs) for Industrial have been adopted for the “SAS Thickener House-2” and the laboratory results for the sampling works (conducted between 15 February 2023 to 23 February 2023) show that there are no exceedances of the adopted RBRGs for the “SAS Thickener House-2”. The laboratory results are compared against the adopted RBRGs and soil saturation limit (Csat) for soil samples and the adopted RBRGs and the solubility limits for groundwater samples. No exceedance of RBRG are recorded for both soil samples and groundwater samples. Furthermore, no exceedance of the soil saturation limit are recorded for soil samples. However, the exceedances of solubility limits for PCRs (C9-C16) are recorded for groundwater samples collected at BH-18, BH-19, BH-20 and BH-21; and also PCRs (C17-C35) for BH-21. As no non-aqueous phase liquid (NAPL) was observed during sampling, no further sampling and remediation are required. As no contaminated soil and groundwater is found within the

"SAS Thickener House-2", no remediation actions are required for contaminated soil and groundwater for the scheduled land use of the "SAS Thickener House-2". Their findings are summarized in Contamination Assessment Report (CAR) which was certified by ET Leader and verified by IEC on 31 May 2023 and submitted to EPD on 19th June 2023.

7.1.6 Risk-Based Remediation Goals (RBRGs) for Industrial have been adopted for the "Screening Press House" and the laboratory results for the sampling works (conducted between 19 August 2024 to 20 August 2024) show that there are no exceedances of the adopted RBRGs for the "Screening Press House". As no contaminated soil and groundwater was found within the "Screening Press House", no remediation actions are required for contaminated soil and groundwater for the scheduled land use of the "Screening Press House". Their findings are summarized in Contamination Assessment Report (CAR) and submitted to EPD on 29 October 2024.

8 SITE INSPECTION AND AUDIT

8.1 Site Inspection

8.1.1 Site audits were carried out by ET on weekly basis at least once per week to monitor the implementation of proper environmental management practices and mitigation measures in the Project site.

8.1.2 In the reporting month, four site inspections were carried out on 8, 13, 21 and 28 May 2025.

8.1.3 No outstanding issues were reported during the reporting month. The ET Leader's Site Environmental Audit are summarized in **Appendix M**.

8.2 Advice on the Solid and Liquid Waste Management Status

8.2.1 The Contractor registered as a chemical waste producer for the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.

8.2.2 The management of waste generated by the construction is presented in **Table 27**.

Table 27 Waste Generated by the Construction and Disposal Ground

Types of Waste	Disposal Ground
Inert C&D Waste (Excluding slurry and bentonite)	Tuen Mun Area 38
Inert C&D Waste (For slurry and bentonite)	Tseung Kwan O Area 137
Non-inert C&D Materials	North East New Territories Landfill (NENT)
Sludge	West New Territories Landfill (WENT)
Marine Sediment	Type 1 – Open Sea Disposal: South Cheung Chau Open Sea Sediment Disposal Area Type 1 – Open Sea Disposal (Dedicate Site) and Type 2 – Confined Marine Disposal: Contaminated Mud Pit Vb of the Confined Marine Disposal Facilities to the East of Sha Chau

8.2.3 The monthly summary of waste flow table is detailed in **Appendix I**.

8.2.4 If off-site disposal is required, the excavated marine mud from the land-based works shall be disposed of at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee or other locations as agreed by the Director. The Contractor shall ensure no spilling and overflowing of materials during loading / unloading / transportation is allowed.

8.2.5 The Contractor was reminded that chemical waste should be properly handled temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packing, Labelling and Storage of Chemical Waste.

9 NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

9.1 Non-compliance (Exceedances of AL levels)

9.1.1 No Action / Limit Level exceedance was recorded for 1-hr TSP level at AM1 and AM2 in the reporting month.

9.1.2 No Action / Limit Level exceedance was recorded for construction noise at CM1, CM2 and CM3 in the reporting month.

9.1.3 No Action and Limit Level exceedance were recorded for water quality at M1, M2 and M3 in the reporting month.

9.1.4 No Action / Limit exceedance was recorded for noise levels at stations (NMS1 and NMS2) in close proximity to the active ardeid night roosts in the reporting month.

9.1.5 No Action / Limit exceedance was recorded for the ecological monitoring of birds in the reporting month.

9.1.6 No corrective actions were required according to the Event and Action Plans for the Monitoring Parameters.

9.2 Complaints, Notification of Summons and Successful Prosecutions

9.2.1 No environmental complaints, notification of summons and successful prosecutions was recorded in the reporting month.

9.2.2 Cumulative complaint log, summaries of complaints, notification of summons and successful prosecutions are presented in **Appendix L**.

9.2.3 No corrective actions were required.

10 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURE

10.1 Implementation Status of Environmental Protection and Pollution Control / Mitigation Measures

The Contractor had implemented environmental protection and pollution control / mitigation measures as stated in the EIA Report, the EP and EM&A Manual. **Appendix J** summarized the Implementation Status of Environmental Mitigation Measures.

Further to the variation of the Environmental Permit (EP) (EP No. EP-565/2019/A) issued by EPD on 26 November 2024, the tides predicted by the Hong Kong Observatory for the tidal station at Tsim Bei Tsui for the upcoming month is presented in **Appendix Q**.

The status of required submissions under the EP as of the reporting period are summarized in **Table 28**.

Table 28 Status of submissions required under the EP

EP Condition (EP-565/2019/A)	Submission Title	Submission Status
Condition 2.9	Construction Phase Emergency Response Plan	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 2.11	Pre-construction Ardeid Night Roost Survey Report	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
EM&A Manual Sec. 7.3.3 & 7.3.4	Baseline Bird Survey Report	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 2.12	Noise Mitigation Measures Plan	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 2.13	Proposal for Minimization of Overspill Light to Ecological Sensitive Areas	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 2.14	Supplementary Contamination Assessment Plan	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 2.14	Contamination Assessment Report for Main Storeroom & Workshops	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 2.14	Contamination Assessment Report for Mechanical Workshop	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 2.14	Contamination Assessment Report for Waste Storage Area	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.

EP Condition (EP-565/2019/A)	Submission Title	Submission Status
Condition 2.14	Contamination Assessment Report for SAS Thickener House-1	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 2.14	Contamination Assessment Report for SAS Thickener House-2	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 2.14	Contamination Assessment Report for Screening Press House	Certified by ET Leader and verified by IEC on 14 Oct 2024 and submitted to EPD on 29 Oct 2024, to be finalised and made available for public inspection via the dedicated website.
Condition 2.15	Landscape and Visual Mitigation Plan	Submitted to EPD with ET certification and IEC verification, to be finalised and made available for public inspection via the dedicated website.
Condition 3.3	Baseline Monitoring Report	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 3.4	Monthly EM&A Report (from April 2021 to April 2025)	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 3.5	Quarterly EM&A Report (from April 2021 to March 2025)	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.
Condition 4.2	Environmental Monitoring Data from April 2021 to April 2025	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.

11 FUTURE KEY ISSUES

11.1 Construction Programme for the Next Three Months

- Fixing GRC panel at CLP Substation
- pipeworks and manhole installation at emergency bypass chamber
- ABWF and E&M works at IW
- Remaining ELS and RC works at IW
- ABWF and E&M works at PST
- ELS work and RC work at SDB
- Predrill works at ADB
- External works at site-wide include water meter cabinet
- ELS work and RC structure at AGS
- RC structure at TTS
- ABWF and E&M work at STB
- Demolish Existing SDT 1-4 and Gas Holder GH2
- RC structure at Sludge Digester no. 1-3 with PP1
- ELS work at Sludge Digester no. 4-6
- RC work at Biogas Holder no. 2-3 foundation

11.2 Key Issues for the Coming Month

Potential environmental impacts arising from the above construction activities are mainly associated with construction dust, construction noise, waste management, ecology, land contamination and landscape and visual impact issues.

11.3 Monitoring Schedules for the next three months

The tentative schedule for environmental monitoring in the next three months is provided in **Appendix E**.

12 CONCLUSION AND RECOMMENDATION

12.1 Conclusions

12.1.1 1-hour TSP impact monitoring was carried out in the reporting month. No Action / Limit Level exceedance at AM1 and AM2 was recorded during the period.

12.1.2 Construction noise monitoring was carried out in the reporting month. No Action / Limit Level exceedance at CM1, CM2 and CM3 was recorded during the period.

12.1.3 No Action and Limit Level exceedance was recorded for water quality at M1, M2 and M3 in the reporting month.

12.1.4 Ardeid night roost monitoring was carried out in the reporting month. Two active ardeid night roost areas (ANR1 and ANR2) were observed within the Survey Area. These roosts were located at the mangrove strips in the east and northeast portions of the Project boundary. No Action / Limit Level exceedance at NMS1 and NMS2 was recorded during the period.

12.1.5 Ecological bird monitoring was carried out in the reporting month. No Action / Limit exceedance for the ecological monitoring of birds in the reporting month.

12.1.6 Four environmental site inspections were carried out in the reporting month. Recommendations on mitigation measures for air quality impact, chemical waste and construction waste management and permit/ licenses were given to the Contractor for remediating the deficiencies identified during the site inspections.

12.1.7 Four landscape and visual site audits were carried out in the reporting month. No recommendations on mitigation measures were given to the Contractor for remediating the deficiencies identified during the site inspections.

12.1.8 No environmental complaint, notification of summons and successful prosecution was recorded in the reporting month.

12.2 Comment and Recommendations

12.2.1 The recommended environmental mitigation measures, as proposed in the EIA report and EM&A Manual shall be effectively implemented to minimize the potential environmental impacts from the Project. The EM&A programme would effectively monitor the environmental impacts generated from the construction activities and ensure the proper implementation of mitigation measures.

12.2.2 According to the environmental site inspections performed in the reporting month, the following recommendations were provided:

Air Quality Impact

- Open stockpiles at SDT should be avoided or covered.

Construction Noise Impact

- The Contractor was remaindered to enclose the silentup at northwest of the Site.

Water Quality Impact

- No specific observation was identified in the reporting month.

Chemical Waste and Construction Waste Management

- No specific observation was identified in the reporting month.

Land Contamination

- The drip trays should be checked and cleaned regularly

Ecological Impact

- No specific observation was identified in the reporting month.

Landscape and Visual Impact

- No specific observation was identified in the reporting month.

Hazard to Life

- No specific observation was identified in the reporting month.

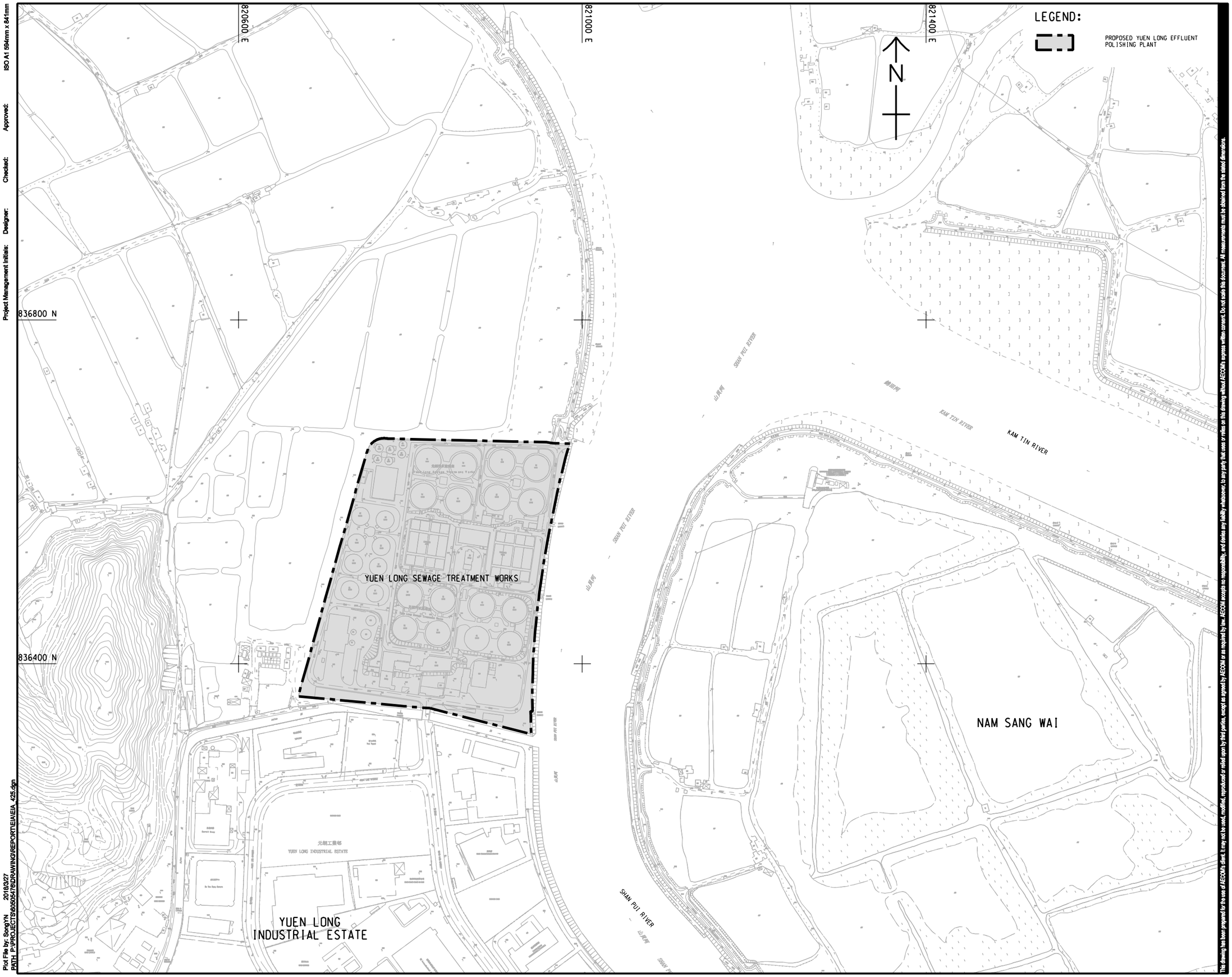
Permit/ Licenses

- NRMM label should be provided for the excavator at AGS.

Other

- No specific observation was identified in the reporting month.

Figure 1 Location of Proposed Yuen Long Effluent Polishing Plant



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PROJECT 項目

YUEN LONG EFFLUENT POLISHING PLANT - INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT 業主

渠務署
Drainage Services Department

CONSULTANT 工程顧問公司

AECOM Asia Company Ltd.
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I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核核

STATUS 階段

SCALE 比例
A1 1 : 2000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖

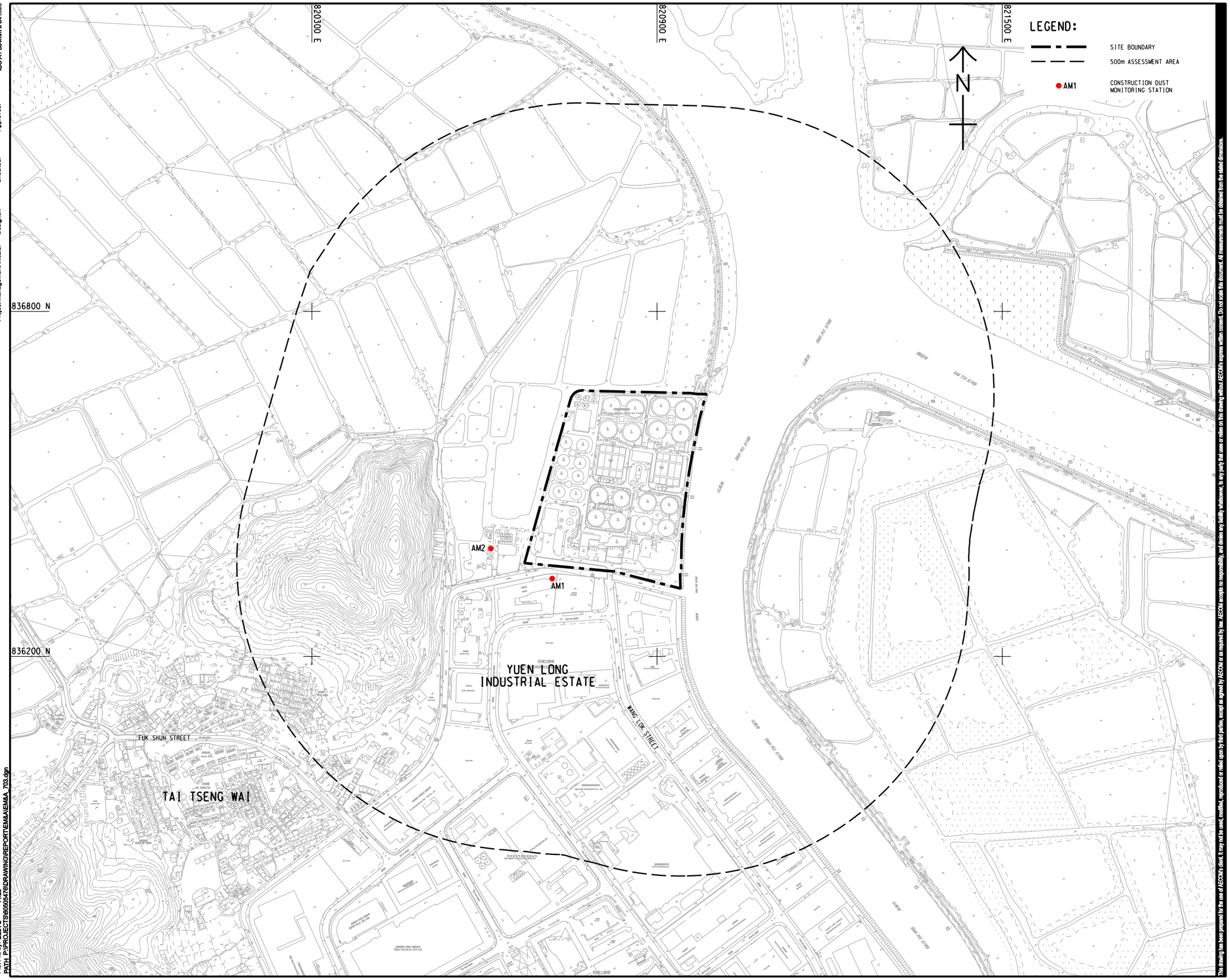
PROJECT NO. 項目編號
60505476

CONTRACT NO. 合約編號
CE 3/2015 (DS)

SHEET TITLE 圖紙名稱
LOCATION OF PROPOSED YUEN LONG EFFLUENT POLISHING PLANT

SHEET NUMBER 圖紙編號

Figure 2 Location of Construction Dust Monitoring Stations



ISO A1 594mm x 841mm

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SCALE 比例
A1 1 : 3000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖

PROJECT NO. 項目編號
60505476

CONTRACT NO. 合約編號
CE 3/2015 (DS)

SHEET TITLE 圖紙名稱

LOCATION OF CONSTRUCTION DUST MONITOING STATIONS

SHEET NUMBER 圖紙編號

Figure 3 Noise Monitoring Locations

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

820500 E

820900 E

821300 E

836700 N

836300 N

CM1

CM2

CM3

LEGEND:

SITE BOUNDARY

300m ASSESSMENT AREA

NOISE MONITORING POINT

N

SHAN PUI RIVER

山貝河

KAM TIN RIVER

錦田河

元朗污水處理廠
Yuen Long Sewage Treatment Works

元朗工業邨
YUEN LONG INDUSTRIAL ESTATE

YUEN LONG
INDUSTRIAL ESTATE

WANG LOK STREET

WANG LEE STREET

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YUEN LONG EFFLUENT POLISHING PLANT - INVESTIGATION, DESIGN AND CONSTRUCTION

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SCALE 比例
A1 1 : 2000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60505476

CONTRACT NO. 合約編號
CE 3/2015 (DS)

SHEET TITLE
圖紙名稱

LOCATIONS OF NOISE MONITORING POINTS

SHEET NUMBER
圖紙編號

Figure 4 Water Quality Monitoring Locations

ISO A1 594mm x 841mm

Project Management Initials: Designer: Checked: Approved:

820400 E

821000 E

837200 N

836600 N

836000 N

LEGEND:

- SITE BOUNDARY
- 500m ASSESSMENT AREA
- PONDS
- WATER BODIES
- EXISTING AND PLANNED SEWAGE OUTFALL
- MONITORING STATION

N

M1

M2

M3

KAM TIN RIVER

SHAN PUI RIVER

YUEN LONG INDUSTRIAL ESTATE

MANG LOK STREET

FUK SHUN STREET

TAI TSENG WAI

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YUEN LONG EFFLUENT POLISHING PLANT - INVESTIGATION, DESIGN AND CONSTRUCTION

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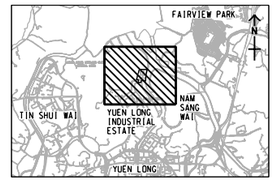
狀況

SCALE 比例
A3 1 : 6000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN 索引圖 A3 1 : 180000



PROJECT NO. 項目編號
60505476

CONTRACT NO. 合約編號
CE 3/2015 (DS)

SHEET TITLE
圖紙名稱

LOCATIONS OF WATER QUALITY MONITORING STATIONS FOR CONSTRUCTION PHASE

SHEET NUMBER
圖紙編號

Figure 5 Ecology Monitoring Locations

ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:

820300 E

820900 E

821500 E

836800 N

836200 N

LEGEND:

SITE BOUNDARY

500m ASSESSMENT AREA

SURVEY TRANSECTS

POINT COUNT LOCATIONS FOR AVIFAUNA SURVEY

N

FLW1

FLW2

FLW3

FLW4

FLW5

FLW6

FLW7

SP/NSW1

SP/NSW2

SP/NSW3

NSW1

FUNG LOK WAI

TAI SANG WAI

NAM SANG WAI

YUEN LONG SEWAGE TREATMENT WORKS

YUEN LONG INDUSTRIAL ESTATE

NG UK TSUEN

LEON COURT

TAI TSENG WAI

FUK SHUN STREET

WANG LOK STREET

SHAN PUI RIVER

KAM TIN RIVER

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STATUS
狀況

SCALE 比例
A1 1 : 3000

DIMENSION UNIT 尺寸單位
METRES

KEY PLAN
索引圖

PROJECT NO. 項目編號
60505476

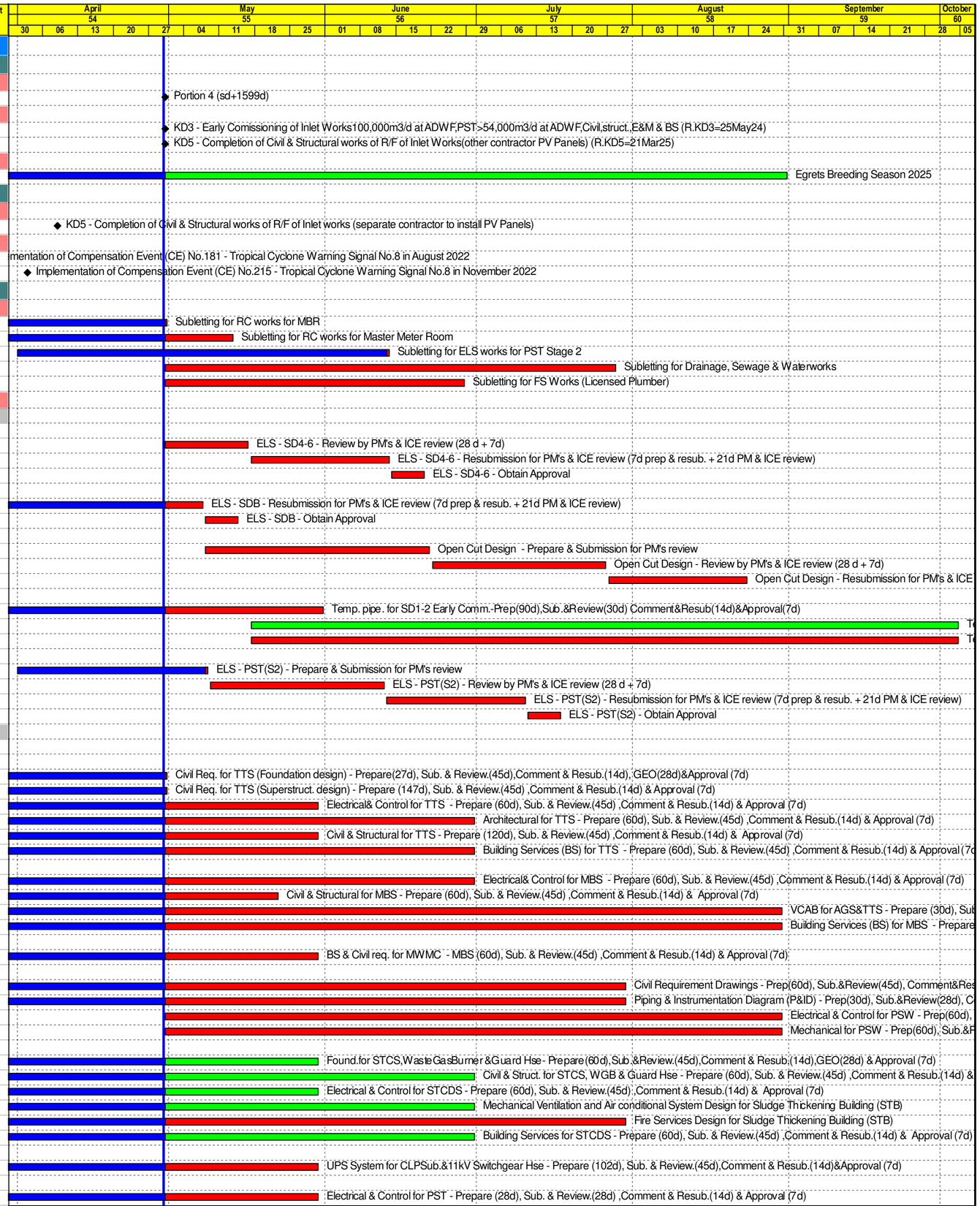
CONTRACT NO. 合約編號
CE 3/2015 (DS)

SHEET TITLE
圖紙名稱
ECOLOGICAL MONITORING LOCATIONS

SHEET NUMBER
圖紙編號

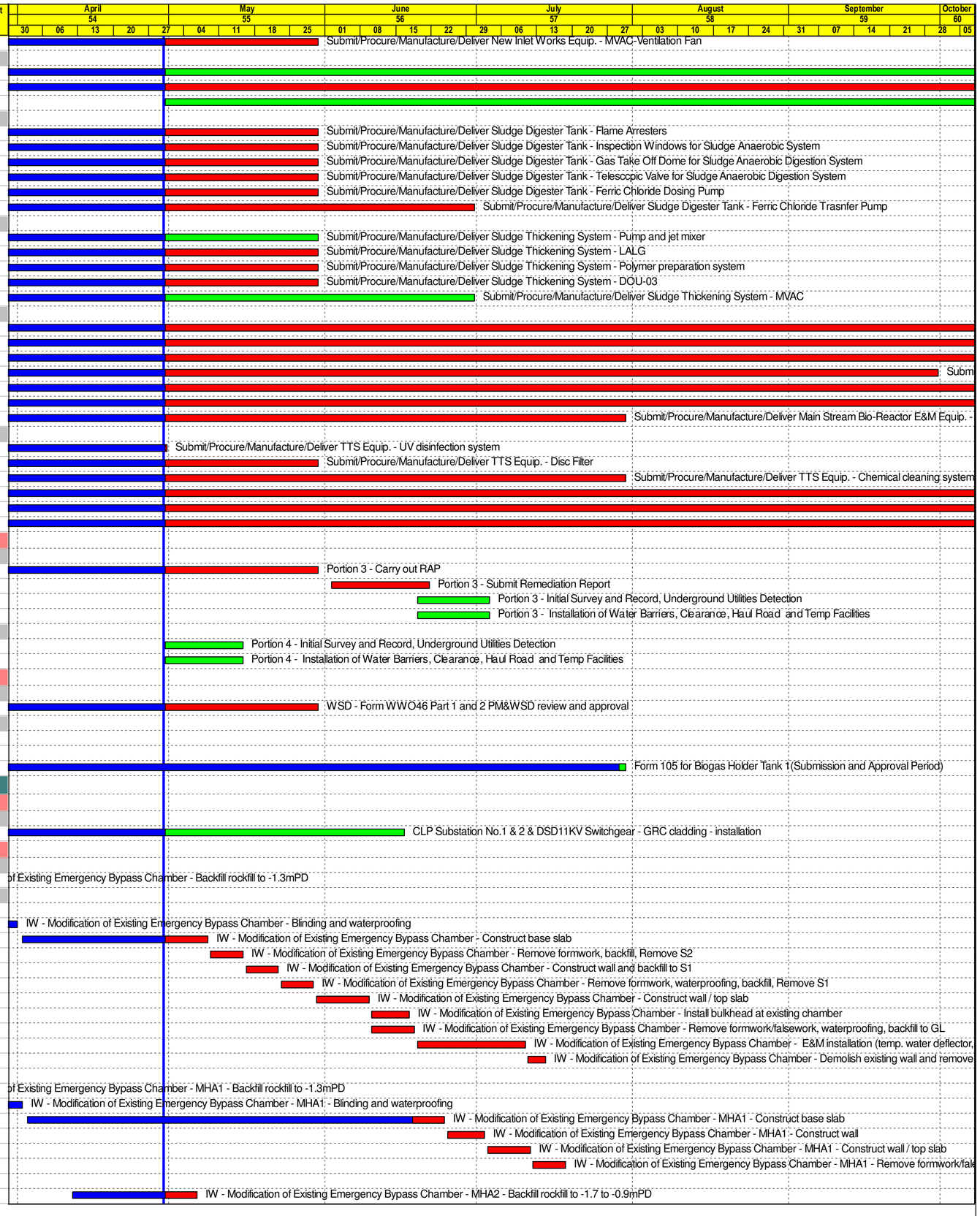
Appendix A
Construction Programme

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
YLEPP Stage 1 - Detailed Works Programme DPv49					
Contract Data Part 1					
Access Dates					
ADP4	Portion 4 (sd+1599d)	0	30-Apr-25*		-34
Contract Key Dates					
CKD3	KD3 - Early Comissioning of Inlet Works100,000m3/d at ADWF,PST>54,000m3/d at ADWF,Civil,str	0		30-Apr-25*	-315
CKD5	KD5 - Completion of Civil & Structural works of R/F of Inlet Works(other contractor PV Panels) (R.K	0		30-Apr-25*	-15
Environmental Constraints					
EBS-2185	Egrets Breeding Season 2025	184	01-Mar-25 A	31-Aug-25	61
Planned Completion					
Planned Key Dates					
PKD5	KD5 - Completion of Civil & Structural works of R/F of Inlet works (separate contractor to install PV F	0		09-Apr-25 A	
Compensation Events					
CE181	Implementation of Compensation Event (CE) No.181 - Tropical Cyclone Warning Signal No.8 in Au	0		24-Mar-25 A	
CE215	Implementation of Compensation Event (CE) No.215 - Tropical Cyclone Warning Signal No.8 in Nc	0		03-Apr-25 A	
Preliminary and Preparation Works					
Subletting					
SUB-300	Subletting for RC works for MBR	90	15-Apr-24 A	30-Apr-25	-460
SUB-400	Subletting for RC works for Master Meter Room	60	14-Oct-24 A	13-May-25	-468
SUB-420	Subletting for ELS works for PST Stage 2	60	01-Apr-25 A	13-Jun-25	-191
SUB-340	Subletting for Drainage, Sewage & Waterworks	90	30-Apr-25	28-Jul-25	-131
SUB-410	Subletting for FS Works (Licensed Plumber)	60	30-Apr-25	28-Jun-25	-446
Design Submission					
Temporary Works Design					
Sludge Digester 4-6					
TWD-470	ELS - SD4-6 - Review by PM's & ICE review (28 d + 7d)	35	30-Apr-25 A	16-May-25	-315
TWD-480	ELS - SD4-6 - Resubmission for PM's & ICE review (7d prep & resub. + 21d PM & ICE review)	28	17-May-25	13-Jun-25	-315
TWD-490	ELS - SD4-6 - Obtain Approval	7	14-Jun-25	20-Jun-25	-315
Sludge Dewatering and Underpass					
TWD-280	ELS - SDB - Resubmission for PM's & ICE review (7d prep & resub. + 21d PM & ICE review)	28	10-Sep-24 A	07-May-25	-396
TWD-290	ELS - SDB - Obtain Approval	7	08-May-25	14-May-25	-205
Administration Building					
TWD-300	Open Cut Design - Prepare & Submission for PM's review	45	08-May-25	21-Jun-25	-396
TWD-310	Open Cut Design - Review by PM's & ICE review (28 d + 7d)	35	22-Jun-25	26-Jul-25	-396
TWD-320	Open Cut Design - Resubmission for PM's & ICE review (7d prep & resub. + 21d PM & ICE review)	28	27-Jul-25	23-Aug-25	-396
Temporary diversion scheme for Early commissioning of SD, BH1, H2S and STB					
TWD-1010	Temp. pipe. for SD1-2 Early Comm.-Prep(90d),Sub.&Review(30d) Comment&Resub(14d)&Appro	141	29-Dec-23 A	31-May-25	-50
TWD-990	Temp. pipe. SD1&2 and BH1 to H2S for T&C-Prep(90d),Sub.&Review(30d) Comment&Resub(14(	141	17-May-25	04-Oct-25	61
TWD-1000	Temp. pipe. SD1&2 for T&C of STB -Prep(90d),Sub.&Review(30d) Comment&Resub(14d)&Apprc	141	17-May-25	04-Oct-25	-50
PST Stage 2					
TWD-1060	ELS - PST(S2) - Prepare & Submission for PM's review	60	01-Apr-25 A	08-May-25	-225
TWD-1070	ELS - PST(S2) - Review by PM's & ICE review (28 d + 7d)	35	09-May-25	12-Jun-25	-225
TWD-1080	ELS - PST(S2) - Resubmission for PM's & ICE review (7d prep & resub. + 21d PM & ICE review)	28	13-Jun-25	10-Jul-25	-225
TWD-1090	ELS - PST(S2) - Obtain Approval	7	11-Jul-25	17-Jul-25	-225
Contractor 's Permanent Works Design (include ATAL)					
DDA					
Package 2 - Tertiary Treatment System					
DDA-170	Civil Req. for TTS (Foundation design) - Prepare(27d), Sub. & Review.(45d),Comment & Resub.(1	121	13-Jun-21 A	30-Apr-25	-451
DDA-180	Civil Req. for TTS (Superstruct. design) - Prepare (147d), Sub. & Review.(45d) ,Comment & Resut	213	11-Oct-21 A	30-Apr-25	-450
DDA-210	Electrical& Control for TTS - Prepare (60d), Sub. & Review.(45d) ,Comment & Resub.(14d) & Appl	213	31-Dec-21 A	30-May-25	-236
DDA-140	Architectural for TTS - Prepare (60d), Sub. & Review.(45d) ,Comment & Resub.(14d) & Approval (	126	17-Nov-22 A	30-Jun-25	-450
DDA-160	Civil & Structural for TTS - Prepare (120d), Sub. & Review.(45d) ,Comment & Resub.(14d) & Appr	177	17-Nov-22 A	30-May-25	-450
DDA-220	Building Services (BS) for TTS - Prepare (60d), Sub. & Review.(45d) ,Comment & Resub.(14d) & A	199	30-Oct-23 A	30-Jun-25	-267
Package 3 - Mainstream Bio-Reactor System					
DDA-300	Electrical& Control for MBS - Prepare (60d), Sub. & Review.(45d) ,Comment & Resub.(14d) & App	405	08-Oct-21 A	30-Jun-25	-179
DDA-250	Civil & Structural for MBS - Prepare (60d), Sub. & Review.(45d) ,Comment & Resub.(14d) & Appro	170	20-Jan-23 A	22-May-25	-460
DDA-1530	VCAB for AGS&TTS - Prepare (30d), Sub. & Review (30d)	204	16-Jun-23 A	30-Aug-25	-271
DDA-310	Building Services (BS) for MBS - Prepare (60d), Sub. & Review.(45d) ,Comment & Resub.(14d) &	151	23-Oct-24 A	30-Aug-25	-205
Package 5A - Master Water Meter Room					
DDA-390	BS & Civil req. for MWMC - MBS (60d), Sub. & Review.(45d) ,Comment & Resub.(14d) & Approva	64	16-Dec-22 A	30-May-25	-442
Package 5B - Plant Service Water (PSW)					
DDA-1050	Civil Requirement Drawings - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (	126	12-Jun-21 A	30-Jul-25	-328
DDA-1040	Piping & Instrumentation Diagram (P&ID) - Prep(30d), Sub.&Review(28d), Comment&Resub (14d)	220	26-Jun-23 A	30-Jul-25	-328
DDA-1060	Electrical & Control for PSW - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (	123	30-Apr-25	30-Aug-25	-328
DDA-1070	Mechanical for PSW - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7d)	123	30-Apr-25	30-Aug-25	-328
Package 6 - Sludge Thickening Chemical and Dosing System					
DDA-430	Found.for STCS,WasteGasBurner &Guard Hse- Prepare(60d),Sub.&Review.(45d),Comment & R	96	09-Nov-21 A	30-May-25	299
DDA-440	Civil & Struct. for STCS, WGB & Guard Hse - Prepare (60d), Sub. & Review.(45d) ,Comment & Re	250	09-Nov-21 A	30-Jun-25	268
DDA-1140	Electrical & Control for STCDS - Prepare (60d), Sub. & Review.(45d) ,Comment & Resub.(14d) & A	315	30-Nov-21 A	30-May-25	337
DDA-1520	Mechanical Ventilation and Air conditional System Design for Sludge Thickening Building (STB)	320	16-Jun-22 A	30-Jun-25	23
DDA-1500	Fire Services Design for Sludge Thickening Building (STB)	320	08-Jul-22 A	30-Jul-25	-7
DDA-1150	Building Services for STCDS - Prepare (60d), Sub. & Review.(45d) ,Comment & Resub.(14d) & Ap	126	24-Oct-22 A	30-Jun-25	268
Package 7 - CLP Substation and 11kV Switchgear House					
DDA-480	UPS System for CLPSub.&11kV Switchgear Hse - Prepare (102d), Sub. & Review.(45d),Comment	168	03-Jun-21 A	30-May-25	-580
Package 10 - Primary Sedimentation Tank (PST)					
DDA-1250	Electrical & Control for PST - Prepare (28d), Sub. & Review.(28d) ,Comment & Resub.(14d) & Appl	48	31-Aug-21 A	30-May-25	-533

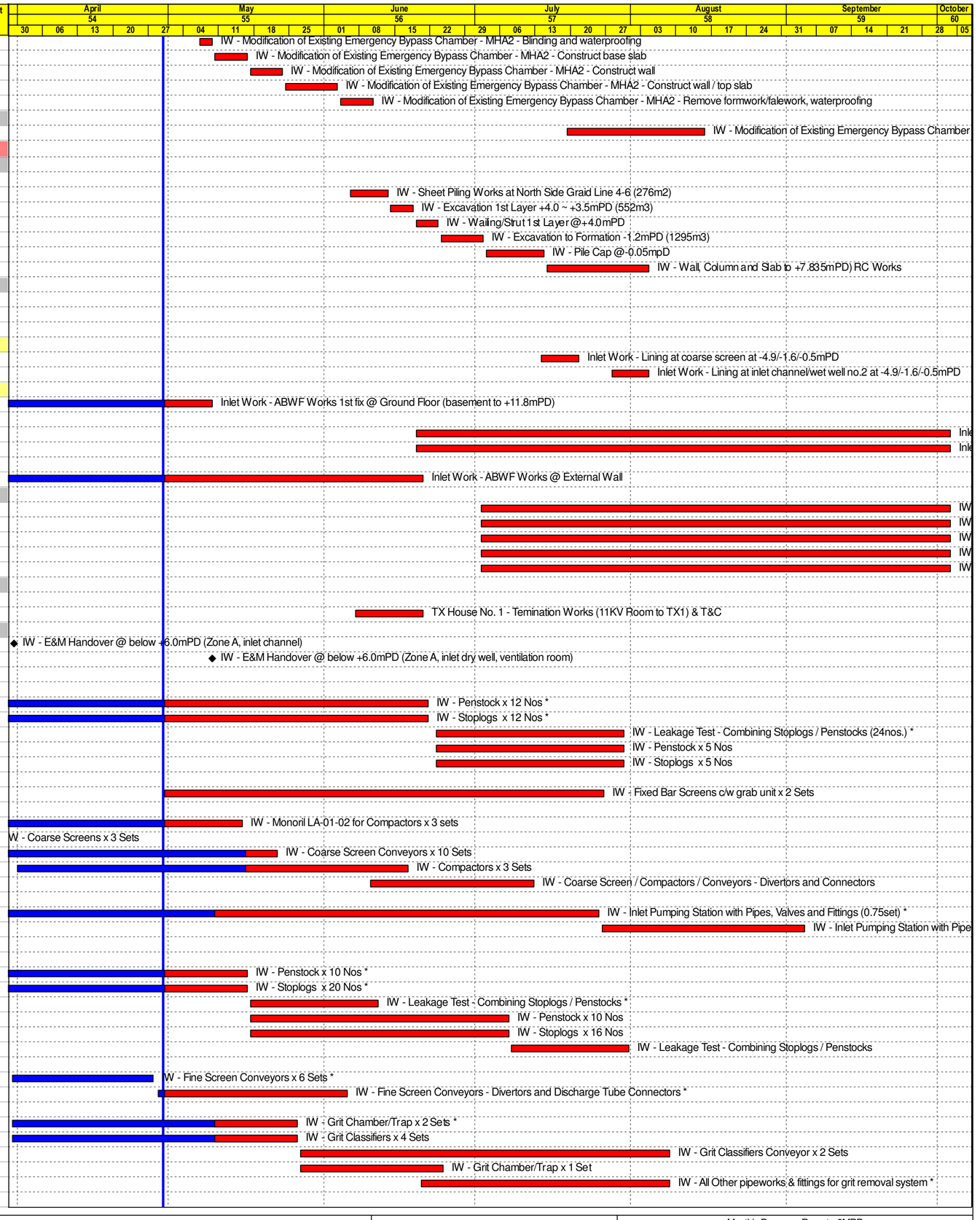


Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
DDA-1260	Building Services for PST - Prepare (28d), Sub. & Review.(28d) ,Comment & Resub.(14d) & Appro	90	01-Oct-21 A	30-May-25	-533
Package 11 - Control and Monitoring System					
DDA-580	Power Quality & Energy Management System (PQEMS) - Prep(28d), Sub.&Review(28d), Comme	130	02-Oct-21 A	30-Jul-25	-236
DDA-550	Supervisory Control&Data Application (SCADA) System - Prep(28d), Sub.&Review(28d), Commen	238	24-Apr-23 A	30-Sep-25	-236
DDA-1270	Gas Detection System - Prep(28d), Sub.&Review(28d), Comment&Resub (14d) & Approval (7d)	91	08-May-23 A	30-Sep-25	-236
DDA-560	Computerised Mainatenance Mangement System (CMMS) - Prep(28d), Sub.&Review(28d), Comr	275	30-Apr-25	29-Jan-26	145
DDA-570	Information and Document mangement System (IDMS) - Prep(28d), Sub.&Review(28d), Commen	275	30-Apr-25	29-Jan-26	145
DDA-1280	Data Collection, Management, Analysis,& Model System - Prep(28d), Sub.&Review(28d), Commer	275	30-Apr-25	29-Jan-26	145
Package 12 - Chemical System for STB					
DDA-650	Chemical System for Sludge Thickening Building (STB) - Prep(60d), Sub.&Review(45d), Comment	150	08-Aug-24 A	30-Jun-25	2
Package 13 - Pipework System					
DDA-660	Pipeworks System for Sludge Thickening Building (STB) - Prep(60d), Sub.&Review(45d), Commer	126	15-Oct-24 A	30-Aug-25	-37
DDA-1030	Pipeworks System for Sludge Digesters - Prep(60d),Sub.&Review(45d),Comment&Resub (14d) &	126	02-Dec-24 A	30-Aug-25	-37
Package 14 - Sludge Anærobic Digestion System (SDT)					
DDA-1320	Electrical & Control for SDT & UC/PP - Prepare (55d), Sub. & Review.(45d) ,Comment & Resub.(14	460	02-Jul-21 A	30-Jul-25	21
DDA-1330	Building Services for SDT & UC/PP - Prepare (56d), Sub. & Review.(45d) ,Comment & Resub.(14c	181	02-May-23 A	30-Jul-25	-255
Package 15 - Biogas H2S Removal, Storage and Delivery System					
DDA-1390	Fire Services for Biogas H2S Removal System - Prepare(28d),Sub& Review(28d),Comment&Resu	137	31-May-23 A	30-Jul-25	183
DDA-1380	Electrical & Control for Biogas H2S Removal System - Prepare(28d),Sub& Review(28d),Comment	105	25-Sep-23 A	30-Jul-25	183
Package 16 - Deodorization Unit System					
DDA-1440	Mechanical for DOU No. 3 - Prepare(28d),Sub& Review(28d),Comment&Resub(14d)&Approval (7	300	17-Jul-22 A	30-Jun-25	-117
DDA-1430	Mechanical for DOU No. 2A and 2B - Prepare(28d),Sub& Review(28d),Comment&Resub(14d)&A	122	13-Oct-23 A	30-Jun-25	-159
Package 17 - Sludge Dewatering Building (SDB)					
DDA-910	Roof Rainwater Collection Systemfor (SDB) - Prep(60d), Sub.&Review(45d), Comment&Resub (2	120	06-Mar-24 A	31-Jul-25	60
DDA-920	Fire Services System for SDB - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approva	120	30-Apr-25	27-Aug-25	5
DDA-930	Mechanical for Sludge Dewatering Building (SDB) - Prep(60d), Sub.&Review(45d), Comment&Res	120	30-Apr-25	27-Aug-25	33
DDA-940	Plumbing System for Sludge Dewatering Bldg (SDB) - Prep(60d), Sub.&Review(45d), Comment&F	120	30-Apr-25	27-Aug-25	5
DDA-950	BS for Sludge Dewatering Building (SDB) - Prep(118d), Sub.&Review(45d), Comment&Resub (14	120	30-Apr-25	27-Aug-25	5
Package 18 - Miscellaneous					
DDA-540	Civil & Structural for Misc, Manholes,DrawPits,FenceWall - Prep(60d),Sub.&Review(45d),Commen	180	01-Aug-24 A	30-Oct-25	245
Package 19 - Elevated Walkways					
DDA-710	Civil & Structural for Elevated Walkways - Prep(60d), Sub.&Review(45d), Comment&Resub (14d)	100	15-Apr-23 A	30-Jul-25	397
Package 20 - Trellis					
DDA-720	Civil & Structural for Trellis - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d	120	03-May-25	30-Aug-25	397
Package 21 - Steel Working Platform					
DDA-730	Civil & Structural for Steel Working Platform - Prep(60d), Sub.&Review(45d), Comment&Resub (14	100	02-Sep-22 A	30-Aug-25	397
Package 22 - Sampling System of YLEPP					
DDA-740	Sampling System for IW&PST - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approva	62	07-Jul-23 A	30-May-25	-525
DDA-1610	Sampling System for AGS&TTB - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Appro	127	07-Jul-23 A	30-Aug-25	-313
DDA-1620	Sampling System for SDT - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d	127	07-Jul-23 A	30-Aug-25	-286
DDA-1630	Sampling System for STB - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d	128	07-Jul-23 A	30-Aug-25	-313
Package 23 - Security, Public Address and Communication System					
DDA-750	SPC sitewide ACS - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d)	98	21-Jun-23 A	30-Jul-25	-282
Package 24 - Administration Building (ADB)					
DDA-0960	Architectural for Administration Building (ADB) - Prep(60d), Sub.&Review(45d), Comment&Resub (	120	30-Apr-25	27-Aug-25	46
DDA-0990	General Arrangement & Civil Req. Drawings for ADB - Prep(60d), Sub.&Review(45d), Comment&F	120	30-Apr-25	27-Aug-25	46
DDA-1000	Mechanical for Administration Building (ADB) - Prep(60d), Sub.&Review(45d), Comment&Resub (1	120	30-Apr-25	27-Aug-25	46
DDA-1010	Electrical & Control for Administration Building (ADB) - Prep(60d), Sub.&Review(45d), Comment&R	120	30-Apr-25	27-Aug-25	46
DDA-1020	BS for Administration Building (ADB) - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Ap	120	30-Apr-25	27-Aug-25	46
Design out of ATAL's Scope					
DDA-1540	Drainage systems at base slab / foundation levels - Prep(60d), Sub.&Review(45d), Comment&Res	120	24-Aug-22 A	29-Jun-25	304
DDA-1560	Street fire hydrant system - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d	120	22-Dec-23 A	30-Jul-25	-134
DDA-1550	Rainwater drainage systems - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval	120	30-Jun-25	27-Oct-25	304
Technical Submission					
Operation and Maintenance (O&M) Manuals and Installation Manuals (PS 34.20(11)(12)(13))					
Inlet Works and Primary Sedimentation Tank					
SUBM-1070	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st	60	05-Jan-23 A	09-May-25	-514
SUBM-1200	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - rev	60	10-May-25	08-Jul-25	-475
AGS and TTS system					
SUBM-1220	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st	60	10-May-25	08-Jul-25	-260
SUBM-1230	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - rev	60	09-Jul-25	06-Sep-25	200
Sludge Thickening System					
SUBM-1250	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st	60	10-May-25	08-Jul-25	170
SUBM-1260	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - rev	60	09-Jul-25	06-Sep-25	170
Sludge Disgestion System					
SUBM-1310	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st	60	10-May-25	08-Jul-25	-505
SUBM-1320	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - rev	60	09-Jul-25	06-Sep-25	176
Biogas H2S Removal System					
SUBM-1280	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st	60	10-May-25	08-Jul-25	-505
SUBM-1290	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - rev	60	09-Jul-25	06-Sep-25	419
Deodourization System					
SUBM-1340	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st	60	09-Jul-25	06-Sep-25	-505
Plant Service Water System					
SUBM-1370	Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st	60	09-Jul-25	06-Sep-25	361
Commissioning Plan and Procedures (PS34.20(10))					
SUBM-1000	Submit/review/approval Commissioning Plan and Procedures - Early commissioning of IW&PST (K	120	21-Feb-24 A	30-Jul-25	-437
Material Submission, Procurement, Manufacturing and Delivery					
Inlet Works					

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
PRE-320	Submit/Procure/Manufacture/Deliver New Inlet Works Equip. - MVAC-Ventilation Fan	211	10-Jan-23 A	30-May-25	-491
Biogas Holder					
PRE-410	Submit/Procure/Manufacture/Deliver Waster Gas Burner	300	19-Aug-21 A	30-Sep-26	25
PRE-420	Submit/Procure/Manufacture/Deliver H2S Removal System	510	25-Feb-22 A	30-May-26	-121
PRE-430	Submit/Procure/Manufacture/Deliver Biogas booster and transfer pumps	457	30-Apr-25	30-Jul-26	22
Sludge Digestor Tank					
PRE-750	Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Flame Arresters	100	31-Oct-22 A	30-May-25	-194
PRE-720	Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Inspection Windows for Sludge Anaer	365	18-Jan-23 A	30-May-25	-194
PRE-730	Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Gas Take Off Dome for Sludge Anaer	365	18-Jan-23 A	30-May-25	-194
PRE-740	Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Telesccpic Valve for Sludge Anaerobic	179	10-Jul-23 A	30-May-25	-225
PRE-760	Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Ferric Chloride Dosing Pump	148	29-Aug-23 A	30-May-25	-225
PRE-770	Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Ferric Chloride Trasnfer Pump	148	29-Aug-23 A	30-Jun-25	-225
Sludge Thickening Building					
PRE-500	Submit/Procure/Manufacture/Deliver Sludge Thickening System - Pump and jet mixer	300	07-Jan-22 A	30-May-25	39
PRE-510	Submit/Procure/Manufacture/Deliver Sludge Thickening System - LALG	256	28-Mar-23 A	30-May-25	-86
PRE-480	Submit/Procure/Manufacture/Deliver Sludge Thickening System - Polymer preparation system	388	12-Apr-23 A	30-May-25	-29
PRE-490	Submit/Procure/Manufacture/Deliver Sludge Thickening System - DOU-03	264	07-Jul-23 A	30-May-25	-86
PRE-520	Submit/Procure/Manufacture/Deliver Sludge Thickening System - MVAC	212	27-Apr-24 A	30-Jun-25	24
Mainstream Bio-Reactor					
PRE-230	Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - AGS system	480	09-Sep-22 A	30-Jan-26	-358
PRE-530	Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - Penstocks and stoplo	345	31-Oct-22 A	30-Jan-26	-283
PRE-550	Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - Sludge pre-thickening	510	31-Oct-22 A	30-Jan-26	-379
PRE-540	Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - Chemical storage anc	270	18-Nov-22 A	30-Sep-25	-236
PRE-570	Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - Instrumentation	481	03-Apr-24 A	30-Mar-26	-361
PRE-560	Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - LALG	349	16-Jul-24 A	30-Jan-26	-358
PRE-580	Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - MVAC	138	16-Dec-24 A	30-Jul-25	-174
Tertiary Treatment System					
PRE-600	Submit/Procure/Manufacture/Deliver TTS Equip. - UV disinfection system	510	08-Sep-22 A	30-Apr-25	-101
PRE-240	Submit/Procure/Manufacture/Deliver TTS Equip. - Disc Filter	600	27-Sep-22 A	30-May-25	-131
PRE-590	Submit/Procure/Manufacture/Deliver TTS Equip. - Chemical cleaning system	480	18-Nov-22 A	30-Jul-25	-192
PRE-630	Submit/Procure/Manufacture/Deliver TTS Equip. - Penstocks and stoplogs	435	30-Nov-22 A	30-Oct-25	-284
PRE-620	Submit/Procure/Manufacture/Deliver TTS Equip. - LALG	150	27-Mar-23 A	30-Oct-25	-284
PRE-690	Submit/Procure/Manufacture/Deliver TTS Equip. - DOU-02	500	07-Sep-23 A	30-Jan-26	-376
Site Establishment Works					
Portion 3 - PST, SDB, Admin. Bldg					
P3-140	Portion 3 - Carry out RAP	24	21-Aug-24 A	30-May-25	-195
P3-150	Portion 3 - Submit Remediation Report	18	02-Jun-25	21-Jun-25	-195
P3-100	Portion 3 - Initial Survey and Record, Underground Utilities Detection	12	19-Jun-25	03-Jul-25	493
P3-110	Portion 3 - Installation of Water Barriers, Clearance, Haul Road and Temp Facilities	12	19-Jun-25	03-Jul-25	493
Portion 4 - EVA					
P4-100	Portion 4 - Initial Survey and Record, Underground Utilities Detection	12	30-Apr-25	15-May-25	485
P4-110	Portion 4 - Installation of Water Barriers, Clearance, Haul Road and Temp Facilities	12	30-Apr-25	15-May-25	485
Statutory Submission & Approval					
WSD Submission & Approval					
WSD-1030	WSD - Form WWO46 Part 1 and 2 PM&WSD review and approval	90	26-Jun-24 A	30-May-25	-473
EMSD Submission & Approval					
Biogas System (ATAL)					
Phase 1					
ATAL-FS-0020	Form 105 for Biogas Holder Tank 1(Submission and Approval Period)	184	03-Jun-24 A	30-Jul-25	89
Zone 1 Construction					
CLP Substations No. 1 & 2					
CLP Substation No. 1 & 2 & DSD 11kV Switchgear - GRC Cladding					
CLP-1600	CLP Substation No.1 & 2 & DSD11KV Switchgear - GRC cladding - installation	75	18-Sep-24 A	16-Jun-25	507
Modification of Existing Emergency Bypass Chamber					
Emergency Bypass Chamber - Foundation and ELS					
IW-3390	IW - Modification of Existing Emergency Bypass Chamber - Backfill rockfill to -1.3mPD	4	07-Mar-25 A	13-Mar-25 A	
Emergency Bypass Chamber - Structural Works					
Emergency Bypass Chamber - Structural modification at Existing EBC					
IW-3530	IW - Modification of Existing Emergency Bypass Chamber - Blinding and waterproofing	3	25-Mar-25 A	01-Apr-25 A	
IW-3110	IW - Modification of Existing Emergency Bypass Chamber - Construct base slab	6	02-Apr-25 A	08-May-25	-501
IW-3160	IW - Modification of Existing Emergency Bypass Chamber - Remove formwork, backfill, Remove S2	6	09-May-25	15-May-25	-501
IW-3120	IW - Modification of Existing Emergency Bypass Chamber - Construct wall and backfill to S1	6	16-May-25	22-May-25	-501
IW-3170	IW - Modification of Existing Emergency Bypass Chamber - Remove formwork, waterproofing, bacl	6	23-May-25	29-May-25	-501
IW-3180	IW - Modification of Existing Emergency Bypass Chamber - Construct wall / top slab	8	30-May-25	09-Jun-25	-501
IW-3140	IW - Modification of Existing Emergency Bypass Chamber - Install bulkhead at existing chamber	7	10-Jun-25	17-Jun-25	-501
IW-3540	IW - Modification of Existing Emergency Bypass Chamber - Remove formwork/falsework, waterpro	8	10-Jun-25	18-Jun-25	-472
IW-3130	IW - Modification of Existing Emergency Bypass Chamber - E&M installation (temp. water deflector	18	19-Jun-25	10-Jul-25	-472
IW-1290	IW - Modification of Existing Emergency Bypass Chamber - Demolish existing wall and remove bull	3	11-Jul-25	14-Jul-25	-472
Emergency Bypass Chamber - Manhole MHA1					
IW-3640	IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Backfill rockfill to -1.3mPD	4	07-Mar-25 A	13-Mar-25 A	
IW-3550	IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Blinding and waterproofing	3	25-Mar-25 A	02-Apr-25 A	
IW-3560	IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Construct base slab	6	03-Apr-25 A	24-Jun-25	-501
IW-3580	IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Construct wall	6	25-Jun-25	02-Jul-25	-501
IW-3600	IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Construct wall / top slab	8	03-Jul-25	11-Jul-25	-501
IW-3590	IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Remove formwork/falework, w	6	12-Jul-25	18-Jul-25	-501
Emergency Bypass Chamber - Manhole MHA2					
IW-3670	IW - Modification of Existing Emergency Bypass Chamber - MHA2 - Backfill rockfill to -1.7 to -0.9mP	4	12-Apr-25 A	06-May-25	-430



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
IW-3680	IW - Modification of Existing Emergency Bypass Chamber - MHA2 - Blinding and waterproofing	3	07-May-25	09-May-25	-430
IW-3690	IW - Modification of Existing Emergency Bypass Chamber - MHA2 - Construct base slab	6	10-May-25	16-May-25	-430
IW-3700	IW - Modification of Existing Emergency Bypass Chamber - MHA2 - Construct wall	6	17-May-25	23-May-25	-430
IW-3710	IW - Modification of Existing Emergency Bypass Chamber - MHA2 - Construct wall / top slab	8	24-May-25	03-Jun-25	-430
IW-3720	IW - Modification of Existing Emergency Bypass Chamber - MHA2 - Remove formwork/falework, w	6	04-Jun-25	10-Jun-25	-430
Emergency Bypass Chamber - Pipe laying					
IW-1280	IW - Modification of Existing Emergency Bypass Chamber - 1200mm Pipe Laying (18d) & Testing (	24	19-Jul-25	15-Aug-25	-501
Inlet Works (IW)					
IW Civil and Structural Works					
IW Civil and Structure Works (Remaining Area)					
Z1-IW-7100	IW - Sheet Piling Works at North Side Graid Line 4-6 (276m2)	7	06-Jun-25	13-Jun-25	-405
Z1-IW-7110	IW - Excavation 1st Layer +4.0 ~ +3.5mPD (552m3)	4	14-Jun-25	18-Jun-25	-405
Z1-IW-7120	IW - Wailing/Strut 1 st Layer @+4.0mPD	4	19-Jun-25	23-Jun-25	-405
Z1-IW-7130	IW - Excavation to Formation -1.2mPD (1295m3)	7	24-Jun-25	02-Jul-25	-405
Z1-IW-7140	IW - Pile Cap @-0.05mpD	10	03-Jul-25	14-Jul-25	-405
Z1-IW-7150	IW - Wall, Column and Slab to +7.835mPD) RC Works	18	15-Jul-25	04-Aug-25	-405
IW ABWF Works					
IW ABWF Works 1st fix for E&M handover					
IW ABWF Works - Zone A/D					
Below +11.8mPD					
Wet Area					
IW-3520	Inlet Work - Lining at coarse screen at -4.9/-1.6/-0.5mPD	7	14-Jul-25	21-Jul-25	-488
IW-3510	Inlet Work - Lining at inlet channel/wet well no.2 at -4.9/-1.6/-0.5mPD	7	28-Jul-25	04-Aug-25	-476
Dry Area					
IW-2780	Inlet Work - ABWF Works 1st fix @ Ground Floor (basement to +11.8mPD)	12	19-Oct-24 A	09-May-25	-516
IW ABWF Works final fix					
IW-3250	Inlet Work - ABWF Works final fix above +11.8mPD	90	19-Jun-25	03-Oct-25	-420
IW-3260	Inlet Work - ABWF Works final fix below +11.8mPD	90	19-Jun-25	03-Oct-25	-420
IW ABWF Works - Roof					
IW-3030	Inlet Work - ABWF Works @ External Wall	120	02-Dec-24 A	20-Jun-25	-298
IW BS Works					
ATAL-1520	IW - MVAC Works	80	02-Jul-25	03-Oct-25	-420
ATAL-1530	IW - ELV Works	80	02-Jul-25	03-Oct-25	-443
ATAL-1540	IW - P&D Works	80	02-Jul-25	03-Oct-25	-431
ATAL-1550	IW - EL Works	80	02-Jul-25	03-Oct-25	-453
ATAL-1560	IW - F.S. Works	80	02-Jul-25	03-Oct-25	-431
IW Transformer House No. 1					
IW Tx1 E&M Works					
IW-3660	TX House No. 1 - Temination Works (11KV Room to TX1) & T&C	12	07-Jun-25	20-Jun-25	-497
IW E&M Works					
ATAL-1830	IW - E&M Handover @ below +6.0mPD (Zone A, inlet channel)	0		31-Mar-25 A	
ATAL-1838	IW - E&M Handover @ below +6.0mPD (Zone A, inlet dry well, ventilation room)	0		09-May-25	-516
Pre-treatment Zone (Below 11.8 mPD)					
Penstock & Stoplogs x 34 sets at inlet, Coarse Screen Channels					
ATAL-1152	IW - Penstock x 12 Nos *	78	11-Mar-25 A	21-Jun-25	-479
ATAL-1154	IW - Stoplogs x 12 Nos *	78	11-Mar-25 A	21-Jun-25	-479
ATAL-1156	IW - Leakage Test - Combining Stoplogs / Penstocks (24nos.) *	32	23-Jun-25	30-Jul-25	-479
ATAL-1920	IW - Penstock x 5 Nos	32	23-Jun-25	30-Jul-25	-417
ATAL-1930	IW - Stoplogs x 5 Nos	32	23-Jun-25	30-Jul-25	-417
Fixed Bar Screens c/w grab unit x 2 Sets					
ATAL-1180	IW - Fixed Bar Screens c/w grab unit x 2 Sets	72	30-Apr-25	26-Jul-25	-493
Coarse Screening System					
ATAL-1210	IW - Monoril LA-01-02 for Compactors x 3 sets	30	21-Nov-24 A	15-May-25	-508
ATAL-1190	IW - Coarse Screens x 3 Sets	28	03-Mar-25 A	28-Mar-25 A	
ATAL-1192	IW - Coarse Screen Conveyors x 10 Sets	21	17-Mar-25 A	22-May-25	-494
ATAL-1194	IW - Compactors x 3 Sets	60	01-Apr-25 A	17-Jun-25	-508
ATAL-1196	IW - Coarse Screen / Compactors / Conveyors - Divertors and Connectors	28	10-Jun-25	12-Jul-25	-508
Inlet Pumping Station with Pipes, Valves and Fittings					
ATAL-1200	IW - Inlet Pumping Station with Pipes, Valves and Fittings (0.75set) *	111	18-Mar-25 A	25-Jul-25	-516
ATAL-1950	IW - Inlet Pumping Station with Pipes, Valves and Fittings (remaining)	35	26-Jul-25	04-Sep-25	-503
Pre-treatment Zone (Above 11.8 mPD)					
Penstock & Stoplogs X 56 Sets at Fine Screen, Grit Removal channels					
ATAL-1162	IW - Penstock x 10 Nos *	42	10-Feb-25 A	16-May-25	-431
ATAL-1164	IW - Stoplogs x 20 Nos *	42	10-Feb-25 A	16-May-25	-431
ATAL-1168	IW - Leakage Test - Combining Stoplogs / Penstocks *	21	17-May-25	11-Jun-25	-431
ATAL-2010	IW - Penstock x 10 Nos	42	17-May-25	07-Jul-25	-402
ATAL-2020	IW - Stoplogs x 16 Nos	42	17-May-25	07-Jul-25	-402
ATAL-2030	IW - Leakage Test - Combining Stoplogs / Penstocks	21	08-Jul-25	31-Jul-25	-402
Fine Screening System					
ATAL-1222	IW - Fine Screen Conveyors x 6 Sets *	21	31-Mar-25 A	28-Apr-25 A	
ATAL-1224	IW - Fine Screen Conveyors - Divertors and Discharge Tube Connectors *	28	29-Apr-25 A	05-Jun-25	-420
Grit Removal System					
ATAL-1230	IW - Grit Chamber/Trap x 2 Sets *	48	31-Mar-25 A	26-May-25	-456
ATAL-1232	IW - Grit Classifiers x 4 Sets	36	31-Mar-25 A	26-May-25	-476
ATAL-1234	IW - Grit Classifiers Conveyor x 2 Sets	62	27-May-25	08-Aug-25	-476
ATAL-1970	IW - Grit Chamber/Trap x 1 Set	24	27-May-25	24-Jun-25	-371
ATAL-1236	IW - All Other pipeworks & fittings for grit removal system *	42	20-Jun-25	08-Aug-25	-476
DOU-01 System - 01					



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
◆ Milestone

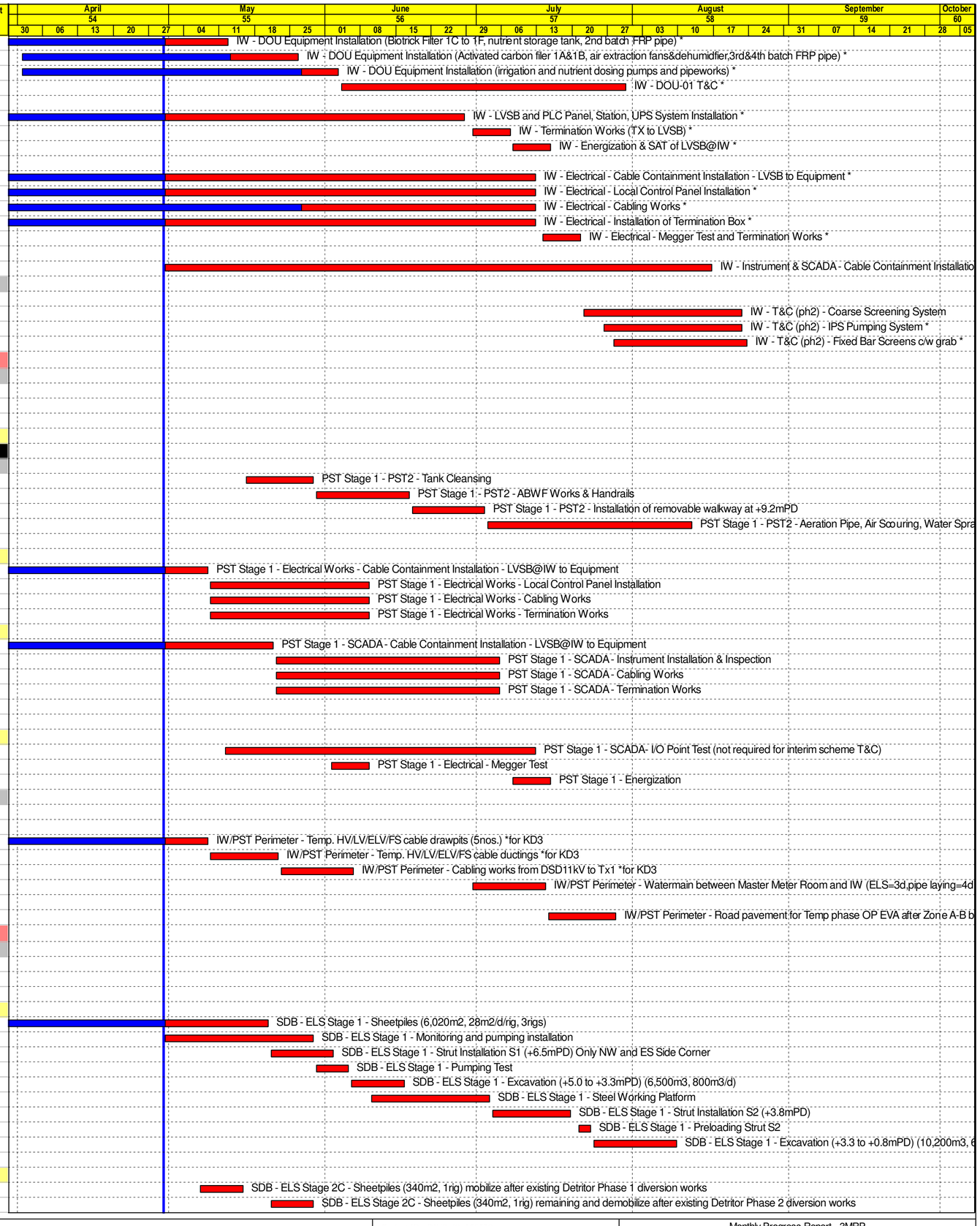
Contract DC/2019/10 - YLEPP - Main Works for Stage 1
Monthly Progress Report No. 54- 3MRP (Apr 25)

Project ID : DWPr49_250520
Layout : DC201910 MPR54-3MRP

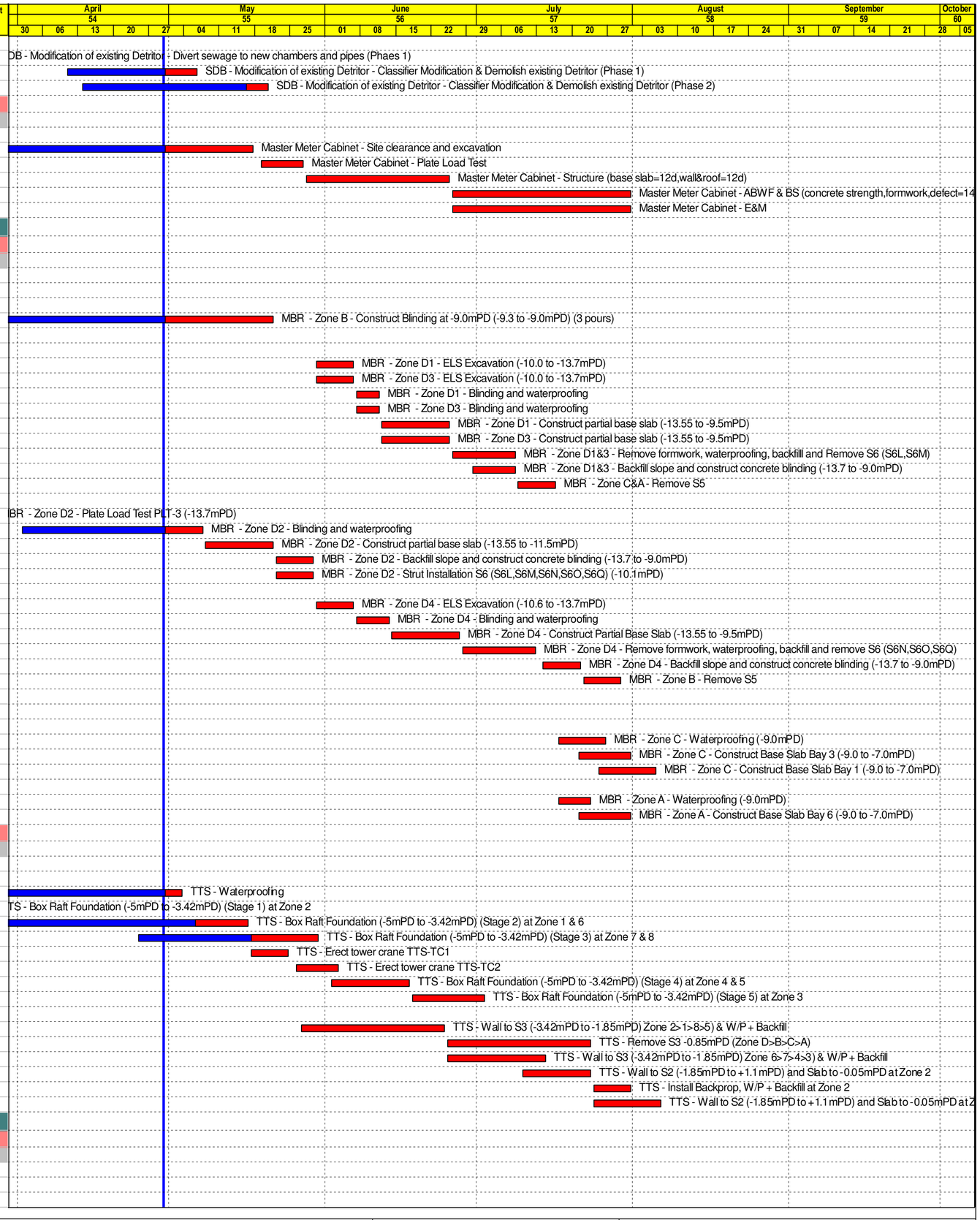
Monthly Progress Report - 3MRP

Date	Revision	Checked	Approved
30-Apr-25	Rev. 0		

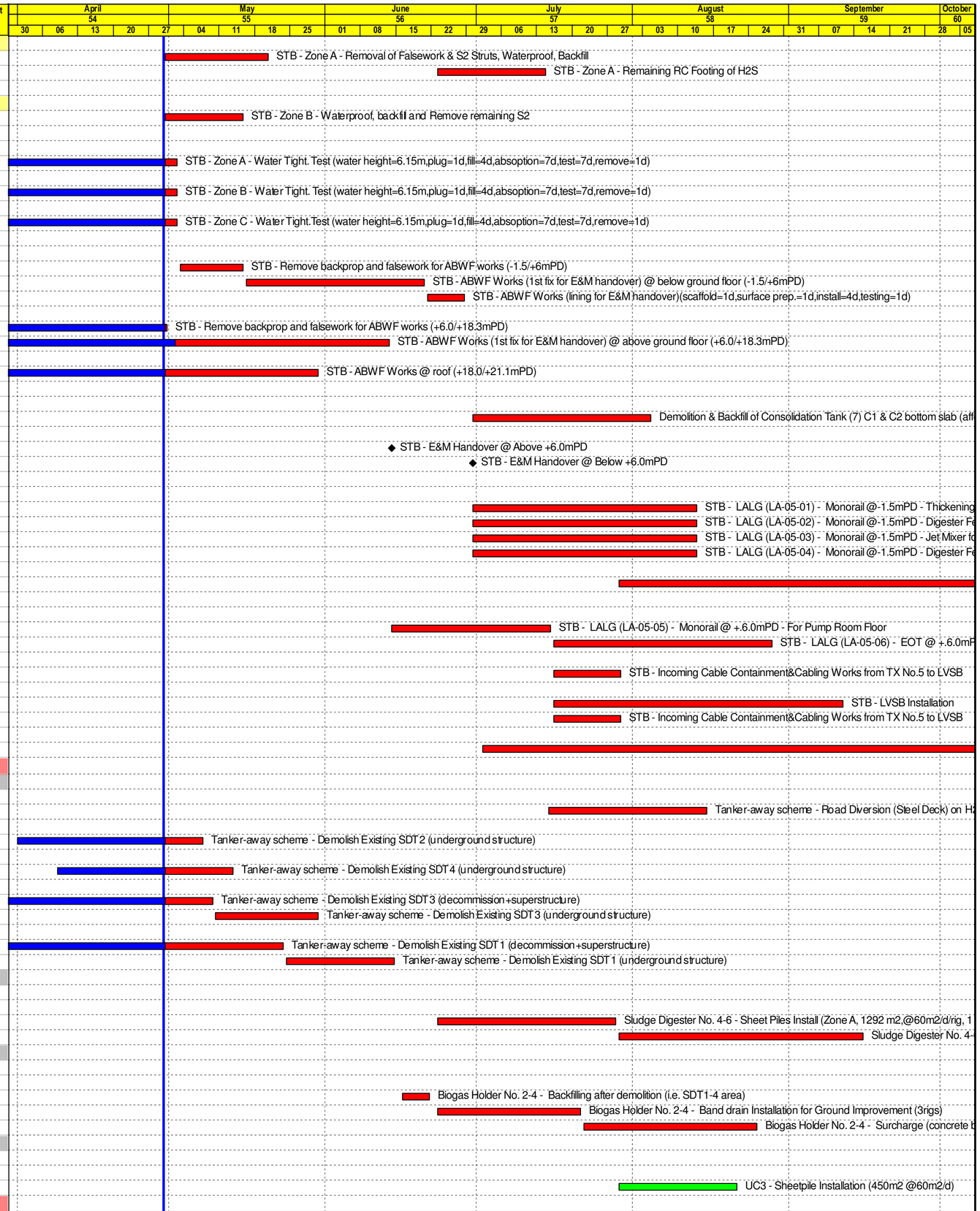
Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
ATAL-1980	IW - DOU Equipment Installation (Biotrick Filter 1C to 1F, nutrient storage tank, 2nd batch FRP pipe	36	01-Mar-25 A	12-May-25	-472
ATAL-1990	IW - DOU Equipment Installation (Activated carbon filer 1A&1B, air extraction fans&dehumidfier,3rd	36	02-Apr-25 A	26-May-25	-472
ATAL-2000	IW - DOU Equipment Installation (irrigation and nutrient dosing pumps and pipeworks) *	24	02-Apr-25 A	03-Jun-25	-472
ATAL-1770	IW - DOU-01 T&C *	48	04-Jun-25	30-Jul-25	-472
LV Switch Room (IW + PST)					
ATAL-1270	IW - LVSB and PLC Panel, Station, UPS System Installation *	36	09-Sep-24 A	28-Jun-25	-510
ATAL-1290	IW - Termination Works (TX to LVSB) *	6	30-Jun-25	07-Jul-25	-510
ATAL-1330	IW - Energization & SAT of LVSB@IW *	7	08-Jul-25	15-Jul-25	-510
Electrical Works					
ATAL-1340	IW - Electrical - Cable Containment Installation - LVSB to Equipment *	60	24-Oct-24 A	12-Jul-25	-517
ATAL-1350	IW - Electrical - Local Control Panel Installation *	60	15-Nov-24 A	12-Jul-25	-515
ATAL-1370	IW - Electrical - Cabling Works *	45	15-Nov-24 A	12-Jul-25	-515
ATAL-1380	IW - Electrical - Installation of Termination Box *	60	15-Nov-24 A	12-Jul-25	-515
ATAL-1390	IW - Electrical - Megger Test and Termination Works *	7	14-Jul-25	21-Jul-25	-515
Instrumentation & SCADA Works					
ATAL-1420	IW - Instrument & SCADA - Cable Containment Installation & Cabling Works - PLC Panel to Equipr	90	30-Apr-25	16-Aug-25	-517
IW E&M T&C Works					
Phase 2 - IW Sub-System Dry Function Test (Function, Protection, Interlock)					
ATAL-1610	IW - T&C (ph2) - Coarse Screening System	28	22-Jul-25	22-Aug-25	-516
ATAL-1600	IW - T&C (ph2) - IPS Pumping System *	24	26-Jul-25	22-Aug-25	-516
ATAL-1650	IW - T&C (ph2) - Fixed Bar Screens c/w grab *	24	28-Jul-25	23-Aug-25	-493
Primary Sedimentation Tank (PST)					
PST ABWF, E&M & T&C					
PST Stage 1					
PST Stage 1 - E&M Installation Works					
Phase 1 (GL A-H, PST 1-3, Outlet Channel)					
PST Stage 1 - E&M Installation Works at Setting Zone (PST 1-3)					
PST 2					
PST 2 - Inclined Plate Settling System					
PST-3310	PST Stage 1 - PST2 - Tank Cleansing	12	16-May-25*	29-May-25	-521
PST-3415	PST Stage 1 - PST2 - ABWF Works & Handrails	15	30-May-25	17-Jun-25	-521
PST-3340	PST Stage 1 - PST2 - Installation of removable walkway at +9.2mPD	12	18-Jun-25	02-Jul-25	-521
ATALPST-6830	PST Stage 1 - PST2 - Aeration Pipe, Air Scouring, Water Spray System Installation c/w pressure te:	35	03-Jul-25	12-Aug-25	-524
Phase 2 (GL H-I, (Inlet Channel, Pump Room) Handover for PST early commissioning *					
PST Stage 1 - Electrical Works (PST 1-3, Inlet/Outlet Channel&Pump Room)					
ATALPST-5660	PST Stage 1 - Electrical Works - Cable Containment Installation - LVSB@IW to Equipment	27	24-Oct-24 A	08-May-25	-359
ATALPST-5670	PST Stage 1 - Electrical Works - Local Control Panel Installation	26	09-May-25	09-Jun-25	-358
ATALPST-5680	PST Stage 1 - Electrical Works - Cabling Works	26	09-May-25	09-Jun-25	-358
ATALPST-5690	PST Stage 1 - Electrical Works - Termination Works	26	09-May-25	09-Jun-25	-358
PST Stage 1 - Instrumentation & SCADA Works (PST 1-3, Inlet/Outlet Channel & Pump Room)					
ATALPST-5720	PST Stage 1 - SCADA - Cable Containment Installation - LVSB@IW to Equipment	38	24-Oct-24 A	21-May-25	-385
ATALPST-5700	PST Stage 1 - SCADA - Instrument Installation & Inspection	37	22-May-25	05-Jul-25	-335
ATALPST-5730	PST Stage 1 - SCADA - Cabling Works	37	22-May-25	05-Jul-25	-386
ATALPST-5740	PST Stage 1 - SCADA - Termination Works	37	22-May-25	05-Jul-25	-386
PST Stage 1 - T&C Works					
PST Stage 1 - T&C Works (PST 1-3, Inlet / Outlet Channel & Pump Room)					
Phase 1 - PST 1-3 Sub-System Physical Dry Check					
ATALPST-5820	PST Stage 1 - SCADA- I/O Point Test (not required for interim scheme T&C)	52	12-May-25	12-Jul-25	-386
ATALPST-5810	PST Stage 1 - Electrical - Megger Test	7	02-Jun-25	09-Jun-25	-358
ATALPST-5830	PST Stage 1 - Energization	7	08-Jul-25	15-Jul-25	-388
External Works - Inlet Work and Primary Sedimentation Tank Perimeter					
IWPST External Works - Zone A (Transformer House No.1)					
Stage 1 (KD3)					
EW-1715	IW/PST Perimeter - Temp. HV/LV/ELV/FS cable drawpits (5nos.) *for KD3	12	25-Mar-25 A	08-May-25	-497
EW-2280	IW/PST Perimeter - Temp. HV/LV/ELV/FS cable ductings *for KD3	12	09-May-25	22-May-25	-497
EW-1710	IW/PST Perimeter - Cabling works from DSD11kV to Tx1 *for KD3	12	23-May-25	06-Jun-25	-497
EW-2270	IW/PST Perimeter - Watermain between Master Meter Room and IW (ELS=3d,pipe laying=4d,test	12	30-Jun-25	14-Jul-25	-363
IWPST External Works - Roadworks					
EW-1550	IW/PST Perimeter - Road pavement for Temp phase OP EVA after Zone A-B backfilled	12	15-Jul-25	28-Jul-25	-363
Sludge Dewatering Building (SDB)					
SDB Foundation & ELS					
SDB Foundation - PST 1-4 Footprint					
SDB Foundation - ELS					
SDB Foundation - ELS Stage 1					
SDB Foundation - ELS Stage 1 (S1 to S2)					
SDB-1190	SDB - ELS Stage 1 - Sheetpiles (6,020m2, 28m2/d/rig, 3rigs)	75	10-Dec-24 A	20-May-25	-166
SDB-1610	SDB - ELS Stage 1 - Monitoring and pumping installation	24	30-Apr-25	29-May-25	-169
SDB-1200	SDB - ELS Stage 1 - Strut Installation S1 (+6.5mPD) Only NW and ES Side Corner	10	21-May-25	02-Jun-25	-165
SDB-1790	SDB - ELS Stage 1 - Pumping Test	7	30-May-25	05-Jun-25	-211
SDB-1280	SDB - ELS Stage 1 - Excavation (+5.0 to +3.3mPD) (6,500m3, 800m3/d)	9	06-Jun-25	16-Jun-25	-168
SDB-1195	SDB - ELS Stage 1 - Steel Working Platform	20	10-Jun-25	03-Jul-25	-168
SDB-1330	SDB - ELS Stage 1 - Strut Installation S2 (+3.8mPD)	14	04-Jul-25	19-Jul-25	-168
SDB-6010	SDB - ELS Stage 1 - Preloading Strut S2	3	21-Jul-25	23-Jul-25	-168
SDB-1340	SDB - ELS Stage 1 - Excavation (+3.3 to +0.8mPD) (10,200m3, 600m3/d) *MD	15	24-Jul-25	09-Aug-25	-168
SDB Foundation - ELS Stage 2					
ELS Stage 2C South					
SDB-2200	SDB - ELS Stage 2C - Sheetpiles (340m2, 1rig) mobilize after existing Detritor Phase 1 diversion wo	8	07-May-25	15-May-25	-169
SDB-6420	SDB - ELS Stage 2C - Sheetpiles (340m2, 1rig) remaining and demobilize after existing Detritor Ph:	8	21-May-25	29-May-25	-169



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
Modification of existing Detritor					
SDB-6390	SDB - Modification of existing Detritor - Divert sewage to new chambers and pipes (Phaes 1)	3	24-Mar-25 A	27-Mar-25 A	
SDB-6400	SDB - Modification of existing Detritor - Classifier Modification & Demolish existing Detritor (Phase 1)	4	11-Apr-25 A	06-May-25	-169
SDB-6410	SDB - Modification of existing Detritor - Classifier Modification & Demolish existing Detritor (Phase 2)	4	14-Apr-25 A	20-May-25	-169
External Works					
Water Meter Cabinet					
Water Meter Cabinet - Structure					
CLP-1740	Master Meter Cabinet - Site clearance and excavation	7	16-Dec-24 A	17-May-25	-377
CLP-1750	Master Meter Cabinet - Plate Load Test	8	19-May-25	27-May-25	-377
CLP-1130	Master Meter Cabinet - Structure (base slab=12d,wall&roof=12d)	24	28-May-25	25-Jun-25	-377
CLP-1360	Master Meter Cabinet - ABWF & BS (concrete strength,formwork,defect=14d,ABWF=10d,BS=6d)	30	26-Jun-25	31-Jul-25	-377
CLP-1370	Master Meter Cabinet - E&M	30	26-Jun-25	31-Jul-25	-377
Zone 2 Construction					
Mainstream Bio-Reactor & Auxillary Facility (MBR and AF)					
MBR and AF Structure					
MBR - ELS Excavation & Demolition stage 2					
MBR - ELS Zone B					
Excavation					
MBRAF-4180	MBR - Zone B - Construct Blinding at -9.0mPD (-9.3 to -9.0mPD) (3 pours)	6	13-Jan-25 A	21-May-25	-374
MBR - ELS of Central Corridor (Zone D)					
MBR - ELS of Central Corridor (North) - D1 and D3					
MBRAF-1750	MBR - Zone D1 - ELS Excavation (-10.0 to -13.7mPD)	6	30-May-25	06-Jun-25	-371
MBRAF-4110	MBR - Zone D3 - ELS Excavation (-10.0 to -13.7mPD)	6	30-May-25	06-Jun-25	-371
MBRAF-4160	MBR - Zone D1 - Blinding and waterproofing	4	07-Jun-25	11-Jun-25	-371
MBRAF-4170	MBR - Zone D3 - Blinding and waterproofing	4	07-Jun-25	11-Jun-25	-371
MBRAF-3760	MBR - Zone D1 - Construct partial base slab (-13.55 to -9.5mPD)	12	12-Jun-25	25-Jun-25	-371
MBRAF-4120	MBR - Zone D3 - Construct partial base slab (-13.55 to -9.5mPD)	12	12-Jun-25	25-Jun-25	-371
MBRAF-3780	MBR - Zone D1&3 - Remove formwork, waterproofing, backfill and Remove S6 (S6L,S6M)	10	26-Jun-25	08-Jul-25	-371
MBRAF-3790	MBR - Zone D1&3 - Backfill slope and construct concrete blinding (-13.7 to -9.0mPD)	7	30-Jun-25	08-Jul-25	-371
MBRAF-3810	MBR - Zone C&A - Remove S5	7	09-Jul-25	16-Jul-25	-371
MBR - ELS of Central Corridor (Middle) - D2					
MBRAF-3970	MBR - Zone D2 - Plate Load Test PLT-3 (-13.7mPD)	7	24-Mar-25 A	27-Mar-25 A	
MBRAF-4100	MBR - Zone D2 - Blinding and waterproofing	6	02-Apr-25 A	07-May-25	-374
MBRAF-3730	MBR - Zone D2 - Construct partial base slab (-13.55 to -11.5mPD)	12	08-May-25	21-May-25	-374
MBRAF-3740	MBR - Zone D2 - Backfill slope and construct concrete blinding (-13.7 to -9.0mPD)	7	22-May-25	29-May-25	-374
MBRAF-3750	MBR - Zone D2 - Strut Installation S6 (S6L,S6M,S6N,S6O,S6Q) (-10.1mPD)	7	22-May-25	29-May-25	-374
MBR - ELS of Central Corridor (South) - D4					
MBRAF-3770	MBR - Zone D4 - ELS Excavation (-10.6 to -13.7mPD)	6	30-May-25	06-Jun-25	-374
MBRAF-4130	MBR - Zone D4 - Blinding and waterproofing	6	07-Jun-25	13-Jun-25	-374
MBRAF-3830	MBR - Zone D4 - Construct Partial Base Slab (-13.55 to -9.5mPD)	12	14-Jun-25	27-Jun-25	-374
MBRAF-3840	MBR - Zone D4 - Remove formwork, waterproofing, backfill and remove S6 (S6N,S6O,S6Q)	12	28-Jun-25	12-Jul-25	-374
MBRAF-3850	MBR - Zone D4 - Backfill slope and construct concrete blinding (-13.7 to -9.0mPD)	7	14-Jul-25	21-Jul-25	-374
MBRAF-3870	MBR - Zone B - Remove S5	7	22-Jul-25	29-Jul-25	-374
MBR Structure					
MBR Substructure					
MBR Substructure Zone C					
MBRAF-4250	MBR - Zone C - Waterproofing (-9.0mPD)	9	17-Jul-25	26-Jul-25	-370
MBRAF-3880	MBR - Zone C - Construct Base Slab Bay 3 (-9.0 to -7.0mPD)	10	21-Jul-25	31-Jul-25	-370
MBRAF-4230	MBR - Zone C - Construct Base Slab Bay 1 (-9.0 to -7.0mPD)	10	25-Jul-25	05-Aug-25	-370
MBR Substructure Zone A					
MBRAF-4280	MBR - Zone A - Waterproofing (-9.0mPD)	6	17-Jul-25	23-Jul-25	-371
MBRAF-3820	MBR - Zone A - Construct Base Slab Bay 6 (-9.0 to -7.0mPD)	10	21-Jul-25	31-Jul-25	-371
Tertriary Treatment System (TTS)					
TTS Structure					
TTS Substructure					
Footing					
TTS-1770	TTS - Waterproofing	18	24-Jan-25 A	03-May-25	-454
TTS-1375	TTS - Box Raft Foundation (-5mPD to -3.42mPD) (Stage 1) at Zone 2	12	10-Mar-25 A	27-Mar-25 A	
TTS-1385	TTS - Box Raft Foundation (-5mPD to -3.42mPD) (Stage 2) at Zone 1 & 6	14	28-Mar-25 A	16-May-25	-365
TTS-1495	TTS - Box Raft Foundation (-5mPD to -3.42mPD) (Stage 3) at Zone 7 & 8	14	25-Apr-25 A	30-May-25	-365
TTS-2300	TTS - Erect tower crane TTS-TC1	7	17-May-25	24-May-25	-347
TTS-2290	TTS - Erect tower crane TTS-TC2	7	26-May-25	03-Jun-25	-347
TTS-1405	TTS - Box Raft Foundation (-5mPD to -3.42mPD) (Stage 4) at Zone 4 & 5	14	02-Jun-25	17-Jun-25	-365
TTS-1415	TTS - Box Raft Foundation (-5mPD to -3.42mPD) (Stage 5) at Zone 3	12	18-Jun-25	02-Jul-25	-359
Basement					
TTS-1430	TTS - Wall to S3 (-3.42mPD to -1.85mPD) Zone 2>1>8>5) & W/P + Backfill	24	27-May-25	24-Jun-25	-365
TTS-1450	TTS - Remove S3 -0.85mPD (Zone D>B>C>A)	24	25-Jun-25	23-Jul-25	-365
TTS-1435	TTS - Wall to S3 (-3.42mPD to -1.85mPD) Zone 6>7>4>3) & W/P + Backfill	16	25-Jun-25	14-Jul-25	-363
TTS-1425	TTS - Wall to S2 (-1.85mPD to +1.1mPD) and Slab to -0.05mPD at Zone 2	12	10-Jul-25	23-Jul-25	-365
TTS-1445	TTS - Install Backprop, W/P + Backfill at Zone 2	7	24-Jul-25	31-Jul-25	-353
TTS-1455	TTS - Wall to S2 (-1.85mPD to +1.1mPD) and Slab to -0.05mPD at Zone 1, 5 & 8	12	24-Jul-25	06-Aug-25	-365
Zone 3 Construction					
Zone 3 North Portion (Z3N)					
New Sudge Thickening Building (STB)					
STB : Civil and Structural Works					
STB : Structure					
STB : Structure Zone A					



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
	STB : Substructure Zone A				
Z3S3-6150	STB - Zone A - Removal of Falsework & S2 Struts, Waterproof, Backfill	16	30-Apr-25	20-May-25	-219
Z3S3-6440	STB - Zone A - Remaining RC Footing of H2S	18	23-Jun-25	14-Jul-25	-246
	STB : Structure Zone B				
	STB : Substructure Zone B				
Z3S3-6300	STB - Zone B - Waterproof, backfill and Remove remaining S2	12	30-Apr-25	15-May-25	-55
	STB : Water Tightness Test				
	STB : Water Tightness Test Zone A				
Z3S3-6330	STB - Zone A - Water Tight. Test (water height=6.15m,plug=1d,fill=4d,absoption=7d,test=7d,remov	21	17-Feb-25 A	02-May-25	-92
	STB : Water Tightness Test Zone B				
Z3S3-6360	STB - Zone B - Water Tight. Test (water height=6.15m,plug=1d,fill=4d,absoption=7d,test=7d,remov	21	17-Feb-25 A	02-May-25	-92
	STB : Water Tightness Test Zone C				
Z3S3-5200	STB - Zone C - Water Tight.Test (water height=6.15m,plug=1d,fill=4d,absoption=7d,test=7d,remov	21	20-Jan-25 A	02-May-25	-92
	STB : ABWF				
	STB : ABWF (-1.5 to +6.0mPD)				
Z3S3-5980	STB - Remove backprop and falsework for ABWF works (-1.5/+6mPD)	10	03-May-25	15-May-25	-92
Z3S3-2790	STB - ABWF Works (1st fix for E&M handover) @ below ground floor (-1.5/+6mPD)	30	16-May-25	20-Jun-25	-92
Z3S3-5210	STB - ABWF Works (lining for E&M handover)(scaffold=1d,surface prep.=1d,install=4d,testing=1d)	7	21-Jun-25	28-Jun-25	-92
	STB : ABWF (+6.0 to +18.3mPD)				
Z3S3-6010	STB - Remove backprop and falsework for ABWF works (+6.0/+18.3mPD)	7	11-Feb-25 A	30-Apr-25	-153
Z3S3-4540	STB - ABWF Works (1st fix for E&M handover) @ above ground floor (+6.0/+18.3mPD)	40	26-Mar-25 A	13-Jun-25	-153
	STB : ABWF (above +18.3mPD roof)				
Z3S3-4560	STB - ABWF Works @ roof (+18.0/+21.1mPD)	90	18-Feb-25 A	30-May-25	-142
	STB - Sludge Thickening Chemical System				
	Ferric Chloride Storage and Dosing System				
Z3S2-4200	Demolition & Backfill of Consolidation Tank (7) C1 & C2 bottom slab (affect Base Slab)	30	30-Jun-25	04-Aug-25	-16
	STB : E&M Installation				
Z3S3-2795	STB - E&M Handover @ Above +6.0mPD	0	14-Jun-25		-153
Z3S3-2785	STB - E&M Handover @ Below +6.0mPD	0	30-Jun-25		-92
	STB E&M : Pump Room Floor @ -1.5mPD				
	Lifting Appliance x 6 sets				
Z3S3-4010	STB - LALG (LA-05-01) - Monorail @-1.5mPD - Thickening Centrifuge Feed Pump	38	30-Jun-25	13-Aug-25	-67
Z3S3-4020	STB - LALG (LA-05-02) - Monorail @-1.5mPD - Digester Feed Pump	38	30-Jun-25	13-Aug-25	-67
Z3S3-4030	STB - LALG (LA-05-03) - Monorail @-1.5mPD - Jet Mixer for Thickening Sludge Holding Tank No	38	30-Jun-25	13-Aug-25	-67
Z3S3-4040	STB - LALG (LA-05-04) - Monorail @-1.5mPD - Digester Feed Pump	38	30-Jun-25	13-Aug-25	-67
	BS Installation (ELV, Ventilation, FS, PD)				
Z3S3-2860	STB - BS Installation (ELV, Ventilation, FS, PD) @ -1.5mPD	100	29-Jul-25	25-Nov-25	-67
	STB E&M : Thickening Centrifuge Hall and Polymer Area @ +6.0mPD				
	Lifting Appliance x 1 Set				
Z3S3-4050	STB - LALG (LA-05-05) - Monorail @ +.6.0mPD - For Pump Room Floor	26	14-Jun-25	15-Jul-25	-153
Z3S3-4190	STB - LALG (LA-05-06) - EOT @ +.6.0mPD - Centrifuge	38	16-Jul-25	28-Aug-25	-153
	STB E&M : Transformer Room @ +6.0mPD				
Z3S3-4300	STB - Incoming Cable Containment&Cabling Works from TX No.5 to LVSB	12	16-Jul-25*	29-Jul-25	-23
	STB E&M : LV Switch Room and VFD Room @ +13.5mPD				
Z3S3-4310	STB - LVSB Installation	50	16-Jul-25*	11-Sep-25	-17
Z3S3-4330	STB - Incoming Cable Containment&Cabling Works from TX No.5 to LVSB	12	16-Jul-25	29-Jul-25	-17
	STB E&M : DOU3 @+13.5mPD				
Z3S3-2800	STB - DOU Equipment Installation	100	02-Jul-25	28-Oct-25	-93
	Zone 3 Middle Portion (Z3M)				
	Demolition				
	Existing SDT 1-4				
Z3S7-2160	Tanker-away scheme - Road Diversion (Steel Deck) on H2S/SD6 for Sheetpiling of SD4-6	28	15-Jul-25	15-Aug-25	-146
	SDT No.2 (Water)				
Z3S7-2030	Tanker-away scheme - Demolish Existing SDT 2 (underground structure)	24	01-Apr-25 A	07-May-25	-246
	SDT No.4 (Sludge)				
Z3S7-2180	Tanker-away scheme - Demolish Existing SDT 4 (underground structure)	24	09-Apr-25 A	13-May-25	-246
	SDT No.3 (Sludge) + Compressor House				
Z3S7-2225	Tanker-away scheme - Demolish Existing SDT 3 (decommission+superstructure)	20	05-Mar-25 A	09-May-25	-243
Z3S7-2230	Tanker-away scheme - Demolish Existing SDT 3 (underground structure)	18	10-May-25	30-May-25	-243
	SDT No.1 (Water)				
Z3S7-2255	Tanker-away scheme - Demolish Existing SDT 1 (decommission+superstructure)	20	14-Mar-25 A	23-May-25	-255
Z3S7-2260	Tanker-away scheme - Demolish Existing SDT 1 (underground structure)	18	24-May-25	14-Jun-25	-255
	Sludge Digestor No. 4-6 (SD4-6)				
	SD4-6 : Foundation and ELS				
	SD4-6 : Sheetpiling				
Z3S8SD-2040	Sludge Digester No. 4-6 - Sheet Piles Install (Zone A, 1292 m2,@60m2/d/rig, 1 rig) UC East Side	30	23-Jun-25	28-Jul-25	-255
Z3S8SD-2330	Sludge Digester No. 4-6 - Sheet Piles Install (Zone B, 1,638 m2,@30m2/d/rig, 2 rigs) common wall	42	29-Jul-25	15-Sep-25	-255
	Biogas Holder No. 2-4 (BH2-4)				
	Biogas Holder No. 2-3 (BH2-3)				
	BH2-3 : Foundation				
Z3BH-1020	Biogas Holder No. 2-4 - Backfilling after demolition (i.e. SDT1-4 area)	6	16-Jun-25	21-Jun-25	-255
Z3BH-1080	Biogas Holder No. 2-4 - Band drain Installation for Ground Improvement (3rigs)	24	23-Jun-25	21-Jul-25	-252
Z3BH-1090	Biogas Holder No. 2-4 - Surcharge (concrete block placing and backfill) (Stage 1)	30	22-Jul-25	25-Aug-25	-252
	Utility Corridor and Pipe Portal (UC/PP)				
	Utility Corridor No. 3 (UC3)				
	UC3 : Foundation and ELS				
Z3S2-2150	UC3 - Sheetpile Installation (450m2 @60m2/d)	21	29-Jul-25	21-Aug-25	49
	Zone 3 South Portion (Z3S)				



保華-中國中鐵聯營體
PAUL Y.-CREC JOINT VENTURE

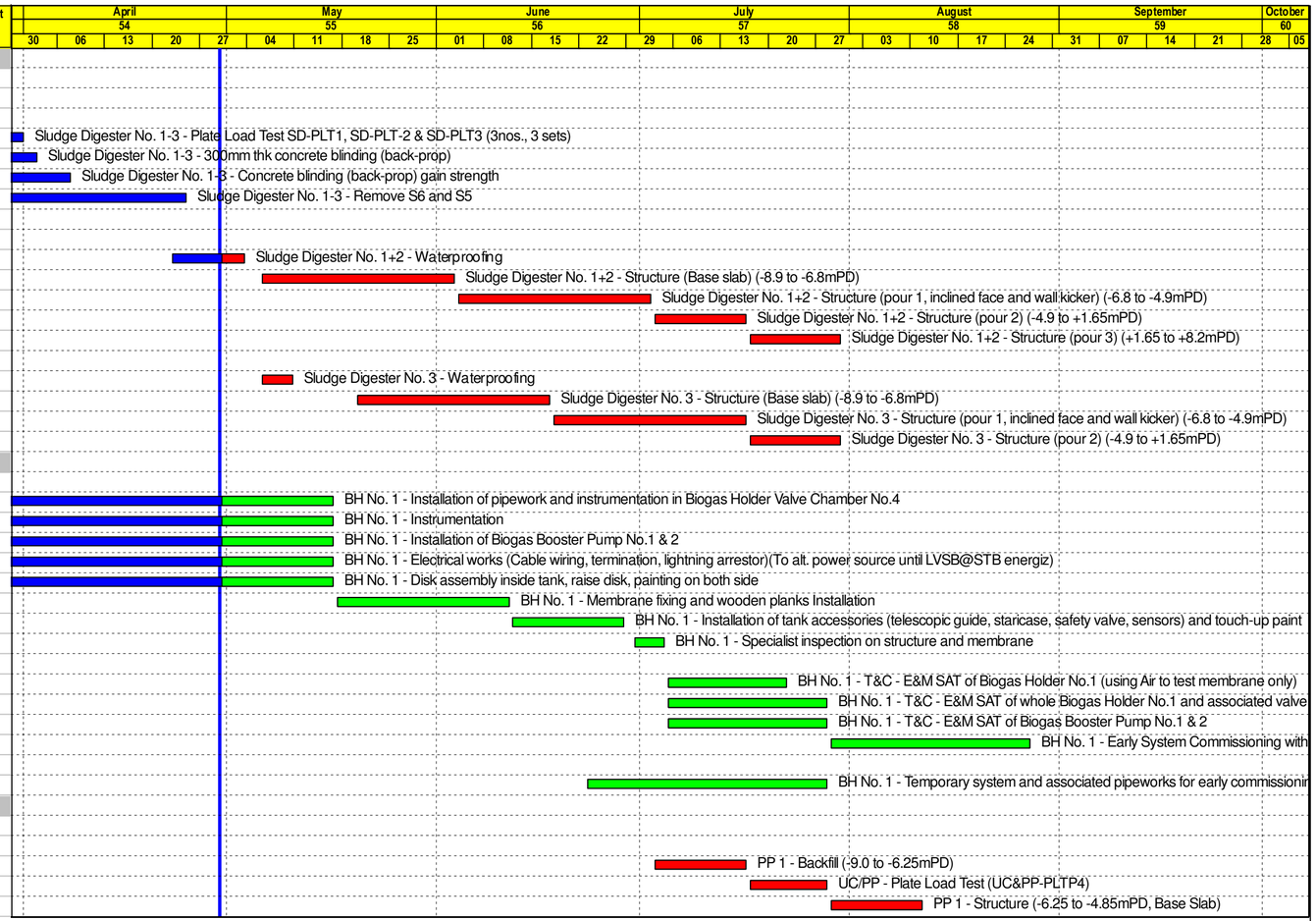
- Remaining Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

Contract DC/2019/10 - YLEPP - Main Works for Stage 1
Monthly Progress Report No. 54- 3MRP (Apr 25)

Project ID : DWPr49_250520
Layout : DC201910 MPR54-3MRP

Monthly Progress Report - 3MRP			
Date	Revision	Checked	Approved
30-Apr-25	Rev. 0		

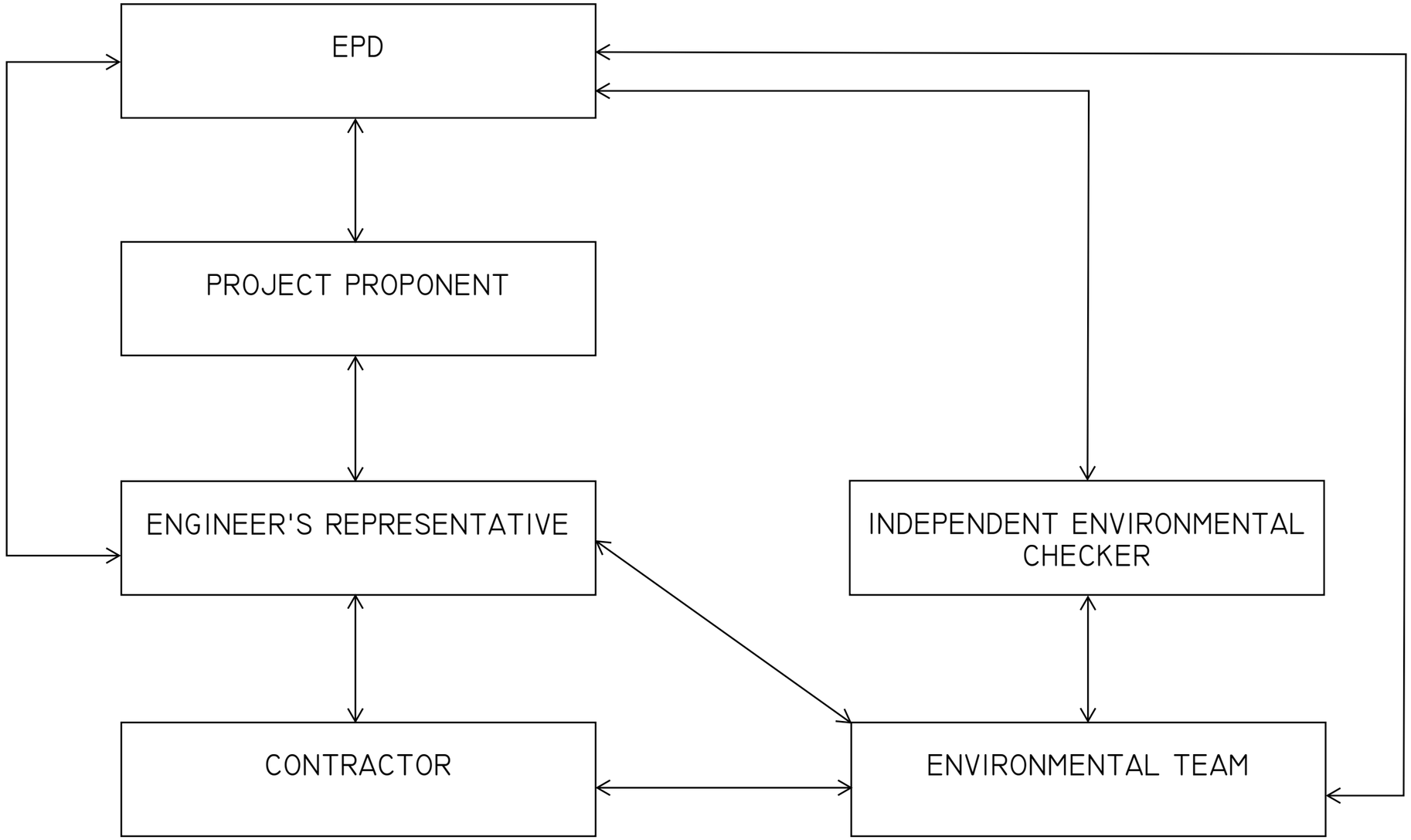
Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
Sludge Digestor No. 1-3 (SD1-3)					
SD1-3 : Foundation and ELS					
SD1-3 : Excavation and Strut Installation					
SD1-3 : Formation Level					
Z3S3-5070	Sludge Digester No. 1-3 - Plate Load Test SD-PLT1, SD-PLT-2 & SD-PLT3 (3nos., 3 sets)	17	10-Mar-25 A	01-Apr-25 A	
Z3S3-5570	Sludge Digester No. 1-3 - 300mm thk concrete blinding (back-prop)	9	19-Mar-25 A	03-Apr-25 A	
Z3S3-5580	Sludge Digester No. 1-3 - Concrete blinding (back-prop) gain strength	4	26-Mar-25 A	08-Apr-25 A	
Z3S3-5590	Sludge Digester No. 1-3 - Remove S6 and S5	8	29-Mar-25 A	25-Apr-25 A	
SD1-3 : Civil and Structural Works					
SD1+2 : Structure					
Z3S3-6450	Sludge Digester No. 1+2 - Waterproofing	5	23-Apr-25 A	03-May-25	-250
Z3S3-2270	Sludge Digester No. 1+2 - Structure (Base slab) (-8.9 to -6.8mPD)	24	06-May-25	03-Jun-25	-250
Z3S3-5560	Sludge Digester No. 1+2 - Structure (pour 1, inclined face and wall kicker) (-6.8 to -4.9mPD)	24	04-Jun-25	02-Jul-25	-242
Z3S3-2350	Sludge Digester No. 1+2 - Structure (pour 2) (-4.9 to +1.65mPD)	12	03-Jul-25	16-Jul-25	-242
Z3S3-2390	Sludge Digester No. 1+2 - Structure (pour 3) (+1.65 to +8.2mPD)	12	17-Jul-25	30-Jul-25	-242
SD3 : Structure					
Z3S3-6460	Sludge Digester No. 3 - Waterproofing	5	06-May-25	10-May-25	-243
Z3S3-6220	Sludge Digester No. 3 - Structure (Base slab) (-8.9 to -6.8mPD)	24	20-May-25	17-Jun-25	-250
Z3S3-5270	Sludge Digester No. 3 - Structure (pour 1, inclined face and wall kicker) (-6.8 to -4.9mPD)	24	18-Jun-25	16-Jul-25	-250
Z3S3-5280	Sludge Digester No. 3 - Structure (pour 2) (-4.9 to +1.65mPD)	12	17-Jul-25	30-Jul-25	-250
Biogas Holder No. 1 (BH1)					
BH1 : E&M Installation					
ATALZ3BH-1010	BH No. 1 - Installation of pipework and instrumentation in Biogas Holder Valve Chamber No.4	52	26-Jun-24 A	16-May-25	115
ATALZ3BH-1020	BH No. 1 - Instrumentation	30	08-Jul-24 A	16-May-25	115
ATALZ3BH-1030	BH No. 1 - Installation of Biogas Booster Pump No.1 & 2	30	08-Jul-24 A	16-May-25	115
ATALZ3BH-1040	BH No. 1 - Electrical works (Cable wiring, termination, lightning arrestor)(To alt. power source until L	18	08-Jul-24 A	16-May-25	115
ATALZ3BH-2485	BH No. 1 - Disk assembly inside tank, raise disk, painting on both side	18	15-Jul-24 A	16-May-25	75
ATALZ3BH-2495	BH No. 1 - Membrane fixing and wooden planks Installation	21	17-May-25	11-Jun-25	75
ATALZ3BH-2505	BH No. 1 - Installation of tank accessories (telescopic guide, staricase, safety valve, sensors) and tc	15	12-Jun-25	28-Jun-25	75
ATALZ3BH-2515	BH No. 1 - Specialist inspection on structure and membrane	4	30-Jun-25	04-Jul-25	75
BH1 : Testing & Commissioning					
ATALZ3BH-2070	BH No. 1 - T&C - E&M SAT of Biogas Holder No.1 (using Air to test membrane only)	15	05-Jul-25	22-Jul-25	75
ATALZ3BH-2090	BH No. 1 - T&C - E&M SAT of whole Biogas Holder No.1 and associated valve and pipework (N2 F	20	05-Jul-25	28-Jul-25	75
ATALZ3BH-2100	BH No. 1 - T&C - E&M SAT of Biogas Booster Pump No.1 & 2	20	05-Jul-25	28-Jul-25	75
ATALZ3BH-1050	BH No. 1 - Early System Commissioning without H2S Removal System	30	29-Jul-25	27-Aug-25	89
BH1 : Diversion Works					
Z3S7-2070	BH No. 1 - Temporary system and associated pipeworks for early commissioning of BH1	30	23-Jun-25	28-Jul-25	75
Utility Corridor and Pipe Portal (UC/PP)					
Pipe Portal No. 1 (PP1) (Construct with SD1-3)					
PP1 : Civil and Structural Works					
Z3S5-2180	PP 1 - Backfill (-9.0 to -6.25mPD)	12	03-Jul-25	16-Jul-25	-100
Z3S5UC1-2210	UC/PP - Plate Load Test (UC&PP-PLTP4)	10	17-Jul-25	28-Jul-25	-100
Z3S5-2010	PP 1 - Structure (-6.25 to -4.85mPD, Base Slab)	12	29-Jul-25	11-Aug-25	-100



Appendix B
Project Organization Chart

LEGEND:

LINE OF COMMUNICATION



Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm

Plot File by: Chanwa 5/28/2018
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AECOM

PROJECT
項目

YUEN LONG EFFLUENT POLISHING PLANT - INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

渠務署
Drainage Services Department

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核對

STATUS
狀況

SCALE
比例

A3 1 : 40000

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號

60505476

CONTRACT NO.
合約編號

CE 3/2015 (DS)

SHEET TITLE
圖紙名稱

PROJECT ORGANISATION

SHEET NUMBER
圖紙編號

Appendix C
Action and Limit Levels

Action and Limit Levels for Air Quality

Parameters	Action Level	Limit Level
1-hour TSP Level in µg/m^3	[1]For baseline level $\leqslant$ 384 µg/m^3, Action level = (baseline level * 1.3 + Limit level)/2; For baseline level > 384 µg/m^3, Action level = Limit level	500 µg/m^3

Notes:
1. The Action Level for 1-hour TSP Level:
a) AM1 = (63*1.3 + 500) / 2 = 291 µg/m^3;
b) AM2 = (70*1.3 + 500) / 2 = 296 µg/m^3.

Action and Limit Levels for Construction Noise

Time Period	Action Level	Limit Level
0700 - 1900 hours on normal weekdays	When one documented complaint is received	75 dB(A) *

Notes:
1. If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.
2. Correction of +3 dB(A) shall be made to the free field measurements.

Action and Limit Levels for Water Quality

Parameters	Action Levels	Limit Levels
Construction Phase Water Quality Monitoring		
DO in mg/L (Surface, Middle & Bottom) [2]	Surface & Middle 5%-ile of baseline data for surface and middle layer. Bottom 5%-ile of baseline data for bottom layer.	Surface & Middle 4 mg/L or 1%-ile of baseline data for surface and middle layer. Bottom 2 mg/L or 1%-ile of baseline data for bottom layer.
SS in mg/L (depth-averaged [1]) [3]	95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day	99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day
Turbidity in NTU (depth-averaged [1]) [3]	95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day	99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day

Notes:
1. "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths;
2. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits;
3. For SS and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits

Action and Limit Levels for Ecology

Active Ardeid Night Roost Survey

As there are no specific guidelines on noise thresholds for roosting ardeids, the Action and Limit levels specified in below table were based on study conducted on exploring behavioural responses of shorebirds to impulsive noise (Wright et al. 2010).

Time Period	Action Level	Limit Level
after 17:30 during dry season after 18:00 during wet season	65.5 dB(A)[1]	72.2 dB(A)[2]

Notes:
1. Behavioural response of some kind more likely to occur
2. Flight with abandonment of the site becomes the most likely outcome of the disturbance

Ecological Monitoring of Birds

Method	Parameters	Action Level[3]	Limit Level[3]
Transect	Abundance of all avifauna species (including but not only limited to overwintering waterbirds) in the community	Significant decline[1,2] in any of these parameters during the current monitoring month relative to the corresponding month during the baseline survey.	Significant decline in any of these parameters for three consecutive months.
	Species diversity of all avifauna species (including but not only limited to overwintering waterbirds) in the community		
	Abundance of species with conservation importance only		
	Species diversity of species with conservation importance only		
Point Count	Abundance of all avifauna species (including but not only limited to overwintering waterbirds) in the community		
	Species diversity of all avifauna species (including but not only limited to overwintering waterbirds) in the community		
	Abundance of species with conservation importance only		
	Species diversity of species with conservation importance only		

Notes:
1. Significant decline in abundance will be determined using two-tailed t-test, $\alpha = 0.05$.
2. Significant decline in species diversity will be determined using the Hutcheson t-test, two tailed.
3. Response will be triggered if any of the above level is reached for each parameter

Appendix D
Calibration Certificates/ Reports of Monitoring Equipment

Air Quality Monitoring Equipment

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	**13-Sep-24**	to	**14-Sep-24**	Next Verification Test Date:	**12-Sep-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	851816				
Our Report Refrence No.:	RPT-23-HVS-0067				
Calibration Location:	AM2, location near the Leachate Treatment Works within the NENTX Landfill				

Standard Equipment Information

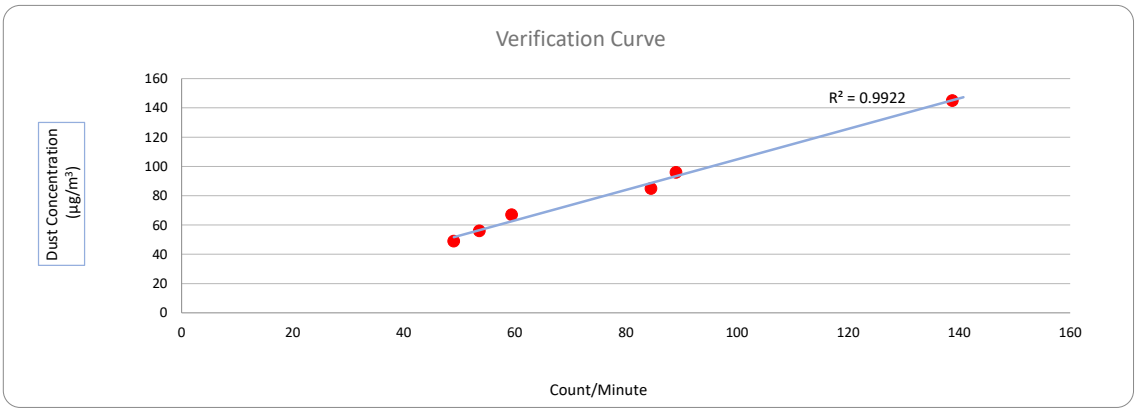
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1106	3465
Last Calibration Date:	13-Sep-24	16-Jan-24
Next Calibration Date:	12-Sep-25	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m^3) y-axis
1	28/11/23	8789.68	8792.68	180.00	16023	89	96
2	28/11/23	8792.68	8795.68	180.00	15213	85	85
3	28/11/23	8795.68	8798.68	180.00	8823	49	49
4	30/11/23	8798.68	8801.68	180.00	10698	59	67
5	30/11/23	8801.68	8804.68	180.00	24980	139	145
6	30/11/23	8804.68	8807.68	180.00	9653	54	56

Linear Regression of y on x

Slope, K factor:	**1.0418**	Intercept:	**0.6307**	*Correlation Coefficient,R:	**0.9961**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Date: 14-09-2024
Project Technician, Environmental

Checked By: Tandy Tse — Date: 14-09-2024
Senior Consultant, Environmental

Sibata LD-5R K-Factor Verification Test by Total Suspended Particulates HVS Test Report

Information of Calibrated Equipement

Verification Test Date:	**13-Sep-24**	to	**14-Sep-24**	Next Verification Test Date:	**12-Sep-25**
Unit-under-Test- Model No.:	Sibata LD-5R				
Unit-under-Test Serial No.:	882106				
Our Report Refrence No.:	RPT-23-HVS-0068				
Calibration Location:	AM2, location near the Leachate Treatment Works within the NENTX Landfill				

Standard Equipment Information

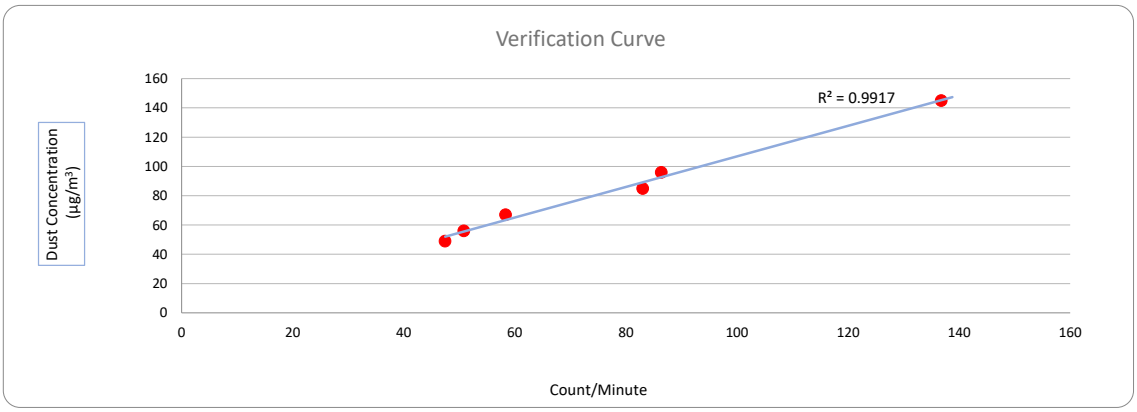
Verification Equipment Type:	Tisch TSP HVS	Tisch HVS Calibrator
Standard Equipment Model No.:	TE-5170X	TE-5025A
Equipment serial no.:	1106	3465
Last Calibration Date:	13-Sep-24	16-Jan-24
Next Calibration Date:	12-Sep-25	15-Jan-25

Equipement Vertification Result

Verification Test No.	Date	Duration			Results from Calibrated Equipement		Results from Standard Equipment
		Start-time	End-time	Elapsed Time (in min)	Total Counts	Counts/ Minute x-axis	Dust Concentration (µg/m^3) y-axis
1	28/11/23	8789.68	8792.68	180.00	15546	86	96
2	28/11/23	8792.68	8795.68	180.00	14944	83	85
3	28/11/23	8795.68	8798.68	180.00	8543	47	49
4	30/11/23	8798.68	8801.68	180.00	10499	58	67
5	30/11/23	8801.68	8804.68	180.00	24622	137	145
6	30/11/23	8804.68	8807.68	180.00	9145	51	56

Linear Regression of y on x

Slope, K factor:	**1.0437**	Intercept:	**2.4993**	*Correlation Coefficient,R:	**0.9958**
Verification Test Result:	Strong Correlation, Results were accepted.			* If the Correlation Coefficient, R is <0.5. Checking and Re-verification are required.	



Operated By: Andy Li — Date: 14-09-2024
Project Technician, Environmental

Checked By: Tandy Tse — Date: 14-09-2024
Senior Consultant, Environmental

Noise Quality Monitoring Equipment

Certificate of Calibration

for

Description:	***Sound Level Meter***
Manufacturer:	***RION***
Type No.:	***NL-53 (Serial No.: 01130784)***
Microphone:	***UC-59 (Serial No.: 24908)***
Preamplifier:	***NH-25 (Serial No.:33675)***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within (31.5Hz – 4kHz)**
☐ **Outside**

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 26 February 2025

Date of calibration: 27 February 2025

Date of NEXT calibration: 26 February 2026

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 27 February 2025

Certificate No.: APJ24-154-CC003

ACOUSTICS AND AIR TESTING LABORATORY (A+A)*L CO LTD.

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precaution:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Conditions:*

Air Temperature: 25.8 °C
Air Pressure: 1006 hPa
Relative Humidity: 54.9 %

3. *Calibration Equipment:*

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS

4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
			104		104.0	±0.3
			114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
		Slow			94.0	±0.3

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Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dB SPL	Fast	94	31.5	94.2	±2.0
				63	94.2	±1.5
				125	94.2	±1.5
				250	94.1	±1.4
				500	94.1	±1.4
				1000	94.0	Ref
				2000	93.7	±1.6
				4000	92.5	±1.6

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA SPL	Fast	94	31.5	54.9	-39.4 ±2.0
				63	68.0	-26.2 ±1.5
				125	78.0	-16.1 ±1.5
				250	85.5	-8.6 ±1.4
				500	90.8	-3.2 ±1.4
				1000	94.0	Ref
				2000	94.9	+1.2 ±1.6
				4000	93.5	+1.0 ±1.6

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBC SPL	Fast	94	31.5	91.2	-3.0 ±2.0
				63	93.4	-0.8 ±1.5
				125	94.0	-0.2 ±1.5
				250	94.1	-0.0 ±1.4
				500	94.1	-0.0 ±1.4
				1000	94.0	Ref
				2000	93.5	-0.2 ±1.6
				4000	91.7	-0.8 ±1.6

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Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

5. *Calibration Results Applied*

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.05
	125 Hz	± 0.10
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:
The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.

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Certificate of Calibration

for

Description:	***Sound Level Meter***
Manufacturer:	***RION***
Type No.:	***NL-53 (Serial No.: 01130783)***
Microphone:	***UC-59 (Serial No.: 25498)***
Preamplifier:	***NH-25 (Serial No.:33674)***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within (31.5Hz – 4kHz)**
☐ **Outside**

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 26 February 2025

Date of calibration: 27 February 2025

Date of NEXT calibration: 26 February 2026

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 27 February 2025

Certificate No.: APJ24-154-CC002

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precaution:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Conditions:*

Air Temperature:	25.8 °C
Air Pressure:	1006 hPa
Relative Humidity:	54.9 %

3. *Calibration Equipment:*

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS

4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
			104		104.0	±0.3
			114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
		Slow			94.0	±0.3

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Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dB SPL	Fast	94	31.5	94.2	±2.0
				63	94.1	±1.5
				125	94.1	±1.5
				250	94.0	±1.4
				500	94.0	±1.4
				1000	94.0	Ref
				2000	93.6	±1.6
				4000	92.5	±1.6

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA SPL	Fast	94	31.5	54.7	-39.4 ±2.0
				63	67.9	-26.2 ±1.5
				125	78.0	-16.1 ±1.5
				250	85.4	-8.6 ±1.4
				500	90.8	-3.2 ±1.4
				1000	94.0	Ref
				2000	94.8	+1.2 ±1.6
				4000	93.5	+1.0 ±1.6

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBC SPL	Fast	94	31.5	91.2	-3.0 ±2.0
				63	93.3	-0.8 ±1.5
				125	93.9	-0.2 ±1.5
				250	94.1	-0.0 ±1.4
				500	94.0	-0.0 ±1.4
				1000	94.0	Ref
				2000	93.4	-0.2 ±1.6
				4000	91.7	-0.8 ±1.6

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5. *Calibration Results Applied*

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.10
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:
The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.

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Certificate of Calibration

for

Description:	***Sound Level Meter***
Manufacturer:	***RION***
Type No.:	***NL-53 (Serial No.: 01130785)***
Microphone:	***UC-59 (Serial No.: 25374)***
Preamplifier:	***NH-25 (Serial No.:33676)***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within (31.5Hz – 4kHz)**
☐ **Outside**

the allowable tolerance.

The test equipment used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 26 February 2025

Date of calibration: 27 February 2025

Date of NEXT calibration: 26 February 2026

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: 27 February 2025

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Certificate No.: APJ24-154-CC001

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precaution:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.

- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Conditions:*

Air Temperature:	25.8 °C
Air Pressure:	1006 hPa
Relative Humidity:	54.9 %

3. *Calibration Equipment:*

	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS

4. *Calibration Results*

Sound Pressure Level

Reference Sound Pressure Level

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	±0.4

Linearity

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
			104		104.0	±0.3
			114		114.0	±0.3

Time Weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading, dB	IEC 61672 Class 1 Specification, dB
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz		
30-130	dBA SPL	Fast	94	1000	94.0	Ref
		Slow			94.0	±0.3

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Frequency Response

Linear Response

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dB SPL	Fast	94	31.5	94.3	±2.0
				63	94.1	±1.5
				125	94.1	±1.5
				250	94.1	±1.4
				500	94.0	±1.4
				1000	94.0	Ref
				2000	93.7	±1.6
				4000	92.6	±1.6

A-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBA SPL	Fast	94	31.5	54.8	-39.4 ±2.0
				63	68.0	-26.2 ±1.5
				125	78.0	-16.1 ±1.5
				250	85.4	-8.6 ±1.4
				500	90.8	-3.2 ±1.4
				1000	94.0	Ref
				2000	94.9	+1.2 ±1.6
				4000	93.6	+1.0 ±1.6

C-weighting

Setting of Unit-under-test (UUT)			Applied value		UUT Reading,	IEC 61672 Class 1
Range, dB	Freq. Weighting	Time Weighting	Level, dB	Frequency, Hz	dB	Specification, dB
30-130	dBC SPL	Fast	94	31.5	91.2	-3.0 ±2.0
				63	93.3	-0.8 ±1.5
				125	93.9	-0.2 ±1.5
				250	94.1	-0.0 ±1.4
				500	94.1	-0.0 ±1.4
				1000	94.0	Ref
				2000	93.5	-0.2 ±1.6
				4000	91.8	-0.8 ±1.6

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5. *Calibration Results Applied*

The results apply to the particular unit-under-test only. All calibration points are within manufacture's specification as IEC 61672 Class 1.

Uncertainties of Applied Value:

94 dB	31.5 Hz	± 0.10
	63 Hz	± 0.10
	125 Hz	± 0.05
	250 Hz	± 0.05
	500 Hz	± 0.05
	1000 Hz	± 0.05
	2000 Hz	± 0.05
	4000 Hz	± 0.05
104 dB	1000 Hz	± 0.05
114 dB	1000 Hz	± 0.05

The uncertainties are evaluated for a 95% confidence level.

Note:
The values given in this certification only related to the values measured at the time of the calibration and any uncertainties quoted will not allow for the equipment long-term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the calibration. (A+A)*L shall not be liable for any loss or damage resulting from the use of the equipment.

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Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Certificate of Calibration

for

Description:	***Sound Level Calibrator***
Manufacturer:	***RION***
Type No.:	***NC-75***
Serial No.:	***34724244***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within**
☐ **Outside**

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by: _____ ***Calibration Technician***

Certified by: _____ ***Mr. Ng Yan Wa***
Laboratory Manager

ACOUSTICS AND AIR TESTING LABORATORY CO. LTD. (A+A)*L

Date of issue: **24 July 2024**

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precautions:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Specifications:*

Calibration check

3. *Calibration Conditions:*

Air Temperature:	23.4 °C
Air Pressure:	1005 hPa
Relative Humidity:	56.7 %

4. *Calibration Equipment:*

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV230128	HOKLAS

5. *Calibration Results*

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	93.9

Note:
The values given in this certification only related to the values measured at the time of the calibration.

ACOUSTICS AND AIR TESTING LABORATORY (A+A) *L CO LTD.

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Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Certificate of Calibration

for

Description:	***Sound Level Calibrator***
Manufacturer:	***RION***
Type No.:	***NC-75***
Serial No.:	***34724245***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within**
☐ **Outside**

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: **24 July 2024**

Certificate No.: APJ23-154-CC003

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
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1. *Calibration Precautions:*

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2. *Calibration Specifications:*

Calibration check

3. *Calibration Conditions:*

Air Temperature:	23.4 °C
Air Pressure:	1005 hPa
Relative Humidity:	56.7 %

4. *Calibration Equipment:*

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV230128	HOKLAS

5. *Calibration Results*

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	94.0

Note:
The values given in this certification only related to the values measured at the time of the calibration.

ACOUSTICS AND AIR TESTING LABORATORY CO LTD. (A+A)*L

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Certificate of Calibration

for

Description:	***Sound Level Calibrator***
Manufacturer:	***RION***
Type No.:	***NC-75***
Serial No.:	***34524163***

Submitted by:

Customer:	*Aurecon Hong Kong Limited*
Address:	*Unit 1608, 16/F, Tower B, Manulife Financial Centre,*
	223-231 Wai Yip Street, Kwun Tong,
	Kowloon, Hong Kong

Upon receipt for calibration, the instrument was found to be:

☑ **Within**
☐ **Outside**

the allowable tolerance.

The test equipments used for calibration are traceable to National Standards via:
- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory

Date of receipt: 22 July 2024

Date of calibration: 24 July 2024

Date of NEXT calibration: 23 July 2025

Calibrated by: _____
Calibration Technician

Certified by: _____
Mr. Ng Yan Wa
Laboratory Manager

Date of issue: **24 July 2024**

Certificate No.: APJ24-010-CC001

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

1. *Calibration Precautions:*

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 24 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.

2. *Calibration Specifications:*

Calibration check

3. *Calibration Conditions:*

Air Temperature:	23.4 **°C**
Air Pressure:	1005 **hPa**
Relative Humidity:	56.7 **%**

4. *Calibration Equipment:*

Test Equipment	Type	Serial No.	Calibration Report Number	Traceable to
Multifunction Calibrator	B&K 4226	2288467	AV240081	HOKLAS
Sound Level Meter	RION NA-28	30721812	AV230128	HOKLAS

5. *Calibration Results*

5.1 Sound Pressure Level

Nominal value dB	Accept lower level dB	Accept upper level dB	Measured value dB
94.0	93.6	94.4	93.9

Note:
The values given in this certification only related to the values measured at the time of the calibration.

Room 422,Leader Industrial Centre,57-59 Au Pui Wan Street ,Fo Tan, Shatin,N.T.,Hong Kong
Tel: (852) 2668 3423 Fax:(852) 2668 6946
Homepage: http://www.aa-lab.com E-mail : inquiry@aa-lab.com

Water Quality Monitoring Equipment

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 5/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BE030347
Date of Issue : 03 April 2025

PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit 1608, 16/F, Tower B, Manulife Fin. Centre 223 - 231 Wai Yip Street, Kwun Tong,
Kowloon (HK) Hong Kong

PART B - SAMPLE INFORMATION

Name of Equipment :	YSI ProDSS (Multi Parameters)
Manufacturer :	YSI
Serial Number :	22D100436
Date of Received :	31 March 2025
Date of Calibration :	01 April 2025
Date of Next Calibration :	30 June 2025
Request No. :	D-BE030347

PART C - REFERENCE METHODS/ DOCUMENTS FOR THE CALIBRATION

Test Parameter	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
Dissolved oxygen	APHA 23e 4500-O G (Membrane Electrode Method)
Salinity	APHA 21e 2520 B
Turbidity	APHA 21e 2130 B (Nephelometric Method)

PART D - CALIBRATION RESULT

(1) pH value

Target (pH unit)	Display Reading (pH unit)	Tolerance (pH unit)	Result
4.00	4.16	0.16	Satisfactory
7.42	7.50	0.08	Satisfactory
10.01	10.07	0.06	Satisfactory

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

(2) Temperature

Reading of Ref. thermometer (°C)	Display Reading	Tolerance	Result
9.7	9.9	0.2	Satisfactory
19.5	19.4	-0.1	Satisfactory
32.3	31.7	-0.6	Satisfactory

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

(3) Dissolved oxygen

Expected Reading (mg/L)	Display Reading (mg/L)	Tolerance (mg/L)	Result
9.28	9.36	0.08	Satisfactory
6.21	6.08	-0.13	Satisfactory
3.32	3.16	-0.16	Satisfactory
0.01	0.12	0.11	Satisfactory

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

--- CONTINUED ON NEXT PAGE ---

AUTHORIZED SIGNATORY:

FUNG Yuen-ching
Laboratory Manager

專業化驗有限公司
QUALITY PRO TEST-CONSULT LIMITED
Unit 10, 5/F, Wah Wai Centre, 38-40 Au Pui Wan St., Fotan, Hong Kong
Email: info@qualityprotest.com; Website: www.qualityprotest.com
Tel: (852) 3956 8717; Fax: (852) 3956 3928

REPORT OF EQUIPMENT PERFORMANCE CHECK/ CALIBRATION

Test Report No. : R-BE030347
Date of Issue : 03 April 2025

PART D - CALIBRATION RESULT

(4) Salinity

Expected Reading (g/L)	Display Reading (g/L)	Tolerance (%)	Result
10	9.77	-2.3	Satisfactory
20	19.59	-2.05	Satisfactory
30	29.31	-2.3	Satisfactory

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

(5) Turbidity

Expected Reading (NTU)	Display Reading (NTU)	Tolerance [a] (%)	Result
0	0.17	-	Satisfactory
10	10.76	7.6	Satisfactory
20	19.14	-4.3	Satisfactory
100	94.58	-5.42	Satisfactory
800	732.96	-8.38	Satisfactory

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

[a] For O NTU, Display Reading should be less than 1 NTU

Remark(s): -

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

--- END OF REPORT ---

Appendix E
Environmental Monitoring Schedule

Project: Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Environmental Monitoring Schedule (May 2025)

Sun	Mon	Tue	Wed	Thur	Fri	Sat
				1	2 **WQM** Mid Flood (09:13) Mid Ebb (14:59)	3 **AQM**
4	5 **WQM** Mid Flood (10:18) Mid Ebb (16:42)	6	7 **WQM** Mid Flood (11:08) Mid Ebb (18:19)	8	9 **AQM, NM, WQM** Mid Flood (15:03) Mid Ebb (17:14)	10
11	12 **WQM, ANRM** Mid Flood (16:49) Mid Ebb (12:08)	13	14 **WQM** Mid Flood (18:35) Mid Ebb (13:21)	15 **AQM, NM**	16 **WQM** Mid Flood (10:15) Mid Ebb (13:08)	17
18	19 **WQM, EMB (Day)** Mid Flood (09:16) Mid Ebb (15:25)	20	21 **WQM, AQM, NM** Mid Flood (09:50) Mid Ebb (16:23)	22	23 **WQM** Mid Flood (10:32) Mid Ebb (17:42)	24
25	26 **WQM** Mid Flood (09:16) Mid Ebb (18:20)	27 **AQM, NM**	28 **WQM** Mid Flood (17:14) Mid Ebb (12:15)	29	30 **WQM** Mid Flood (17:12) Mid Ebb (13:20)	31

Remarks:

1. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
2. Air Quality Monitoring (**AQM**): 3 x 1-hour TSP Monitoring per 6 days.
3. Noise Monitoring (**NM**): Leq (30 min) during between 0700 - 1900.
4. Water Quality Monitoring (**WQM**): Once per day for 3 days per week.
5. Ecological Monitoring of Birds (**EMB**): Once per month.
6. Ardeid Night Roost Monitoring (**ANRM**): Once per month.
7. Air Quality Location: AM1 and AM2.
8. Noise Monitoring Location: CM1, CM2 and CM3.
9. Water Quality Monitoring Location: M1, M2, M3.

Project: Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Environmental Monitoring Schedule (June 2025)

Sun	Mon	Tue	Wed	Thur	Fri	Sat
1	2 **WQM, AQM, NM** Mid Flood (10:18) Mid Ebb (16:42)	3	4 **WQM** Mid Flood (11:08) Mid Ebb (18:19)	5	6 **WQM** Mid Flood (15:03) Mid Ebb (17:14)	7 **AQM**
8	9 **WQM** Mid Flood (16:49) Mid Ebb (12:08)	10	11 **WQM, EMB** (Night), **ANRM** Mid Flood (18:35) Mid Ebb (13:21)	12	13 **WQM, AQM, NM** Mid Flood (10:15) Mid Ebb (13:08)	14
15	16 **WQM** Mid Flood (09:16) Mid Ebb (15:25)	17	18 **WQM, EMB** (Day) Mid Flood (09:50) Mid Ebb (16:23)	19 **AQM, NM**	20 **WQM** Mid Flood (10:32) Mid Ebb (17:42)	21
22	23 **WQM** Mid Flood (09:16) Mid Ebb (18:20)	24	25 **WQM, AQM, NM** Mid Flood (17:14) Mid Ebb (12:15)	26	27 **WQM** Mid Flood (17:12) Mid Ebb (13:20)	28
29	30 **WQM, AQM, NM** Mid Flood (08:44) Mid Ebb (15:03)					

Remarks:

1. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
2. Air Quality Monitoring (**AQM**): 3 x 1-hour TSP Monitoring per 6 days.
3. Noise Monitoring (**NM**): Leq (30 min) during between 0700 - 1900.
4. Water Quality Monitoring (**WQM**): Once per day for 3 days per week.
5. Ecological Monitoring of Birds (**EMB**): Once per month.
6. Ardeid Night Roost Monitoring (**ANRM**): Once per month.
7. Air Quality Location: AM1 and AM2.
8. Noise Monitoring Location: CM1, CM2 and CM3.
9. Water Quality Monitoring Location: M1, M2, M3.

Project: Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Environmental Monitoring Schedule (July 2025)

Sun	Mon	Tue	Wed	Thur	Fri	Sat
		1	2 **WQM** Mid Flood (09:09) Mid Ebb (13:29)	3	4 **WQM** Mid Flood (08:33) Mid Ebb (14:27)	5 **AQM**
6	7 **WQM** Mid Flood (08:34) Mid Ebb (12:53)	8	9 **WQM** Mid Flood (08:34) Mid Ebb (12:53)	10	11 **WQM, AQM, NM** Mid Flood (08:33) Mid Ebb (14:27)	12
13	14 **WQM, EMB** (Night), **ANRM** Mid Flood (08:34) Mid Ebb (12:53)	15	16 **WQM, EMB** (Day) Mid Flood (08:34) Mid Ebb (12:53)	17 **AQM, NM**	18 **WQM** Mid Flood (08:33) Mid Ebb (14:27)	19
20	21 **WQM** Mid Flood (08:34) Mid Ebb (12:53)	22	23 **AQM, NM, WQM** Mid Flood (17:01) Mid Ebb (09:30)	24	25 **WQM** Mid Flood (08:33) Mid Ebb (14:27)	26
27	28 **WQM** Mid Flood (08:34) Mid Ebb (12:53)	29 **AQM, NM**	30 **WQM** Mid Flood (08:34) Mid Ebb (12:53)	31		

Remarks:

1. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
2. Air Quality Monitoring (**AQM**): 3 x 1-hour TSP Monitoring per 6 days.
3. Noise Monitoring (**NM**): Leq (30 min) during between 0700 - 1900.
4. Water Quality Monitoring (**WQM**): Once per day for 3 days per week.
5. Ecological Monitoring of Birds (**EMB**): Once per month.
6. Ardeid Night Roost Monitoring (**ANRM**): Once per month.
7. Air Quality Location: AM1 and AM2.
8. Noise Monitoring Location: CM1, CM2 and CM3.
9. Water Quality Monitoring Location: M1, M2, M3.

Project: Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

Environmental Monitoring Schedule (August 2025)

Sun	Mon	Tue	Wed	Thur	Fri	Sat
					1 **WQM** Mid Flood (15:25) Mid Ebb (10:35)	2
3	4 **WQM, AQM, NM** Mid Flood (18:30) Mid Ebb (12:31)	5	6 **WQM** Mid Flood (09:55) Mid Ebb (013:30)	7	8 **WQM** Mid Flood (08:22) Mid Ebb (14:56)	9 **AQM**
10	11 **WQM** Mid Flood (17:10) Mid Ebb (09:22)	12	13 **WQM** Mid Flood (13:01) Mid Ebb (15:12)	14 **EMB** (Day)	15 **WQM, AQM, NM** Mid Flood (15:13) Mid Ebb (10:09)	16
17	18 **WQM** Mid Flood (18:11) Mid Ebb (11:53)	19 **ANRM**	20 **WQM** Mid Flood (17:45) Mid Ebb (12:57)	21 **AQM, NM**	22 **WQM** Mid Flood (09:05) Mid Ebb (14:13)	23
24	25 **WQM** Mid Flood (08:46) Mid Ebb (16:18)	26	27 **WQM, AQM, NM** Mid Flood (10:25) Mid Ebb (17:56)	28	29 **WQM** Mid Flood (13:26) Mid Ebb (08:44)	30
31						

Remarks:

1. Actual monitoring may be subjected to change due to any safety concern or adverse weather condition.
2. Air Quality Monitoring (**AQM**): 3 x 1-hour TSP Monitoring per 6 days.
3. Noise Monitoring (**NM**): Leq (30 min) during between 0700 - 1900.
4. Water Quality Monitoring (**WQM**): Once per day for 3 days per week.
5. Ecological Monitoring of Birds (**EMB**): Once per month.
6. Ardeid Night Roost Monitoring (**ANRM**): Once per month.
7. Air Quality Location: AM1 and AM2.
8. Noise Monitoring Location: CM1, CM2 and CM3.
9. Water Quality Monitoring Location: M1, M2, M3.

Appendix F
Environmental Monitoring Results

Air Quality Monitoring Results

1-hour TSP Monitoring Result for

Contract No. SPW 02/2023

Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

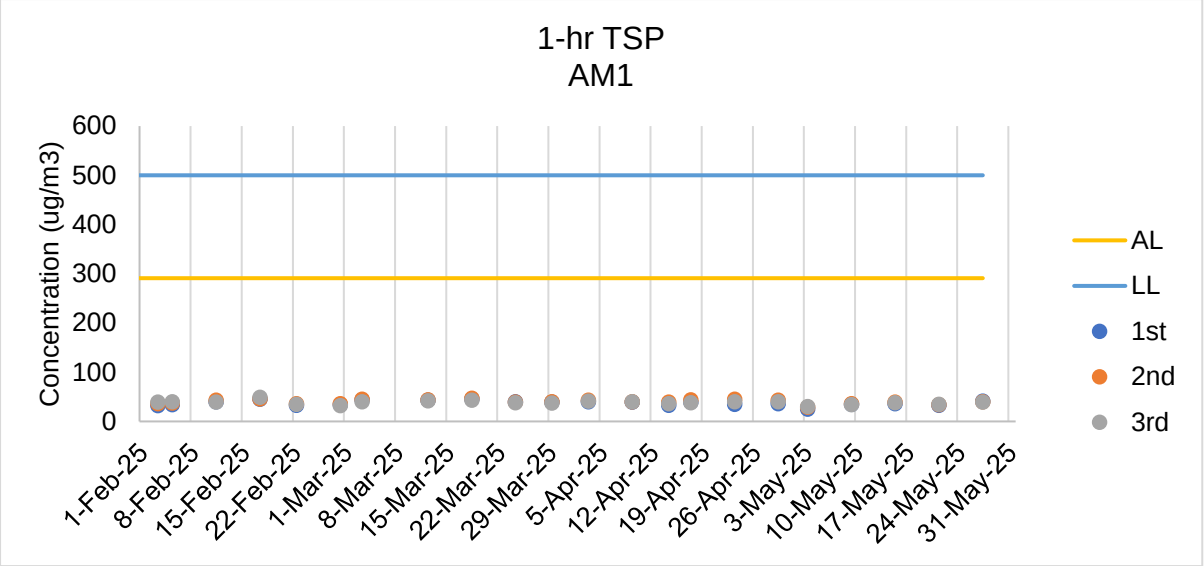
AM1 - Topfine Machinery (China) Co. Ltd.

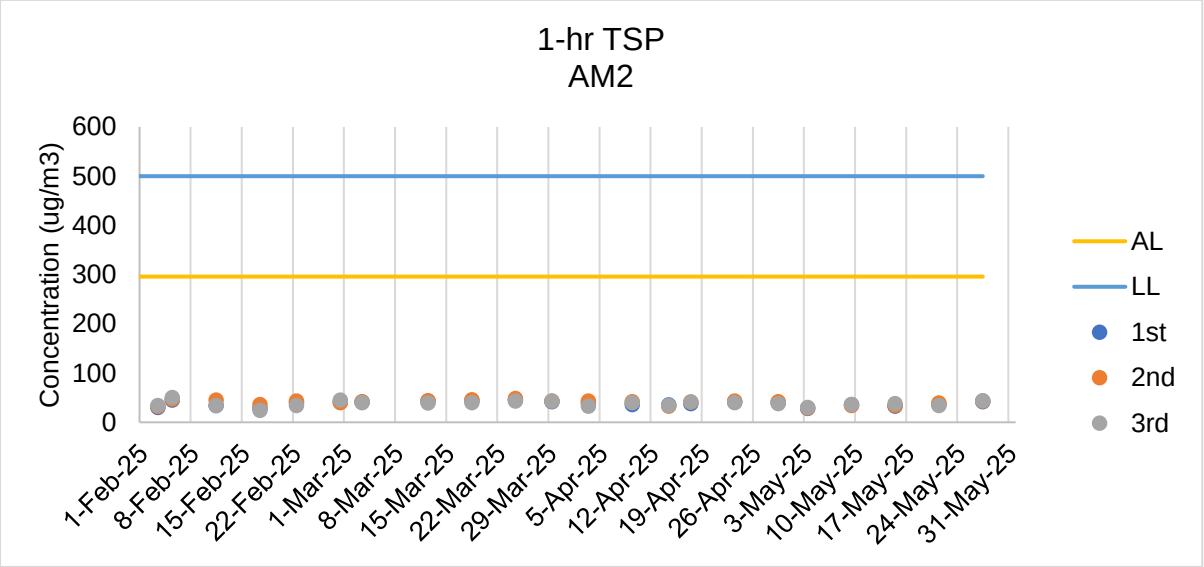
Date	Weather Condition	Start Time	1-hour TSP (µg/m³) 1st Measurement	2nd Measurement	3rd Measurement	Action Level (ug/m^3)	Limit Level (ug/m^3)
3/5/2025	Fine	8:23	25	29	30	291	500
9/5/2025	Fine	8:11	35	36	34		
15/5/2025	Fine	8:21	36	39	38		
21/5/2025	Fine	8:45	33	34	35		
27/5/2025	Fine	8:44	41	40	39		
		Min	25				
		Max	41				
		Average	35				

AM2 - Squatter house at the west of Yuen Long STW

Date	Weather Condition	Start Time	1-hour TSP (µg/m³) 1st Measurement	2nd Measurement	3rd Measurement	Action Level (ug/m^3)	Limit Level (ug/m^3)
3/5/2025	Fine	13:11	28	29	30	296	500
9/5/2025	Fine	13:02	36	34	36		
15/5/2025	Fine	15:21	33	34	38		
21/5/2025	Fine	13:45	36	39	34		
27/5/2025	Fine	13:55	42	43	44		
		Min	28				
		Max	44				
		Average	36				

Note:
Underline: Exceedance of Action Level
Underline and Bold: Exceedance of Limit Level





Air Quality Monitoring Results

Noise Monitoring Results

Noise Impact Monitoring Result for
Contract No. SPW 02/2023
Environmental Team for Construction of Yuen Long Effluent Polishing Plant Stage 1

CM1 - Squatter house to the north of YLSTW

Date	Start Time	L_{eq} 30min dB(A)	L_{10} dB(A)	L_{90} dB(A)	Wind Speed (m/s)	Weather	Limit Level dB(A)
9/5/2025	10:11	56.5	57.5	55.2	3.6	sunny	75
15/5/2025	10:10	54.5	56.5	53.4	0.9	sunny	75
21/5/2025	10:35	60.2	62.5	59.5	0.2	sunny	75
27/5/2025	10:43	56.2	58.2	55.1	1.1	sunny	75
	Max	60.2					
	Min	54.5					

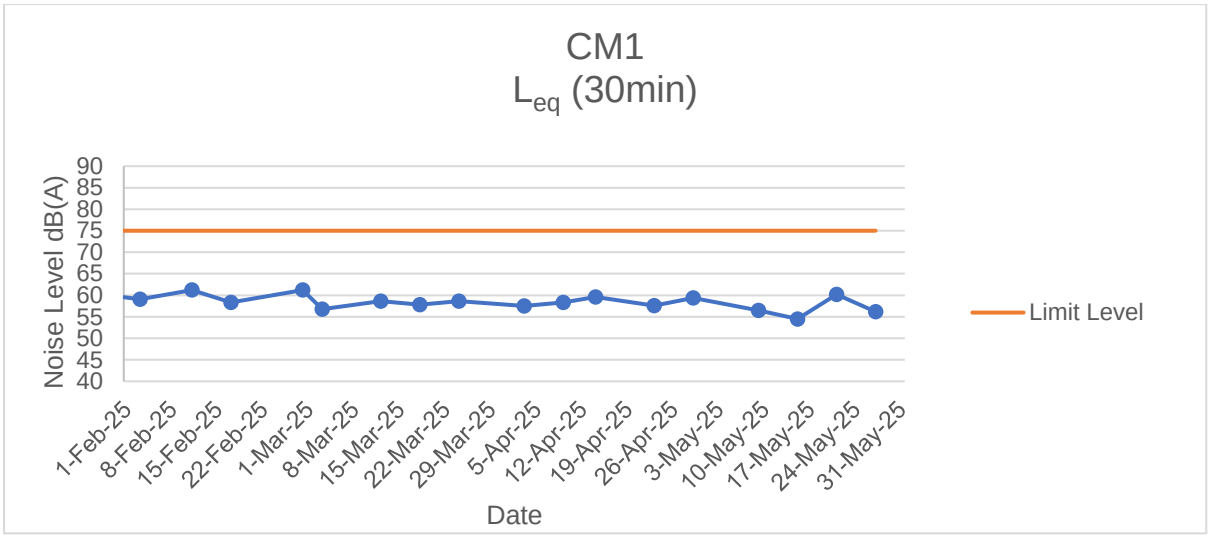
CM2 - Squatter house to the west of YLSTW

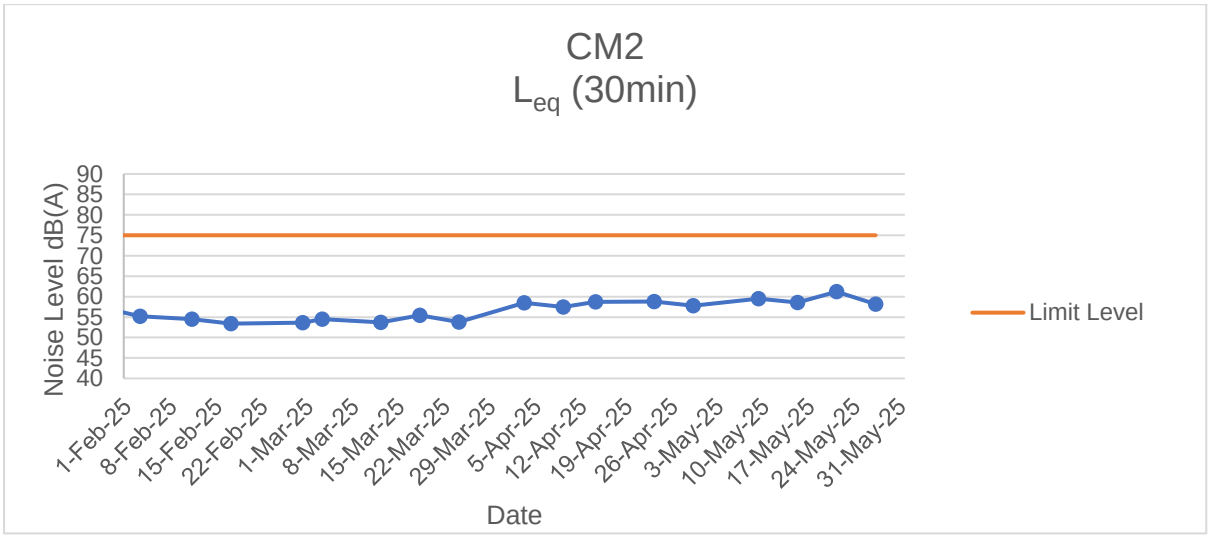
Date	Start Time	L_{eq} 30min dB(A)	L_{10} dB(A)	L_{90} dB(A)	Wind Speed (m/s)	Weather	Limit Level dB(A)
9/5/2025	13:02	59.5	61.2	58.2	0.7	sunny	75
15/5/2025	15:21	58.6	60.2	57.4	1.3	sunny	75
21/5/2025	13:45	61.2	62.5	58.9	2.4	sunny	75
27/5/2025	13:55	58.2	60.3	56.6	3.7	sunny	75
	Max	61.2					
	Min	58.2					

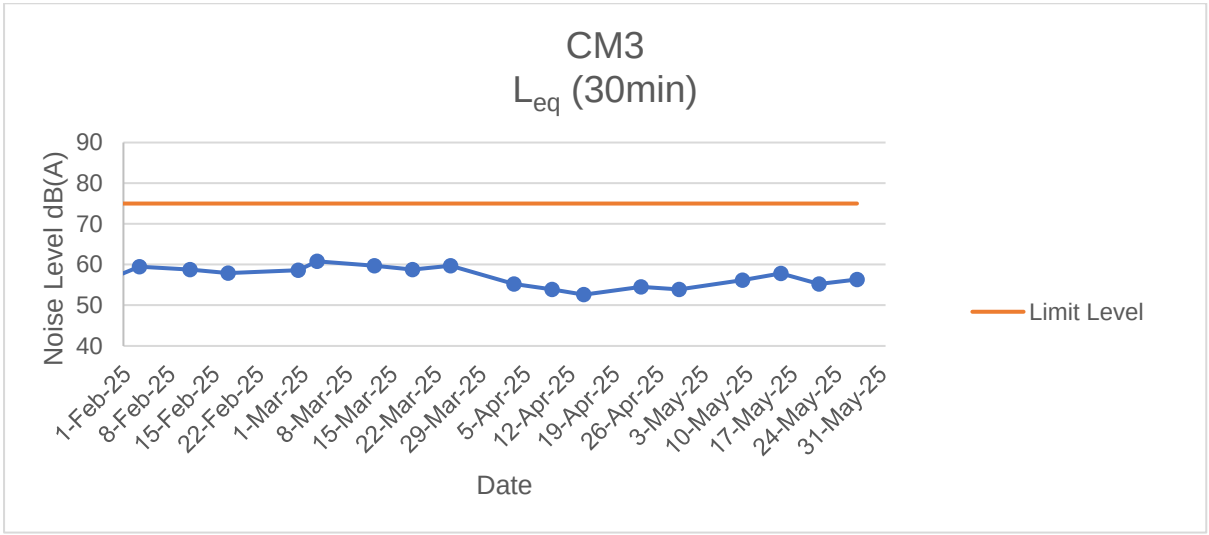
CM3 - Squatter house to the east of YLSTW

Date	Start Time	L_{eq} 30min dB(A)	L_{10} dB(A)	L_{90} dB(A)	Wind Speed (m/s)	Weather	Limit Level dB(A)
9/5/2025	8:39	56.2	58.2	55.2	0.1	sunny	75
15/5/2025	8:43	57.8	59.5	56.0	1.0	sunny	75
21/5/2025	9:07	55.2	56.2	53.2	4.1	sunny	75
27/5/2025	9:10	56.3	58.1	55.1	0.1	sunny	75
	Max	57.8					
	Min	55.2					

Note:
CM1, CM2 and CM3: Free-field measurement (+3dB(A) correction has been applied).
No raining or wind with speed over 5 m/s was observed during noise monitoring according to the onsite observation.







Noise Monitoring Results

Water Quality Monitoring Results

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	2/5/2025	Mid-Flood	Cloudy	Low	16:25	2.3	M	1.15	1	0.083	164.388	7.08	7.08	3.13	3.11	23.0	23.00	37.5	37.65	2.78	2.79	19.49	19.495	32	31
M1	2/5/2025	Mid-Flood	Cloudy	Low	16:25	2.3	M	1.15	2			7.08		3.09		23.0		37.8		2.8		19.5		30	
M2	2/5/2025	Mid-Flood	Cloudy	Low	16:55	2	M	1.00	1	0.092	178.382	7.09	7.10	3.05	3.09	23.0	23.05	37.9	37.65	2.81	2.79	20.40	20.21	29	31
M2	2/5/2025	Mid-Flood	Cloudy	Low	16:56	2	M	1.00	2			7.1		3.13		23.1		37.4		2.77		20.02		33	
M3	2/5/2025	Mid-Flood	Cloudy	Low	17:12	1.9	M	0.95	1	0.09	180.231	7.11	7.11	3.61	3.58	23.0	23.05	52.4	51.80	3.88	3.84	28.47	28.575	38	34
M3	2/5/2025	Mid-Flood	Cloudy	Low	17:12	1.9	M	0.95	2			7.1		3.54		23.1		51.2		3.79		28.68		29	
M1	2/5/2025	Mid-Ebb	Cloudy	Low	9:13	2.4	M	1.20	1	0.072	324.249	7.07	7.07	3.12	3.10	22.9	22.95	38.2	38.15	2.83	2.83	19.16	19.155	30	28
M1	2/5/2025	Mid-Ebb	Cloudy	Low	9:13	2.4	M	1.20	2			7.06		3.07		23.0		38.1		2.82		19.15		26	
M2	2/5/2025	Mid-Ebb	Cloudy	Low	8:47	2.2	M	1.10	1	0.063	342.122	7.08	7.08	2.99	2.96	22.9	22.95	37.5	36.55	2.78	2.71	19.30	19.22	30	32
M2	2/5/2025	Mid-Ebb	Cloudy	Low	8:47	2.2	M	1.10	2			7.08		2.93		23.0		35.6		2.64		19.14		33	
M3	2/5/2025	Mid-Ebb	Cloudy	Low	9:25	2	M	1.00	1	0.062	319.953	7.12	7.13	3.68	3.69	22.9	22.95	52.5	52.70	3.89	3.91	28.85	28.805	30	30
M3	2/5/2025	Mid-Ebb	Cloudy	Low	9:25	2	M	1.00	2			7.14		3.7		23.0		52.9		3.92		28.76		29	

Remark

1. Orange and Bold: Action Level Exceedance (For Impact Station Only)
2. Red and Bold: Limit Level Exceedance (For Impact Station Only)
3. Action Level for Turbidity: 95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day.
4. Limit Level for Turbidity: 99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day.
5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	5/5/2025	Mid-Flood	Cloudy	Low	16:23	2.4	M	1.20	1	0.074	185.505	7.11	7.11	2.95	2.96	23.6	23.65	36.5	37.10	2.7	2.75	24.43	24.36	2.5	3
M1	5/5/2025	Mid-Flood	Cloudy	Low	16:23	2.4	M	1.20	2			7.11		2.97		23.7		37.7		2.79		24.29		2.5	
M2	5/5/2025	Mid-Flood	Cloudy	Low	16:51	2.1	M	1.05	1	0.088	186.965	7.12	7.11	2.88	2.88	23.6	23.60	37.1	36.70	2.75	2.72	22.34	21.965	2.5	3
M2	5/5/2025	Mid-Flood	Cloudy	Low	16:52	2.1	M	1.05	2			7.1		2.88		23.6		36.3		2.69		21.59		2.5	
M3	5/5/2025	Mid-Flood	Cloudy	Low	17:03	1.9	M	0.95	1	0.084	173.746	7.11	7.12	3.49	3.50	23.6	23.65	50.2	49.85	3.72	3.70	29.51	29.93	2.5	3
M3	5/5/2025	Mid-Flood	Cloudy	Low	17:04	1.9	M	0.95	2			7.13		3.5		23.7		49.5		3.67		30.35		2.5	
M1	5/5/2025	Mid-Ebb	Cloudy	Low	14:45	2.5	M	1.25	1	0.079	330.444	7.1	7.11	2.91	2.89	23.8	23.85	37.1	36.80	2.75	2.73	19.00	18.975	2.5	3
M1	5/5/2025	Mid-Ebb	Cloudy	Low	14:45	2.5	M	1.25	2			7.11		2.86		23.9		36.5		2.7		18.95		2.5	
M2	5/5/2025	Mid-Ebb	Cloudy	Low	14:12	2.3	M	1.15	1	0.071	316.1	7.11	7.12	3.08	3.08	23.8	23.80	38.1	38.70	2.82	2.87	21.55	21.815	2.5	3
M2	5/5/2025	Mid-Ebb	Cloudy	Low	14:12	2.3	M	1.15	2			7.13		3.07		23.8		39.3		2.91		22.08		2.5	
M3	5/5/2025	Mid-Ebb	Cloudy	Low	14:55	2	M	1.00	1	0.059	302.288	7.09	7.09	3.85	3.87	23.8	23.85	50.4	51.00	3.73	3.78	29.91	29.18	2.5	3
M3	5/5/2025	Mid-Ebb	Cloudy	Low	14:55	2	M	1.00	2			7.08		3.88		23.9		51.6		3.82		28.45		2.5	

Remark

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	7/5/2025	Mid-Flood	Cloudy	Low	10:32	2.3	M	1.15	1	0.086	186.353	7.12	7.13	2.85	2.82	24.8	24.80	36.5	35.80	2.7	2.65	25.58	25.66	22	23
M1	7/5/2025	Mid-Flood	Cloudy	Low	10:32	2.3	M	1.15	2			7.13		2.79		24.8		35.1		2.6		25.74		23	
M2	7/5/2025	Mid-Flood	Cloudy	Low	11:04	2.1	M	1.05	1	0.087	181.975	7.11	7.11	2.89	2.89	24.8	24.80	36.6	35.90	2.71	2.66	26.09	25.885	39	38
M2	7/5/2025	Mid-Flood	Cloudy	Low	11:05	2.1	M	1.05	2			7.1		2.89		24.8		35.2		2.61		25.68		37	
M3	7/5/2025	Mid-Flood	Cloudy	Low	11:16	2	M	1.00	1	0.086	182.719	7.15	7.15	3.33	3.29	24.6	24.60	51.0	51.30	3.78	3.80	33.35	33.185	35	34
M3	7/5/2025	Mid-Flood	Cloudy	Low	11:16	2	M	1.00	2			7.15		3.25		24.6		51.6		3.82		33.02		33	
M1	7/5/2025	Mid-Ebb	Cloudy	Low	16:28	2.4	M	1.20	1	0.061	325.549	7.11	7.12	2.75	2.80	24.4	24.40	37.5	37.80	2.78	2.80	24.14	24.3	41	39
M1	7/5/2025	Mid-Ebb	Cloudy	Low	16:29	2.4	M	1.20	2			7.12		2.85		24.4		38.1		2.82		24.46		37	
M2	7/5/2025	Mid-Ebb	Cloudy	Low	15:54	2.2	M	1.10	1	0.069	308.486	7.12	7.13	2.72	2.76	24.4	24.40	35.6	34.70	2.64	2.57	23.32	23.335	28	29
M2	7/5/2025	Mid-Ebb	Cloudy	Low	15:55	2.2	M	1.10	2			7.13		2.79		24.4		33.8		2.5		23.35		29	
M3	7/5/2025	Mid-Ebb	Cloudy	Low	16:38	2	M	1.00	1	0.075	319.248	7.16	7.17	3.48	3.47	24.4	24.40	51.8	51.00	3.84	3.78	32.65	32.52	48	46
M3	7/5/2025	Mid-Ebb	Cloudy	Low	16:39	2	M	1.00	2			7.17		3.46		24.4		50.2		3.72		32.39		43	

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	9/5/2025	Mid-Flood	Cloudy	Low	11:32	2.5	M	1.25	1	0.08	189.69	7.11	7.11	2.88	2.88	25.1	25.10	37.3	36.60	2.76	2.71	22.52	22.395	19	19
M1	9/5/2025	Mid-Flood	Cloudy	Low	11:33	2.5	M	1.25	2			7.1		2.87		25.1		35.9		2.66		22.27		18	
M2	9/5/2025	Mid-Flood	Cloudy	Low	12:05	2.2	M	1.10	1	0.081	175.162	7.09	7.09	2.91	2.89	25.1	25.10	36.6	36.05	2.71	2.67	23.58	23.575	16	18
M2	9/5/2025	Mid-Flood	Cloudy	Low	12:05	2.2	M	1.10	2			7.09		2.87		25.1		35.5		2.63		23.57		19	
M3	9/5/2025	Mid-Flood	Cloudy	Low	12:15	2	M	1.00	1	0.079	190.817	7.12	7.12	3.47	3.51	25.4	25.40	51.6	52.20	3.82	3.87	28.55	28.62	17	18
M3	9/5/2025	Mid-Flood	Cloudy	Low	12:15	2	M	1.00	2			7.11		3.55		25.4		52.8		3.91		28.69		19	
M1	9/5/2025	Mid-Ebb	Cloudy	Low	18:03	2.5	M	1.25	1	0.077	334.751	7.08	7.08	2.83	2.82	24.8	24.85	38.2	38.25	2.83	2.84	27.11	26.93	19	18
M1	9/5/2025	Mid-Ebb	Cloudy	Low	18:03	2.5	M	1.25	2			7.07		2.81		24.9		38.3		2.84		26.75		17	
M2	9/5/2025	Mid-Ebb	Cloudy	Low	17:36	2.2	M	1.10	1	0.073	320.418	7.09	7.10	2.74	2.71	24.9	24.90	37.7	36.95	2.79	2.74	25.65	25.625	20	22
M2	9/5/2025	Mid-Ebb	Cloudy	Low	17:36	2.2	M	1.10	2			7.11		2.67		24.9		36.2		2.68		25.6		23	
M3	9/5/2025	Mid-Ebb	Cloudy	Low	18:15	2	M	1.00	1	0.067	332.765	7.11	7.12	3.53	3.52	25.0	25.00	50.5	50.00	3.74	3.71	30.96	30.94	20	19
M3	9/5/2025	Mid-Ebb	Cloudy	Low	18:16	2	M	1.00	2			7.12		3.5		25.0		49.5		3.67		30.92		18	

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	12/5/2025	Mid-Flood	Sunny	Low	12:59	2.3	M	1.15	1	0.078	182.212	7.11	7.12	2.89	2.91	24.8	24.80	38.9	38.40	2.88	2.85	19.48	19.295	26	32
M1	12/5/2025	Mid-Flood	Sunny	Low	13:00	2.3	M	1.15	2			7.13		2.92		24.8		37.9		2.81		19.11		37	
M2	12/5/2025	Mid-Flood	Sunny	Low	13:36	2.1	M	1.05	1	0.087	176.093	7.11	7.10	2.86	2.88	24.8	24.80	37.3	36.25	2.76	2.69	20.41	20.215	36	31
M2	12/5/2025	Mid-Flood	Sunny	Low	13:36	2.1	M	1.05	2			7.09		2.89		24.8		35.2		2.61		20.02		26	
M3	12/5/2025	Mid-Flood	Sunny	Low	13:49	1.8	M	0.90	1	0.082	163.57	7.15	7.16	3.65	3.65	25.1	25.10	52.0	51.80	3.85	3.84	27.63	27.755	37	37
M3	12/5/2025	Mid-Flood	Sunny	Low	13:49	1.8	M	0.90	2			7.16		3.64		25.1		51.6		3.82		27.88		37	
M1	12/5/2025	Mid-Ebb	Sunny	Low	8:45	2.2	M	1.10	1	0.06	308.394	7.11	7.11	2.88	2.86	24.2	24.20	38.2	38.80	2.83	2.88	20.09	20.21	35	37
M1	12/5/2025	Mid-Ebb	Sunny	Low	8:45	2.2	M	1.10	2			7.11		2.83		24.2		39.4		2.92		20.33		38	
M2	12/5/2025	Mid-Ebb	Sunny	Low	8:10	1.8	M	0.90	1	0.06	307.786	7.1	7.09	2.90	2.86	24.2	24.20	35.2	34.70	2.61	2.57	19.69	19.755	30	40
M2	12/5/2025	Mid-Ebb	Sunny	Low	8:11	1.8	M	0.90	2			7.08		2.81		24.2		34.2		2.53		19.82		49	
M3	12/5/2025	Mid-Ebb	Sunny	Low	9:03	1.8	M	0.90	1	0.076	314.473	7.14	7.14	3.57	3.57	24.5	24.50	53.9	53.55	3.99	3.97	26.93	27.015	43	44
M3	12/5/2025	Mid-Ebb	Sunny	Low	9:03	1.8	M	0.90	2			7.14		3.57		24.5		53.2		3.94		27.1		45	

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	14/5/2025	Mid-Flood	Sunny	Low	14:08	2.4	M	1.20	1	0.083	179.957	7.11	7.11	2.78	2.82	23.9	23.90	37.5	37.05	2.78	2.75	20.54	21.135	21	23
M1	14/5/2025	Mid-Flood	Sunny	Low	14:08	2.4	M	1.20	2			7.1		2.86		23.9		36.6		2.71		21.73		25	
M2	14/5/2025	Mid-Flood	Sunny	Low	14:38	2.1	M	1.05	1	0.076	175.658	7.12	7.13	2.83	2.79	23.9	23.90	37.7	37.90	2.79	2.81	20.30	20.47	18	18
M2	14/5/2025	Mid-Flood	Sunny	Low	14:39	2.1	M	1.05	2			7.13		2.74		23.9		38.1		2.82		20.64		17	
M3	14/5/2025	Mid-Flood	Sunny	Low	15:01	2	M	1.00	1	0.095	184.556	7.11	7.11	3.69	3.66	23.9	23.95	49.8	49.75	3.69	3.69	22.56	22.52	16	20
M3	14/5/2025	Mid-Flood	Sunny	Low	15:01	2	M	1.00	2			7.11		3.63		24.0		49.7		3.68		22.48		23	
M1	14/5/2025	Mid-Ebb	Sunny	Low	9:38	2.3	M	1.15	1	0.071	305.099	7.13	7.14	2.78	2.77	23.8	23.80	37.0	36.45	2.75	2.71	19.17	19.085	23	23
M1	14/5/2025	Mid-Ebb	Sunny	Low	9:38	2.3	M	1.15	2			7.15		2.75		23.8		35.9		2.66		19		23	
M2	14/5/2025	Mid-Ebb	Sunny	Low	9:00	2	M	1.00	1	0.081	339.366	7.14	7.15	2.85	2.88	23.8	23.80	36.7	37.25	2.72	2.76	20.26	19.07	24	21
M2	14/5/2025	Mid-Ebb	Sunny	Low	9:00	2	M	1.00	2			7.16		2.9		23.8		37.8		2.8		17.88		18	
M3	14/5/2025	Mid-Ebb	Sunny	Low	9:48	1.9	M	0.95	1	0.063	312.251	7.15	7.15	3.59	3.57	23.8	23.80	50.1	49.40	3.71	3.66	25.89	25.04	25	32
M3	14/5/2025	Mid-Ebb	Sunny	Low	9:48	1.9	M	0.95	2			7.14		3.54		23.8		48.7		3.61		24.19		38	

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	16/5/2025	Mid-Flood	Sunny	Low	15:24	2.4	M	1.20	1	0.076	176.25	7.15	7.15	3.16	3.19	24.5	24.50	39.3	39.00	2.91	2.89	22.55	22.47	21	22
M1	16/5/2025	Mid-Flood	Sunny	Low	15:25	2.4	M	1.20	2			7.15		3.22		24.5		38.7		2.87		22.39		22	
M2	16/5/2025	Mid-Flood	Sunny	Low	15:58	2.2	M	1.10	1	0.088	187.237	7.14	7.14	3.21	3.20	24.5	24.50	38.2	38.60	2.83	2.86	21.49	21.3	22	22
M2	16/5/2025	Mid-Flood	Sunny	Low	15:58	2.2	M	1.10	2			7.14		3.18		24.5		39.0		2.89		21.11		22	
M3	16/5/2025	Mid-Flood	Sunny	Low	16:08	2	M	1.00	1	0.073	189.735	7.21	7.21	3.85	3.86	24.2	24.20	51.0	51.55	3.78	3.82	25.63	25.505	20	17
M3	16/5/2025	Mid-Flood	Sunny	Low	16:08	2	M	1.00	2			7.2		3.86		24.2		52.1		3.86		25.38		13	
M1	16/5/2025	Mid-Ebb	Sunny	Low	8:34	2.3	M	1.15	1	0.058	300.917	7.13	7.12	3.02	2.99	24.3	24.30	37.4	37.15	2.77	2.75	21.24	21.39	16	16
M1	16/5/2025	Mid-Ebb	Sunny	Low	8:34	2.3	M	1.15	2			7.11		2.95		24.3		36.9		2.73		21.54		16	
M2	16/5/2025	Mid-Ebb	Sunny	Low	8:01	2	M	1.00	1	0.059	324.92	7.14	7.15	2.95	2.94	24.3	24.30	37.5	37.25	2.78	2.76	22.33	22.475	18	19
M2	16/5/2025	Mid-Ebb	Sunny	Low	8:01	2	M	1.00	2			7.15		2.92		24.3		37.0		2.74		22.62		19	
M3	16/5/2025	Mid-Ebb	Sunny	Low	8:49	1.9	M	0.95	1	0.06	341.332	7.2	7.19	3.98	4.03	24.6	24.60	51.3	51.25	3.8	3.80	24.98	24.82	22	20
M3	16/5/2025	Mid-Ebb	Sunny	Low	8:49	1.9	M	0.95	2			7.18		4.07		24.6		51.2		3.79		24.66		17	

Remark

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5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	19/5/2025	Mid-Flood	Cloudy	Low	17:40	2.5	M	1.25	1	0.081	165.151	7.08	7.07	2.75	2.80	24.5	24.55	39.4	39.50	2.92	2.93	22.11	21.915	25	25
M1	19/5/2025	Mid-Flood	Cloudy	Low	17:40	2.5	M	1.25	2			7.06		2.84		24.6		39.6		2.93		21.72		25	
M2	19/5/2025	Mid-Flood	Cloudy	Low	18:05	2.3	M	1.15	1	0.08	169.376	7.09	7.10	2.84	2.87	24.5	24.50	40.4	39.80	2.99	2.95	22.47	22.38	23	31
M2	19/5/2025	Mid-Flood	Cloudy	Low	18:05	2.3	M	1.15	2			7.1		2.9		24.5		39.2		2.9		22.29		38	
M3	19/5/2025	Mid-Flood	Cloudy	Low	18:30	2	M	1.00	1	0.079	184.143	7.12	7.13	3.69	3.68	24.5	24.55	52.0	51.00	3.85	3.78	28.57	28.655	38	39
M3	19/5/2025	Mid-Flood	Cloudy	Low	18:30	2	M	1.00	2			7.14		3.67		24.6		50.0		3.7		28.74		40	
M1	19/5/2025	Mid-Ebb	Cloudy	Low	10:40	2.4	M	1.20	1	0.066	335.192	7.08	7.09	2.48	2.45	24.6	24.60	36.9	37.55	2.73	2.78	21.10	21.26	36	28
M1	19/5/2025	Mid-Ebb	Cloudy	Low	10:41	2.4	M	1.20	2			7.09		2.41		24.6		38.2		2.83		21.42		20	
M2	19/5/2025	Mid-Ebb	Cloudy	Low	10:02	2.1	M	1.05	1	0.069	337.881	7.07	7.08	2.64	2.66	24.6	24.60	48.7	49.75	3.68	3.72	22.25	22.305	20	27
M2	19/5/2025	Mid-Ebb	Cloudy	Low	10:02	2.1	M	1.05	2			7.09		2.67		24.6		50.8		3.76		22.36		34	
M3	19/5/2025	Mid-Ebb	Cloudy	Low	10:56	1.9	M	0.95	1	0.079	313.267	7.12	7.11	3.88	3.87	24.6	24.65	52.8	52.30	3.91	3.88	28.93	28.94	30	29
M3	19/5/2025	Mid-Ebb	Cloudy	Low	10:56	1.9	M	0.95	2			7.1		3.85		24.7		51.8		3.84		28.95		28	

Remark

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	21/5/2025	Mid-Flood	Cloudy	Low	8:37	2.4	M	1.20	1	0.074	190.898	7.15	7.16	3.35	3.38	24.1	24.10	36.7	37.70	2.82	2.85	26.41	25.995	28	27
M1	21/5/2025	Mid-Flood	Cloudy	Low	8:37	2.4	M	1.20	2			7.17		3.4		24.1		38.7		2.87		25.58		26	
M2	21/5/2025	Mid-Flood	Cloudy	Low	9:03	2.1	M	1.05	1	0.076	185.856	7.15	7.18	3.44	3.42	24.1	24.15	37.4	38.05	2.77	2.82	23.85	23.975	23	26
M2	21/5/2025	Mid-Flood	Cloudy	Low	9:04	2.1	M	1.05	2			7.21		3.39		24.2		38.7		2.87		24.1		29	
M3	21/5/2025	Mid-Flood	Cloudy	Low	9:12	1.9	M	0.95	1	0.077	174.479	7.18	7.20	3.92	3.89	24.1	24.15	51.8	50.35	3.84	3.73	27.46	27.41	25	22
M3	21/5/2025	Mid-Flood	Cloudy	Low	9:12	1.9	M	0.95	2			7.21		3.86		24.2		48.9		3.62		27.36		19	
M1	21/5/2025	Mid-Ebb	Cloudy	Low	13:49	2.4	M	1.20	1	0.077	303.056	7.14	7.13	3.12	3.16	24.5	24.50	36.3	36.90	2.69	2.74	19.68	19.495	23	24
M1	21/5/2025	Mid-Ebb	Cloudy	Low	13:49	2.4	M	1.20	2			7.12		3.19		24.5		37.5		2.78		19.31		25	
M2	21/5/2025	Mid-Ebb	Cloudy	Low	13:17	2	M	1.00	1	0.068	341.924	7.13	7.14	3.21	3.21	24.5	24.50	37.0	37.45	2.74	2.78	20.34	20.495	20	20
M2	21/5/2025	Mid-Ebb	Cloudy	Low	13:17	2	M	1.00	2			7.15		3.2		24.5		37.9		2.81		20.65		20	
M3	21/5/2025	Mid-Ebb	Cloudy	Low	14:01	1.8	M	0.90	1	0.078	334.967	7.19	7.20	3.99	3.98	24.5	24.55	51.4	51.00	3.81	3.78	26.85	26.89	24	24
M3	21/5/2025	Mid-Ebb	Cloudy	Low	14:01	1.8	M	0.90	2			7.21		3.96		24.6		50.6		3.75		26.93		24	

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	23/5/2025	Mid-Flood	Cloudy	Low	10:21	2.3	M	1.15	1	0.089	187.501	7.18	7.17	2.99	3.03	24.9	24.95	38.7	39.40	2.93	2.99	21.88	22.15	23	23
M1	23/5/2025	Mid-Flood	Cloudy	Low	10:21	2.3	M	1.15	2			7.16		3.06		25		40.1		3.04		22.42		22	
M2	23/5/2025	Mid-Flood	Cloudy	Low	10:55	2	M	1.00	1	0.093	188.364	7.17	7.17	3.07	3.04	24.9	24.95	37.6	36.70	2.85	2.78	21.42	21.265	25	31
M2	23/5/2025	Mid-Flood	Cloudy	Low	10:55	2	M	1.00	2			7.17		3		25		35.8		2.71		21.11		36	
M3	23/5/2025	Mid-Flood	Cloudy	Low	10:59	1.9	M	0.95	1	0.095	189.107	7.18	7.19	3.56	3.61	24.9	24.90	52.5	52.30	3.98	3.97	28.70	27.43	26	26
M3	23/5/2025	Mid-Flood	Cloudy	Low	10:59	1.9	M	0.95	2			7.2		3.65		24.9		52.1		3.95		26.16		25	
M1	23/5/2025	Mid-Ebb	Cloudy	Low	16:35	2.4	M	1.20	1	0.064	314.558	7.16	7.17	3.09	3.09	24.6	24.60	38.7	37.50	2.93	2.84	21.24	20.035	28	26
M1	23/5/2025	Mid-Ebb	Cloudy	Low	16:36	2.4	M	1.20	2			7.17		3.09		24.6		36.3		2.75		18.83		24	
M2	23/5/2025	Mid-Ebb	Cloudy	Low	16:05	1.9	M	0.95	1	0.067	305.437	7.16	7.17	2.93	2.94	24.6	24.60	37.9	36.95	2.87	2.80	21.28	20.36	30	31
M2	23/5/2025	Mid-Ebb	Cloudy	Low	16:05	1.9	M	0.95	2			7.18		2.95		24.6		36.0		2.73		19.44		32	
M3	23/5/2025	Mid-Ebb	Cloudy	Low	16:48	1.8	M	0.90	1	0.069	341.268	7.19	7.18	3.69	3.67	24.6	24.60	51.2	52.25	3.88	3.96	25.89	25.73	34	35
M3	23/5/2025	Mid-Ebb	Cloudy	Low	16:48	1.8	M	0.90	2			7.17		3.64		24.6		53.3		4.04		25.57		35	

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	26/5/2025	Mid-Flood	Sunny	Low	12:24	2.4	M	1.20	1	0.077	161.878	7.08	7.08	2.98	2.99	25.4	25.40	36.2	35.80	3.08	3.05	18.51	18.355	71	73
M1	26/5/2025	Mid-Flood	Sunny	Low	12:24	2.4	M	1.20	2			7.08		2.99		25.4		35.4		3.01		18.2		74	
M2	26/5/2025	Mid-Flood	Sunny	Low	12:51	2.1	M	1.05	1	0.091	167.125	7.09	7.08	2.85	2.85	25.5	25.50	34.0	34.10	2.89	2.90	18.25	18.185	67	66
M2	26/5/2025	Mid-Flood	Sunny	Low	12:52	2.1	M	1.05	2			7.07		2.84		25.5		34.2		2.91		18.12		65	
M3	26/5/2025	Mid-Flood	Sunny	Low	13:03	2	M	1.00	1	0.094	176.956	7.14	7.15	3.19	3.16	25.8	25.80	45.7	44.90	3.89	3.82	27.57	27.38	64	67
M3	26/5/2025	Mid-Flood	Sunny	Low	13:04	2	M	1.00	2			7.15		3.13		25.8		44.1		3.75		27.19		70	
M1	26/5/2025	Mid-Ebb	Sunny	Low	17:52	2.4	M	1.20	1	0.077	322.51	7.07	7.07	2.96	2.92	25.2	25.20	37.2	37.65	3.17	3.21	19.07	19.09	70	63
M1	26/5/2025	Mid-Ebb	Sunny	Low	17:53	2.4	M	1.20	2			7.06		2.87		25.2		38.1		3.24		19.11		56	
M2	26/5/2025	Mid-Ebb	Sunny	Low	17:18	2	M	1.00	1	0.058	320.253	7.07	7.06	3.02	3.04	25.3	25.30	35.1	34.60	2.99	2.94	19.20	19.08	70	68
M2	26/5/2025	Mid-Ebb	Sunny	Low	17:18	2	M	1.00	2			7.05		3.06		25.3		34.1		2.89		18.96		66	
M3	26/5/2025	Mid-Ebb	Sunny	Low	18:04	1.8	M	0.90	1	0.077	343.919	7.13	7.14	3.75	3.72	25.6	25.60	44.5	44.45	3.79	3.79	25.92	25.92	59	61
M3	26/5/2025	Mid-Ebb	Sunny	Low	18:05	1.8	M	0.90	2			7.14		3.69		25.6		44.4		3.78		25.92		62	

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For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	87	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	77.1	83.525

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	28/5/2025	Mid-Flood	Cloudy	Low	13:59	2.3	M	1.15	1	0.078	171.855	7.06	7.05	3.59	3.55	25.6	25.60	38.4	38.85	2.93	2.97	23.55	23.52	30	33
M1	28/5/2025	Mid-Flood	Cloudy	Low	13:59	2.3	M	1.15	2			7.04		3.5		25.6		39.3		3		23.49		36	
M2	28/5/2025	Mid-Flood	Cloudy	Low	14:28	2.1	M	1.05	1	0.092	162.547	7.08	7.08	3.68	3.71	25.6	25.60	39.7	38.90	3.03	2.97	24.25	24.26	22	31
M2	28/5/2025	Mid-Flood	Cloudy	Low	14:28	2.1	M	1.05	2			7.07		3.73		25.6		38.1		2.91		24.27		40	
M3	28/5/2025	Mid-Flood	Cloudy	Low	14:33	2	M	1.00	1	0.079	184.676	7.13	7.14	4.05	4.03	25.7	25.70	54.6	54.00	4.17	4.13	31.43	31.32	39	36
M3	28/5/2025	Mid-Flood	Cloudy	Low	14:33	2	M	1.00	2			7.15		4		25.7		53.4		4.08		31.21		32	
M1	28/5/2025	Mid-Ebb	Cloudy	Low	9:15	2.2	M	1.10	1	0.079	330.95	7.07	7.06	3.35	3.35	25.4	25.40	37.9	38.40	2.89	2.93	22.93	22.74	35	38
M1	28/5/2025	Mid-Ebb	Cloudy	Low	9:15	2.2	M	1.10	2			7.05		3.34		25.4		38.9		2.97		22.55		40	
M2	28/5/2025	Mid-Ebb	Cloudy	Low	8:41	1.9	M	0.95	1	0.065	315.872	7.1	7.09	3.48	3.44	25.3	25.30	38.3	38.75	2.92	2.96	24.30	24.17	38	37
M2	28/5/2025	Mid-Ebb	Cloudy	Low	8:42	1.9	M	0.95	2			7.08		3.39		25.3		39.2		2.99		24.04		35	
M3	28/5/2025	Mid-Ebb	Cloudy	Low	9:24	1.7	M	0.85	1	0.076	338.226	7.14	7.13	4.12	4.14	25.5	25.50	54.4	53.45	4.15	4.08	32.01	31.86	45	43
M3	28/5/2025	Mid-Ebb	Cloudy	Low	9:24	1.7	M	0.85	2			7.12		4.15		25.5		52.5		4.01		31.71		41	

Remark

1. Orange and Bold: Action Level Exceedance (For Impact Station Only)
2. Red and Bold: Limit Level Exceedance (For Impact Station Only)
3. Action Level for Turbidity: 95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day.
4. Limit Level for Turbidity: 99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day.
5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

For Flood Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

For Ebb Tide

Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

Contract No. SPW 02/2023 Environmental Team for Construction of Yuen Long Effluent Polishing
Water Quality Monitoring Results

Monitoring Location	Date	Tide Mode	Weather	Sea Condition	Time	Water Depth (m)	Monitoring Level	Monitoring Level (m)	Replicate	In-situ Measurement														Laboratory Analysis	
										Current Speed (m/s)	Current Direction (°)	pH		Salinity (ppt)		Temperature (degree C)		DO Saturation (%)		DO (mg/L)		Turbidity (NTU)		Total Suspended Solids (mg/L)	
												Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.	Value	Ave.
M1	30/5/2025	Mid-Flood	Cloudy	Low	15:31	2.4	M	1.20	1	0.083	186.387	7.12	7.13	2.93	2.97	26.5	26.50	38.1	38.30	2.82	2.84	25.44	25.62	31	31
M1	30/5/2025	Mid-Flood	Cloudy	Low	15:31	2.4	M	1.20	2			7.14		3.01		26.5		38.5		2.85		25.8		30	
M2	30/5/2025	Mid-Flood	Cloudy	Low	16:01	2.2	M	1.10	1	0.086	188.245	7.13	7.13	2.92	2.88	26.5	26.55	37.5	36.85	2.78	2.73	24.33	24.305	28	32
M2	30/5/2025	Mid-Flood	Cloudy	Low	16:02	2.2	M	1.10	2			7.12		2.84		26.6		36.2		2.68		24.28		36	
M3	30/5/2025	Mid-Flood	Cloudy	Low	16:09	2	M	1.00	1	0.092	164.409	7.19	7.20	3.34	3.31	26.5	26.50	50.5	50.10	3.74	3.71	31.28	31.405	38	33
M3	30/5/2025	Mid-Flood	Cloudy	Low	16:09	2	M	1.00	2			7.21		3.28		26.5		49.7		3.68		31.53		28	
M1	30/5/2025	Mid-Ebb	Cloudy	Low	10:33	2.2	M	1.10	1	0.07	334.299	7.11	7.12	2.78	2.76	26.1	26.15	37.0	36.75	2.74	2.72	22.98	22.815	32	30
M1	30/5/2025	Mid-Ebb	Cloudy	Low	10:34	2.2	M	1.10	2			7.13		2.73		26.2		36.5		2.7		22.65		27	
M2	30/5/2025	Mid-Ebb	Cloudy	Low	9:59	2	M	1.00	1	0.061	306.413	7.12	7.13	2.72	2.74	26.1	26.15	37.8	37.65	2.8	2.79	23.23	23.08	32	30
M2	30/5/2025	Mid-Ebb	Cloudy	Low	9:59	2	M	1.00	2			7.14		2.76		26.2		37.5		2.78		22.93		28	
M3	30/5/2025	Mid-Ebb	Cloudy	Low	10:48	1.8	M	0.90	1	0.073	303.229	7.18	7.19	3.44	3.48	26.1	26.15	52.0	52.65	3.85	3.90	31.88	31.81	27	31
M3	30/5/2025	Mid-Ebb	Cloudy	Low	10:49	1.8	M	0.90	2			7.19		3.52		26.2		53.3		3.95		31.74		35	

Remark

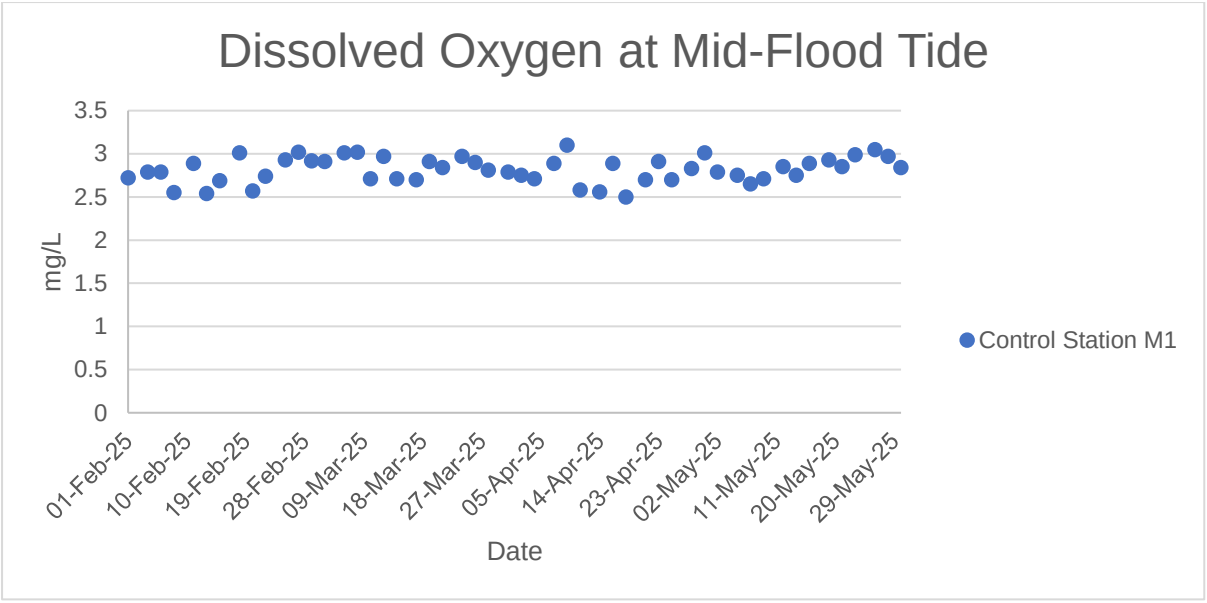
1. Orange and Bold: Action Level Exceedance (For Impact Station Only)
2. Red and Bold: Limit Level Exceedance (For Impact Station Only)
3. Action Level for Turbidity: 95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day.
4. Limit Level for Turbidity: 99%-ile of baseline data or 130% of upstream control station's turbidity recorded on the same day.
5. Action Level for SS: 95%-ile of baseline data or 120% of upstream control station's SS recorded on the same day.
6. Limit Level for SS: 99%-ile of baseline data or 130% of upstream control station's SS recorded on the same day.

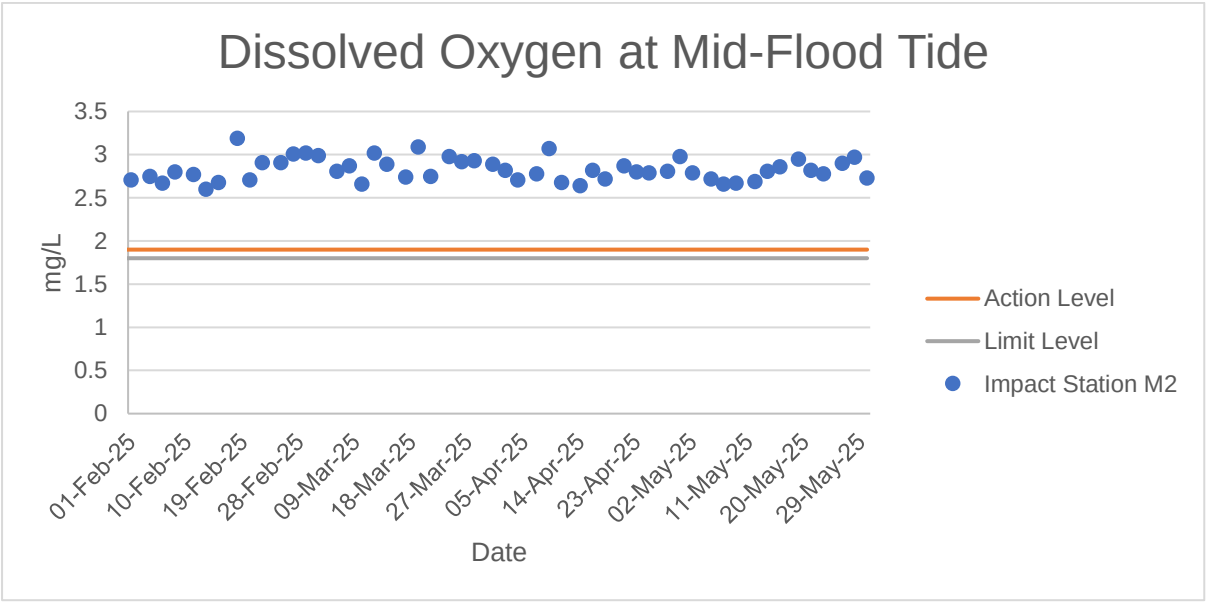
For Flood Tide

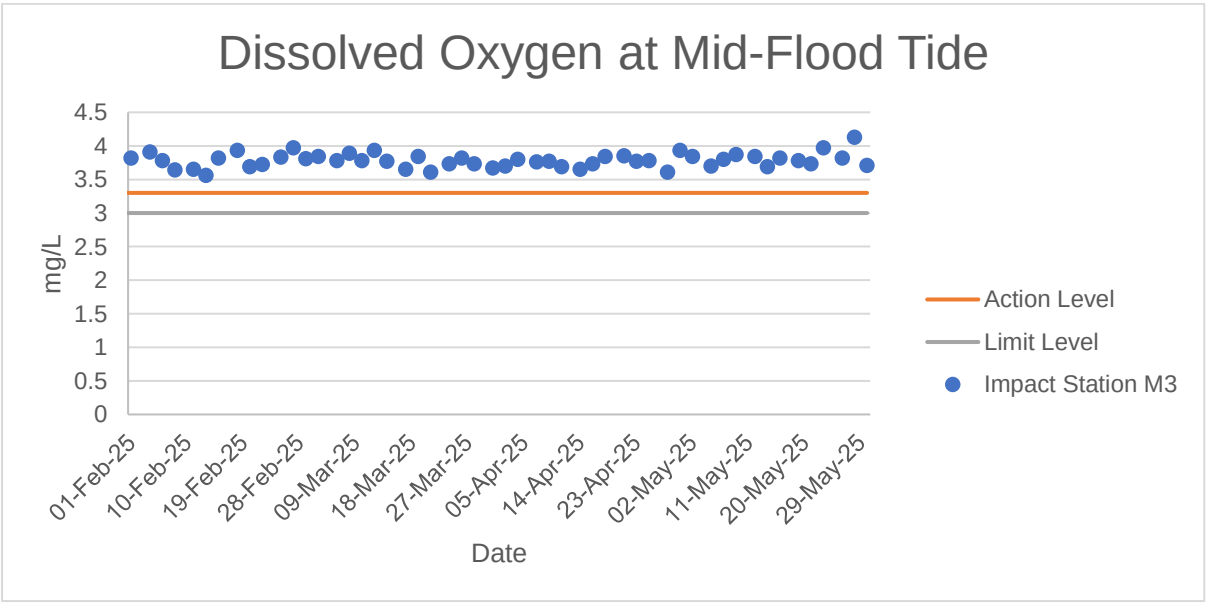
Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M2(Impact Station)	1.88	1.79	43.0	52.4	81	112
M3(Impact Station)	3.28	3.14	74	78	104	167

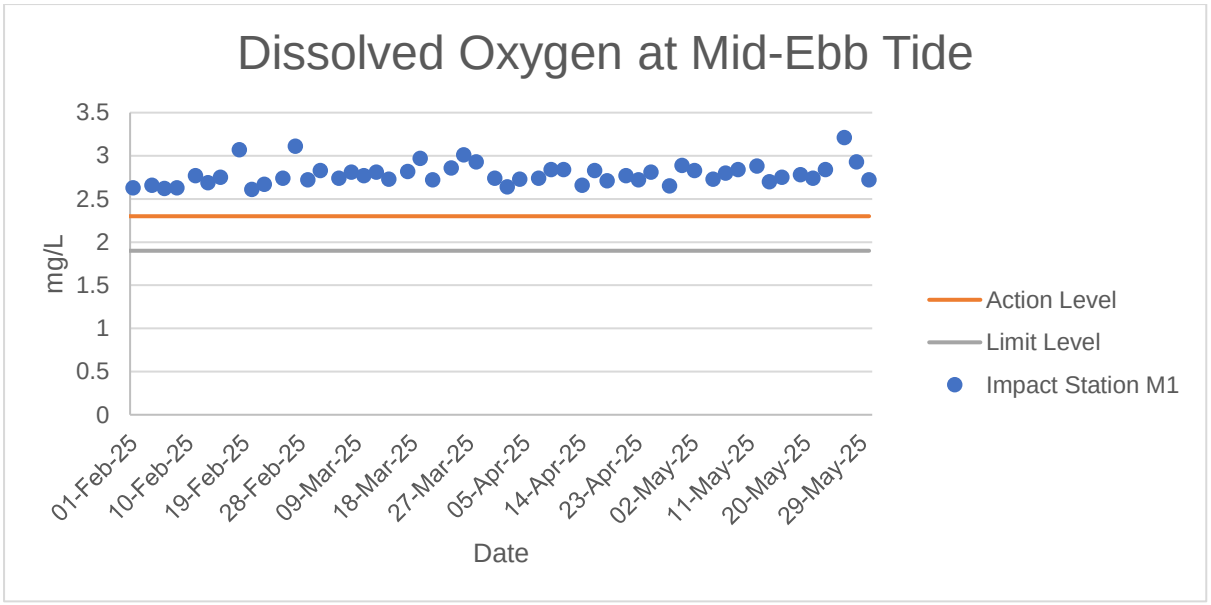
For Ebb Tide

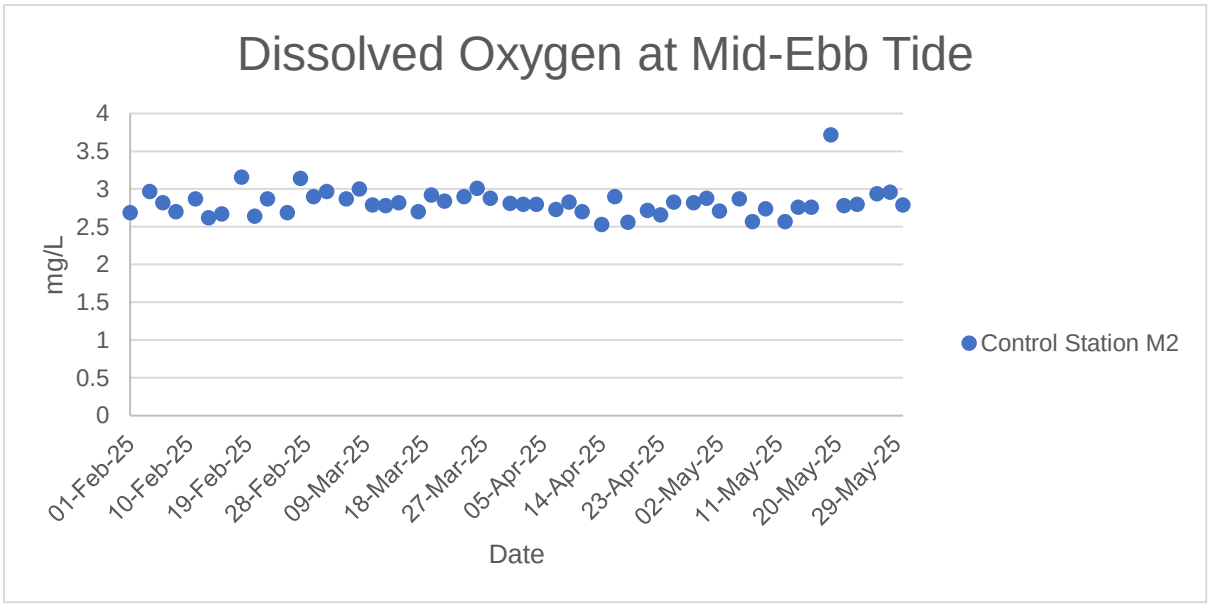
Monitoring Location	DO		NTU		SS	
	AL	LL	AL	LL	AL	LL
M1(Impact Station)	2.25	1.91	48.4	50.4	59	68

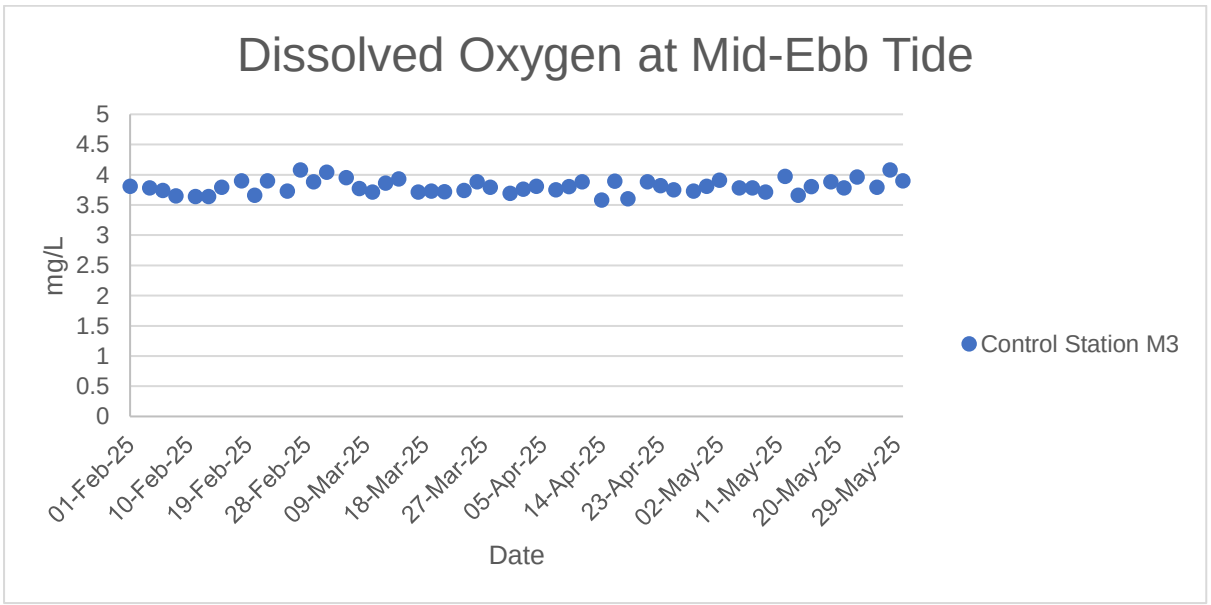

Dissolved Oxygen at Mid-Flood Tide
mg/L
3.5
3
2.5
2
1.5
1
0.5
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Control Station M1

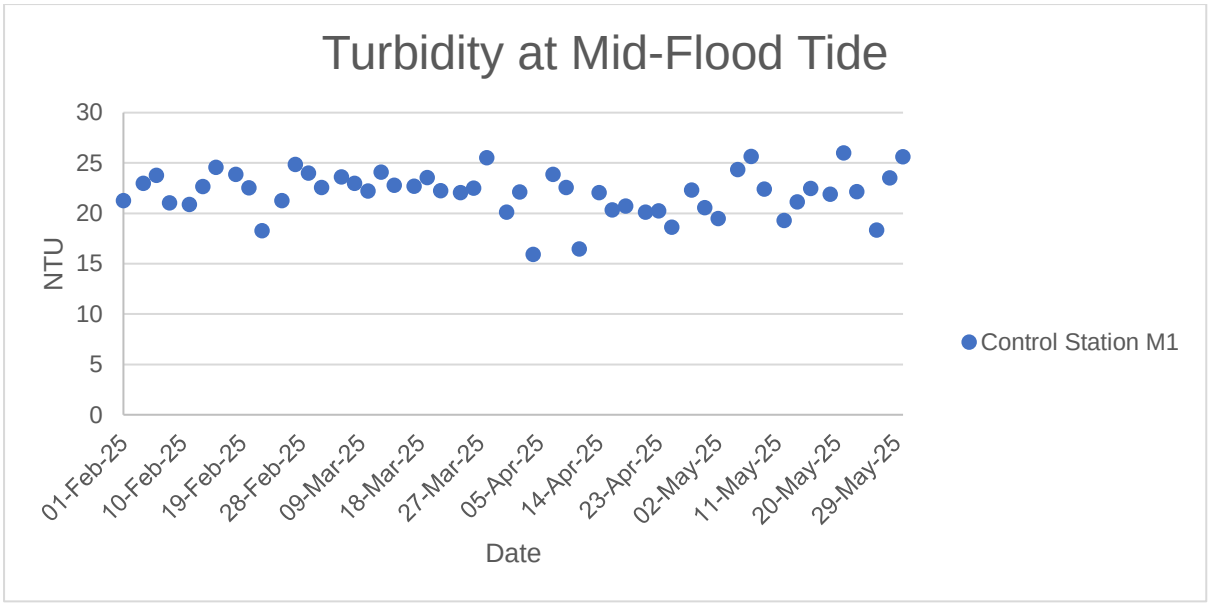

Dissolved Oxygen at Mid-Flood Tide
mg/L
3.5
3
2.5
2
1.5
1
0.5
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Action Level
Limit Level
Impact Station M2

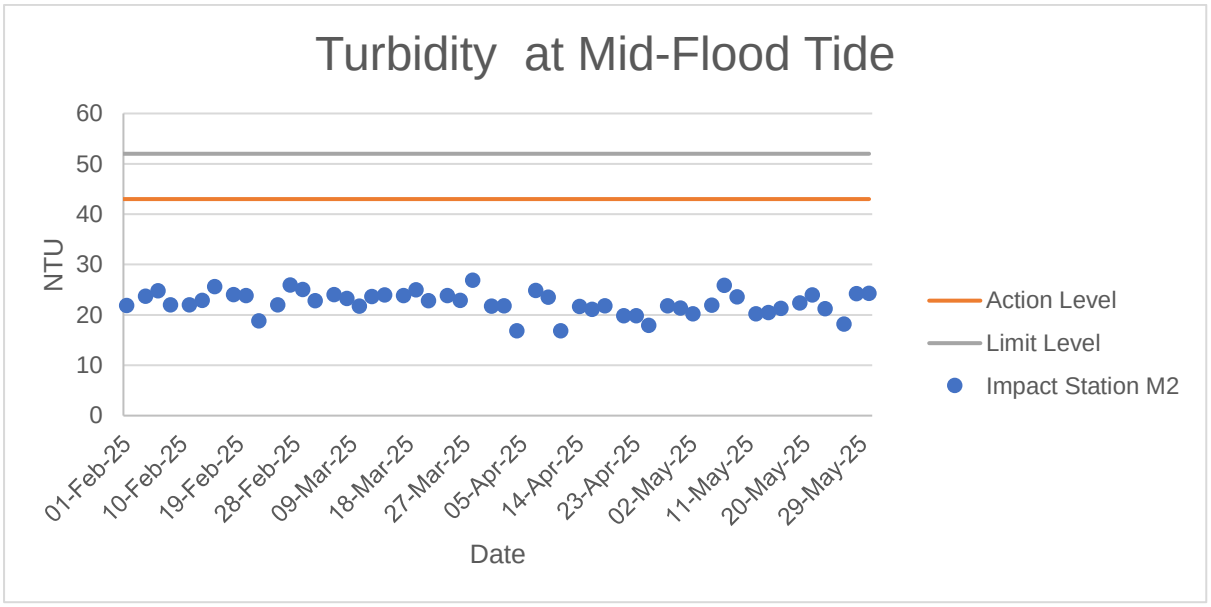

Dissolved Oxygen at Mid-Flood Tide
mg/L
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Action Level
Limit Level
Impact Station M3

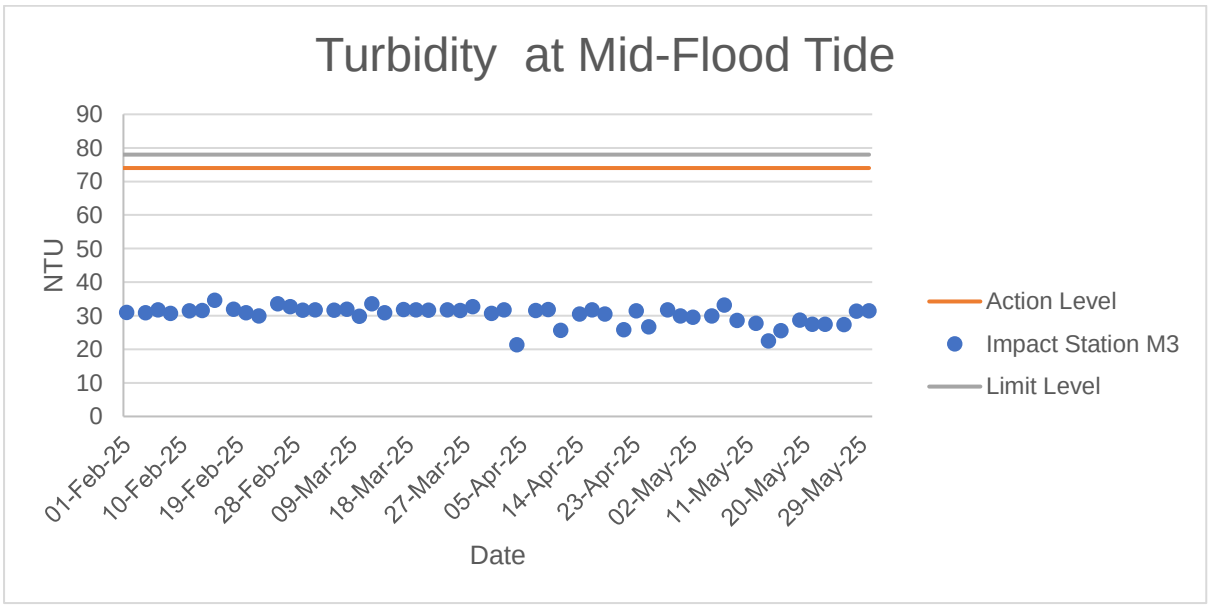

Dissolved Oxygen at Mid-Ebb Tide
mg/L
3.5
3
2.5
2
1.5
1
0.5
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Action Level
Limit Level
Impact Station M1

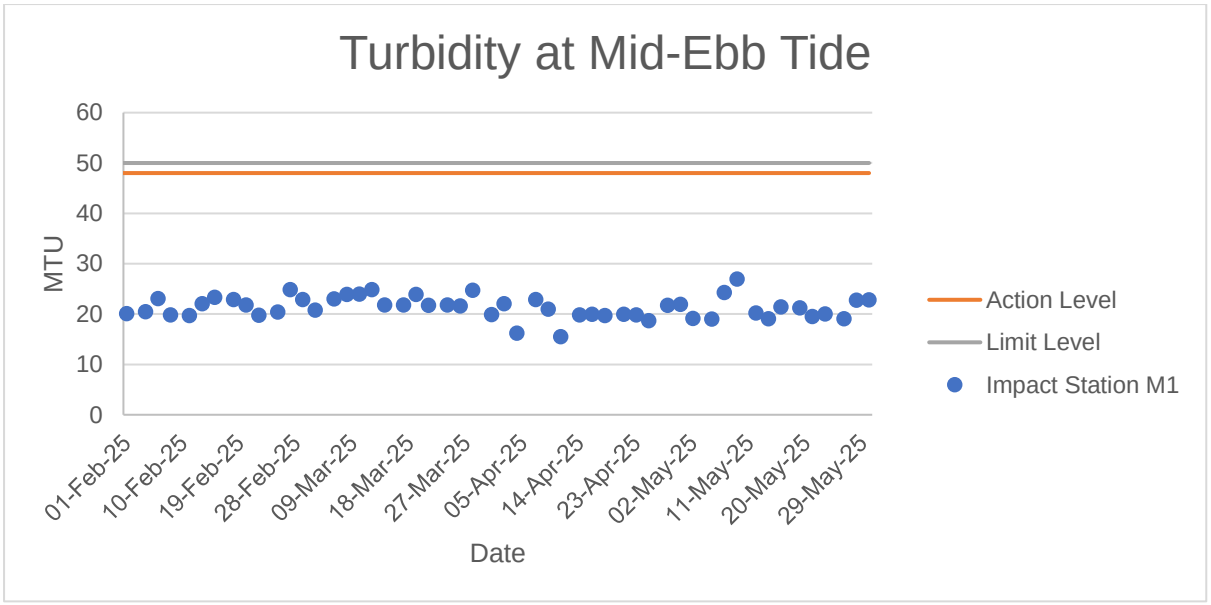

Dissolved Oxygen at Mid-Ebb Tide
mg/L
4
3.5
3
2.5
2
1.5
1
0.5
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Control Station M2

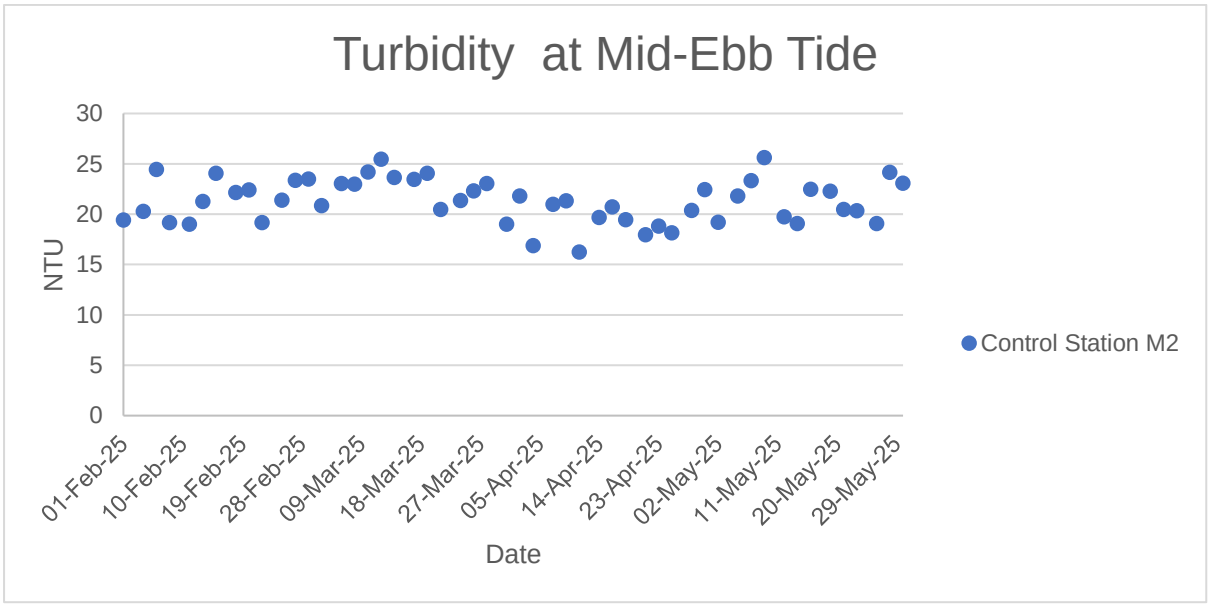

Dissolved Oxygen at Mid-Ebb Tide
mg/L
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Control Station M3

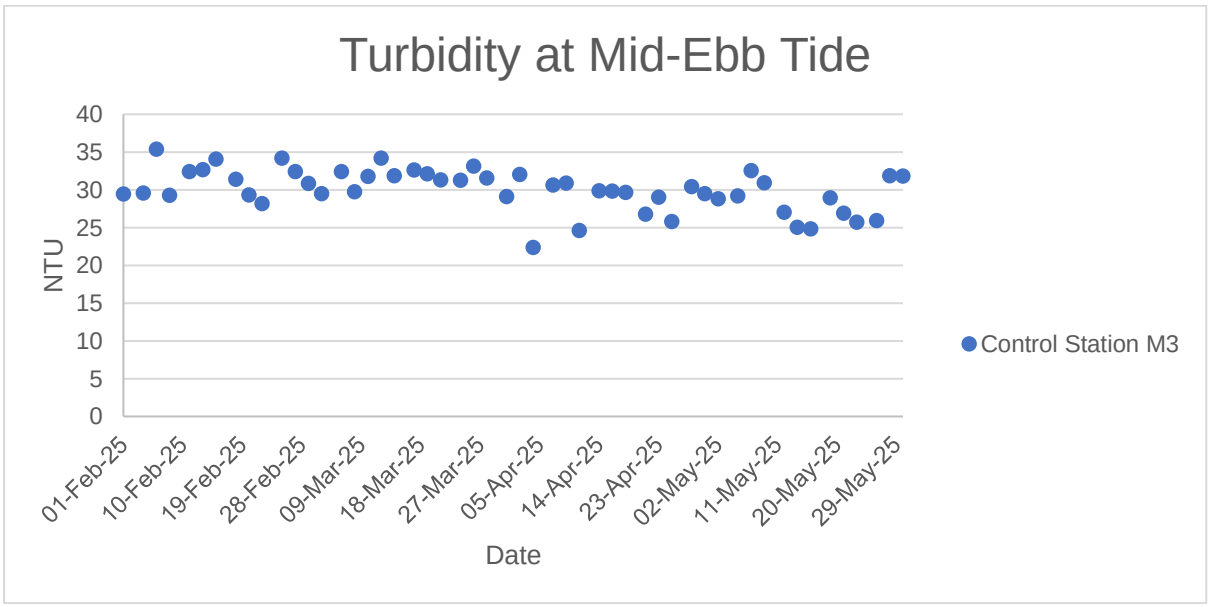

Turbidity at Mid-Flood Tide
NTU
30
25
20
15
10
5
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Control Station M1

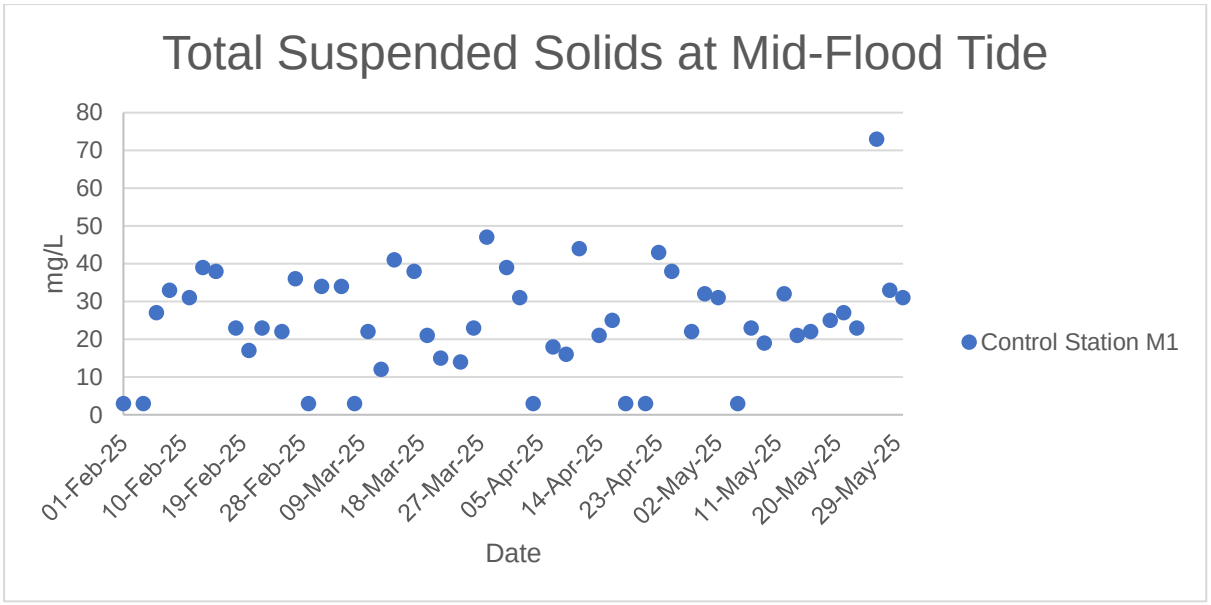

Turbidity at Mid-Flood Tide
NTU
60
50
40
30
20
10
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Action Level
Limit Level
Impact Station M2

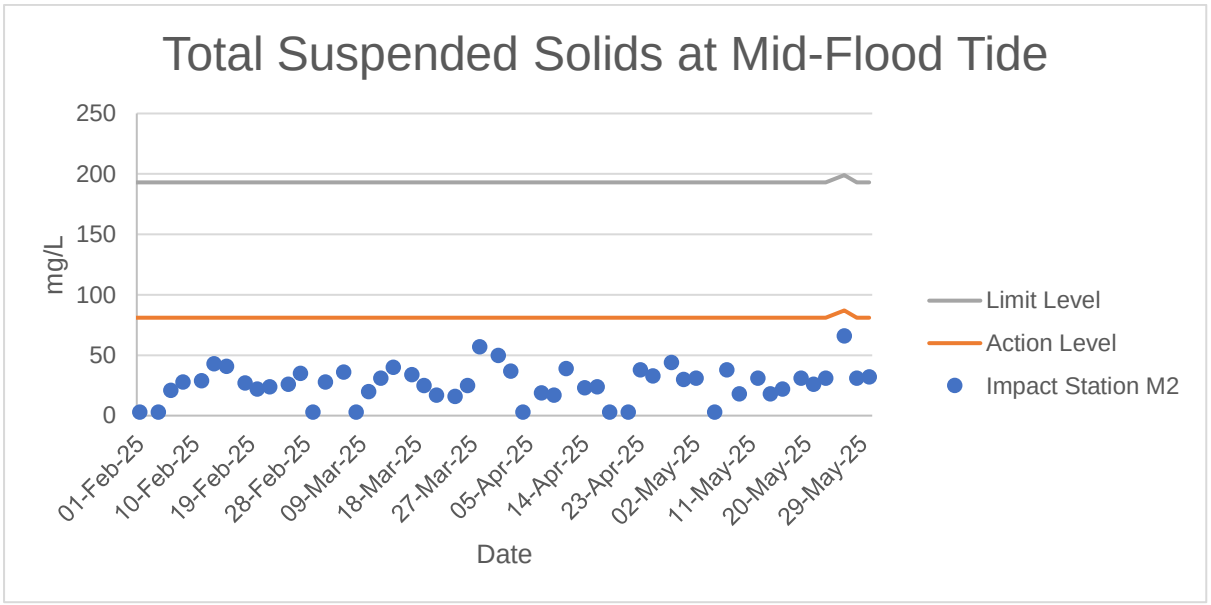

Turbidity at Mid-Flood Tide
NTU
90
80
70
60
50
40
30
20
10
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Action Level
Impact Station M3
Limit Level

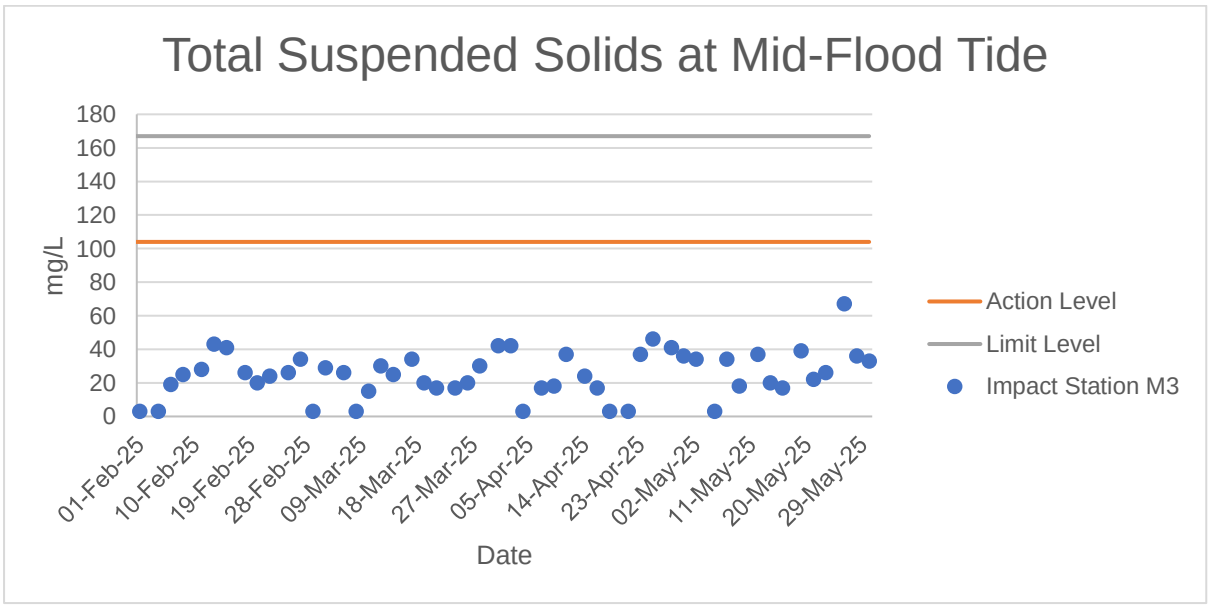

Turbidity at Mid-Ebb Tide
MTU
60
50
40
30
20
10
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Action Level
Limit Level
Impact Station M1

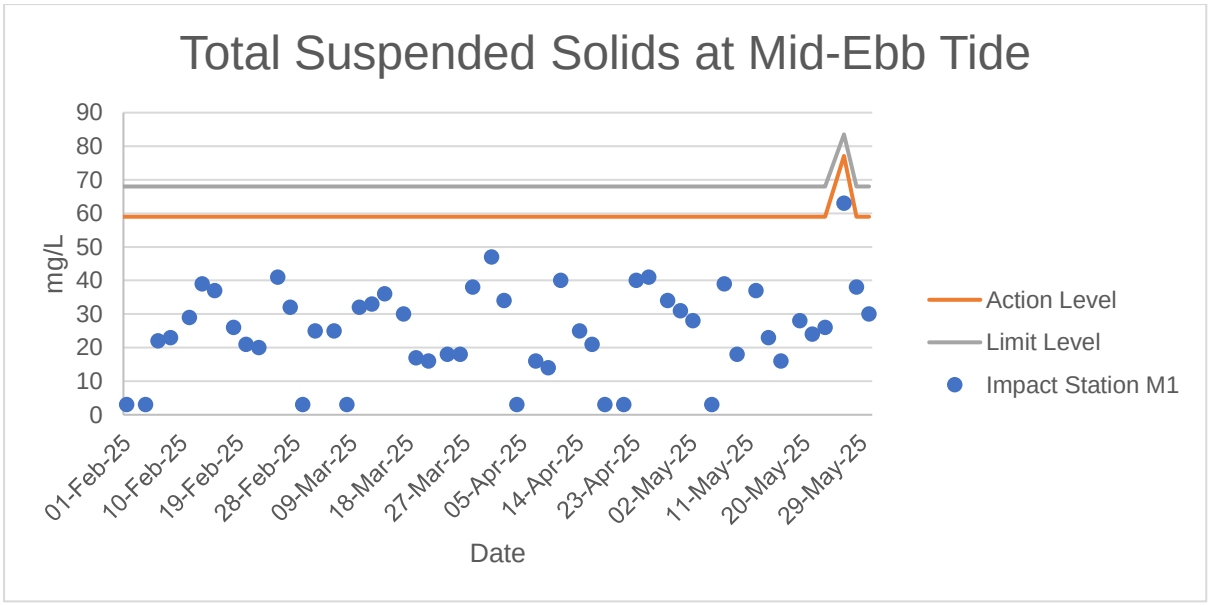

Turbidity at Mid-Ebb Tide
NTU
30
25
20
15
10
5
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Control Station M2

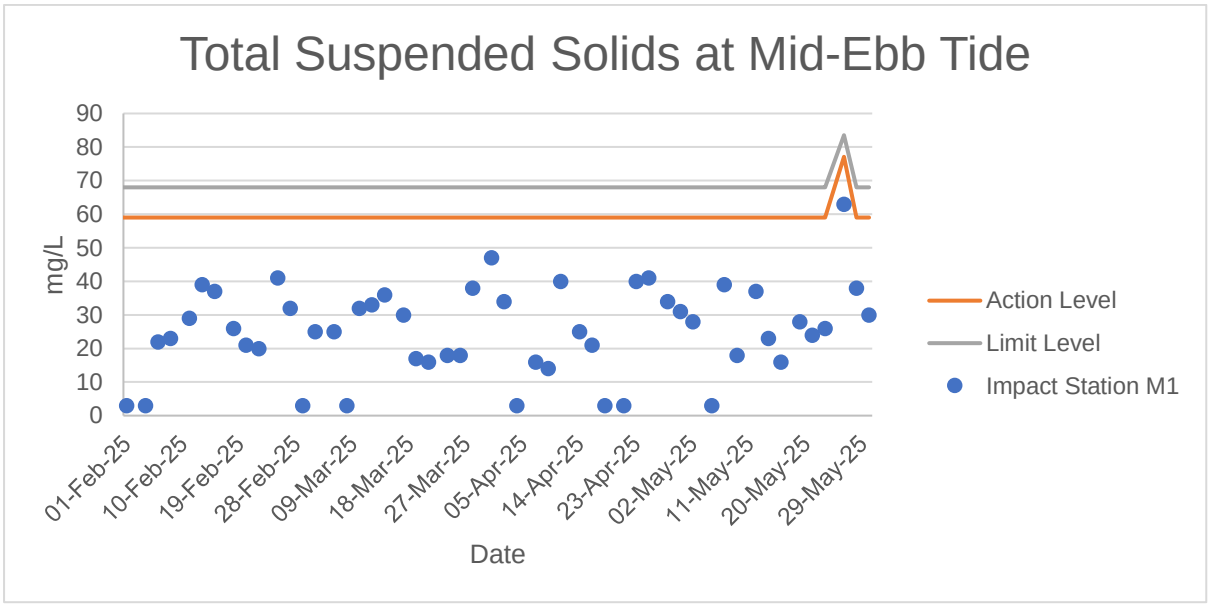

Turbidity at Mid-Ebb Tide
NTU
40
35
30
25
20
15
10
5
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Control Station M3

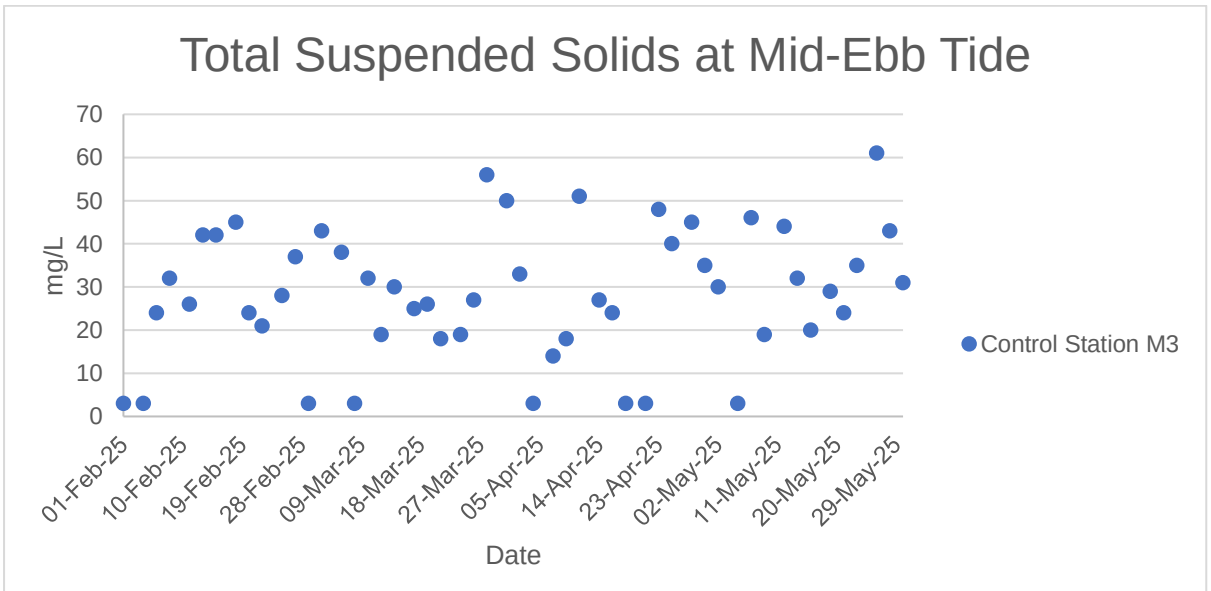

Total Suspended Solids at Mid-Flood Tide
mg/L
80
70
60
50
40
30
20
10
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Control Station M1


Total Suspended Solids at Mid-Flood Tide
mg/L
250
200
150
100
50
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Limit Level
Action Level
Impact Station M2


Total Suspended Solids at Mid-Flood Tide
mg/L
180
160
140
120
100
80
60
40
20
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Action Level
Limit Level
Impact Station M3


Total Suspended Solids at Mid-Ebb Tide
mg/L
90
80
70
60
50
40
30
20
10
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Action Level
Limit Level
Impact Station M1


Total Suspended Solids at Mid-Ebb Tide
mg/L
90
80
70
60
50
40
30
20
10
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Action Level
Limit Level
Impact Station M1


Total Suspended Solids at Mid-Ebb Tide
mg/L
70
60
50
40
30
20
10
0
01-Feb-25
10-Feb-25
19-Feb-25
28-Feb-25
09-Mar-25
18-Mar-25
27-Mar-25
05-Apr-25
14-Apr-25
23-Apr-25
02-May-25
11-May-25
20-May-25
29-May-25
Date
Control Station M3

Ecology Monitoring Results for
Contract No. SPW 02/2023
Environmental Team for Construction of Yuen long Effluent Polishing Plant Stage 1

Appendix F.1 Ecological Bird Monitoring Result (19 May 2025)

Date (dd/mm/yyyy)	Daytime/ Night time	Season	Area	Transect / Point Count	Point Count (Location) / Transect	Common Name	Scientific Name	Abundance	Distribution in Hong Kong[2]	Principal Status[3]	Level of Concern[4]	Protection Status in China[5]	China Red Data Book [6]	Red List of China's Vertebrates[9]	IUCN Red List[7] (v.2020-3)	Species of Conservation Importance	Wetland Dependent[8]
19/05/2025	Daytime	Wet	FLW	Point Count	FLW1	Chinese Pond Heron	*Ardeola bacchus*	13	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW1	Common Tailorbird	*Orthotomus sutorius*	1	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW1	Crested Myna	*Acridotheres cristatellus*	6	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW1	Common Myna	*Acridotheres tristis*	3	Uncommon	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW1	Black-collared Starling	*Gracupica nigricollis*	8	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW2	Yellow-bellied Prinia	*Prinia flaviventris*	1	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW2	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW3	Little Grebe	*Tachybaptus ruficollis*	1	Common	R	LC	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW3	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW3	Barn Swallow	*Hirundo rustica*	2	Abundant	PM,SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW3	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW4	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW4	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW4	Pied Kingfisher	*Ceryle rudis*	1	Uncommon	R	-	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW4	Chinese Bulbul	*Pycnonotus sinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW4	Yellow-bellied Prinia	*Prinia flaviventris*	2	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW4	Plain Prinia	*Prinia inornata*	2	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW4	Crested Myna	*Acridotheres cristatellus*	4	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW4	Black-collared Starling	*Gracupica nigricollis*	3	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	White-breasted Waterhen	*Amaurornis phoenicurus*	1	Common	R	-	-	-	LC	LC	N	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Eurasian Collared Dove	*Streptopelia decaocto*	2	Common	-	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Spotted Dove	*Spilopelia chinensis*	2	Abundant	R	-	-	-	LC	LC	N	N

Appendix F.1 Ecological Bird Monitoring Result (19 May 2025)

Date (dd/mm/yyyy)	Daytime/ Night time	Season	Area	Transect / Point Count	Point Count (Location) / Transect	Common Name	Scientific Name	Abundance	Distribution in Hong Kong[2]	Principal Status[3]	Level of Concern[4]	Protection Status in China[5]	China Red Data Book [6]	Red List of China's Vertebrates[9]	IUCN Red List[7] (v.2020-3)	Species of Conservation Importance	Wetland Dependent[8]
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Indian Cuckoo	*Cuculus micropterus*	1	Uncommon	SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Collared Crow	*Corvus torquatus*	1	Uncommon	R	LC	-	-	NT	VU	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Red-whiskered Bulbul	*Pycnonotus jocosus*	4	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Chinese Bulbul	*Pycnonotus sinensis*	4	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Barn Swallow	*Hirundo rustica*	3	Abundant	PM,SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Plain Prinia	*Prinia inornata*	1	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Crested Myna	*Acridotheres cristatellus*	4	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Black-collared Starling	*Gracupica nigricollis*	3	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Oriental Magpie Robin	*Copsychus saularis*	2	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Eurasian Tree Sparrow	*Passer montanus*	6	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW5	Scaly-breasted Munia	*Lonchura punctulata*	2	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW6	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW6	Great Egret	*Ardea alba*	2	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW6	Pied Avocet	*Recurvirostra avosetta*	18	Abundant	WV	RC	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW6	Common Greenshank	*Tringa nebularia*	3	Abundant	PM,WV	RC	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW6	Spotted Dove	*Spilopelia chinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW6	Black-collared Starling	*Gracupica nigricollis*	2	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW7	Chinese Pond Heron	*Ardeola bacchus*	12	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Point Count	FLW7	Eurasian Collared Dove	*Streptopelia decaocto*	3	Common	-	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW7	Spotted Dove	*Spilopelia chinensis*	3	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW7	Azure-winged Magpie	*Cyanopica cyanus*	10	Introduced	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW7	Crested Myna	*Acridotheres cristatellus*	2	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Point Count	FLW7	Black-collared Starling	*Gracupica nigricollis*	6	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y

Appendix F.1 Ecological Bird Monitoring Result (19 May 2025)

Date (dd/mm/yyyy)	Daytime/ Night time	Season	Area	Transect / Point Count	Point Count (Location) / Transect	Common Name	Scientific Name	Abundance	Distribution in Hong Kong[2]	Principal Status[3]	Level of Concern[4]	Protection Status in China[5]	China Red Data Book [6]	Red List of China's Vertebrates[9]	IUCN Red List[7] (v.2020-3)	Species of Conservation Importance	Wetland Dependent[8]
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	White-breasted Waterhen	*Amaurornis phoenicurus*	1	Common	R	-	-	-	LC	LC	N	Y
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Spotted Dove	*Spilopelia chinensis*	8	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Greater Coucal	*Centropus sinensis*	1	Common	R	-	Class II	VU	LC	LC	Y	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Large Hawk-Cuckoo	*Hierococcyx sparverioides*	1	Common	PM,SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Azure-winged Magpie	*Cyanopica cyanus*	2	Introduced	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Red-whiskered Bulbul	*Pycnonotus jocosus*	3	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Chinese Bulbul	*Pycnonotus sinensis*	3	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Swinhoe's White-eye	*Zosterops simplex*	3	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Black-collared Starling	*Gracupica nigricollis*	3	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	White-shouldered Starling	*Sturnia sinensis*	2	Common	M,W,Su	(LC)	-	-	-	LC	Y	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	Eurasian Tree Sparrow	*Passer montanus*	8	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	NSW1	White Wagtail	*Motacilla alba*	4	Common	PM,WV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW1	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW1	Great Egret	*Ardea alba*	1	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW1	Common Moorhen	*Gallinula chloropus*	2	Common	R	-	-	-	LC	LC	N	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW1	Spotted Dove	*Spilopelia chinensis*	2	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW1	Large Hawk-Cuckoo	*Hierococcyx sparverioides*	1	Common	PM,SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW1	Chinese Bulbul	*Pycnonotus sinensis*	5	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW1	Masked Laughingthrush	*Pterorhinus perspicillatus*	4	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW1	Swinhoe's White-eye	*Zosterops simplex*	2	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW1	White Wagtail	*Motacilla alba*	2	Common	PM,WV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW2	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW2	Little Egret	*Egretta garzetta*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW2	White-breasted Waterhen	*Amaurornis phoenicurus*	1	Common	R	-	-	-	LC	LC	N	Y

Appendix F.1 Ecological Bird Monitoring Result (19 May 2025)

Date (dd/mm/yyyy)	Daytime/ Night time	Season	Area	Transect / Point Count	Point Count (Location) / Transect	Common Name	Scientific Name	Abundance	Distribution in Hong Kong[2]	Principal Status[3]	Level of Concern[4]	Protection Status in China[5]	China Red Data Book [6]	Red List of China's Vertebrates[9]	IUCN Red List[7] (v.2020-3)	Species of Conservation Importance	Wetland Dependent[8]
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW2	Spotted Dove	*Spilopelia chinensis*	1	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW2	Red-whiskered Bulbul	*Pycnonotus jocosus*	4	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW2	Yellow-bellied Prinia	*Prinia flaviventris*	1	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW2	Swinhoe's White-eye	*Zosterops simplex*	3	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW2	Crested Myna	*Acridotheres cristatellus*	5	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW2	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Chinese Pond Heron	*Ardeola bacchus*	6	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Little Egret	*Egretta garzetta*	2	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	White-breasted Waterhen	*Amaurornis phoenicurus*	1	Common	R	-	-	-	LC	LC	N	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Pied Avocet	*Recurvirostra avosetta*	16	Abundant	WV	RC	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Azure-winged Magpie	*Cyanopica cyanus*	1	Introduced	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Japanese Tit	*Parus minor*	2	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Barn Swallow	*Hirundo rustica*	3	Abundant	PM,SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Crested Myna	*Acridotheres cristatellus*	3	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Black-collared Starling	*Gracupica nigricollis*	3	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Point Count	SP/NSW3	Oriental Magpie Robin	*Copsychus saularis*	1	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Little Grebe	*Tachybaptus ruficollis*	2	Common	R	LC	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Chinese Pond Heron	*Ardeola bacchus*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Little Egret	*Egretta garzetta*	1	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Black Kite	*Milvus migrans*	2	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Spotted Dove	*Spilopelia chinensis*	7	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Large Hawk-Cuckoo	*Hierococcyx sparverioides*	1	Common	PM,SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	House Swift	*Apus nipalensis*	3	Abundant, Common	SpM,R	-	-	-	LC	LC	N	N

Appendix F.1 Ecological Bird Monitoring Result (19 May 2025)

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19/05/2025	Daytime	Wet	FLW	Transect	FLW	Long-tailed Shrike	*Lanius schach*	1	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Azure-winged Magpie	*Cyanopica cyanus*	3	Introduced	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Red-whiskered Bulbul	*Pycnonotus jocosus*	3	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Chinese Bulbul	*Pycnonotus sinensis*	6	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Barn Swallow	*Hirundo rustica*	2	Abundant	PM,SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Yellow-bellied Prinia	*Prinia flaviventris*	1	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Plain Prinia	*Prinia inornata*	2	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Common Tailorbird	*Orthotomus sutorius*	1	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Masked Laughingthrush	*Pterorhinus perspicillatus*	3	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Crested Myna	*Acridotheres cristatellus*	4	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Common Myna	*Acridotheres tristis*	2	Uncommon	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Black-collared Starling	*Gracupica nigricollis*	6	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	Oriental Magpie Robin	*Copsychus saularis*	1	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	FLW	Transect	FLW	White Wagtail	*Motacilla alba*	1	Common	PM,WV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Transect	NSW	Chinese Pond Heron	*Ardeola bacchus*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Transect	NSW	Little Egret	*Egretta garzetta*	3	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	NSW	Transect	NSW	Azure-winged Magpie	*Cyanopica cyanus*	2	Introduced	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Transect	NSW	Plain Prinia	*Prinia inornata*	1	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Transect	NSW	Masked Laughingthrush	*Pterorhinus perspicillatus*	3	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Transect	NSW	Black-collared Starling	*Gracupica nigricollis*	3	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Transect	NSW	Oriental Magpie Robin	*Copsychus saularis*	3	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	NSW	Transect	NSW	White Wagtail	*Motacilla alba*	2	Common	PM,WV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Chinese Pond Heron	*Ardeola bacchus*	7	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Grey Heron	*Ardea cinerea*	1	Common	WV	PRC	-	-	LC	LC	Y	Y

Appendix F.1 Ecological Bird Monitoring Result (19 May 2025)

Date (dd/mm/yyyy)	Daytime/ Night time	Season	Area	Transect / Point Count	Point Count (Location) / Transect	Common Name	Scientific Name	Abundance	Distribution in Hong Kong[2]	Principal Status[3]	Level of Concern[4]	Protection Status in China[5]	China Red Data Book [6]	Red List of China's Vertebrates[9]	IUCN Red List[7] (v.2020-3)	Species of Conservation Importance	Wetland Dependent[8]
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Great Egret	*Ardea alba*	2	Common	R,WV	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Little Egret	*Egretta garzetta*	4	Common	R	PRC (RC)	-	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Black Kite	*Milvus migrans*	1	Common	R,WV	(RC)	Class II	-	LC	LC	Y	Y
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	White-breasted Waterhen	*Amaurornis phoenicurus*	2	Common	R	-	-	-	LC	LC	N	Y
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Common Moorhen	*Gallinula chloropus*	8	Common	R	-	-	-	LC	LC	N	Y
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Large Hawk-Cuckoo	*Hierococcyx sparverioides*	1	Common	PM,SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Chinese Bulbul	*Pycnonotus sinensis*	6	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Barn Swallow	*Hirundo rustica*	2	Abundant	PM,SV	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Yellow-bellied Prinia	*Prinia flaviventris*	1	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Plain Prinia	*Prinia inornata*	2	Common	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Swinhoe's White-eye	*Zosterops simplex*	2	Abundant	R	-	-	-	LC	LC	N	N
19/05/2025	Daytime	Wet	YLIE-CW	Transect	YLIE-CW	Black-collared Starling	*Gracupica nigricollis*	4	Common	R	-	-	-	LC	LC	N	N

Notes:

1. All wild birds are protected under Wild Animals Protection Ordinance (Cap. 170).
2. AFCD (2021). Hong Kong Biodiversity Database.
3. Carey et al. (2001): R=resident; WV=winter visitor; SV=summer visitor; PM=passage migrant; Sp=spring; A=autumn;
4. Fellowes et al. (2002): LC=Local Concern; RC=Regional Concern; PRC=Potential Regional Concern; PGC: Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in nesting and/or roosting sites rather than in general occurrence.
5. List of Wild Animals under State Protection (promulgated by State Forestry Administration and Ministry of Agriculture on 14 January, 1989).
6. Zheng, G. M. and Wang, Q. S. (1998). China Red Data Book
7. IUCN 2021. The IUCN Red List of Threatened Species. Version 2020-3.
8. Wetland-dependent species (including wetland-dependent species and waterbirds).
9. Jiang et al. (2016). Red List of China's Vertebrates

Appendix F.2.1 Ecological Bird Monitoring Diversity (All avifauna species in Point Count Method) in All Habitats (19 May 2025)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	$P*Ln(P)^2$
Tachybaptus ruficollis	1	0.0036	-5.6131	-0.0205	0.1150
Ardeola bacchus	34	0.1241	-2.0868	-0.2589	0.5404
Ardea cinerea	2	0.0073	-4.9200	-0.0359	0.1767
Ardea alba	5	0.0182	-4.0037	-0.0731	0.2925
Egretta garzetta	7	0.0255	-3.6672	-0.0937	0.3436
Amaurornis phoenicurus	4	0.0146	-4.2268	-0.0617	0.2608
Gallinula chloropus	2	0.0073	-4.9200	-0.0359	0.1767
Recurvirostra avosetta	34	0.1241	-2.0868	-0.2589	0.5404
Tringa nebularia	3	0.0109	-4.5145	-0.0494	0.2231
Streptopelia decaocto	5	0.0182	-4.0037	-0.0731	0.2925
Spilopelia chinensis	18	0.0657	-2.7228	-0.1789	0.4870
Centropus sinensis	1	0.0036	-5.6131	-0.0205	0.1150
Hierococcyx sparverioides	2	0.0073	-4.9200	-0.0359	0.1767
Cuculus micropterus	1	0.0036	-5.6131	-0.0205	0.1150
Ceryle rudis	1	0.0036	-5.6131	-0.0205	0.1150
Cyanopica cyanus	13	0.0474	-3.0482	-0.1446	0.4408
Corvus torquatus	1	0.0036	-5.6131	-0.0205	0.1150
Parus minor	2	0.0073	-4.9200	-0.0359	0.1767
Pycnonotus jocosus	11	0.0401	-3.2152	-0.1291	0.4150
Pycnonotus sinensis	14	0.0511	-2.9741	-0.1520	0.4519
Hirundo rustica	8	0.0292	-3.5337	-0.1032	0.3646
Prinia flaviventris	4	0.0146	-4.2268	-0.0617	0.2608
Prinia inornata	3	0.0109	-4.5145	-0.0494	0.2231
Orthotomus sutorius	1	0.0036	-5.6131	-0.0205	0.1150
Pterorhinus perspicillatus	4	0.0146	-4.2268	-0.0617	0.2608
Zosterops simplex	8	0.0292	-3.5337	-0.1032	0.3646
Acridotheres cristatellus	24	0.0876	-2.4351	-0.2133	0.5194
Acridotheres tristis	3	0.0109	-4.5145	-0.0494	0.2231
Gracupica nigricollis	28	0.1022	-2.2809	-0.2331	0.5317
Sturnia sinensis	2	0.0073	-4.9200	-0.0359	0.1767
Copsychus saularis	3	0.0109	-4.5145	-0.0494	0.2231
Passer montanus	14	0.0511	-2.9741	-0.1520	0.4519
Lonchura punctulata	2	0.0073	-4.9200	-0.0359	0.1767
Motacilla alba	9	0.0328	-3.4159	-0.1122	0.3833
Total	274	1	-139.9189	-3.0003	9.8446
Richness	34				
SS	9.8446				
SQ	9.0020				
H	3.0003				
S^2H	0.0033				

Appendix F.2.2 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Point Count Method) in All Habitats (19 May 2025)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	P*Ln(P)^2
Tachybaptus ruficollis	1	0.0110	-4.5109	-0.0496	0.2236
Ardeola bacchus	34	0.3736	-0.9845	-0.3678	0.3621
Ardea cinerea	2	0.0220	-3.8177	-0.0839	0.3203
Ardea alba	5	0.0549	-2.9014	-0.1594	0.4625
Egretta garzetta	7	0.0769	-2.5649	-0.1973	0.5061
Recurvirostra avosetta	34	0.3736	-0.9845	-0.3678	0.3621
Tringa nebularia	3	0.0330	-3.4122	-0.1125	0.3838
Centropus sinensis	1	0.0110	-4.5109	-0.0496	0.2236
Ceryle rudis	1	0.0110	-4.5109	-0.0496	0.2236
Corvus torquatus	1	0.0110	-4.5109	-0.0496	0.2236
Sturnia sinensis	2	0.0220	-3.8177	-0.0839	0.3203
Total	91	1	-36.5265	-1.5710	3.6118
Richness	11				
SS	3.6118				
SQ	2.4680				
H	1.5710				
S^2H	0.01317				

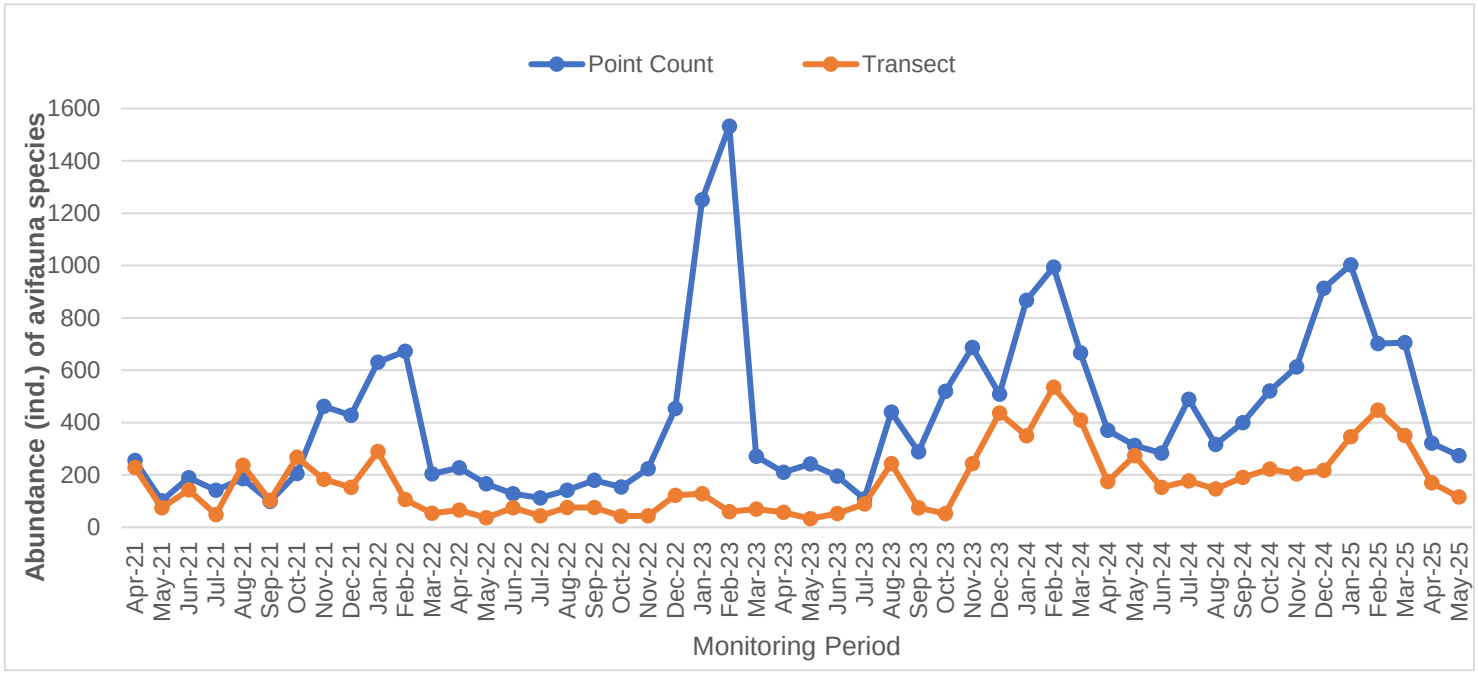
Appendix F.2.3 Ecological Bird Monitoring Diversity (All avifauna species in Transect Walk Method) in All Habitats (19 May 2025)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	P*Ln(P)^2
Tachybaptus ruficollis	2	0.0172	-4.0604	-0.0700	0.2843
Ardeola bacchus	11	0.0948	-2.3557	-0.2234	0.5262
Ardea cinerea	1	0.0086	-4.7536	-0.0410	0.1948
Ardea alba	2	0.0172	-4.0604	-0.0700	0.2843
Egretta garzetta	8	0.0690	-2.6741	-0.1844	0.4932
Milvus migrans	3	0.0259	-3.6550	-0.0945	0.3455
Amaurornis phoenicurus	2	0.0172	-4.0604	-0.0700	0.2843
Gallinula chloropus	8	0.0690	-2.6741	-0.1844	0.4932
Spilopelia chinensis	7	0.0603	-2.8077	-0.1694	0.4757
Hierococcyx sparverioides	2	0.0172	-4.0604	-0.0700	0.2843
Apus nipalensis	3	0.0259	-3.6550	-0.0945	0.3455
Lanius schach	1	0.0086	-4.7536	-0.0410	0.1948
Cyanopica cyanus	5	0.0431	-3.1442	-0.1355	0.4261
Pycnonotus jocosus	3	0.0259	-3.6550	-0.0945	0.3455
Pycnonotus sinensis	12	0.1034	-2.2687	-0.2347	0.5324
Hirundo rustica	4	0.0345	-3.3673	-0.1161	0.3910
Prinia flaviventris	2	0.0172	-4.0604	-0.0700	0.2843
Prinia inornata	5	0.0431	-3.1442	-0.1355	0.4261
Orthotomus sutorius	1	0.0086	-4.7536	-0.0410	0.1948
Pterorhinus perspicillatus	6	0.0517	-2.9618	-0.1532	0.4537
Zosterops simplex	2	0.0172	-4.0604	-0.0700	0.2843
Acridotheres cristatellus	4	0.0345	-3.3673	-0.1161	0.3910
Acridotheres tristis	2	0.0172	-4.0604	-0.0700	0.2843
Gracupica nigricollis	13	0.1121	-2.1886	-0.2453	0.5368
Copsychus saularis	4	0.0345	-3.3673	-0.1161	0.3910
Motacilla alba	3	0.0259	-3.6550	-0.0945	0.3455
Total	116	1	-91.6248	-3.0053	9.4927
Richness	26				
SS	9.4927				
SQ	9.0319				
H	3.0053				
S^2H	0.004901				

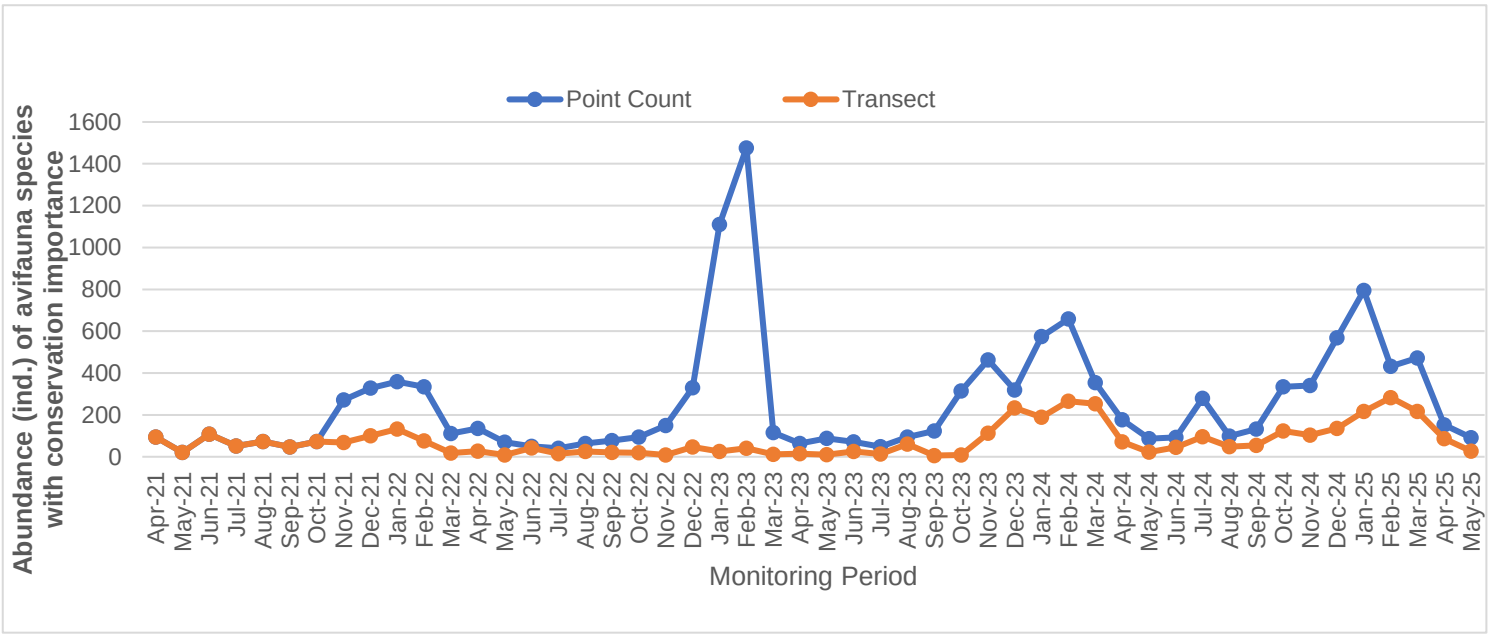
Appendix F.2.4 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Transect Walk Method) in All Habitats (19 May 2025)

Scientific Name	Count	P	Ln(P)	P*Ln(P)	P*Ln(P)^2
Tachybaptus ruficollis	2	0.0741	-2.6027	-0.1928	0.5018
Ardeola bacchus	11	0.4074	-0.8979	-0.3658	0.3285
Ardea cinerea	1	0.0370	-3.2958	-0.1221	0.4023
Ardea alba	2	0.0741	-2.6027	-0.1928	0.5018
Egretta garzetta	8	0.2963	-1.2164	-0.3604	0.4384
Milvus migrans	3	0.1111	-2.1972	-0.2441	0.5364
Total	27	1	-12.8128	-1.4780	2.7092
Richness	6				
SS	2.7092				
SQ	2.1846				
H	1.4780				
S^2H	0.02286				

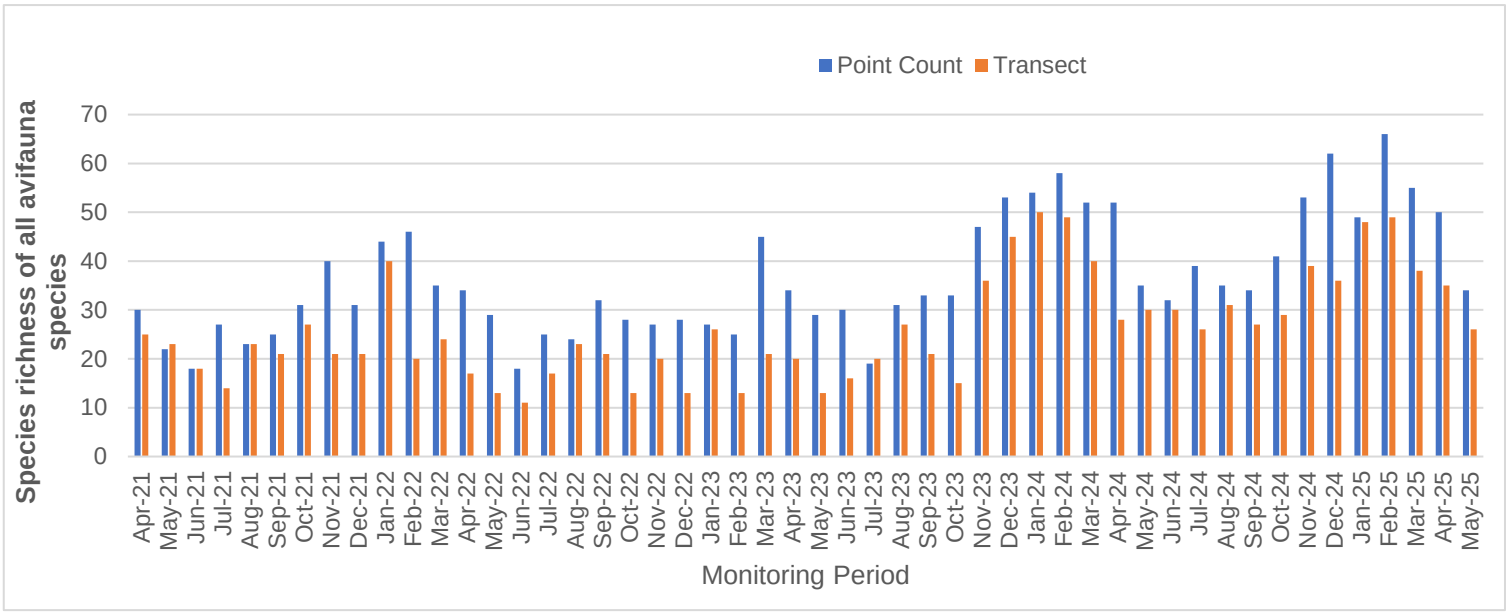
Appendix F.3.1 Abundance of all avifauna species throughout the monitoring period



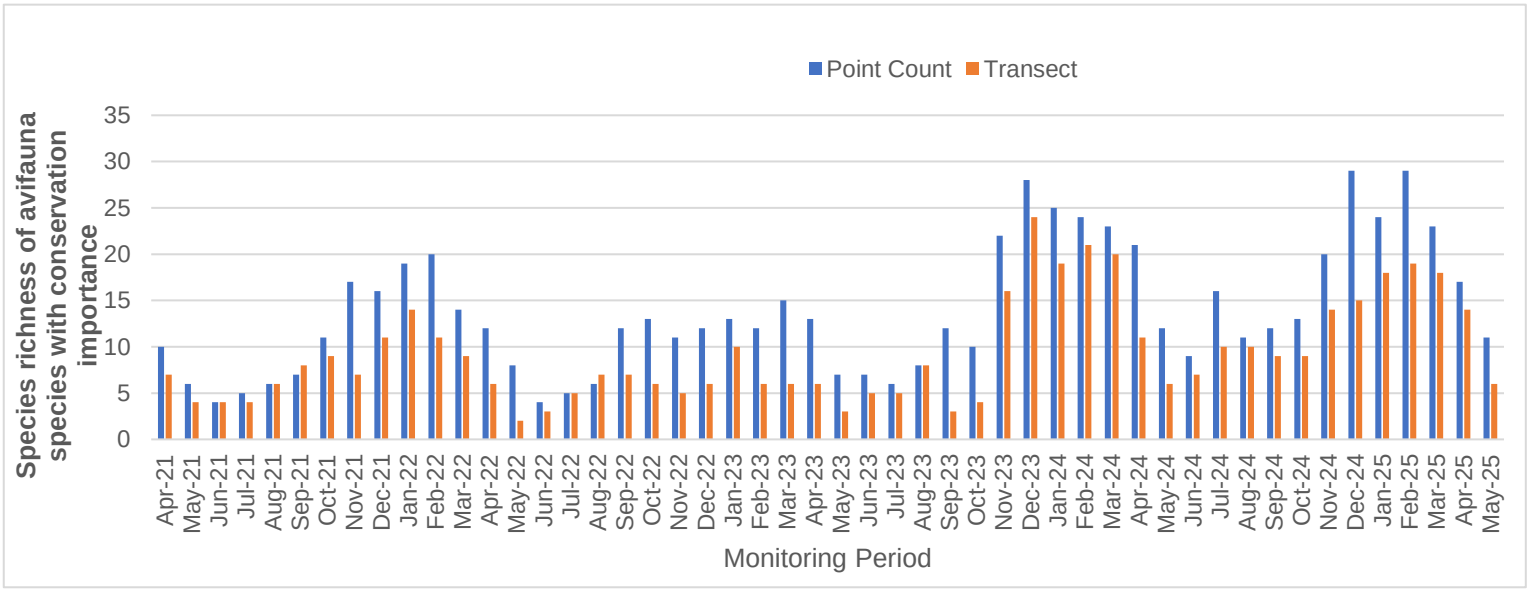
Appendix F.3.2 Abundance of avifauna species with conservation importance throughout the monitoring period



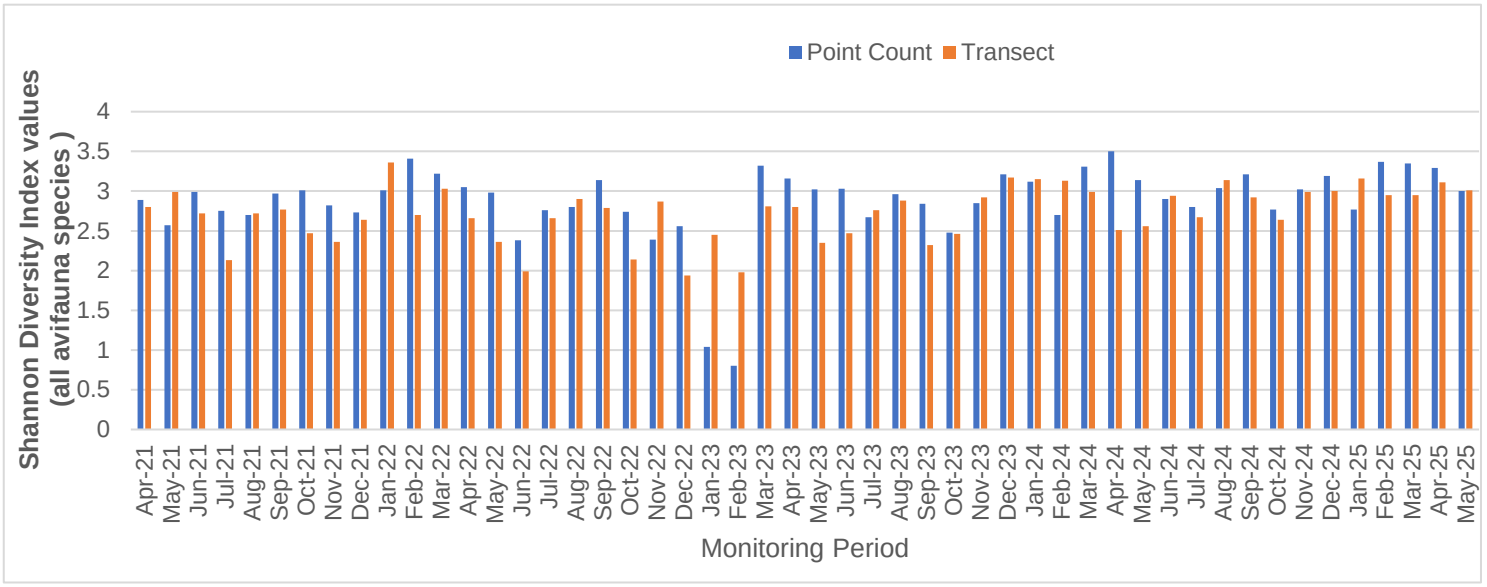
Appendix F.4.1 Species richness of all avifauna species throughout the monitoring period



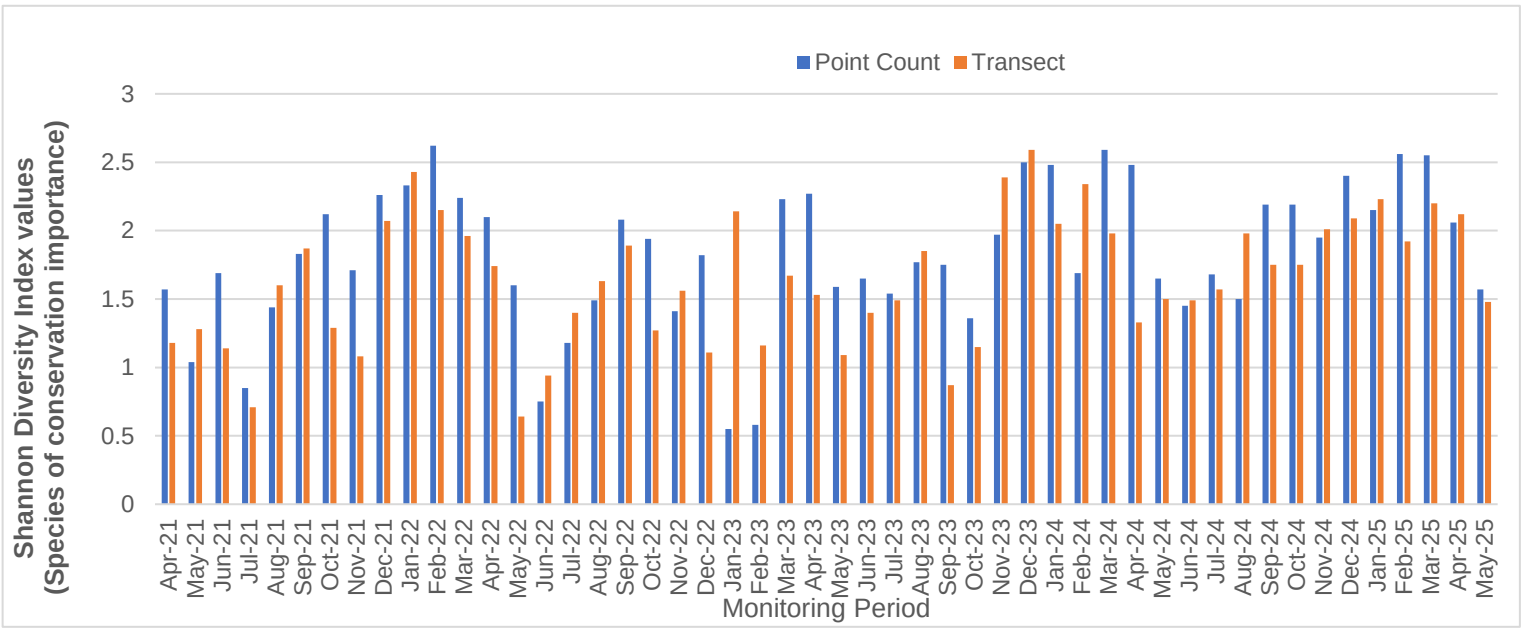
Appendix F.4.2 Species richness of avifauna species with conservation importance throughout the monitoring period



Appendix F.5.1 Shannon Diversity Index values of all avifauna species throughout the monitoring period



Appendix F.5.2 Shannon Diversity Index values of avifauna species with conservation importance throughout the monitoring period



Appendix F.6. Hutcheson t-test testing method and output

Formula:

$$t = \frac{H_a - H_b}{\sqrt{s^2_{H_a} + s^2_{H_b}}}$$

Appendix F.6.1 Species diversity of all avifauna species – Point Count Method

Months	May 2017	May 2025
Total	190	274
Richness	31	34
H	3.1340	3.0003
S^2H	0.002979	0.003295
t	1.6872	
df	455.9456	
Crit	1.9652	
p	9.23E-02	
CI	0.1092	0.1148

Appendix F.6.2 Species diversity of all avifauna species – Transect Walk Method

Months	May 2017	May 2025
Total	2	116
Richness	1	26
H	0.0000	3.0053
S^2H	0.00000	0.004901
t	42.9283	
df	116.0000	
Crit	1.9808	
p	1.25E-72	
CI	0.0000	0.1400

Appendix F.6.3 Species diversity of avifauna species with conservation importance – Point Count Method

Months	May 2017	May 2025
Total	71	91
Richness	7	11
H	1.7237	1.5710
S^2H	0.004952	0.013173
t	1.1347	
df	145.8548	
Crit	1.9765	
p	2.58E-01	
CI	0.1407	0.2296

Appendix F.6.4 Species diversity of avifauna species with conservation importance – Transect Walk Method

Months	May 2017	May 2025
Total	2	27
Richness	1	6
H	0.0000	1.4780
S^2H	0.00000	0.02286
t	9.7757	
df	27.0000	
Crit	2.0518	
p	2.30E-10	
CI	0.0000	0.3024

Appendix G
Wind Data

Date	Wind Speed (m/s)	Wind Direction
1/5/2025 0:00	0.1	S
1/5/2025 1:00	0.3	SE
1/5/2025 2:00	0.0	E
1/5/2025 3:00	0.1	NE
1/5/2025 4:00	0.0	NE
1/5/2025 5:00	0.1	S
1/5/2025 6:00	0.1	SE
1/5/2025 7:00	0.0	E
1/5/2025 8:00	0.1	E
1/5/2025 9:00	0.0	N
1/5/2025 10:00	0.1	W
1/5/2025 11:00	0.2	NW
1/5/2025 12:00	0.2	E
1/5/2025 13:00	0.6	N
1/5/2025 14:00	0.3	NW
1/5/2025 15:00	0.1	SW
1/5/2025 16:00	2.4	NW
1/5/2025 17:00	0.1	S
1/5/2025 18:00	0.1	NW
1/5/2025 19:00	0.1	S
1/5/2025 20:00	0.1	NE
1/5/2025 21:00	0.1	NW
1/5/2025 22:00	0.0	E
1/5/2025 23:00	0.0	SE
1/5/2025 0:00	0.0	E
2/5/2025 1:00	0.1	S
2/5/2025 2:00	0.0	SE

Date	Wind Speed (m/s)	Wind Direction
2/5/2025 3:00	0.0	S
2/5/2025 4:00	0.1	SE
2/5/2025 5:00	0.1	SE
2/5/2025 6:00	0.1	S
2/5/2025 7:00	0.0	NE
2/5/2025 8:00	0.1	SE
2/5/2025 9:00	0.8	N
2/5/2025 10:00	0.0	E
2/5/2025 11:00	0.9	N
2/5/2025 12:00	2.4	E
2/5/2025 13:00	0.3	NE
2/5/2025 14:00	1.9	NE
2/5/2025 15:00	0.8	S
2/5/2025 16:00	1.8	SE
2/5/2025 17:00	0.2	S
2/5/2025 18:00	0.4	S
2/5/2025 19:00	0.4	SE
2/5/2025 20:00	0.0	SE
2/5/2025 21:00	0.0	E
2/5/2025 22:00	0.1	NE
2/5/2025 23:00	0.1	SE
2/5/2025 0:00	0.1	NE
3/5/2025 1:00	0.0	E
3/5/2025 2:00	0.1	SE
3/5/2025 3:00	0.1	E
3/5/2025 4:00	0.0	SE
3/5/2025 5:00	0.1	S

Date	Wind Speed (m/s)	Wind Direction
3/5/2025 6:00	0.1	E
3/5/2025 7:00	0.2	NE
3/5/2025 8:00	0.4	S
3/5/2025 9:00	0.3	SE
3/5/2025 10:00	1.0	E
3/5/2025 11:00	0.5	S
3/5/2025 12:00	0.1	NW
3/5/2025 13:00	0.1	E
3/5/2025 14:00	1.8	S
3/5/2025 15:00	2.1	S
3/5/2025 16:00	0.0	S
3/5/2025 17:00	0.2	SW
3/5/2025 18:00	0.3	S
3/5/2025 19:00	0.2	S
3/5/2025 20:00	0.1	S
3/5/2025 21:00	0.0	S
3/5/2025 22:00	0.1	NE
3/5/2025 23:00	0.0	E
3/5/2025 0:00	0.1	S
4/5/2025 1:00	0.0	E
4/5/2025 2:00	0.1	NE
4/5/2025 3:00	0.0	S
4/5/2025 4:00	0.1	E
4/5/2025 5:00	0.1	S
4/5/2025 6:00	0.0	S
4/5/2025 7:00	0.0	NE
4/5/2025 8:00	0.8	SW

Date	Wind Speed (m/s)	Wind Direction
4/5/2025 9:00	0.5	S
4/5/2025 10:00	2.7	S
4/5/2025 11:00	2.4	SW
4/5/2025 12:00	0.1	S
4/5/2025 13:00	3.8	SW
4/5/2025 14:00	1.9	SW
4/5/2025 15:00	2.8	S
4/5/2025 16:00	0.1	S
4/5/2025 17:00	1.0	S
4/5/2025 18:00	0.6	S
4/5/2025 19:00	1.1	S
4/5/2025 20:00	0.0	SE
4/5/2025 21:00	0.1	S
4/5/2025 22:00	0.2	S
4/5/2025 23:00	0.1	S
4/5/2025 0:00	0.0	SE
5/5/2025 1:00	0.3	S
5/5/2025 2:00	0.7	S
5/5/2025 3:00	0.0	SE
5/5/2025 4:00	0.4	S
5/5/2025 5:00	0.1	S
5/5/2025 6:00	0.1	S
5/5/2025 7:00	0.2	SE
5/5/2025 8:00	1.7	S
5/5/2025 9:00	5.7	S
5/5/2025 10:00	0.8	S
5/5/2025 11:00	1.3	S

Date	Wind Speed (m/s)	Wind Direction
5/5/2025 12:00	7.2	S
5/5/2025 13:00	0.1	S
5/5/2025 14:00	2.5	SE
5/5/2025 15:00	1.9	S
5/5/2025 16:00	0.9	S
5/5/2025 17:00	1.4	S
5/5/2025 18:00	3.7	SE
5/5/2025 19:00	0.1	S
5/5/2025 20:00	3.6	S
5/5/2025 21:00	0.2	S
5/5/2025 22:00	0.1	S
5/5/2025 23:00	0.4	S
5/5/2025 0:00	0.2	S
6/5/2025 1:00	0.1	E
6/5/2025 2:00	0.1	E
6/5/2025 3:00	0.1	S
6/5/2025 4:00	0.1	E
6/5/2025 5:00	0.0	SE
6/5/2025 6:00	0.1	SE
6/5/2025 7:00	0.1	E
6/5/2025 8:00	0.1	S
6/5/2025 9:00	0.1	NW
6/5/2025 10:00	0.4	SE
6/5/2025 11:00	0.2	SW
6/5/2025 12:00	2.4	S
6/5/2025 13:00	0.2	SW
6/5/2025 14:00	0.0	W

Date	Wind Speed (m/s)	Wind Direction
6/5/2025 15:00	1.1	SE
6/5/2025 16:00	1.9	E
6/5/2025 17:00	0.1	E
6/5/2025 18:00	0.3	NE
6/5/2025 19:00	0.1	E
6/5/2025 20:00	0.4	NE
6/5/2025 21:00	0.0	NE
6/5/2025 22:00	0.1	S
6/5/2025 23:00	0.1	SE
6/5/2025 0:00	0.0	N
7/5/2025 1:00	0.1	NE
7/5/2025 2:00	0.0	SE
7/5/2025 3:00	0.1	E
7/5/2025 4:00	0.0	SE
7/5/2025 5:00	0.2	S
7/5/2025 6:00	0.5	S
7/5/2025 7:00	0.2	N
7/5/2025 8:00	0.3	NE
7/5/2025 9:00	0.3	E
7/5/2025 10:00	0.2	NW
7/5/2025 11:00	0.0	NW
7/5/2025 12:00	0.0	SW
7/5/2025 13:00	0.0	SE
7/5/2025 14:00	0.3	E
7/5/2025 15:00	0.2	S
7/5/2025 16:00	0.0	E
7/5/2025 17:00	0.3	NE

Date	Wind Speed (m/s)	Wind Direction
7/5/2025 18:00	0.1	E
7/5/2025 19:00	0.1	E
7/5/2025 20:00	0.3	E
7/5/2025 21:00	0.1	E
7/5/2025 22:00	0.1	NE
7/5/2025 23:00	0.4	S
7/5/2025 0:00	0.2	SE
8/5/2025 1:00	0.0	S
8/5/2025 2:00	0.0	S
8/5/2025 3:00	1.1	SE
8/5/2025 4:00	0.1	SE
8/5/2025 5:00	0.1	S
8/5/2025 6:00	0.0	SE
8/5/2025 7:00	0.1	SE
8/5/2025 8:00	0.6	SE
8/5/2025 9:00	1.7	S
8/5/2025 10:00	1.3	S
8/5/2025 11:00	2.7	S
8/5/2025 12:00	5.2	E
8/5/2025 13:00	0.2	S
8/5/2025 14:00	0.1	S
8/5/2025 15:00	0.3	S
8/5/2025 16:00	1.6	S
8/5/2025 17:00	1.3	S
8/5/2025 18:00	1.7	S
8/5/2025 19:00	0.1	S
8/5/2025 20:00	0.1	SE

Date	Wind Speed (m/s)	Wind Direction
8/5/2025 21:00	0.5	NE
8/5/2025 22:00	0.2	NE
8/5/2025 23:00	0.0	S
8/5/2025 0:00	0.1	NE
9/5/2025 1:00	0.0	N
9/5/2025 2:00	0.0	SE
9/5/2025 3:00	0.1	SE
9/5/2025 4:00	0.0	SE
9/5/2025 5:00	0.1	NE
9/5/2025 6:00	0.1	N
9/5/2025 7:00	0.1	E
9/5/2025 8:00	0.1	E
9/5/2025 9:00	0.1	NW
9/5/2025 10:00	3.6	S
9/5/2025 11:00	0.1	SW
9/5/2025 12:00	0.0	NW
9/5/2025 13:00	0.7	NE
9/5/2025 14:00	0.2	W
9/5/2025 15:00	0.5	SW
9/5/2025 16:00	0.1	SW
9/5/2025 17:00	0.0	S
9/5/2025 18:00	0.0	S
9/5/2025 19:00	0.1	SW
9/5/2025 20:00	0.1	NE
9/5/2025 21:00	0.0	S
9/5/2025 22:00	0.1	SE
9/5/2025 23:00	0.0	E

Date	Wind Speed (m/s)	Wind Direction
9/5/2025 0:00	0.1	SE
10/5/2025 1:00	0.0	SE
10/5/2025 2:00	0.1	E
10/5/2025 3:00	0.0	SE
10/5/2025 4:00	0.1	S
10/5/2025 5:00	0.0	SE
10/5/2025 6:00	0.1	SE
10/5/2025 7:00	0.2	NE
10/5/2025 8:00	0.3	NE
10/5/2025 9:00	0.9	NE
10/5/2025 10:00	1.1	NE
10/5/2025 11:00	0.2	NE
10/5/2025 12:00	2.4	NE
10/5/2025 13:00	0.1	N
10/5/2025 14:00	0.2	NE
10/5/2025 15:00	0.3	S
10/5/2025 16:00	0.1	W
10/5/2025 17:00	0.2	W
10/5/2025 18:00	0.2	NW
10/5/2025 19:00	0.1	NE
10/5/2025 20:00	0.5	NE
10/5/2025 21:00	0.4	NE
10/5/2025 22:00	2.9	E
10/5/2025 23:00	0.4	NE
10/5/2025 0:00	0.6	NE
11/5/2025 1:00	0.6	NE
11/5/2025 2:00	0.5	N

Date	Wind Speed (m/s)	Wind Direction
11/5/2025 3:00	0.1	NE
11/5/2025 4:00	0.4	NE
11/5/2025 5:00	0.3	E
11/5/2025 6:00	0.2	NE
11/5/2025 7:00	0.9	E
11/5/2025 8:00	0.4	NE
11/5/2025 9:00	1.1	NE
11/5/2025 10:00	3.2	N
11/5/2025 11:00	1.0	NE
11/5/2025 12:00	7.3	E
11/5/2025 13:00	2.0	E
11/5/2025 14:00	1.3	E
11/5/2025 15:00	0.5	W
11/5/2025 16:00	2.4	NE
11/5/2025 17:00	0.8	E
11/5/2025 18:00	0.2	E
11/5/2025 19:00	0.2	NE
11/5/2025 20:00	0.1	NE
11/5/2025 21:00	0.1	NE
11/5/2025 22:00	0.0	E
11/5/2025 23:00	0.1	E
11/5/2025 0:00	0.0	E
12/5/2025 1:00	0.0	SE
12/5/2025 2:00	0.1	E
12/5/2025 3:00	0.1	S
12/5/2025 4:00	0.1	S
12/5/2025 5:00	0.1	SE

Date	Wind Speed (m/s)	Wind Direction
12/5/2025 6:00	0.1	S
12/5/2025 7:00	0.1	S
12/5/2025 8:00	0.0	E
12/5/2025 9:00	0.6	E
12/5/2025 10:00	0.1	E
12/5/2025 11:00	0.5	NW
12/5/2025 12:00	2.0	N
12/5/2025 13:00	0.2	W
12/5/2025 14:00	0.7	W
12/5/2025 15:00	1.3	W
12/5/2025 16:00	0.1	W
12/5/2025 17:00	3.0	S
12/5/2025 18:00	0.2	S
12/5/2025 19:00	0.4	S
12/5/2025 20:00	0.1	S
12/5/2025 21:00	0.0	SE
12/5/2025 22:00	0.1	S
12/5/2025 23:00	0.0	E
12/5/2025 0:00	0.0	E
13/5/2025 1:00	0.9	NE
13/5/2025 2:00	0.6	E
13/5/2025 3:00	0.0	E
13/5/2025 4:00	0.0	SE
13/5/2025 5:00	0.1	E
13/5/2025 6:00	0.1	SE
13/5/2025 7:00	0.1	E
13/5/2025 8:00	1.9	E

Date	Wind Speed (m/s)	Wind Direction
13/5/2025 9:00	4.3	NE
13/5/2025 10:00	1.3	NE
13/5/2025 11:00	0.0	NW
13/5/2025 12:00	0.1	NW
13/5/2025 13:00	0.1	SE
13/5/2025 14:00	0.0	SE
13/5/2025 15:00	0.1	E
13/5/2025 16:00	0.1	E
13/5/2025 17:00	0.8	NE
13/5/2025 18:00	0.3	S
13/5/2025 19:00	0.1	S
13/5/2025 20:00	0.1	E
13/5/2025 21:00	0.1	E
13/5/2025 22:00	0.0	SE
13/5/2025 23:00	0.0	SE
13/5/2025 0:00	0.2	E
14/5/2025 1:00	0.1	NE
14/5/2025 2:00	0.1	E
14/5/2025 3:00	0.3	E
14/5/2025 4:00	0.3	NE
14/5/2025 5:00	0.2	N
14/5/2025 6:00	0.0	NE
14/5/2025 7:00	0.9	NE
14/5/2025 8:00	0.4	NE
14/5/2025 9:00	0.3	NE
14/5/2025 10:00	0.2	NE
14/5/2025 11:00	0.1	E

Date	Wind Speed (m/s)	Wind Direction
14/5/2025 12:00	1.5	NE
14/5/2025 13:00	0.3	SE
14/5/2025 14:00	0.3	SE
14/5/2025 15:00	0.6	S
14/5/2025 16:00	0.0	S
14/5/2025 17:00	0.1	SE
14/5/2025 18:00	0.1	SE
14/5/2025 19:00	0.1	E
14/5/2025 20:00	0.0	E
14/5/2025 21:00	0.1	SW
14/5/2025 22:00	0.1	E
14/5/2025 23:00	0.0	E
14/5/2025 0:00	0.1	SE
15/5/2025 1:00	0.1	NE
15/5/2025 2:00	0.1	E
15/5/2025 3:00	0.0	N
15/5/2025 4:00	0.1	NE
15/5/2025 5:00	0.1	NE
15/5/2025 6:00	0.0	N
15/5/2025 7:00	0.0	NE
15/5/2025 8:00	0.2	N
15/5/2025 9:00	1.0	E
15/5/2025 10:00	0.9	NE
15/5/2025 11:00	0.7	SW
15/5/2025 12:00	0.1	S
15/5/2025 13:00	0.2	NW
15/5/2025 14:00	1.4	S

Date	Wind Speed (m/s)	Wind Direction
15/5/2025 15:00	1.3	E
15/5/2025 16:00	1.1	SE
15/5/2025 17:00	4.3	S
15/5/2025 18:00	0.5	S
15/5/2025 19:00	0.2	S
15/5/2025 20:00	0.6	S
15/5/2025 21:00	0.1	SE
15/5/2025 22:00	0.2	NE
15/5/2025 23:00	0.1	SE
15/5/2025 0:00	0.0	SE
16/5/2025 1:00	0.1	NE
16/5/2025 2:00	0.1	NE
16/5/2025 3:00	0.1	E
16/5/2025 4:00	0.1	E
16/5/2025 5:00	0.1	NE
16/5/2025 6:00	0.1	E
16/5/2025 7:00	0.1	SE
16/5/2025 8:00	0.1	S
16/5/2025 9:00	0.3	NE
16/5/2025 10:00	0.5	S
16/5/2025 11:00	0.5	SE
16/5/2025 12:00	2.0	S
16/5/2025 13:00	2.2	S
16/5/2025 14:00	2.3	S
16/5/2025 15:00	0.5	S
16/5/2025 16:00	0.2	SW
16/5/2025 17:00	2.6	S

Date	Wind Speed (m/s)	Wind Direction
16/5/2025 18:00	1.0	S
16/5/2025 19:00	0.2	S
16/5/2025 20:00	0.2	SW
16/5/2025 21:00	0.8	S
16/5/2025 22:00	0.1	S
16/5/2025 23:00	0.0	SE
16/5/2025 0:00	0.1	E
17/5/2025 1:00	0.0	W
17/5/2025 2:00	0.1	E
17/5/2025 3:00	0.2	S
17/5/2025 4:00	0.1	E
17/5/2025 5:00	0.0	SE
17/5/2025 6:00	0.0	SE
17/5/2025 7:00	0.1	S
17/5/2025 8:00	0.4	NE
17/5/2025 9:00	0.1	S
17/5/2025 10:00	0.0	SE
17/5/2025 11:00	0.1	W
17/5/2025 12:00	0.7	NW
17/5/2025 13:00	0.3	SE
17/5/2025 14:00	0.1	SW
17/5/2025 15:00	0.8	S
17/5/2025 16:00	0.6	S
17/5/2025 17:00	0.3	SW
17/5/2025 18:00	0.5	SE
17/5/2025 19:00	0.9	SW
17/5/2025 20:00	0.4	S

Date	Wind Speed (m/s)	Wind Direction
17/5/2025 21:00	1.8	S
17/5/2025 22:00	0.1	S
17/5/2025 23:00	0.1	S
17/5/2025 0:00	0.1	SE
18/5/2025 1:00	0.0	S
18/5/2025 2:00	0.1	S
18/5/2025 3:00	0.1	S
18/5/2025 4:00	0.1	S
18/5/2025 5:00	0.0	S
18/5/2025 6:00	0.0	SE
18/5/2025 7:00	0.2	S
18/5/2025 8:00	0.1	S
18/5/2025 9:00	1.2	S
18/5/2025 10:00	0.2	S
18/5/2025 11:00	0.0	SE
18/5/2025 12:00	0.1	E
18/5/2025 13:00	0.0	E
18/5/2025 14:00	0.4	E
18/5/2025 15:00	2.2	SW
18/5/2025 16:00	3.3	SW
18/5/2025 17:00	0.1	S
18/5/2025 18:00	0.0	S
18/5/2025 19:00	0.8	SW
18/5/2025 20:00	0.1	S
18/5/2025 21:00	0.3	S
18/5/2025 22:00	0.1	NE
18/5/2025 23:00	0.7	S

Date	Wind Speed (m/s)	Wind Direction
18/5/2025 0:00	0.0	S
19/5/2025 1:00	0.1	SE
19/5/2025 2:00	0.0	SE
19/5/2025 3:00	0.1	S
19/5/2025 4:00	0.1	S
19/5/2025 5:00	0.0	SE
19/5/2025 6:00	0.1	SE
19/5/2025 7:00	0.1	S
19/5/2025 8:00	0.8	S
19/5/2025 9:00	0.2	SE
19/5/2025 10:00	0.4	S
19/5/2025 11:00	2.2	S
19/5/2025 12:00	0.1	N
19/5/2025 13:00	2.7	S
19/5/2025 14:00	1.7	SE
19/5/2025 15:00	0.7	S
19/5/2025 16:00	0.4	SE
19/5/2025 17:00	0.1	S
19/5/2025 18:00	0.4	S
19/5/2025 19:00	0.0	E
19/5/2025 20:00	0.1	SE
19/5/2025 21:00	0.0	S
19/5/2025 22:00	0.0	S
19/5/2025 23:00	0.1	S
19/5/2025 0:00	0.1	SE
20/5/2025 1:00	0.9	S
20/5/2025 2:00	0.1	SE

Date	Wind Speed (m/s)	Wind Direction
20/5/2025 3:00	0.0	SE
20/5/2025 4:00	0.1	S
20/5/2025 5:00	0.1	S
20/5/2025 6:00	2.7	S
20/5/2025 7:00	0.9	S
20/5/2025 8:00	1.1	S
20/5/2025 9:00	0.2	S
20/5/2025 10:00	6.3	SE
20/5/2025 11:00	1.0	S
20/5/2025 12:00	3.4	S
20/5/2025 13:00	5.4	SW
20/5/2025 14:00	0.1	SE
20/5/2025 15:00	0.4	SW
20/5/2025 16:00	3.2	S
20/5/2025 17:00	0.7	S
20/5/2025 18:00	0.2	S
20/5/2025 19:00	0.6	S
20/5/2025 20:00	2.2	S
20/5/2025 21:00	1.1	S
20/5/2025 22:00	1.4	S
20/5/2025 23:00	0.2	S
20/5/2025 0:00	0.3	S
21/5/2025 1:00	0.1	S
21/5/2025 2:00	0.1	S
21/5/2025 3:00	0.1	S
21/5/2025 4:00	0.0	SE
21/5/2025 5:00	0.0	S

Date	Wind Speed (m/s)	Wind Direction
21/5/2025 6:00	0.1	S
21/5/2025 7:00	0.0	S
21/5/2025 8:00	0.9	S
21/5/2025 9:00	4.1	S
21/5/2025 10:00	0.2	W
21/5/2025 11:00	2.3	SW
21/5/2025 12:00	0.2	SE
21/5/2025 13:00	0.3	S
21/5/2025 14:00	2.4	S
21/5/2025 15:00	2.6	E
21/5/2025 16:00	1.6	SW
21/5/2025 17:00	1.3	S
21/5/2025 18:00	0.5	S
21/5/2025 19:00	0.9	S
21/5/2025 20:00	0.1	S
21/5/2025 21:00	4.1	S
21/5/2025 22:00	0.2	S
21/5/2025 23:00	0.8	SE
21/5/2025 0:00	2.7	S
22/5/2025 1:00	0.2	S
22/5/2025 2:00	0.1	SE
22/5/2025 3:00	0.0	S
22/5/2025 4:00	0.0	S
22/5/2025 5:00	0.0	S
22/5/2025 6:00	0.7	S
22/5/2025 7:00	0.4	SE
22/5/2025 8:00	0.9	S

Date	Wind Speed (m/s)	Wind Direction
22/5/2025 9:00	0.1	SW
22/5/2025 10:00	0.1	N
22/5/2025 11:00	0.9	S
22/5/2025 12:00	3.1	S
22/5/2025 13:00	2.2	S
22/5/2025 14:00	0.4	S
22/5/2025 15:00	2.6	SW
22/5/2025 16:00	7.3	SW
22/5/2025 17:00	1.9	SW
22/5/2025 18:00	3.5	S
22/5/2025 19:00	1.6	SE
22/5/2025 20:00	0.7	S
22/5/2025 21:00	0.4	SE
22/5/2025 22:00	0.4	SW
22/5/2025 23:00	0.5	S
22/5/2025 0:00	0.0	S
23/5/2025 1:00	0.3	S
23/5/2025 2:00	0.5	S
23/5/2025 3:00	0.6	S
23/5/2025 4:00	0.0	E
23/5/2025 5:00	0.0	NE
23/5/2025 6:00	0.1	NW
23/5/2025 7:00	0.2	S
23/5/2025 8:00	0.1	SW
23/5/2025 9:00	0.1	SW
23/5/2025 10:00	1.1	S
23/5/2025 11:00	3.7	S

Date	Wind Speed (m/s)	Wind Direction
23/5/2025 12:00	2.5	S
23/5/2025 13:00	3.6	S
23/5/2025 14:00	3.9	S
23/5/2025 15:00	4.1	SW
23/5/2025 16:00	1.1	SW
23/5/2025 17:00	0.9	SW
23/5/2025 18:00	0.2	SE
23/5/2025 19:00	1.7	W
23/5/2025 20:00	0.2	NW
23/5/2025 21:00	0.3	S
23/5/2025 22:00	0.2	S
23/5/2025 23:00	0.0	NE
23/5/2025 0:00	0.1	NE
24/5/2025 1:00	0.2	S
24/5/2025 2:00	0.0	SE
24/5/2025 3:00	0.1	S
24/5/2025 4:00	0.1	SE
24/5/2025 5:00	0.1	S
24/5/2025 6:00	0.1	S
24/5/2025 7:00	0.0	N
24/5/2025 8:00	0.4	NE
24/5/2025 9:00	0.4	NE
24/5/2025 10:00	5.5	E
24/5/2025 11:00	1.9	NE
24/5/2025 12:00	2.3	NE
24/5/2025 13:00	0.3	NE
24/5/2025 14:00	0.1	W

Date	Wind Speed (m/s)	Wind Direction
24/5/2025 15:00	0.0	E
24/5/2025 16:00	0.6	N
24/5/2025 17:00	1.1	NE
24/5/2025 18:00	0.1	NW
24/5/2025 19:00	0.4	N
24/5/2025 20:00	0.4	N
24/5/2025 21:00	1.7	N
24/5/2025 22:00	1.3	N
24/5/2025 23:00	0.6	NE
24/5/2025 0:00	0.0	NE
25/5/2025 1:00	0.1	N
25/5/2025 2:00	0.2	NE
25/5/2025 3:00	0.7	NE
25/5/2025 4:00	0.4	E
25/5/2025 5:00	0.1	NE
25/5/2025 6:00	0.1	E
25/5/2025 7:00	2.0	NE
25/5/2025 8:00	0.1	N
25/5/2025 9:00	0.9	E
25/5/2025 10:00	1.7	NE
25/5/2025 11:00	2.7	N
25/5/2025 12:00	1.5	NE
25/5/2025 13:00	1.3	NE
25/5/2025 14:00	1.2	N
25/5/2025 15:00	0.8	E
25/5/2025 16:00	2.2	NE
25/5/2025 17:00	1.2	E

Date	Wind Speed (m/s)	Wind Direction
25/5/2025 18:00	1.4	E
25/5/2025 19:00	2.2	NE
25/5/2025 20:00	0.8	NE
25/5/2025 21:00	0.2	E
25/5/2025 22:00	1.4	NE
25/5/2025 23:00	0.1	S
26/5/2025 0:00	0.2	NE
26/5/2025 1:00	0.0	S
26/5/2025 2:00	0.3	NE
26/5/2025 3:00	0.1	E
26/5/2025 4:00	0.1	E
26/5/2025 5:00	0.4	NE
26/5/2025 6:00	0.2	NE
26/5/2025 7:00	1.8	NE
26/5/2025 8:00	2.4	E
26/5/2025 9:00	1.2	E
26/5/2025 10:00	1.1	E
26/5/2025 11:00	3.3	NE
26/5/2025 12:00	1.0	E
26/5/2025 13:00	3.6	NE
26/5/2025 14:00	0.1	SE
26/5/2025 15:00	0.5	E
26/5/2025 16:00	2.3	E
26/5/2025 17:00	0.1	E
26/5/2025 18:00	0.1	SE
26/5/2025 19:00	0.2	NE
26/5/2025 20:00	0.0	SE

Date	Wind Speed (m/s)	Wind Direction
26/5/2025 21:00	0.1	SE
26/5/2025 22:00	0.1	E
26/5/2025 23:00	0.0	E
27/5/2025 0:00	0.0	SE
27/5/2025 1:00	0.3	NE
27/5/2025 2:00	0.1	NE
27/5/2025 3:00	0.0	E
27/5/2025 4:00	1.3	NE
27/5/2025 5:00	0.6	E
27/5/2025 6:00	0.1	N
27/5/2025 7:00	0.5	NE
27/5/2025 8:00	0.6	E
27/5/2025 9:00	0.1	NE
27/5/2025 10:00	1.1	NE
27/5/2025 11:00	0.1	S
27/5/2025 12:00	0.2	N
27/5/2025 13:00	4.0	E
27/5/2025 14:00	3.7	NE
27/5/2025 15:00	4.0	E
27/5/2025 16:00	3.1	NE
27/5/2025 17:00	1.8	NE
27/5/2025 18:00	0.0	E
27/5/2025 19:00	0.0	E
27/5/2025 20:00	0.3	E
27/5/2025 21:00	0.1	E
27/5/2025 22:00	0.0	SE
27/5/2025 23:00	0.1	SE

Date	Wind Speed (m/s)	Wind Direction
28/5/2025 0:00	0.5	E
28/5/2025 1:00	0.3	NE
28/5/2025 2:00	0.2	E
28/5/2025 3:00	1.1	E
28/5/2025 4:00	0.1	SE
28/5/2025 5:00	0.1	E
28/5/2025 6:00	0.3	E
28/5/2025 7:00	0.3	E
28/5/2025 8:00	1.2	SE
28/5/2025 9:00	0.5	E
28/5/2025 10:00	2.1	NE
28/5/2025 11:00	1.3	NE
28/5/2025 12:00	2.3	E
28/5/2025 13:00	0.8	S
28/5/2025 14:00	2.3	E
28/5/2025 15:00	1.0	E
28/5/2025 16:00	0.2	NE
28/5/2025 17:00	0.3	SE
28/5/2025 18:00	0.5	E
28/5/2025 19:00	0.1	E
28/5/2025 20:00	0.4	E
28/5/2025 21:00	0.7	NE
28/5/2025 22:00	0.1	NE
28/5/2025 23:00	0.1	NE
29/5/2025 0:00	0.5	NE
29/5/2025 1:00	0.2	N
29/5/2025 2:00	0.3	NE

Date	Wind Speed (m/s)	Wind Direction
29/5/2025 3:00	0.1	E
29/5/2025 4:00	0.1	NE
29/5/2025 5:00	0.1	N
29/5/2025 6:00	0.2	E
29/5/2025 7:00	0.0	NE
29/5/2025 8:00	0.0	E
29/5/2025 9:00	0.4	NE
29/5/2025 10:00	0.2	NE
29/5/2025 11:00	0.5	NE
29/5/2025 12:00	0.1	S
29/5/2025 13:00	0.4	NE
29/5/2025 14:00	0.1	E
29/5/2025 15:00	0.1	SE
29/5/2025 16:00	3.5	E
29/5/2025 17:00	0.1	NE
29/5/2025 18:00	0.0	NE
29/5/2025 19:00	0.0	E
29/5/2025 20:00	0.1	NE
29/5/2025 21:00	0.1	E
29/5/2025 22:00	0.2	E
29/5/2025 23:00	2.5	NE
30/5/2025 0:00	0.5	NE
30/5/2025 1:00	0.0	E
30/5/2025 2:00	0.0	NE
30/5/2025 3:00	0.7	E
30/5/2025 4:00	0.3	NE
30/5/2025 5:00	0.1	NE

Date	Wind Speed (m/s)	Wind Direction
30/5/2025 6:00	0.2	N
30/5/2025 7:00	0.4	NE
30/5/2025 8:00	1.2	E
30/5/2025 9:00	0.7	E
30/5/2025 10:00	1.9	E
30/5/2025 11:00	0.6	N
30/5/2025 12:00	1.1	E
30/5/2025 13:00	1.1	S
30/5/2025 14:00	0.0	S
30/5/2025 15:00	2.1	E
30/5/2025 16:00	1.3	NE
30/5/2025 17:00	1.6	SE
30/5/2025 18:00	1.2	NE
30/5/2025 19:00	1.0	E
30/5/2025 20:00	0.9	E
30/5/2025 21:00	0.1	NE
30/5/2025 22:00	0.2	E
30/5/2025 23:00	2.8	NE
31/5/2025 0:00	3.0	NE
31/5/2025 1:00	0.4	NE
31/5/2025 2:00	0.8	E
31/5/2025 3:00	0.6	NE
31/5/2025 4:00	0.2	E
31/5/2025 5:00	0.9	NE
31/5/2025 6:00	3.4	NE
31/5/2025 7:00	0.5	NE
31/5/2025 8:00	3.5	NE

Date	Wind Speed (m/s)	Wind Direction
31/5/2025 9:00	1.4	E
31/5/2025 10:00	5.6	E
31/5/2025 11:00	1.2	E
31/5/2025 12:00	1.6	NE
31/5/2025 13:00	0.2	E
31/5/2025 14:00	1.7	E
31/5/2025 15:00	3.1	SE
31/5/2025 16:00	0.9	SE
31/5/2025 17:00	1.0	E
31/5/2025 18:00	0.4	NE
31/5/2025 19:00	0.4	E
31/5/2025 20:00	0.8	E
31/5/2025 21:00	0.1	NE
31/5/2025 22:00	0.1	NE
31/5/2025 23:00	0.1	E
1/6/2025 0:00	0.1	NE

Appendix H
Event and Action Plan

Event and Action Plan for Air Quality (Construction Dust)

Event	Action			
	ET	IEC	ER	Contractor
Action level being exceeded by	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform Contractor, IEC and ER; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Notify Contractor.	1. Identify source(s), investigate the causes of exceedance and propose remedial measures; 2. Implement remedial measures; and 3. Amend working methods agreed with the ER as appropriate.
Action level being exceeded by two or more consecutive sampling	1. Identify source; 2. Inform Contractor, IEC and ER; 3. Advise the Contractor and ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with Contractor, IEC and ER; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Identify source and investigate the causes of exceedance; 2. Submit proposals for remedial measures to the ER with a copy to ET and IEC within three working days of notification; 3. Implement the agreed proposals; and 4. Amend proposal as appropriate.
Limit level being exceeded by one sampling	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; and 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; and 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to ER with a copy to ET and IEC within three working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.
Limit level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET; 2. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 4. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; and 4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with a copy to the IEC and ET within three working days of notification; 4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; and 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Noise (Construction)

Event	Action			
	ET	IEC	ER	Contractor
Action Level	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; and 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analyzed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analyzed noise problem; and 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC; and 2. Implement noise mitigation proposals.
Limit Level	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analyzed noise problem; 4. Ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; and 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Water Quality Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action level being exceeded by one sampling	1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD and AFCD.	1. Confirm receipt of notification of exceedance in writing	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice
Action level being exceeded by two or more consecutive sampling	1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD and AFCD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Consider changes of working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures.
Limit level being exceeded by one sampling	1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD and AFCD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented. 4. Request Contractor(s) to critically review the working methods.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures.
Limit level being exceeded by two or more consecutive sampling	1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented.	1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD and AFCD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures.	1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented. 4. Request Contractor(s) to critically review the working methods.	1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures.

Event and Action Plan for Ecology Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action Level	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; and 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analyzed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analyzed noise problem; and 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC; and 2. Implement noise mitigation proposals.
Limit Level	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; and 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix I
Waste Flow Table

Waste Flow Table for Year 2025

Monthly Ending	Total Quantity Generated	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-inert C&D Wastes Generated Monthly				
		Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
2025 Jan	3,435.58	Nil	Nil	Nil	3,305.22	777.24	78.92	0.03	0.0011	Nil	130.33
2025 Feb	9,006.73	Nil	Nil	Nil	8,882.31	318.15	90.00	Nil	Nil	Nil	124.42
2025 Mar	8,791.06	Nil	Nil	Nil	8,665.14	325.29	130.60	0.28	0.0029	Nil	125.63
2025 Apr	2,095.41	Nil	Nil	Nil	1,906.16	258.74	Nil	Nil	Nil	Nil	189.25
2025 May	169.85	Nil	Nil	Nil	Nil	Nil	Nil	0.19	0.0040	Nil	169.65
Total	**23,798.15**	**Nil**	**Nil**	**Nil**	**22,758.83**	**1,679.42**	**299.52**	**0.51**	**0.008**	**Nil**	**739.28**

Note:
1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.
3) Updated figures are presented during the reporting month.

Sources/ reference of the waste flow data; From the Contractor

Appendix J
Implementation Status of Environmental Mitigation Measures

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
	Air Quality Impact (Construction Phase)		
3.6.1.6	Watering once per every two hours on active works areas to reduce dust emission.	All active works areas during construction phase	Implemented
3.8.1.1	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices listed below shall be carried out to further minimize construction dust impact:		
	• Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather.	Construction Sites	Implemented
	• Use of frequent watering for particularly dusty construction areas and areas close to ASRs.		Implemented
	• Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines.		Implemented
	• Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs.		Implemented
	• Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.		Implemented
	• Establishment and use of vehicle wheel and body washing facilities at the exit points of the site.		Implemented
	• Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading area of barging point, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods.		N/A
	• Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road, streets or other accessible to the public except for a site entrance or exit.		Implemented
	• Imposition of speed controls for vehicles on site haul roads.		Implemented
	• Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.		Implemented
	• Instigation of an environmental monitoring and auditing program to monitor the construction process in order to enforce controls and modify method of work if dusty conditions arise.		Implemented

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
	Noise Impact (Construction Phase)		
4.8.1	Movable noise barriers are recommended for hydraulic breakers mounted on excavators to be adopted during construction.	Construction Sites	N/A
	Good site practices listed below and the noise control requirements stated in EPD's "Recommended Pollution Control Clauses for Construction Contracts" should be included in the Contract Specification for the Contractors to follow and should be implemented to further minimize the potential noise impacts during the construction phase of the Project.		Implemented
	• Quiet PME, such that those listed in EPD's Quality Powered Mechanical Equipment, should be considered for construction works to further minimize the potential construction noise impact.		Implemented
	• Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme.		Implemented
	• Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction programme.		Implemented
	• Mobile plant, if any, should be sited as far away from noise sensitive receivers (NSRs) as possible.		N/A
	• Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.		Implemented
	• Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs		N/A
	• Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities.		N/A
	Water Quality Impact (Construction Phase)		
5.8.1.2	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	Construction Sites / Construction Phase	Implemented
5.8.1.3	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 backfill to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	Construction Sites / Construction Phase	Implemented
5.8.1.4	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.	Construction Sites / Construction Phase	Implemented
5.8.1.5 - 5.8.1.6	The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be followed where applicable to minimise surface run-off and the chance of erosion. 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, 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 as 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.	Construction Sites / Construction Phase	Implemented

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
5.8.1.7	Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly (as well as at the onset of and after each rainstorm) to prevent overflows and localised flooding.	Construction Sites / Construction Phase	Implemented
5.8.1.8	Construction works should be programmed to minimise soil excavation in the wet season (i.e. April to September). If soil excavation cannot be avoided in these months or at any time of year when rainstorms are likely, temporarily 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 run-off from washing across exposed soil surfaces.	Construction Sites / Construction Phase	Implemented
5.8.1.9	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	Construction Sites / Construction Phase	Implemented
5.8.1.10	Measures should be taken to minimise the ingress of rainwater into trenches. If excavation of trenches in the wet season 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.	Construction Sites / Construction Phase	Implemented
5.8.1.11	Construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms	Construction Sites / Construction Phase	Implemented
5.8.1.12	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 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.	Construction Sites / Construction Phase	Implemented
5.8.1.13	The practices outlined in Environment, Transport and Works Bureau (ETWB) TC (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works" should also be adopted where applicable to minimise the water quality impacts upon any natural streams or surface water systems.	Construction Sites / Construction Phase	Implemented
5.8.1.14	Sufficient chemical toilets should be provided in the works areas. A licensed waste collector should be deployed to clean the chemical toilets on a regular basis.	Construction Sites / Construction Phase	Implemented
5.8.1.15	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment.	Construction Sites / Construction Phase	Implemented
5.8.1.16	Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The WDO (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.	Construction Sites / Construction Phase	Implemented
5.8.1.17	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors 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.	Construction Sites /Construction Phase	N/A
5.8.1.18	Disposal of chemical wastes should be carried out in compliance with the WDO. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the WDO should be followed to avoid leakage or spillage of chemicals.	Construction Sites / Construction Phase	Implemented
5.8.1.19	All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS).	Construction Sites / Construction Phase	Implemented
5.8.2.11	Chemical should be stored on site at bunded area and separate drainage system as appropriate should be provided to avoid any spilled chemicals from entering the storm drain in case of accidental spillage. Also, adequate tools for cleanup of spilled chemicals should be stored on site and appropriate training shall be provided to staffs to further prevent potential adverse water quality impacts from happening.	Project site / Design and Operation Phase	Implemented

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
Waste Management Implication (Construction Phase)			
6.6.1.3	Good Site Practices Recommendations for good site practices during the construction phase include:		
	• Nomination of approved personnel, such as a site manager, to be responsible for good site practices, and making arrangements for collection of all wastes generated at the site and effective disposal to an appropriate facility;	Construction Sites	Implemented
	• Training of site personnel in proper waste management and chemical waste handling procedures;		Implemented
	• Provision of sufficient waste reception/ disposal points, of a suitable vermin-proof design that minimises windblown litter;		N/A
	• Arrangement for regular collection of waste for transport off-site and final disposal;		Implemented
	• Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;		Implemented
	• Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;		Implemented
	• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed; and		Implemented
	• A WMP should be prepared and should be submitted to the Engineer for approval. One may make reference to ETWB TCW No. 19/2005 for details.		Implemented
6.6.1.5	Waste Reduction Measures Recommendations to achieve waste reduction include:		
	• 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;	Construction Sites	Implemented
	• 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;		Implemented
	• Any unused chemicals or those with remaining functional capacity shall be recycled;		N/A
	• Maximising the use of reusable steel formwork to reduce the amount of C&D material;		Implemented
	• Prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill;		Implemented
	• Adopt proper storage and site practices to minimise the potential for damage to, or contamination of, construction materials;		Implemented
	• Plan the delivery and stock of construction materials carefully to minimise the amount of surplus waste generated;		N/A
	• Adopt pre-cast construction method instead of cast-in-situ method for construction of concrete structures as much as possible; and		N/A
	• Minimise over ordering of concrete, mortars and cement grout by doing careful check before ordering.		N/A

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
6.6.1.7	Storage of Waste Recommendations to minimise the impacts include:		
	• Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimising the potential of pollution;	Construction Sites	Implemented
	• Maintain and clean storage areas routinely;		Implemented
	• Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and		Implemented
	• Different locations should be designated to stockpile each material to enhance reuse.		Implemented
6.6.1.8	Collection of Waste Licensed waste haulers should be employed for the collection and transportation of waste generated. The following measures should be enforced to minimise the potential adverse impacts:		
	• Remove waste in timely manner;	Construction Sites	Implemented
	• Waste collectors should only collect wastes prescribed by their permits;		Implemented
	• Impacts during transportation, such as dust and odour, should be mitigated by the use of covered trucks or in enclosed containers;		Implemented
	• Obtain relevant waste disposal permits from the appropriate authorities, in accordance with the WDO (Cap. 354), Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 345) and the Land (Miscellaneous Provisions) Ordinance (Cap. 28);		Implemented
	• Waste should be disposed of at licensed waste disposal facilities; and		Implemented
	• Maintain records of quantities of waste generated, recycled and disposed.		Implemented
6.6.1.10	Transportation of Waste In order to monitor the disposal of C&D materials at PFRFs and landfills and to control fly-tipping, a trip-ticket system should be established in accordance with DEVB TCW No. 6/2010. A recording system for the amount of waste generated, recycled and disposed, including the disposal sites, should also be set up. Warning signs should be put up to remind the designated disposal sites. CCTV should be installed at the vehicular entrance and exit of the site as additional measures to prevent fly-tipping.	Transportation Route of Waste / Construction Phase	Implemented
6.6.1.12	Construction and Demolition Material Careful design, planning together with good site management can reduce over-ordering and generation of C&D materials such as concrete, mortar and cement grouts. Formwork should be designed to maximize the use of standard wooden panels, so that high reuse levels can be achieved. Alternatives such as steel formwork or plastic facing should be considered to increase the potential for reuse	Construction Sites	N/A
6.6.1.13	The excavated material arising from site formation and foundation works should be reused on-site as backfilling material and for landscaping works as far as practicable. Other mitigation requirements are listed below:		
	• A WMP, which becomes part of the EMP, should be prepared in accordance with ETWB TCW No.19/2005;	Construction Sites	Implemented
	• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be adopted for easy tracking; and		Implemented
	• In order to monitor the disposal of C&D materials at public filling facilities and landfills and to control fly-tipping, a trip-ticket system should be adopted (refer to DEVB TCW 06/2010).		Implemented

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
6.6.1.14	It is recommended that specific areas should be provided by the Contractors for sorting and to provide temporary storage areas (if required) for the sorted materials. Control measures for temporary stockpiles on-site should be taken in order to minimise the noise, generation of dust and pollution of water. These measures include:		
	• Surface of stockpiled soil should be regularly wetted with water especially during dry season;	Construction Sites	Implemented
	• Disturbance of stockpile soil should be minimised;		Implemented
	• Stockpiled soil should be properly covered with tarpaulin especially when heavy storms are predicted; and		Implemented
	• Stockpiling areas should be enclosed where space is available.		Implemented
6.6.1.15	The Contactor should prepare and implement an EMP in accordance with ETWB TCW No.19/2005, which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from construction activities. Such a management plan should incorporate site-specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP should be submitted to the Engineer for approval. The Contractor should implement waste management practices in the EMP throughout the construction stage of the Project. The EMP should be reviewed regularly and updated by the Contractor, preferably on a monthly basis.	Construction Sites	Implemented
6.6.1.16	The Contractor would be responsible for devising a system to work for on-site sorting of C&D materials and promptly removing all sorted and process materials arising from the construction activities to minimise temporary stockpiling on-site. The system should be included in the EMP identifying the source of generation, estimated quantity, arrangement for on-site sorting, collection, temporary storage areas and frequency of collection by recycling Contractors or frequency of removal off-site.	Construction Sites	Implemented
6.6.1.17 – 6.6.1.18	The sediment should be excavated, handled, transported and disposed of in a manner that would minimise adverse environmental impacts. To minimise sediment disposal, it is proposed to reuse the Type 1 sediment generated (e.g. as backfilling materials) as far as possible. Requirements of the Air Pollution Control (Construction Dust) Regulation, where relevant, shall be adhered to during excavation, transportation and disposal of the sediment.	Construction Sites	N/A
6.6.1.19	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.	Construction Sites	Implemented
6.6.1.20	For off-site disposal, the basic requirements and procedures specified under ETWB TC(W) No. 34/2002 shall be followed.	Transportation Route of Waste / Construction Phase	Implemented
6.6.1.24	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 by tarpaulin and the area should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and surrounding water bodies. The stockpiles should be completely paved or covered by linings 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).	Construction Sites	Implemented
6.6.1.25	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 shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water.	Construction sites & transportation route of waste / Construction phase	N/A
6.6.1.26	The barge 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 loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP.	Transportation route of waste / Construction phase	N/A

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
6.6.1.27	Suitable containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall employ a licensed collector to transport and dispose of the chemical wastes, to the licensed CWTC, or other licensed facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Construction and Operation Phases	Implemented
6.6.1.28	It is recommended to place clearly labelled recycling bins at designated locations with convenient access. Other general refuse should be separated from chemical and industrial waste by providing separated bins or skips for storage to maximise the recyclable volume. A reputable licensed waste collector should be employed to remove general refuse on a daily basis to minimise odour, pest and litter impacts.	Construction and Operation Phases	Implemented
6.6.1.29	Should buildings be found with potential ACM, sufficient and reasonable lead time shall be allowed for preparation, vetting and implementation of Asbestos Investigation Report and Asbestos Abatement Plan in accordance with Air Pollution Control Ordinance before commencement of any demolition or site clearance work.	Demolition	N/A
Land Contamination			
7.8.1.2 - 7.8.1.3;7.8.2.1	Prior to the commencement of the SI works, a review of the Contamination Assessment Plan (CAP) should be conducted to confirm whether the proposed SI works (e.g. sampling locations, testing parameters etc.) are still valid. Supplementary CAP(s), presenting findings of the review, the latest site conditions and updated sampling strategy and testing protocol, should be submitted to EPD for endorsement. The SI works should be carried out according to EPD's agreed supplementary CAP(s).SI works should be carried out according to the supplementary CAP endorsed by EPD. Following completion of SI works and receipt of laboratory test results, Contamination Assessment Report(s) ((CAR)(s)) should be prepared to present the findings of the SI works and to discuss the presence, nature and extent of contamination. If contamination is identified, Remedial Action Plan(s) ((RAP)(s)) which provides details of the remedial actions for the identified contaminated soil and / or groundwater should be endorsed by EPD. The possible remediation methods are detailed in Section 5.2 of the CAP provided in Appendix 7.1 of the EIA Report, Remediation action, if necessary, will be carried out according to EPD endorsed RAP(s) and Remediation Report(s) (RR(s)) will be submitted after completion of the remediation action. The RR(s) should be endorsed by EPD prior to the commencement of construction works at the respective identified contaminated areas (if any).	Existing YLSTW /Construction Phase (after decommissioning of the concerned facilities / areas but prior to the construction works at the concerned facilities / areas)	Implemented
7.8.3.1	The mitigation measures will be recommended in the RAP and would typically include the following:		
	• Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety;	Project Site / Construction Phase	Implemented
	• Excavation shall be carried out during dry season as far as possible to minimise contaminated runoff from contaminated soils; Supply of suitable clean backfill material (or treated soil) after excavation;		N/A
	• Stockpiling site(s) shall be lined with impermeable sheeting and bunded. Stockpiles shall be fully covered by impermeable sheeting to reduce dust emission. If this is not practicable due to frequent usage, regular watering shall be applied. However, watering shall be avoided on stockpiles of contaminated soil to minimise contaminated runoff.		Implemented
	• Vehicles containing any excavated materials shall be suitably covered to limit potential dust emissions or contaminated wastewater run-off, and truck bodies and tailgates shall be sealed to prevent any discharge during transport or during wet conditions;		Implemented
	• Speed control for the trucks carrying contaminated materials shall be enforced;		Implemented
	• Vehicle wheel and body washing facilities at the site's exist points shall be established and used; and		Implemented
	• Pollution control measures for air emissions (e.g. from biopile blower and handling of cement), noise emissions (e.g. from blower or earthmoving equipment), and water discharges (e.g. runoff control from treatment facility) shall be implemented and complied with relevant regulations and guidelines.		Implemented

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
Ecological Impact (Terrestrial and Aquatic) (Construction Phase)			
8.10.2.1	Avoidance of Recognised Site of Conservation Importance Construction works are designed to be confined to the boundary of the existing YLSTW that direct impacts on all other sites of conservation importance within the assessment area, including the Ramsar Site, Priority Site, WCA, WBA, SSSI and CA would be avoided.	Project site / Construction Phase	Implemented
8.10.2.3 – 8.10.2.4	Avoidance of Demolition Works Using Breakers Mounted on Excavators and Percussive Piling during Dry Season In order to minimise the construction noise disturbance on overwintering waterbirds, the noisy construction works, i.e. all percussive piling works and demolition using breakers mounted on excavators, would therefore be scheduled outside the dry season (i.e. November to March, which is the peak overwintering period of waterbirds).	Construction sites /Construction Phase	Implemented
8.10.2.5	Restriction of Construction Hours No construction activities with the use of PME should be conducted within 100m from any night roost confirmed by the pre-construction survey after 18:00 during wet season and 17:30 during dry season to avoid disturbance to the nearby ardeids night roosts.	Construction sites / Construction Phase	Implemented
8.10.3.2 – 8.10.3.3	Minimising Construction Noise Disturbance Impacts through Consideration of Alternative Construction Methods Demolition using concrete crusher is quieter than demolition using breaker that its construction noise level is comparable to other general construction activities and concrete crusher would be used for demolition works to be undertaken during dry season months. The quieter foundation methods, including bored piling, raft foundation and shallow foundation, would be adopted as far as possible.	Construction sites / Construction Phase	Implemented
8.10.3.4 – 8.10.3.5	Minimising Construction Noise Disturbance Impacts Through Careful Phasing of Construction Activities Percussive piling works and demolition using breakers mounted on excavators would typically be completed over two wet seasons and not be undertaken in the same construction zone at the same time to localise the construction disturbance and to reduce the duration of high level of disturbances on sensitive wetland habitats and associated waterbirds nearby each construction zone. Facilities in the eastern side of the Project site (i.e. Phase 1A and Phase 1B) are scheduled to be developed first that the new structures could screen the works in the middle and western parts of the site in later stage of the construction phase after the structures in Phase 1A and Phase 1B are completed, hence minimising the construction noise and human disturbance on sensitive wetland habitats adjacent to the Project site in Shan Pui River, including the confluence of Shan Pui River and Kam Tin River and ardeid night roost to the immediate east of the Project site.	Project site / Construction Phase	Implemented
8.10.3.6 – 8.10.3.8	Minimising Construction Noise Disturbance Impacts through Use of Noise Barriers Noise barriers with absorptive materials of about 4m high will be erected along the northern, eastern and western sides of the site, throughout the construction phase to screen the construction noise and human disturbance to the waterbirds foraging in ponds in Fung Lok Wai and Shan Pui River during construction phase. Adequate noise barriers should also be provided for demolition works using breakers mounted on excavators and percussive piling works, to further minimise the construction noise disturbance from these construction activities. Movable noise barriers should be provided to breaker mounted on excavator used for demolition works as discussed in Section 4.8 and acoustic mat should be provided to the piling plants around the rig. The contractor should provide enclosure for construction equipment, especially static plants, as appropriate to minimise the noise disturbance as far as practicable.	Construction sites / Construction Phase	Implemented
8.10.3.9	Use of Quality Powered Mechanical Equipment The contractor should source QPMEs for construction as far as practicable to further minimise the overall construction noise and other disturbance to the nearby wetland habitats and associated waterbirds to the maximum practical extent.	Construction sites / Construction Phase	Implemented
Ecology & Fisheries Impact			
8.12.1.4, 9.7	Groundwater observation wells and recharge wells will be provided at the northern and western side of the site. Groundwater table will be closely monitored at the observation well. In case of any unlikely events of abnormal drawdown of groundwater table near the excavation area, groundwater dewatering will stop and water will be pumped into the recharge wells to recover the normal groundwater table as necessary.	Construction Phase	N/A

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
	Fisheries Impact		
9.7	The implementation of good site practices during construction could minimise the potential water quality impacts from the land-based construction works. Mitigation measures recommended in the Water Quality Impact Assessment (Section 5) for controlling water quality impact would also serve to protect fisheries resources and activities from indirect impacts.	Construction and Operation Phase	N/A
	Landscape and Visual Impact		
Table 10.11	<u>Preservation of Existing Vegetation (CM1)</u> All the existing Trees to be retained and not to be affected by the Project shall be carefully protected during construction accordance with DEVB TCW No. 7/2015 - Tree Preservation and the latest Guidelines on Tree Preservation during Development issued by GLTM Section of DevB. Any existing vegetation in landscaped areas and natural terrain not to be affected by the Project shall be carefully preserved.	Project site / Construction Phase	Implemented
	<u>Transplanting of Affected Trees (CM2)</u> Trees unavoidably affected by the works shall be transplanted as far as possible in accordance with DEVB TCW No. 7/2015 - Tree Preservation and the latest Guidelines on Tree Transplanting issued by GLTM Section of DevB.	Project site / Construction Phase	Implemented
	<u>Compensatory Tree Planting (CM3)</u> Any trees to be felled under the Project shall be compensated in accordance with DEVB TCW No. 7/2015 - Tree Preservation. For trees to be compensated on slopes, the guidelines for tree planting stipulated in GEO Publication No. 1/2011 will be followed.	Project site / Construction Phase	N/A
	<u>Control of Night-time Lighting Glare (CM4)</u> All the night time lighting shall be avoided except for safety purpose. No light glare shall illuminate directly outside the site.	Project site / Construction Phase	Implemented
	<u>Erection of Decorative Screen Hoarding (CM5)</u> Site hoardings, if any, shall be painted in dull green colour	Project site / Construction Phase	Implemented
	<u>Management of Construction Activities and Facilities (CM6)</u> Construction activities shall be well scheduled and avoid powered mechanical equipment's operating simultaneously. All stockpiling areas and idled area shall be covered by tarpaulin sheet or hydroseeded as far as possible.	Project site / Construction Phase	Implemented
	Hazard to Life (Construction Phase)		
11.5.6.9-11.5.6.12	• Implementation of those major construction works and movement of plants and vehicles would be stringently controlled to have a setback of at least 15m clear distance, or physical barrier with an empty digester / gas holder from the digesters / gas holders in operation;	Project site / Construction Phase	N/A
	• For those construction works to be carried out in close proximity to the 15m zone from digesters / gas holders in operation, the height of plants for those major construction shall be limited to 15m such that the plants would not damage digesters /gas holders in such incident as plant collapse or overturning;		N/A
	• Whenever practicable, the construction sequence shall be arranged with empty unit(s) for separating the major construction works from these digesters / gas holders in use; and		N/A
	• Physical barriers such as concrete blocks shall be set up at the 15m zone in order to avoid those construction plants or vehicles from colliding to the digester / gas holder units in use.		N/A

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
11.5.8	• Method statements and risk assessments shall be prepared and safety control measures shall be in place before commencement of work	Project site / Construction Phase	Implemented
	• All work procedures shall be complied with the operating plant procedures or guidelines and regulatory requirements;		Implemented
	• Work permit system, on-site pre-work risk assessment and emergency response procedure shall be in place before commencement of work;		Implemented
	• All construction workers shall equip with appropriate personal protective equipment (PPE) when working at the Project Site;		Implemented
	• Safety training and briefings shall be provided to all construction workers;		Implemented
	• Regular site safety inspections shall be conducted during the construction phase of the Project;		Implemented
11.9.1.2	• Ensure speed limit enforcement is specified in the contractor's method statement to limit the speed of construction vehicles onsite;	Project site / Construction Phase	Implemented
	• Conduct speed checks to ensure enforcement of speed limits and to ensure adequate site access control;		N/A
	• A lifting plan, with detailed risk assessment, should be prepared and endorsed for heavy lifting of large equipment;		Implemented
	• Vehicle crash barriers should be provided between the construction site and the operating biogas facilities;		N/A
	• Ensure that a hazardous are classification study is conducted and hazardous area maps are updated before the start of the construction activities to ensure ignition sources are controlled during both construction and operation phases;		Implemented
	• Ensure work permit system for hot work activities within the Project Site is specified in the contractor's method statement to minimize and control the ignition sources during the construction phase;		Implemented
	• Ensure effective communication system / protocol is in place between the contractors and the operation staff;		Implemented
	• Ensure the Project Construction Emergency Response Plan is integrated with the Emergency Response Plan for the YLEPP during construction phase. The plan should address stop work instructions to be promptly communicated to all construction workers performing hot works in case a confirmed biogas detection at the Project Site;		Implemented
	• Ensure that the construction activities do not impede the functions of fire and gas detection system, fire protection system, muster areas, fire-fighting vehicle access and escape routes;		Implemented
	• Ensure a Job Safety Analysis is conducted for construction activities of the Project during the construction phase, to identify and analyze hazards associated with the construction activities (e.g. lifting operations by cranes) onto the operating biogas facilities.		Implemented
	• Potential risks of the construction activities shall be assessed, and risk precautionary measures shall be implemented in Contractor's works procedures.		Implemented

Note:

Implementation status: Implemented / Partially Implemented / Not Implemented / Not Applicable (N/A)

Sources / reference of the Implementation Status: Appendix B of EIA Report, AEIAR-220/2019

Appendix K
Weather and Meteorological Conditions

April 2025 Weather

Station: Wetland Park

Date	Mean Pressure (hPa)	Air Temperature			Mean Relative Humidity (%)	Total Rainfall (mm)
		Maximum (deg. C)	Mean (deg. C)	Minimum (deg. C)		
April 2025						
1	1018.6	20.5	15.3	11.4	77	0.5
2	1019.1	25.1	17.6	11.7	71	0
3	1018.5	25.8	19	13.4	71	0
4	1015.9	23.5	20.4	15.9	70	0
5	1015.3	20.5	18.6	18.1	96	10
6	1015.8	23.3	19.8	17.3	86	0
7	1016.6	28.5	21.8	16.6	69	0
8	1015.9	28.3	23.1	18.4	79	0
9	1012.2	29.2	23.8	19.8	84	0
10	1008.9	29.3	25	21.7	82	0
11	1008.4	28.8	25.1	22.6	88	0
12	1009.2	27.4	24.6	19.8	85	1
13	1015.2	25.6	21.4	18.3	44	0
14	1012.9	28.8#	21.2	15.2#	66	0
15	1012.4	35.8	24.6	16.1	57	0
16	1011.9	30.3#	23	17.9#	79	0
17	1009.9	28.0#	23.3	19.0#	84	0
18	1009.2	27.4#	24.8	22.8#	92	0.5
19	1009.2	29.2#	26.1	24.6#	90	0
20	1010.7	32.2#	26.9	24.4#	82	0
21	1011.6	30.8#	26.8	23.9#	81	0
22	1010.1	31.0#	27.4	24.0#	79	0
23	1008.9	32.0#	27.8	25.2#	79	0
24	1009	31.7	27.1	23.2	82	0.5
25	1011.3	26.3	24.4	22.7	94	16.5
26	1013.9	27.2	23.4	21.7	84	0
27	1012.7	26.8	23.6	21.6	88	0
28	1011.5	30.8	25.3	22.3	89	8.5
29	1013.1	30.2	25.2	21	64	0
30	1012.9	30.5	24.8	20.7	79	0

Note (From Hong Kong Observatory):

1. # Data incomplete
2. Rainfall measured in increment of 0.5 mm. Amount of < 0.5 mm cannot be detected

Source: Hong Kong Observatory

May 2025 Weather

Station: Hong Kong Observatory

Date	Mean Pressure (hPa)	Air Temperature			Mean Relative Humidity (%)	Total Rainfall (mm)
		Maximum (deg. C)	Mean (deg. C)	Minimum (deg. C)		
May 2025						
1	1012.9	27.9	25.6	24.5	83	1.4
2	1011.3	32.3	27.4	24.6	75	0
3	1010.1	29.7	26.8	25.3	81	0
4	1008.8	31.7	27.5	25.5	81	Trace
5	1008.5	32	27.8	25.8	79	Trace
6	1008	30.4	28.1	26.9	82	0.4
7	1008	28	27.1	25.6	88	9.8
8	1008	29.2	26.4	25	87	0.6
9	1007.8	29.3	27.2	25.7	83	0.4
10	1009	30.7	27.2	25.1	76	Trace
11	1010.1	29.5	24.8	21	57	3.9
12	1010.9	30.4	25.9	23.1	54	0
13	1012.4	29.3	25.8	23.8	72	0
14	1012.8	31.4	27.2	25	78	Trace
15	1012.3	31.9	28.2	26.3	78	0
16	1011.2	29.3	27.8	26.7	83	Trace
17	1010.8	32.8	28.8	26.7	77	0
18	1010.3	32.5	29	27.3	77	0
19	1009.1	31.5	29	27.9	78	Trace
20	1009.2	30.8	29.5	28.3	77	0
21	1009.3	32.4	29.9	28.5	76	0
22	1007.6	33	30.1	28.4	74	0
23	1006.8	32.4	29.7	26.5	77	2
24	1009.7	30.5	27.9	26.4	76	3.5
25	1013.7	27.3	25.9	24.5	65	0
26	1014.7	27.7	25.5	24.2	63	0
27	1013.5	29.2	26.3	24.4	67	0
28	1010.2	27.3	26	25	82	Trace
29	1008.8	27.9	26.2	25	90	53.2
30	1009.5	25	24.3	23.6	88	6.4
31	1007.1	25.4	25	24.3	82	Trace

Note (From Hong Kong Observatory):
Trace means rainfall less than 0.05 mm

Source: Hong Kong Observatory

Remark: The corresponding weather station at Wetland Park were unavailable at the time of preparation of this report. The corresponding month's weather will be provided in the next reporting month.

Appendix L
Cumulative statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions

Environmental Complaints Log

Reference	Date of Complaint	Received From	Received By	Nature of Complaint	Date of Investigation	Outcome	Date of Reply

Cumulative Statistics on Complaints

Environmental Parameters	Cumulative No. Brought Forward	No. of Complaints This Month	Cumulative Project-to-Date
Air	0	0	0
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	0	0	0

Cumulative Statistics on Notification of Summons and Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Notification of Summons and Prosecutions This Month	Cumulative Project-to-Date
Air	0	0	0
Noise	0	0	0
Water	0	0	0
Waste	0	0	0
Total	0	0	0

Appendix M
Summary of the ET Leader's Site Environmental Audit in the Reporting Month

Summary of ET Leader's Site Environmental Audit in the Reporting Month

Parameters	Date	Observations and Recommendations	Follow-up
Air Quality	NA		
	28 May 2025	Reminder 1: Open stockpiles at SDT should be avoided or covered	Open stockpiles was covered.
Noise	13 May 2025	Reminder 1: The Contractor was remaindered to enclose the silentup at northwest of the Site.	The silentup was enclosed.
Water Quality	NA		
Chemical and Construction Waste Management	NA		
Land Contamination	21 May2025	Reminder 1: The drip trays should be checked and cleaned regularly	The drip trays were cleaned.
Ecological Impact	NA		
Landscape and Visual Impact	NA		
Permit / Licenses	8 May 2025	Observation 1: NRMM label should be provided for the excavator at AGS.	NRMM label was provided
Others	NA		

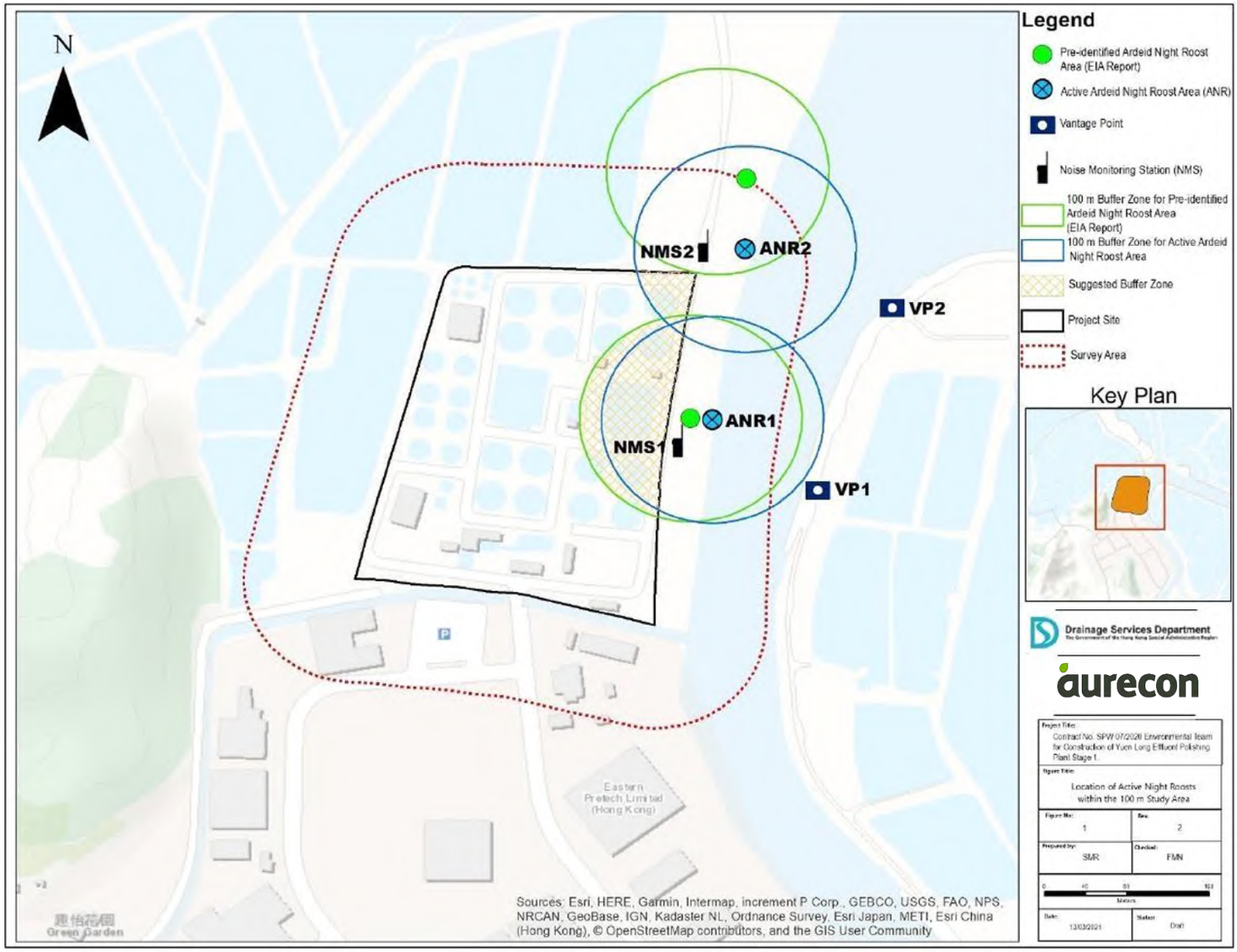
Appendix N
Outstanding Issues and Deficiencies

Summary of Outstanding Issues and Deficiencies in the Reporting Month

Parameters	Outstanding Issues	Deficiencies
Air Quality	NA	Any items of deficiencies can be referred to **Appendix M**.
Noise	NA	
Water Quality	NA	
Chemical and Waste Management	NA	
Land Contamination	NA	
Landscape and Visual Impact	NA	
Permit / Licenses	NA	
Others	NA	

Appendix O
Active Night Roost Monitoring Area and Vantage Points; and Noise Monitoring Stations

O.1 Map of the Monitoring Area, Vantage Points for Observation of Active Night Roosts and Noise Monitoring Stations



O.2 Survey Photos

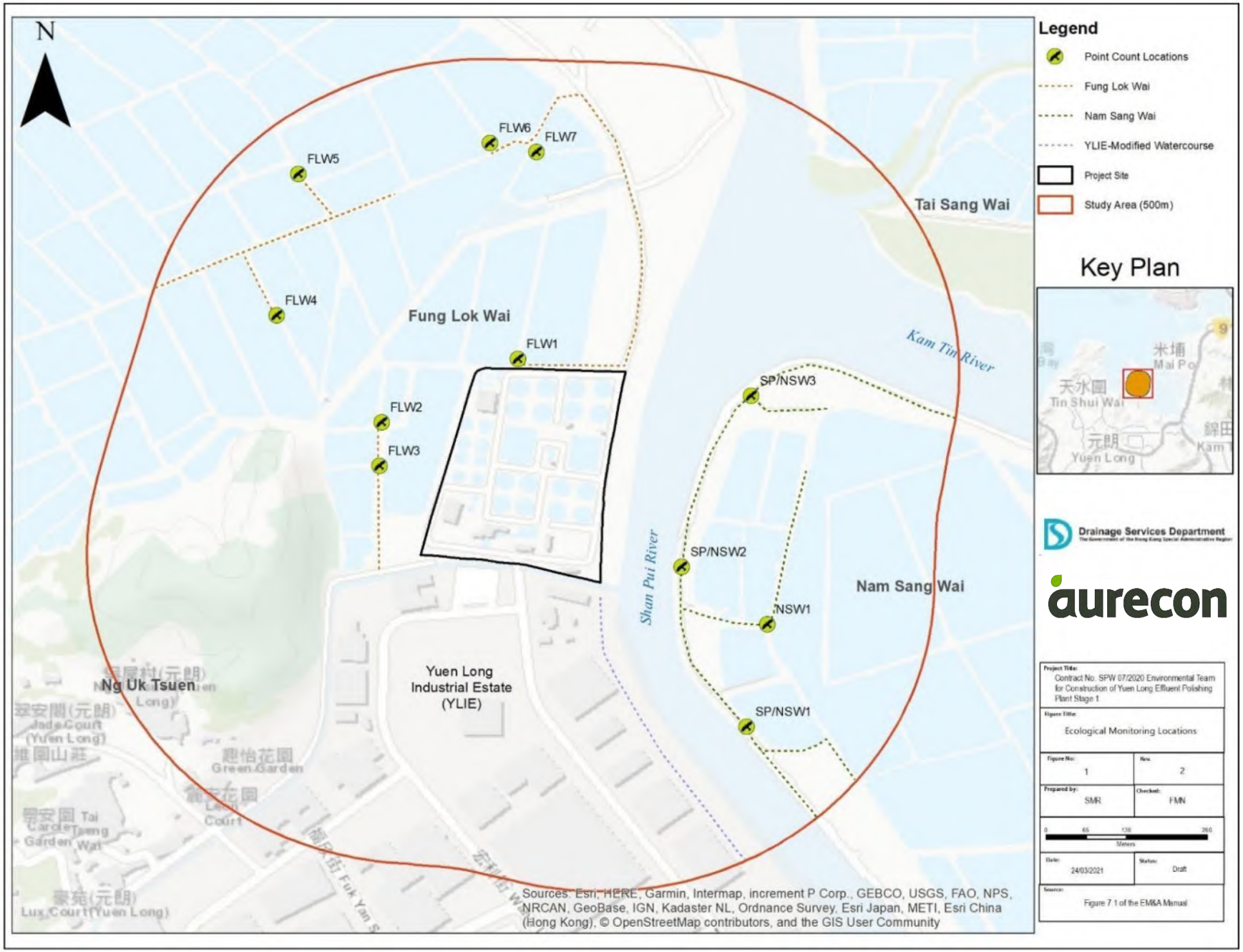
O.2.1 Pre-roosting Aggregate

Appendix O.2.1a: Pre-roost aggregate of ardeids in the mudflat east side of the Project boundary (ANR1) observed on 12 May 2025 at around 18:30.

O.2.2 Active Night Roosting Site and Roosting Substrates

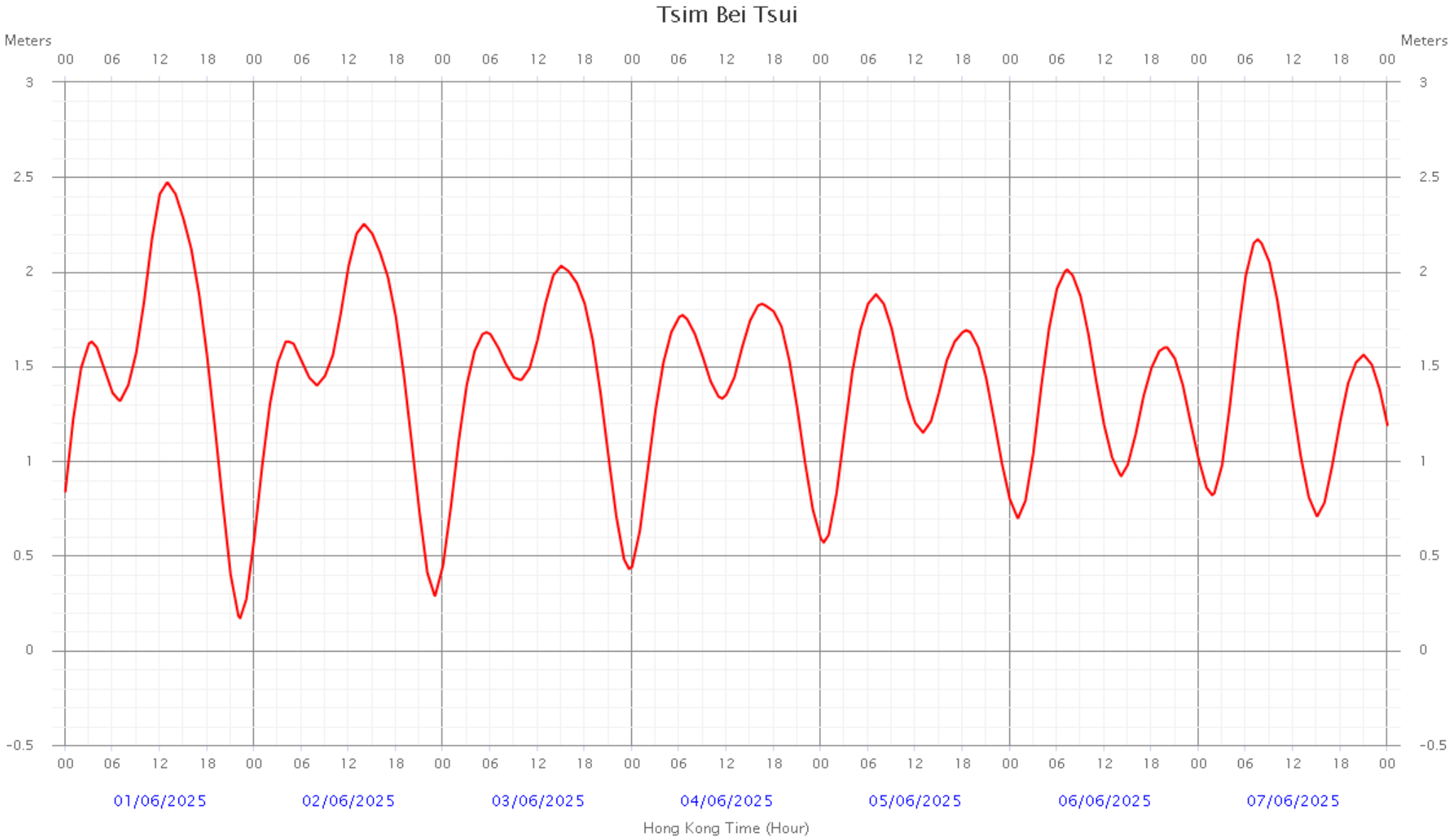
Appendix O.2.2a: Active night roost in the mudflat east side of the Project boundary (ANR1) observed on 12 May 2025 at around 19:13.

Appendix P
Ecological Bird Monitoring Area with Locations of Point Count Sites and Transect Route



Appendix P: Ecological bird monitoring area with the locations of point count sites and transect routes

Appendix Q
Tides Predicted by the Hong Kong Observatory for the tidal station at Tsim Bei Tsui


Tsim Bei Tsui
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Meters
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01/06/2025
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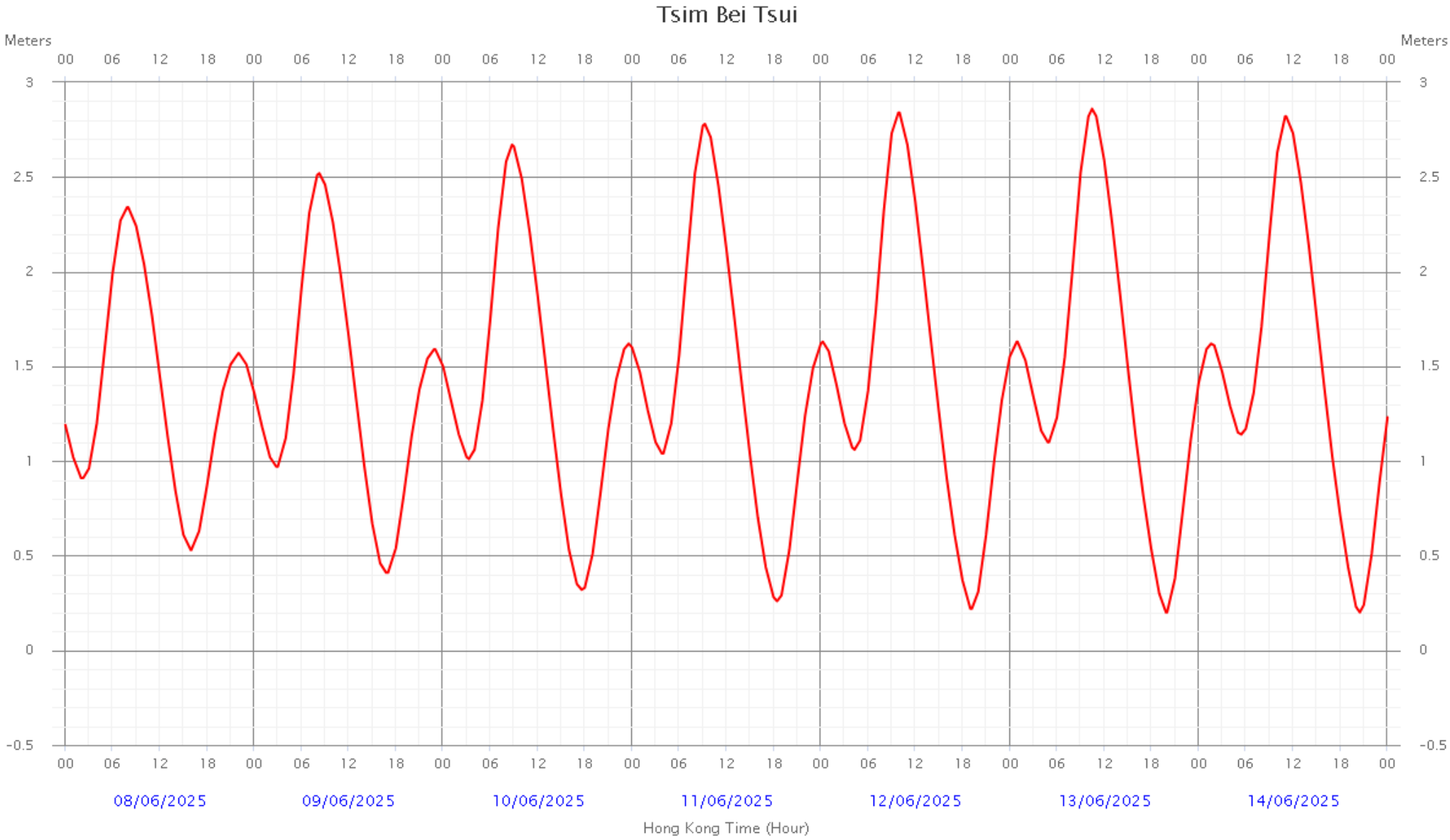
03/06/2025
04/06/2025
05/06/2025
06/06/2025
07/06/2025
Hong Kong Time (Hour)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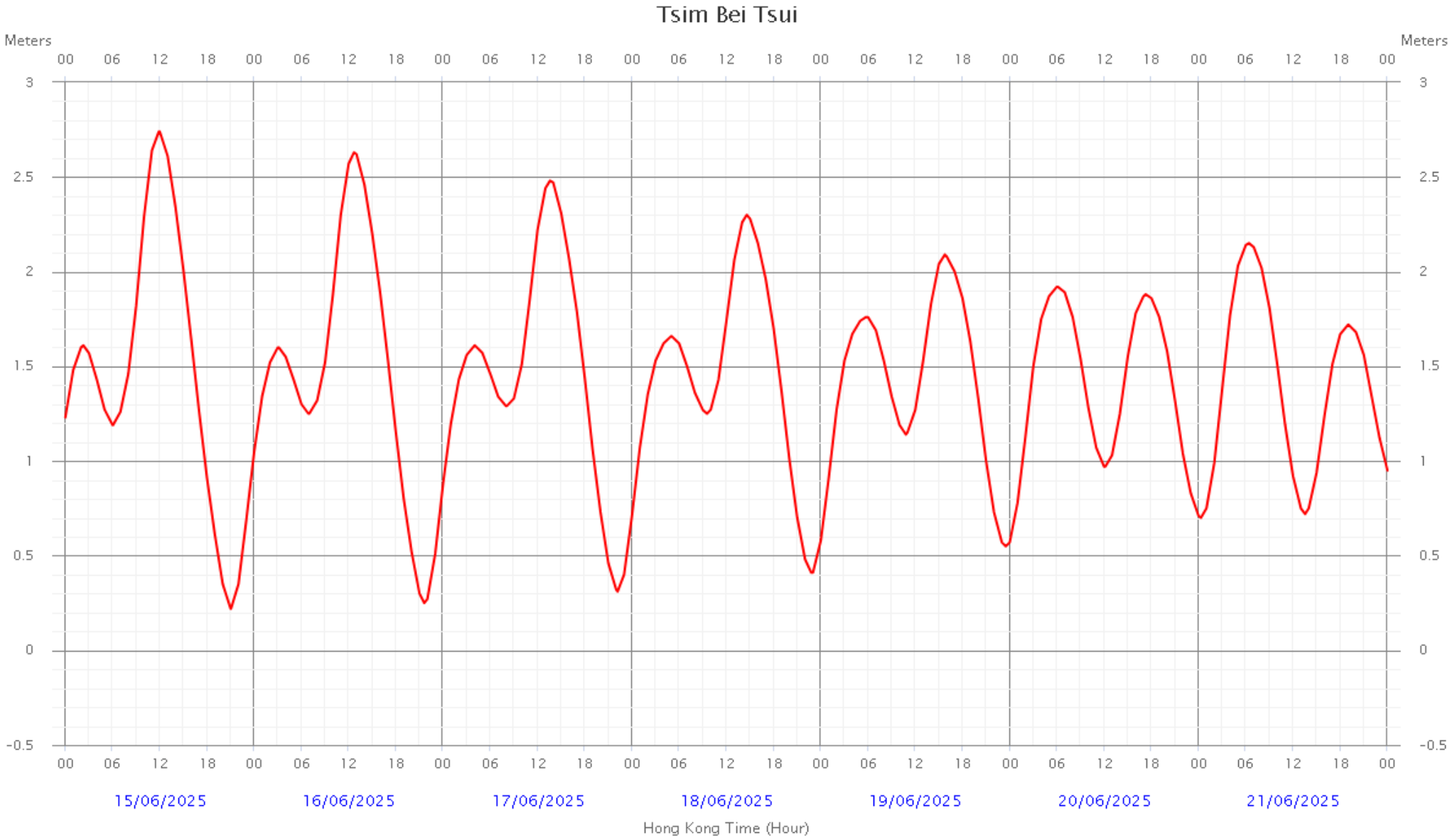
11/06/2025
12/06/2025
13/06/2025
14/06/2025
Hong Kong Time (Hour)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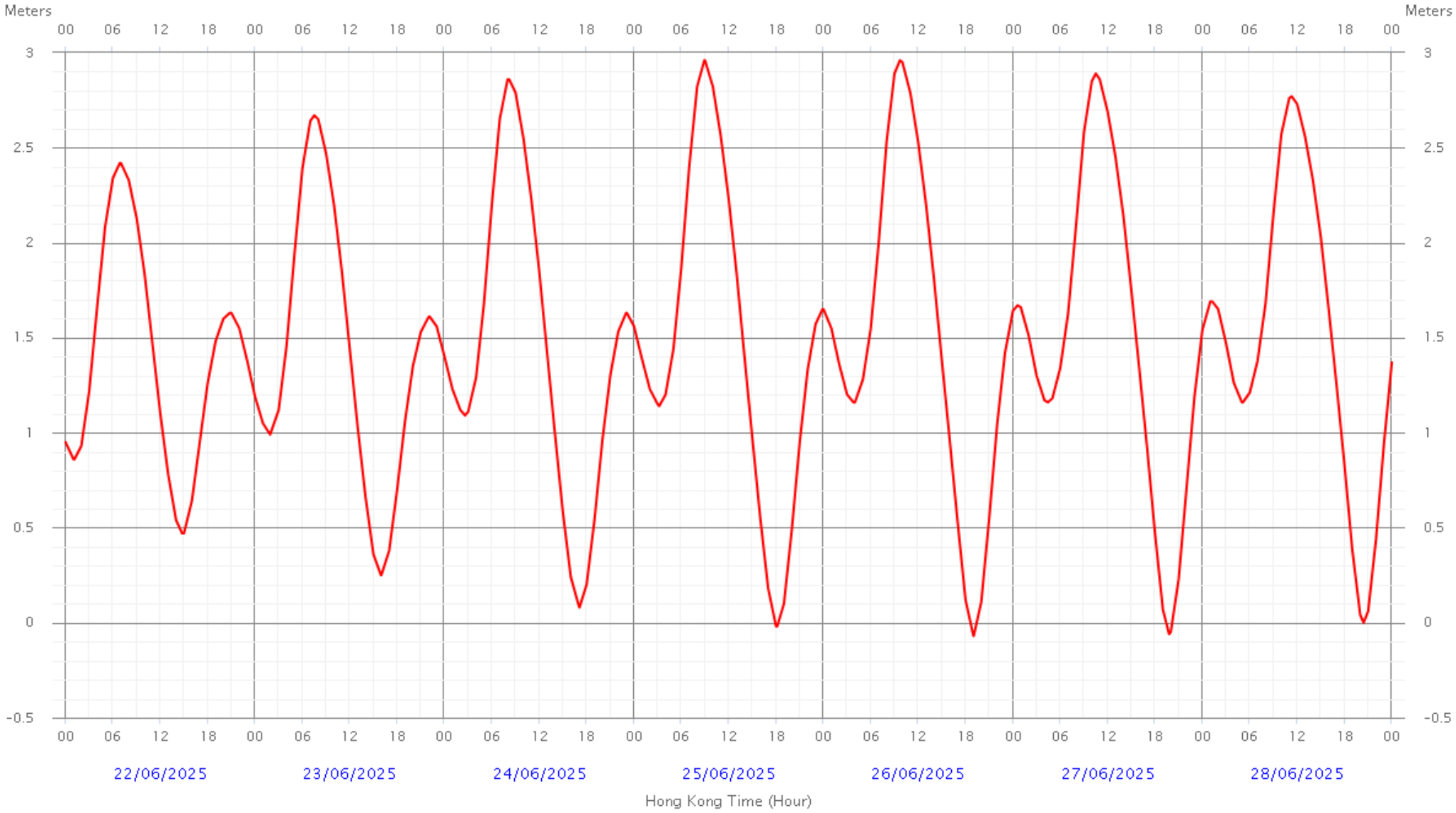
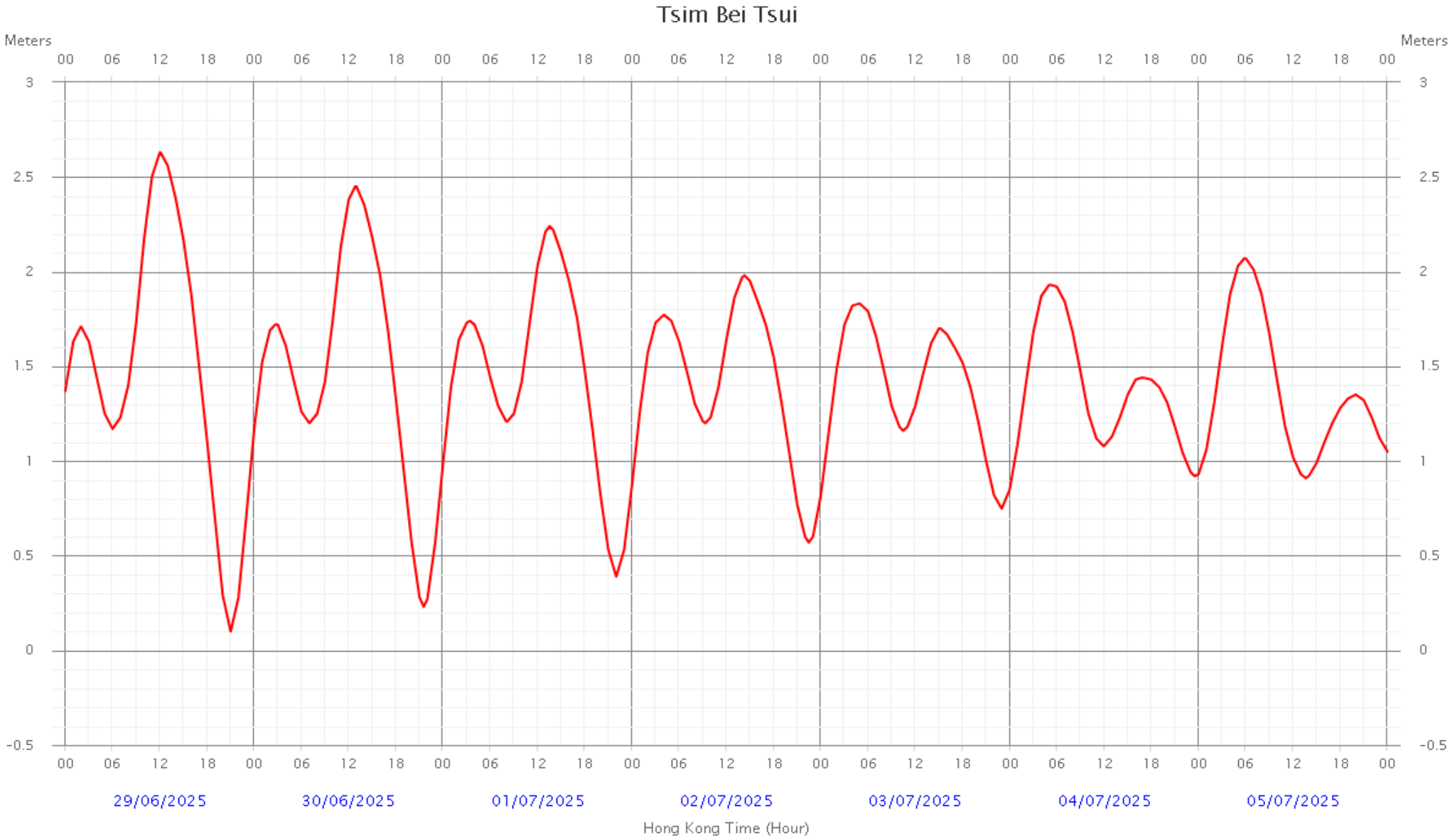
17/06/2025
18/06/2025
19/06/2025
20/06/2025
21/06/2025
Hong Kong Time (Hour)

Tsim Bei Tsui




Tsim Bei Tsui
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30/06/2025
01/07/2025
02/07/2025
03/07/2025
04/07/2025
05/07/2025
Hong Kong Time (Hour)

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