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

Monthly EM&A Report (January 2025)

**Drainage Services Department**

2025-02-11

aurecon

Bringing ideas to life

aurecon

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 January 2025**

13 February 2025

**By Hand and By E-mail**

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

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

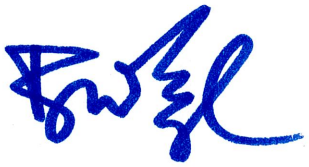
Dear Sir,

I refer to the captioned Monthly EM&A Report for January 2025 (Revision 1) which was received via e-mail and certified by the Environmental Team Leader on 13 February 2025 (ref.: PL-202502022).

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



**Our Reference**
EC/TC/BW/T601100483/02/02/L076

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

T +852 2828 5757
mottmac.hk

Brandon Wong
Independent Environmental Checker
+852 2828 5875

brandon.wong@mottmac.com

| | | |
|---|---|---|
| cc | DSD | Mr. Wallace CHENG – E/SP 16 (by e-mail) |
| | Aurecon Hong Kong Limited | Mr. Vincent LU – ET Leader (by e-mail) |
| | Paul Y – CREC Joint Venture | Mr. Gabriel WONG – Environmental Specialist (by e-mail) |

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

**Aurecon Hong Kong Limited**
Unit 1608, 16/F, Tower B,
Manulife Financial Centre,
223 – 231 Wai Yip Street, Kwun Tong
Hong Kong

**T** +852 3664 6888
**F** +852 3664 6999
**E** hongkong@aurecongroup.com
**w** aurecongroup.com

Ref: PL-202502022

**By Email**

13 February 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 January 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 January 2025 (Rev.1) 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)
Paul Y. - CREC Joint Venture – Mr. Gabriel Wong (gabriel.wong@crec.com.hk)

# Document control record

Document prepared by:

**Aurecon Hong Kong Limited**
Unit 1608, 16/F, Tower B, Manulife Financial Centre,
223 – 231 Wai Yip Street, Kwun Tong, Kowloon
Hong Kong S. A. R.
**T** +852 3664 6888
**F** +852 3664 6999
**E** hongkong@aurecongroup.com
**W** aurecongroup.com

A person using Aurecon documents or data accepts the risk of:

**a)** Using the documents or data in electronic form without requesting and checking them for accuracy against the original hard copy version.

**b)** Using the documents or data for any purpose not agreed to in writing by Aurecon.

| **Document control** | | | | | | aurecon |
|---|---|---|---|---|---|---|
| **Report title** | | Monthly EM&A Report (January 2025) | | | | |
| **Document ID** | | MR | **Project number** | | P525161 | |
| **File path** | | P525161-0000-PD-MR-0018[1] | | | | |
| **Client** | | Drainage Services Department | | | | |
| **Client contact** | | | **Client reference** | | | |
| **Rev** | **Date** | **Revision details/status** | **Author** | **Reviewer** | **Verifier** (if required) | **Approver** |
| 0 | 6 February 2025 | Submitted to IEC | VL | JH | | VL |
| 1 | 11 February 2025 | Respond to IEC comments | VL | JH | | VL |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| **Current revision** | | **1** | | | | |

| **Approval** | | | |
|---|---|---|---|
| Reviewer's signature |  | Approver's signature |  |
| Name | Joe Ho | Name | Vincent Lu |
| Title | Senior Environmental Consultant | Title | Environmental Team Leader |

**All rights reserved |** The information/data furnished in our document is confidential and competitive information proprietary to Aurecon or its subcontractors, the release of which would harm the competitive position of Aurecon or its sub-contractors/consultants. This information/data shall not be reproduced, stored in a retrieval system, transmitted in any form or by any means, used or disclosed in whole or in part, for any purpose other than to evaluate and adjudicate this document. If Aurecon is shortlisted or a contract is awarded to Aurecon as a result of this solicitation, or in connection with the submission of such information/data, the right (and the extent thereof) to reproduce, store, transmit, use or disclose this information/data must, by agreement, be included in such contract.

# Contents


**EXECUTIVE SUMMARY** 1

**1 INTRODUCTION** 3

**2 AIR QUALITY** 6

**3 NOISE** 9

**4 WATER QUALITY** 12

**5 ECOLOGY MONITORING** 16

**6 LANDSCAPE AND VISUAL** 28

**7 LAND CONTAMINATION** 29

**8 SITE INSPECTION AND AUDIT** 31

**9 NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS** 32

**10 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURE** 33

**11 FUTURE KEY ISSUES** 35

**12 CONCLUSION AND RECOMMENDATION** 36


# Tables


Table 1 Contact Information of Key Personnel ..... 5
Table 2 Environmental Licenses, Notification and Permits Summary ..... 6
Table 3 Air Quality Monitoring Equipment ..... 6
Table 4 Air Quality Monitoring Location ..... 7
Table 5 Summary of Air Quality Monitoring Results ..... 7
Table 6 Comparison of 1-hr TSP data with EIA predictions ..... 8
Table 7 Construction Noise Monitoring Equipment ..... 9
Table 8 Monitoring Parameters and Frequencies of Noise Monitoring ..... 9
Table 9 Construction Noise Monitoring Location ..... 10
Table 10 Summary of Construction Noise Monitoring Results ..... 11
Table 11 Comparison of Noise monitoring data with EIA predictions ..... 11
Table 12 Water Quality Monitoring and Sampling Equipment ..... 12



**All rights reserved |** The information/data furnished in our document is confidential and competitive information proprietary to Aurecon or its subcontractors, the release of which would harm the competitive position of Aurecon or its sub-contractors/consultants. This information/data shall not be reproduced, stored in a retrieval system, transmitted in any form or by any means, used or disclosed in whole or in part, for any purpose other than to evaluate and adjudicate this document. If Aurecon is shortlisted or a contract is awarded to Aurecon as a result of this solicitation, or in connection with the submission of such information/data, the right (and the extent thereof) to reproduce, store, transmit, use or disclose this information/data must, by agreement, be included in such contract.

Table 13 Monitoring Parameters and Frequency ....13
Table 14 Coordinates of Water Quality Monitoring Locations ....14
Table 15 Summary of Water Quality Exceedance ....15
Table 16 Noise Monitoring Parameters (For Active Ardeid Night Roost Survey) ....17
Table 17 Active Ardeid Night Roost Survey Findings ....18
Table 18 Noise Monitoring Parameters (For Active Ardeid Night Roost Survey) ....19
Table 19 Noise Monitoring Parameters ....20
Table 20 Abundance of all Avifauna Species ....22
Table 21 Abundance of Species of Conservation Importance ....22
Table 22 Shannon Diversity Index Value of all Avifauna Species ....24
Table 23 Shannon Diversity Index Value of Species with Conservation Importance ....24
Table 24 Wetland habitat utilization of all avifauna species ....26
Table 25 Wetland habitat utilization of avifauna species of conservation importance ....26
Table 26 Noise Monitoring Results (For Ecological Monitoring of Birds) ....27
Table 27 Waste Generated by the Construction and Disposal Ground ....31
Table 28 Status of submissions required under the EP ....33

## Figures

Figure 1 Location of Proposed Yuen Long Effluent Polishing Plant ....
Figure 2 Location of Construction Dust Monitoring Stations....
Figure 3 Noise Monitoring Locations ....
Figure 4 Water Quality Monitoring Locations....
Figure 5 Ecology Monitoring Locations....

## Appendix

APPENDIX A CONSTRUCTION PROGRAMME
APPENDIX B PROJECT ORGANIZATION CHART
APPENDIX C ACTION AND LIMIT LEVELS
APPENDIX D CALIBRATION CERTIFICATES/ REPORTS OF MONITORING EQUIPMENT
APPENDIX E ENVIRONMENTAL MONITORING SCHEDULE
APPENDIX F ENVIRONMENTAL MONITORING RESULTS
APPENDIX G WIND DATA
APPENDIX H EVENT AND ACTION PLAN
APPENDIX I WASTE FLOW TABLE
APPENDIX J IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES
APPENDIX K WEATHER AND METEOROLOGICAL CONDITIONS
APPENDIX L CUMULATIVE STATISTICS ON ENVIRONMENTAL COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS
APPENDIX M SUMMARY OF THE ET LEADER'S SITE ENVIRONMENTAL AUDIT IN THE REPORTING MONTH
APPENDIX N OUTSTANDING ISSUES AND DEFICIENCIES
APPENDIX O ACTIVE NIGHT ROOST MONITORING AREA AND VANTAGE POINTS; AND NOISE MONITORING STATIONS
APPENDIX P ECOLOGICAL BIRD MONITORING AREA WITH LOCATIONS OF POINT COUNT SITES AND TRANSECT ROUTE

# APPENDIX Q TIDES PREDICTED BY THE HONG KONG OBSERVATORY FOR THE TIDAL STATION AT TSIM BEI TSUI

# 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 46th Monthly EM&A Report for the construction phase which summaries findings of the EM&A programme during the reporting period from 1 January 2025 to 31 January 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 and RC structure 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
- ELS work at TTS
- RC Structure at STB
- Demolish Existing SDT 1-4
- ELS 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
- ELS works and pipeworks at emergency bypass chamber
- ABWF, E&M work and RC structure at IW
- ABWF and E&M works at PST
- ELS work at SDB
- External works at site-wide include water meter cabinet
- ELS work and RC structure at AGS
- RC structure at TTS
- ABWF, E&M work and RC structure at STB
- Demolish Existing SDT 1-4 and Gas Holder GH2
- ELS work and RC structure at Sludge Digester no. 1-3
- E&M work at Biogas Holder no. 1

# 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 46$^{th}$ Monthly EM&A report to document the findings of site inspection activities and EM&A programme for this project from 1 January 2025 to 31 January 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 and RC structure 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
- ELS work at TTS
- RC Structure at STB
- Demolish Existing SDT 1-4
- ELS 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-RN1253-24 | 17-Nov-2024 | 16-Apr-2025 |
| Construction Noise Permit | GW-RN0998-24 | 6-Sep-2024 | 5-Feb-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 (Type 1 – Open Sea Disposal (Dedicated Site) and Type 2 – Confined | EP/MD/25-046 | 28-Dec-2024 | 27-Mar-2025 |
| Marine Dumping Permit (Excavated Sediment of Category L - Suitable for Capping Exhausted Contaminated Mud Pits) | EP/MD/25-023 | 26-Aug-2024 | 25-Feb-2025 |
| Disposal of Special waste at Landfills Admission Ticket (Pond Sediment) | Admission Ticket Number: 101572 | 1-Jan-2025 | 31-Mar-2025 |
| Disposal of Special waste at Landfills Admission Ticket (Sludge) | Admission Ticket Number: 100984 | 9-Dec-2024 | 10-Mar-2025 |
| Revised Sediment Quality Report (SQR) | (19) in EP60/G1/12-583V | 4-Apr-2024 | 2-Apr-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 | 882106, 882107 |
| 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 | 36 | 32-43 | 291 | 500 |
| AM2 | 35 | 26-45 | 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 January 2025 (µg/ $m^3$) |
|---|---|---|---|
| Content | | | |
| AM1 | ASR A09 | 205-451 | 43 |
| AM2 | ASR A11 | | 45 |

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 | NTi Audio | XL2 | NTi Audio XL2 Digital Sound Level Meter | A2A-09696-E0 |
| 2 | NTi Audio | XL2 | NTi Audio XL2 Digital Sound Level Meter | A2A-13548-E0 |
| 3 | NTi Audio | XL2 | NTi Audio XL2 Digital Sound Level Meter | A2A-13661-E0 |
| 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 | 57.5 – 60.2 | When one documented complaint is received | 75 |
| | CM2 | 54.5 – 57.4 | | 75 |
| | CM3 | 55.6 – 60.4 | | 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 January 2025 $L_{eq}$ (30min) dB(A) |
|---|---|---|---|
| CM1 | NSR1 | 72 | 60.2 |
| CM2 | NSR2 | 74 | 57.4 |
| CM3 | NSR3 | 75 | 60.4 |

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<br>Dissolved Oxygen<br>Salinity<br>pH<br>Turbidity | YSI Water Quality Multipara meter Sonde | Xylem ProDSS | Tem: -5 to 50°C<br>DO: 0-50mg/L<br>DO%: 0-500%<br>Sal: 0 to 70ppt<br>pH: 0 to 14 pH units<br>Turb: 0- 4000NTU | Temp: ±0.2°C;<br>DO: ±0.1mg/L or 1% for 0-20mg/L; ±8% for 20-50mg/L<br>Sal: ±1% of reading or 0.1 ppt (whichever is greater)<br>pH: ±0.2 units<br>Turb: ±3% or 0.3NTU (FNU)<br>(whichever greater) | 22C106561 |
| Current Velocity and Direction | Current Meter | Valeport Model 106 | Speed: 0.03 to 5 m/s<br>Direction: 0 to 360 | Speed: ± 1.5% of reading above 0.15m/s, ± 0.004 m/s below 0.15m/s<br>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<br>Turbidity (in NTU), pH, DO (in mg/L and % of saturation), Temperature (in °C), Salinity (in ppt)<br>Laboratory Analysis<br>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 2017) 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 15 January 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 16:44, 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)<br>(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 15 January 2025 and started around 17:00 (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* (8), Great Egret *Ardea alba* (6), Little Egret *Egretta garzetta* (2) and Grey Heron *Ardea cinerea* (2) were observed in pre-roost aggregate (PRA) around 17:31 at the mudflat east side ANR1 of the Project boundary while individuals of Chinese Pond Heron *Ardeola bacchus* (14), Great Egret *Ardea alba* (2), Little Egret *Egretta garzetta* (1) and Grey Heron *Ardea cinerea* (2) were concurrently noted at the mudflat northeast side ANR2 of the Project boundary (Table 17).

For the final night roost at around 17:59, individuals of Chinese Pond Heron *Ardeola bacchus* (7), Great Egret *Ardea alba* (1) and Grey Heron *Ardea cinerea* (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 Chinese Pond Heron *Ardeola bacchus* (36), Great Egret *Ardea alba* (1), Grey Heron *Ardea cinerea* (3) 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: 15 January 2025** | | | **Sunset Time: 18:00** | **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* (17:31) | | **Time of Return:** | Chinese Pond Heron *Ardeola bacchus*, Great Egret *Ardea alba,* Little Egret *Egretta garzetta* and Grey Heron *Ardea cinerea* (17:59) | |
| **Parameters** | **Location** | | **Parameters** | **Location** | |
| | **ANR1** | **ANR2** | | **ANR1** | **ANR2** |
| **Pre-roost Aggregation (Y/N):** | Y | Y | **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* | 8 | 14 | Chinese Pond Heron *Ardeola bacchus* | 7 | 36 |
| Great Egret *Ardea alba* | 6 | 2 | Great Egret *Ardea alba* | 1 | 1 |
| Little Egret *Egretta garzetta* | 2 | 1 | Little Egret *Egretta garzetta* | - | 2 |
| Grey Heron *Ardea cinerea* | 2 | 2 | Grey Heron *Ardea cinerea* | 2 | 3 |
| **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 15 January 2025 in concurrence with the construction phase monthly monitoring of the pre-identified active night roosts. Noise monitoring started at 17:59 and lasted for 30 minutes, until 18:29.

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 | 17:59 | 54.5 | 65.5 dB(A)[1] | 72.2 dB(A)[2] |
| | NMS2 | 17:59 | 55.7 | | |

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 January 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 was conducted last 7 January 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)<br>(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 7 January 2025 (daytime) which started at around 07:15 is 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 1349 avifauna individuals were recorded in the monitoring area during the January 2025 monitoring period, of which 1003 individuals were recorded from the point count method and 346 individuals from the transect walk method. Relative to the January 2017 baseline data (point count method = 708; and transect walk = 347), an increase was noted for point count method while a slight decrease was noted for transect walk method.

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** | **January-17** | **January-25** | **Remarks** |
| **Point Count Method** | | | | |
| P1 | FLW1 | 9 | 28 | + |
| P2 | FLW2 | 27 | 4 | - |
| P3 | FLW3 | 37 | 2 | - |
| P4 | FLW4 | 0 | 20 | + |
| P5 | FLW5 | 0 | 62 | + |
| P6 | FLW6 | 105 | 11 | - |
| P7 | FLW7 | 45 | 36 | - |
| P9 | SP/NSW3 | 148 | 516 | + |
| P10 | SP/NSW2 | 142 | 74 | - |
| P11 | NSW1 | 117 | 153 | + |
| P12 | SP/NSW1 | 78 | 97 | + |
| **Total** | | **708** | **1003** | + |
| **Mean** | | **64** | **91** | + |
| | | | | |
| **Transect Walk Method** | | | | |
| Fung Lok Wai | FLW | 292 | 72 | - |
| Nam Sang Wai | NSW | 52 | 179 | + |
| YLIE-CW | YLIE-CW | 3 | 95 | + |
| **Total** | | **347** | **346** | - |
| **Mean** | | **116** | **115** | - |

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 1349 avifauna individuals recorded in the monitoring area during the January 2025 monitoring period, 1012 individuals (point count method = 795 individuals; transect walk method = 217 individuals) were of conservation importance. With reference to January 2017 data, (point count method = 528; and transect walk = 83), increases were noted for both the point count and transect walk methods. 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** | **January-17** | **January-25** | **Remarks** |
| **Point Count Method** | | | | |
| P1 | FLW1 | 8 | 8 | = |
| P2 | FLW2 | 12 | 1 | - |
| P3 | FLW3 | 34 | 1 | - |
| P4 | FLW4 | 0 | 13 | + |
| P5 | FLW5 | 0 | 39 | + |
| P6 | FLW6 | 66 | 3 | - |
| P7 | FLW7 | 33 | 0 | - |
| P9 | SP/NSW3 | 146 | 507 | + |
| P10 | SP/NSW2 | 76 | 65 | - |
| P11 | NSW1 | 86 | 92 | + |
| P12 | SP/NSW1 | 67 | 66 | - |
| **Total** | | **528** | **795** | + |
| **Mean** | | **48** | **72** | + |
| | | | | |
| **Transect Walk Method** | | | | |
| Fung Lok Wai | FLW | 82 | 18 | - |
| Nam Sang Wai | NSW | 1 | 124 | + |
| YLIE-CW | YLIE-CW | 0 | 75 | + |
| **Total** | | **83** | **217** | + |
| **Mean** | | **28** | **72** | + |

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 56 avifauna species (species richness) were recorded during the January 2025 monitoring period, of which, 49 species were recorded by the point count method while 48 species were noted by the transect walk method. Relative to the baseline data (point count method = 47 species; transect walk method = 50 species), a slight increase in total species richness for point count method while a slight decrease in transect walk method were recorded. In terms of Shannon diversity index (H') values, current result in point count method showed a slight decrease (t-value = 0.74; t-crit = 1.96; p-value = 4.62E-1; α = 0.05) relative to the baseline reference value. The current results in the transect walk method showed a decrease (t-value = 1.89; t-crit = 1.96; p-value = 0.059; 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** | **January-17** | **January-25** | **Remarks** |
| **Point Count Method** | | | | |
| P1 | FLW1 | 1.15 | 1.73 | + |
| P2 | FLW2 | 1.48 | 0.56 | - |
| P3 | FLW3 | 0.58 | 0.69 | + |
| P4 | FLW4 | ** | 1.75 | + |
| P5 | FLW5 | ** | 2.38 | + |
| P6 | FLW6 | 1.13 | 1.29 | + |
| P7 | FLW7 | 1.92 | 1.63 | - |
| P9 | SP/NSW3 | 2.35 | 1.82 | - |
| P10 | SP/NSW2 | 2.68 | 1.97 | - |
| P11 | NSW1 | 1.31 | 1.77 | + |
| P12 | SP/NSW1 | 2.36 | 2.50 | + |
| **Overall H'** | | **2.82** | **2.77** | - |
| **Species Richness** | | **47** | **49** | + |
| | | | | |
| **Transect Walk Method** | | | | |
| Fung Lok Wai | FLW | 3.20 | 2.49 | - |
| Nam Sang Wai | NSW | 2.12 | 2.48 | + |
| YLIE-CW | YLIE-CW | 0.64 | 2.32 | + |
| **Overall H'** | | **3.31** | **3.16** | - |
| **Species Richness** | | **50** | **48** | - |

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 56 avifauna species identified during the January 2025 monitoring period, 24 species were of conservation importance (point count method = 24 species; transect walk method = 18 species). Meanwhile, relative to the baseline values in January 2017 (point count method = 22 species; transect walk method = 11 species), increases in the number of species with conservation importance for both the point count method and the transect walk method were recorded. In terms of Shannon diversity index (H'), a decrease was noted in point count method (t-value = 1.40; t-crit = 1.96; p-value = 0.16; $\alpha = 0.05$) while a significant increase in transect walk method (t-value = 3.56; t-crit = 1.98; p-value = 4.96E-4; $\alpha = 0.05$) was observed 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** | **January-17** | **January-25** | **Remarks** |
| **Point Count Method** | | | | |
| P1 | FLW1 | 0.90 | 0.90 | = |
| P2 | FLW2 | 0.98 | 0.00 | - |
| P3 | FLW3 | 0.22 | 0.00 | - |
| P4 | FLW4 | ** | 1.48 | + |
| P5 | FLW5 | ** | 1.57 | + |
| P6 | FLW6 | 0.35 | 0.64 | + |
| P7 | FLW7 | 1.56 | ** | - |
| P9 | SP/NSW3 | 2.30 | 1.74 | - |
| P10 | SP/NSW2 | 2.24 | 1.64 | - |
| P11 | NSW1 | 0.35 | 0.26 | - |
| P12 | SP/NSW1 | 2.07 | 1.86 | - |
| **Overall H'** | | **2.24** | **2.15** | - |
| **Species Richness** | | **22** | **24** | + |
| | | | | |
| **Transect Walk Method** | | | | |
| Fung Lok Wai | FLW | 1.74 | 1.63 | - |
| Nam Sang Wai | NSW | 0.00 | 1.62 | + |
| YLIE-CW | YLIE-CW | ** | 1.74 | + |
| **Overall H'** | | **1.79** | **2.23** | + |
| **Species Richness** | | **11** | **18** | + |

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 Low to Moderate (L – M) abundance. In terms of species richness, different wetland habitats were generally observed with Hight to Very High (H – VH) 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 | H – VH | H – VH |
| | Shan Pui River adjacent to Project site | M – H | VH |
| | Upper course of Shan Pui River along YLIE | VL – L | M – H |
| Ponds | Active Ponds adjacent to Project site in Fung Lok Wai | VL | VL |
| | Active Ponds North to Nullah 2 in Fung Lok Wai | M | L – M |
| | Inactive Ponds in Fung Lok Wai | L – M | H – VH |
| | Active and Inactive Ponds in Nam Sang Wai | L – M | H |
| 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 to Low (VL – L) 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 | H – VH | M – H |
| | Shan Pui River adjacent to Project site | M | L – M |
| | Upper course of Shan Pui River along YLIE | VL – L | VL – L |
| 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 – L | L |
| | Active and Inactive Ponds in Nam Sang Wai | VL – L | 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 7 January 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 (07/01/2025) | |
|---|---|---|---|
| | | Start Time | LAeq (30 min) dB(A) |
| Monthly in concurrence with the ecological monitoring of birds | FLW1/ P1 | 09:39 | 55.4 |
| | FLW2/ P2 | 10:13 | 53.4 |
| | FLW3/ P3 | 10:48 | 54.6 |
| | FLW4/ P4 | 11:17 | 54.5 |
| | FLW5/ P5 | 10:29 | 53.6 |
| | FLW6/ P6 | 09:42 | 55.9 |
| | FLW7/ P7 | 09:08 | 56.5 |
| | SP/NSW3/ P9 | 07:10 | 58 |
| | SP/NSW2/ P10 | 07:46 | 56.8 |
| | NSW1/ P11 | 08:24 | 56.9 |
| | SP/NSW1/ P12 | 08:59 | 57.2 |

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, five weekly landscape and visual site audits were carried out on 2, 8, 14, 22 and 28 January 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, five site inspections were carried out on 2, 8, 14, 22 and 28 January 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<br>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 on 7 January 2025 (daytime).

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) | 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) | 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 December 2024) | 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 December 2024) | 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 December 2024 | 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
- ELS works and pipeworks at emergency bypass chamber
- ABWF, E&M work and RC structure at IW
- ABWF and E&M works at PST
- ELS work at SDB
- External works at site-wide include water meter cabinet
- ELS work and RC structure at AGS
- RC structure at TTS
- ABWF, E&M work and RC structure at STB
- Demolish Existing SDT 1-4 and Gas Holder GH2
- ELS work and RC structure at Sludge Digester no. 1-3
- E&M work at Biogas Holder no. 1

## 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 Five 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 Five 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

- No specific observation was identified in the reporting month.

Construction Noise Impact

- No specific observation was identified in the reporting month.

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

- No specific observation was identified in the reporting month.

Ecological Impact

- No specific observation was identified in the reporting month.

Landscape and Visual Impact

- No specific observation was identified in the reporting month.

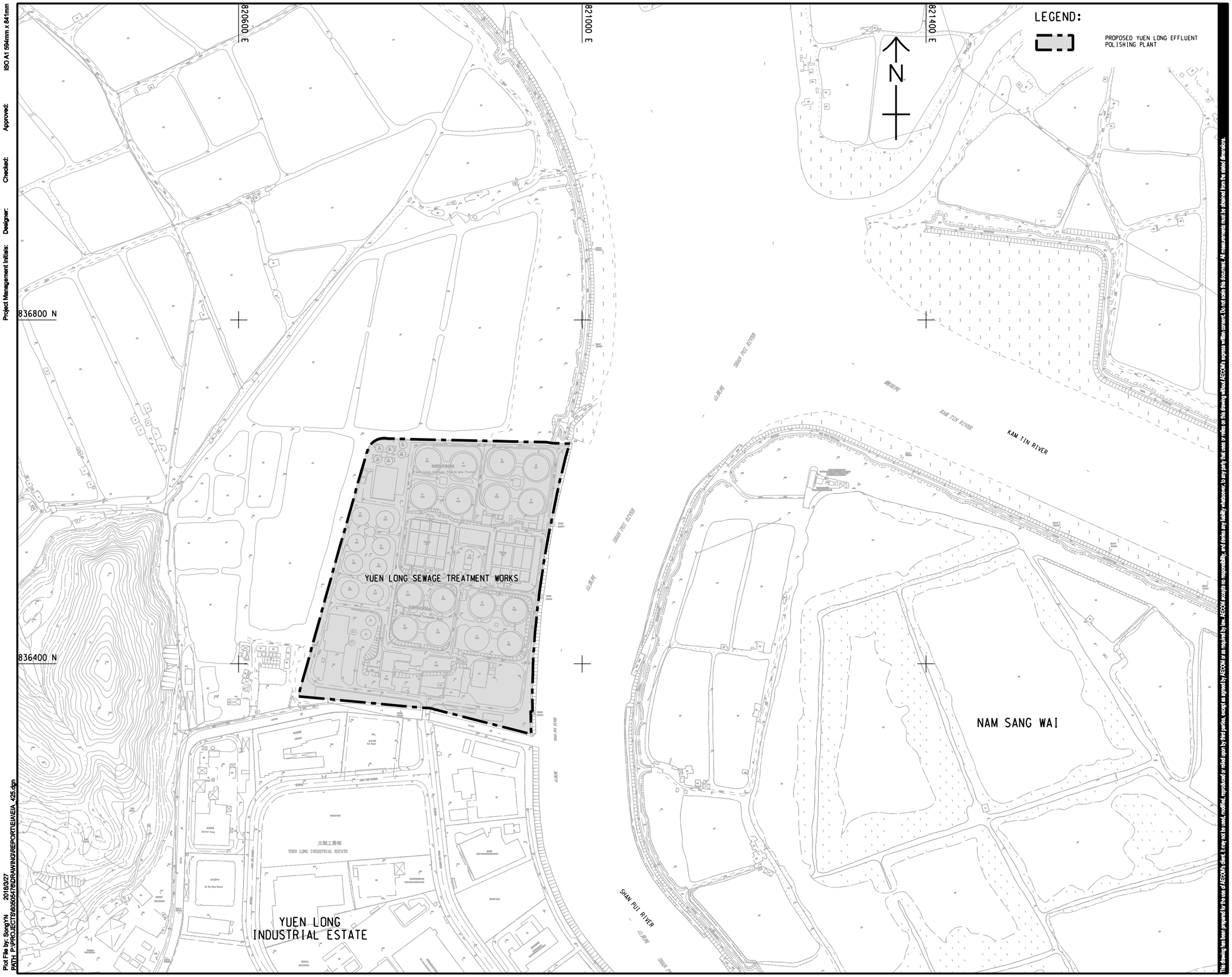
Hazard to Life

- No specific observation was identified in the reporting month.

Permit/ Licenses

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

Figure 1 Location of Proposed Yuen Long Effluent Polishing Plant




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

Plot File by: SongYN 2016/3/27
PATH: P:\PROJECTS\60505476\DRAWING\REPORT\EIA\EIA_425.dgn

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

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

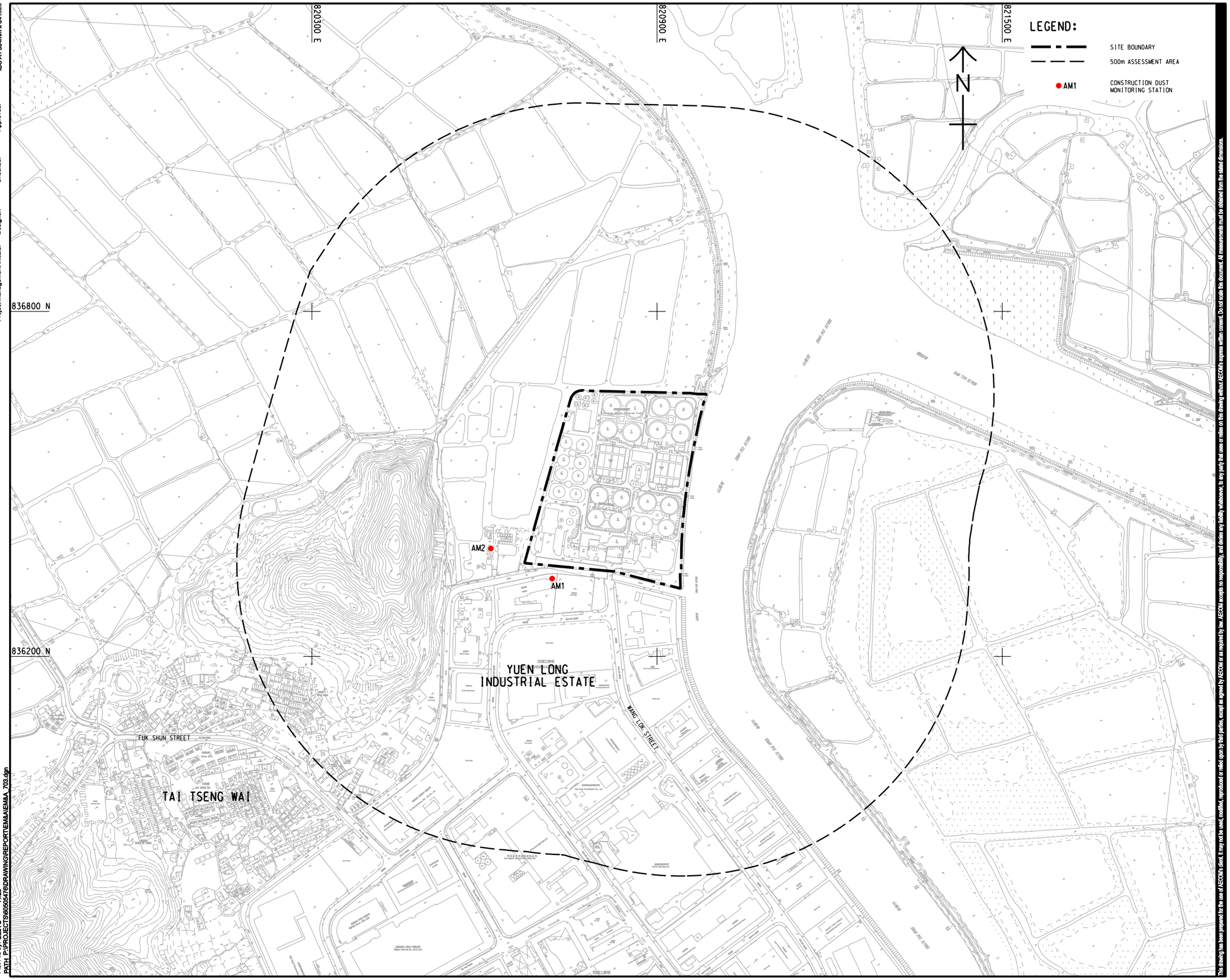

820300 E
820900 E
821500 E
836800 N
836200 N
LEGEND:
SITE BOUNDARY
500m ASSESSMENT AREA
AM1
CONSTRUCTION DUST MONITORING STATION
N
AM2
AM1
YUEN LONG INDUSTRIAL ESTATE
FUK SHUN STREET
TAI TSENG WAI
WANG LOK STREET
SHUI PAI ROAD
SHUI PAI ROAD
SHUI PAI ROAD

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

Plot File by: ZENGFX 2019/2/26
PATH: P:\Projects\60505476\DRAWING\SKETCH\SK7003.dgn

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

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**
發行

| I/R 發行 | DATE 日期 | DESCRIPTION 內容摘要 | CHK. 核核 |
|---|---|---|---|
| | | | |

**STATUS**
狀況

**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

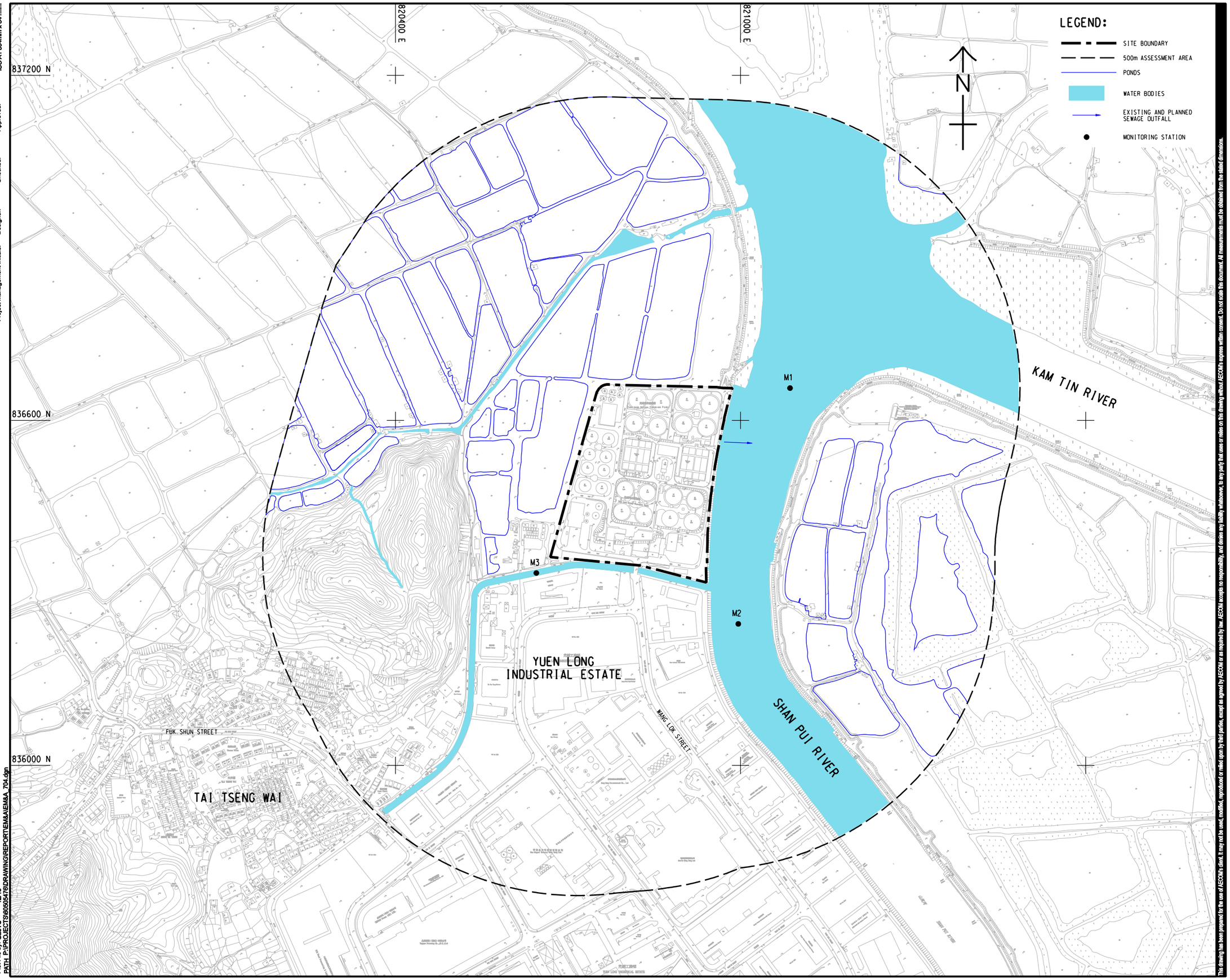
ISO A1 594mm x 841mm

Approved:

Checked:

Designer:

Project Management Initials:




This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

Plot File by: GaoYU 12/18
PATH: F:\PROJECTS\60505476\DRAWING\REPORT\EIA\EIA\EIA_704.dgn

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

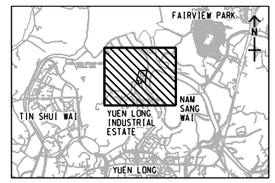
| I/R 修訂 | DATE 日期 | DESCRIPTION 內容摘要 | CHK. 核核 |
|---|---|---|---|
| | | | |

**STATUS**
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

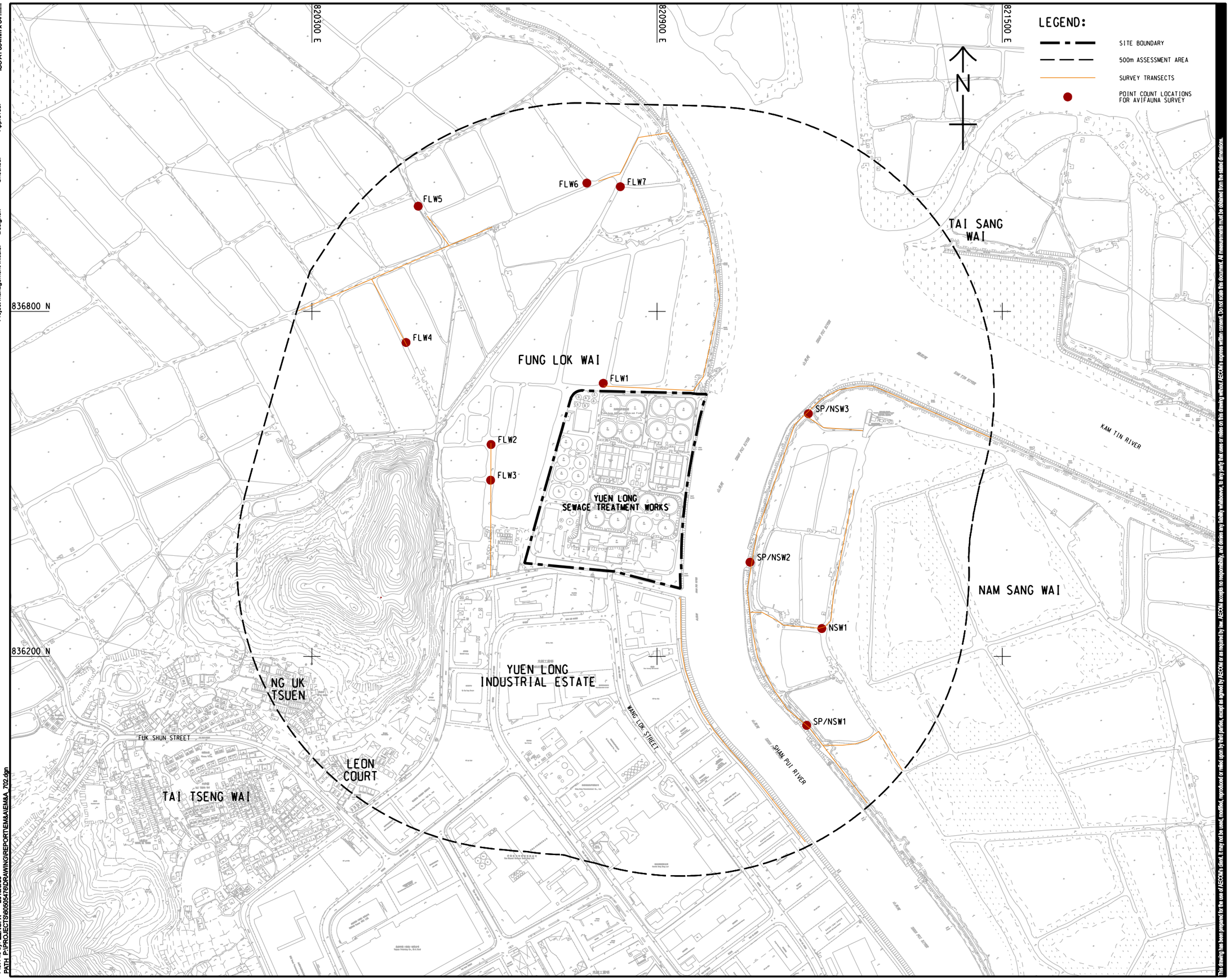
**CONTRACT NO.** 合約編號
CE 3/2015 (DS)

**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

Project Management Initials: Designer: Checked: Approved:

Plot File by: ZENGFX 2018/8/30
PATH: P:\PROJECTS\60505476\DRAWING\REPORT\EM&A\EM&A_702.dgn

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

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. 核查 |
|---|---|---|---|
| | | | |

**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

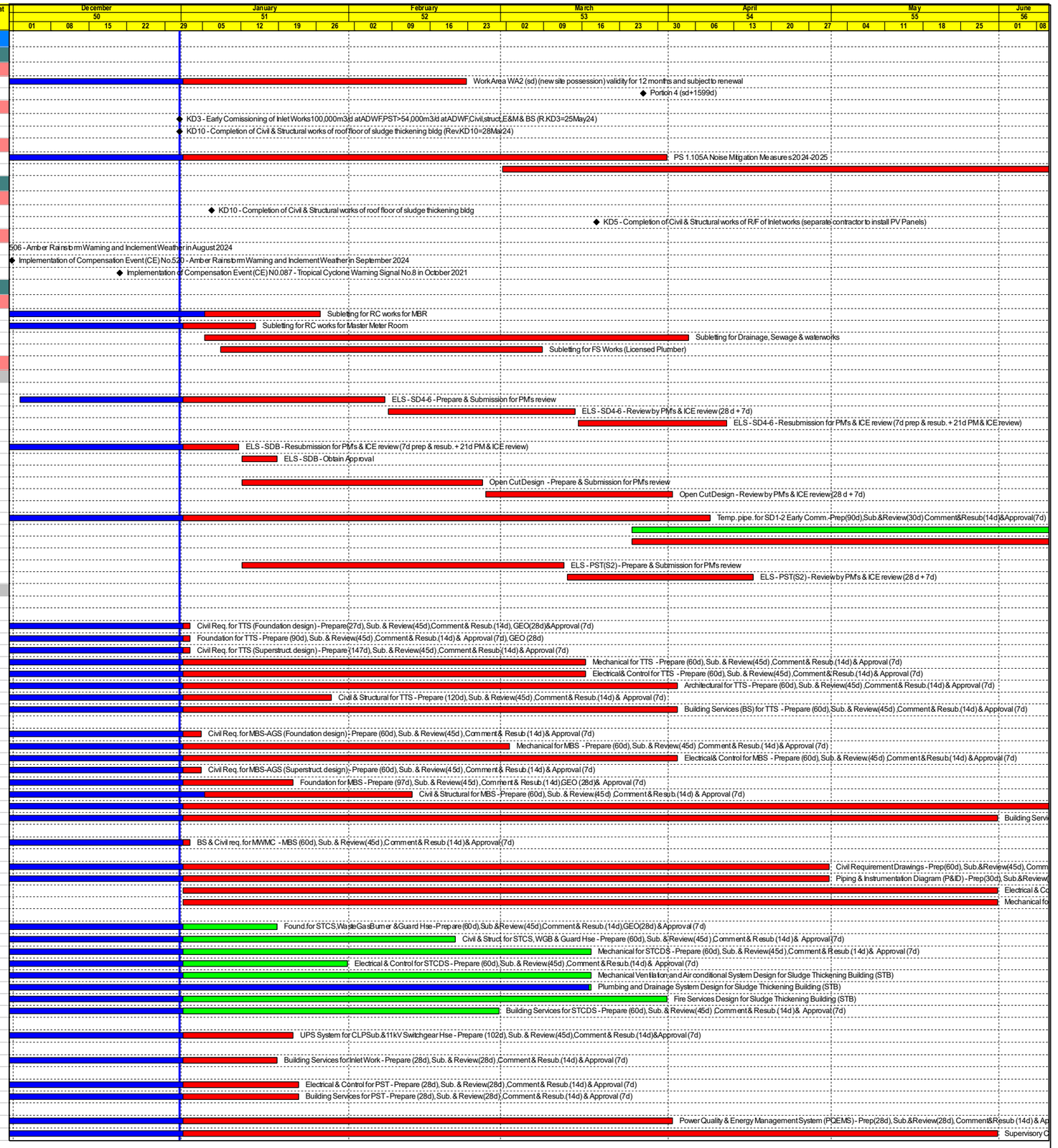
**CONTRACT NO.** 合約編號
CE 3/2015 (DS)

**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 |
|---|---|---|---|---|---|
| **YL Effluent Polishing Plant - Main Works Stage 1 - Detailed Works Programme DPv45_20250124** | | | | | |
| **Contract Data Part 1** | | | | | |
| **Access Dates** | | | | | |
| ADWA2 | WorkArea WA2 (sd) (new site possession) validity for 12 months and subject to renewal | 757 | 05-Mar-21 A | 22-Feb-25* | 0 |
| ADP4 | Portion 4 (sd+1599d) | 0 | 27-Mar-25* | | 0 |
| **Contract Key Dates** | | | | | |
| CKD3 | KD3 - Early Comissioning of Inlet Works100,000m3/d atADWF,PST>54,000m3/d atADWF,Civil,struct,E&M & BS (R.KI | 0 | | 31-Dec-24* | -200 |
| CKD10 | KD10 - Completion of Civil & Structural works of roof floor of sludge thickening bldg (RevKD10=28Mar24) | 0 | | 31-Dec-24* | -246 |
| **Environmental Constraints** | | | | | |
| NMM-2175 | PS 1.105A Noise Mitigation Measures 2024-2025 | 151 | 01-Nov-24 A | 31-Mar-25 | 0 |
| EBS-2185 | Egrets Breeding Season 2025 | 184 | 01-Mar-25* | 31-Aug-25 | 0 |
| **Planned Completion** | | | | | |
| **Planned Key Dates** | | | | | |
| PKD10 | KD10 - Completion of Civil & Structural works of roof floor of sludge thickening bldg | 0 | | 06-Jan-25* | -252 |
| PKD5 | KD5 - Completion of Civil & Structural works of R/F of Inlet works (separate contractor to install PV Panels) | 0 | | 18-Mar-25* | 23 |
| **Compensation Events** | | | | | |
| CE506 | Implementation of Compensation Event (CE) No.506 - Amber Rainstorm Warning and Inclement Weather in August 2( | 0 | | 31-Oct-24 A | |
| CE520 | Implementation of Compensation Event (CE) No.520 - Amber Rainstorm Warning and Inclement Weather in Septemb | 0 | | 30-Nov-24 A | |
| CE087 | Implementation of Compensation Event (CE) N0.087 - Tropical Cyclone Warning Signal No.8 in October 2021 | 0 | | 20-Dec-24 A | |
| **Preliminary and Preparation Works** | | | | | |
| **Subletting** | | | | | |
| SUB-300 | Subletting for RC works for MBR | 90 | 15-Apr-24 A | 26-Jan-25 | -355 |
| SUB-400 | Subletting for RC works for Master Meter Room | 60 | 14-Oct-24 A | 14-Jan-25 | -337 |
| SUB-340 | Subletting for Drainage, Sewage & waterworks | 90 | 05-Jan-25 | 04-Apr-25 | -29 |
| SUB-410 | Subletting for FS Works (Licensed Plumber) | 60 | 08-Jan-25 | 08-Mar-25 | -282 |
| **Design Submission** | | | | | |
| **Temporary Works Design** | | | | | |
| **Sludge Digester 4-6** | | | | | |
| TWD-460 | ELS - SD4-6 - Prepare & Submission for PMs review | 45 | 02-Dec-24 A | 07-Feb-25 | -226 |
| TWD-470 | ELS - SD4-6 - Review by PMs & ICE review (28 d + 7d) | 35 | 08-Feb-25 | 14-Mar-25 | -226 |
| TWD-480 | ELS - SD4-6 - Resubmission for PMs & ICE review (7d prep & resub. + 21d PM & ICE review) | 28 | 15-Mar-25 | 11-Apr-25 | -226 |
| **Sludge Dewatering and Underpass** | | | | | |
| TWD-280 | ELS - SDB - Resubmission for PMs & ICE review (7d prep & resub. + 21d PM & ICE review) | 28 | 10-Sep-24 A | 11-Jan-25 | -246 |
| TWD-290 | ELS - SDB - Obtain Approval | 7 | 12-Jan-25 | 18-Jan-25 | -74 |
| **Administration Building** | | | | | |
| TWD-300 | Open Cut Design - Prepare & Submission for PMs review | 45 | 12-Jan-25 | 25-Feb-25 | -246 |
| TWD-310 | Open Cut Design - Review by PMs & ICE review (28 d + 7d) | 35 | 26-Feb-25 | 01-Apr-25 | -86 |
| **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)&Approval(7d) | 141 | 29-Dec-23 A | 08-Apr-25 | -67 |
| TWD-990 | Temp. pipe. SD1&2 and BH1 to H2S for T&C-Prep(90d),Sub.&Review(30d) Comment&Resub(14d)&Approval(7d) | 141 | 25-Mar-25 | 12-Aug-25 | 104 |
| TWD-1000 | Temp. pipe. SD1&2 for T&C of STB -Prep(90d),Sub.&Review(30d) Comment&Resub(14d)&Approval(7d) | 141 | 25-Mar-25 | 12-Aug-25 | -67 |
| **PST Stage 2** | | | | | |
| TWD-1060 | ELS - PST(S2) - Prepare & Submission for PMs review | 60 | 12-Jan-25* | 12-Mar-25 | -246 |
| TWD-1070 | ELS - PST(S2) - Review by PMs & ICE review (28 d + 7d) | 35 | 13-Mar-25 | 16-Apr-25 | -246 |
| **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.(14d), GEO(28d)&App | 121 | 13-Jun-21 A | 02-Jan-25 | -367 |
| DDA-150 | Foundation for TTS - Prepare (90d), Sub. & Review(45d) ,Comment & Resub.(14d) & Approval (7d), GEO (28d) | 213 | 08-Oct-21 A | 02-Jan-25 | -367 |
| DDA-180 | Civil Req. for TTS (Superstruct. design) - Prepare (147d), Sub. & Review(45d),Comment & Resub.(14d) & Approval (7 | 213 | 11-Oct-21 A | 02-Jan-25 | -365 |
| DDA-200 | Mechanical for TTS - Prepare (60d), Sub. & Review(45d),Comment & Resub.(14d) & Approval (7d) | 213 | 31-Dec-21 A | 16-Mar-25 | -175 |
| DDA-210 | Electrical& Control for TTS - Prepare (60d), Sub. & Review(45d),Comment & Resub.(14d) & Approval (7d) | 213 | 31-Dec-21 A | 16-Mar-25 | -175 |
| DDA-140 | Architectural for TTS - Prepare (60d), Sub. & Review(45d) ,Comment & Resub.(14d) & Approval (7d) | 126 | 17-Nov-22 A | 02-Apr-25 | -365 |
| DDA-160 | Civil & Structural for TTS - Prepare (120d), Sub. & Review(45d),Comment & Resub.(14d) & Approval (7d) | 177 | 17-Nov-22 A | 28-Jan-25 | -365 |
| DDA-220 | Building Services (BS) for TTS - Prepare (60d), Sub. & Review(45d) ,Comment & Resub.(14d) & Approval (7d) | 199 | 30-Oct-23 A | 02-Apr-25 | -192 |
| **Package 3 - Mainstream Bio-Reactor System** | | | | | |
| DDA-260 | Civil Req. for MBS-AGS (Foundation design) - Prepare (60d), Sub. & Review(45d.), Comment & Resub.(14d) & Approv | 126 | 09-Jun-21 A | 04-Jan-25 | -355 |
| DDA-290 | Mechanical for MBS - Prepare (60d), Sub. & Review(45d) ,Comment & Resub.(14d) & Approval (7d) | 126 | 08-Oct-21 A | 02-Mar-25 | -75 |
| DDA-300 | Electrical& Control for MBS - Prepare (60d), Sub. & Review(45d) ,Comment & Resub.(14d) & Approval (7d) | 405 | 08-Oct-21 A | 02-Apr-25 | -106 |
| DDA-270 | Civil Req. for MBS-AGS (Superstruct. design) - Prepare (60d), Sub. & Review(45d.), Comment & Resub.(14d) & Approv | 126 | 01-Mar-22 A | 04-Jan-25 | -355 |
| DDA-240 | Foundation for MBS - Prepare (97d), Sub. & Review(45d) ,Comment & Resub.(14d),GEO (28d)& Approval (7d) | 230 | 18-Mar-22 A | 21-Jan-25 | -351 |
| DDA-250 | Civil & Structural for MBS - Prepare (60d), Sub. & Review(45d.), Comment & Resub.(14d) & Approval (7d) | 170 | 20-Jan-23 A | 12-Feb-25 | -355 |
| DDA-1530 | VCAB for AGS& TTS - Prepare (30d), Sub. & Review(30d) | 204 | 16-Jun-23 A | 20-Jun-25 | -213 |
| DDA-310 | Building Services (BS) for MBS - Prepare (60d), Sub. & Review(45d.), Comment & Resub.(14d) & Approval (7d) | 151 | 23-Oct-24 A | 31-May-25 | -130 |
| **Package 5A - Master Water Meter Room** | | | | | |
| DDA-390 | BS & Civil req. for MWMC - MBS (60d), Sub. & Review(45d),Comment & Resub.(14d) & Approval (7d) | 64 | 16-Dec-22 A | 02-Jan-25 | -297 |
| **Package 5B - Plant Service Water (PSW)** | | | | | |
| DDA-1050 | Civil Requirement Drawings - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7d) | 126 | 12-Jun-21 A | 30-Apr-25 | -251 |
| DDA-1040 | Piping & Instrumentation Diagram (P&ID) - Prep(30d), Sub.&Review(28d), Comment&Resub (14d) & Approval (7d) | 220 | 26-Jun-23 A | 30-Apr-25 | -251 |
| DDA-1060 | Electrical & Control for PSW - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7d) | 151 | 01-Jan-25 | 31-May-25 | -251 |
| DDA-1070 | Mechanical for PSW - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7d) | 151 | 01-Jan-25 | 31-May-25 | -251 |
| **Package 6 - Sludge Thickening Chemical and Dosing System** | | | | | |
| DDA-430 | Found.for STCS,WasteGasBurner &Guard Hse - Prepare (60d),Sub.&Review.(45d),Comment & Resub.(14d),GEO(28 | 96 | 09-Nov-21 A | 18-Jan-25 | 438 |
| DDA-440 | Civil & Struct.for STCS, WGB & Guard Hse - Prepare (60d), Sub. & Review(45d.) ,Comment & Resub (14d) & Approva | 250 | 09-Nov-21 A | 20-Feb-25 | 405 |
| DDA-1130 | Mechanical for STCDS - Prepare (60d), Sub. & Review(45d.),Comment & Resub (14d) & Approval (7d) | 340 | 16-Nov-21 A | 17-Mar-25 | 414 |
| DDA-1140 | Electrical & Control for STCDS - Prepare (60d), Sub. & Review(45d) ,Comment & Resub.(14d) & Approval (7d) | 315 | 30-Nov-21 A | 31-Jan-25 | 466 |
| DDA-1520 | Mechanical Ventilation and Air conditional System Design for Sludge Thickening Building (STB) | 320 | 16-Jun-22 A | 17-Mar-25 | 43 |
| DDA-1510 | Plumbing and Drainage System Design for Sludge Thickening Building (STB) | 320 | 07-Jul-22 A | 17-Mar-25 | 43 |
| DDA-1500 | Fire Services Design for Sludge Thickening Building (STB) | 320 | 08-Jul-22 A | 31-Mar-25 | 29 |
| DDA-1150 | Building Services for STCDS - Prepare (60d), Sub. & Review(45d) ,Comment & Resub (14d) & Approval (7d) | 126 | 24-Oct-22 A | 28-Feb-25 | 397 |
| **Package 7 - CLP Substation and 11kV Switchgear House** | | | | | |
| DDA-480 | UPS System for CLPSub.&11kV Switchgear Hse - Prepare (102d), Sub. & Review.(45d),Comment & Resub.(14d)&Ap | 168 | 03-Jun-21 A | 21-Jan-25 | -341 |
| **Package 9 - Inlet Work (IW)** | | | | | |
| DDA-1210 | Building Services for Inlet Work - Prepare (28d), Sub. & Review(28d) ,Comment & Resub.(14d) & Approval (7d) | 76 | 30-Mar-22 A | 18-Jan-25 | -21 |
| **Package 10 - Primary Sedimentation Tank (PST)** | | | | | |
| DDA-1250 | Electrical & Control for PST - Prepare (28d), Sub. & Review(28d) ,Comment & Resub.(14d) & Approval (7d) | 48 | 31-Aug-21 A | 22-Jan-25 | -378 |
| DDA-1260 | Building Services for PST - Prepare (28d), Sub. & Review(28d) ,Comment & Resub.(14d) & Approval (7d) | 90 | 01-Oct-21 A | 22-Jan-25 | -378 |
| **Package 11 - Control and Monitoring System** | | | | | |
| DDA-580 | Power Quality & Energy Management System (PQEMS) - Prep(28d), Sub.&Review(28d), Comment&Resub (14d) & A | 130 | 02-Oct-21 A | 01-Apr-25 | -205 |
| DDA-550 | Supervisory Control&Data Application (SCADA) System - Prep(28d), Sub.&Review(28d), Comment&Resub (14d) & A | 238 | 24-Apr-23 A | 31-May-25 | -205 |




保華-中國中鐵聯營體
PAUL Y.-CREC JOINT VENTURE

Remaining Level of Ef...
Actual Work
Remaining Work
Critical Remaining Work
Milestone

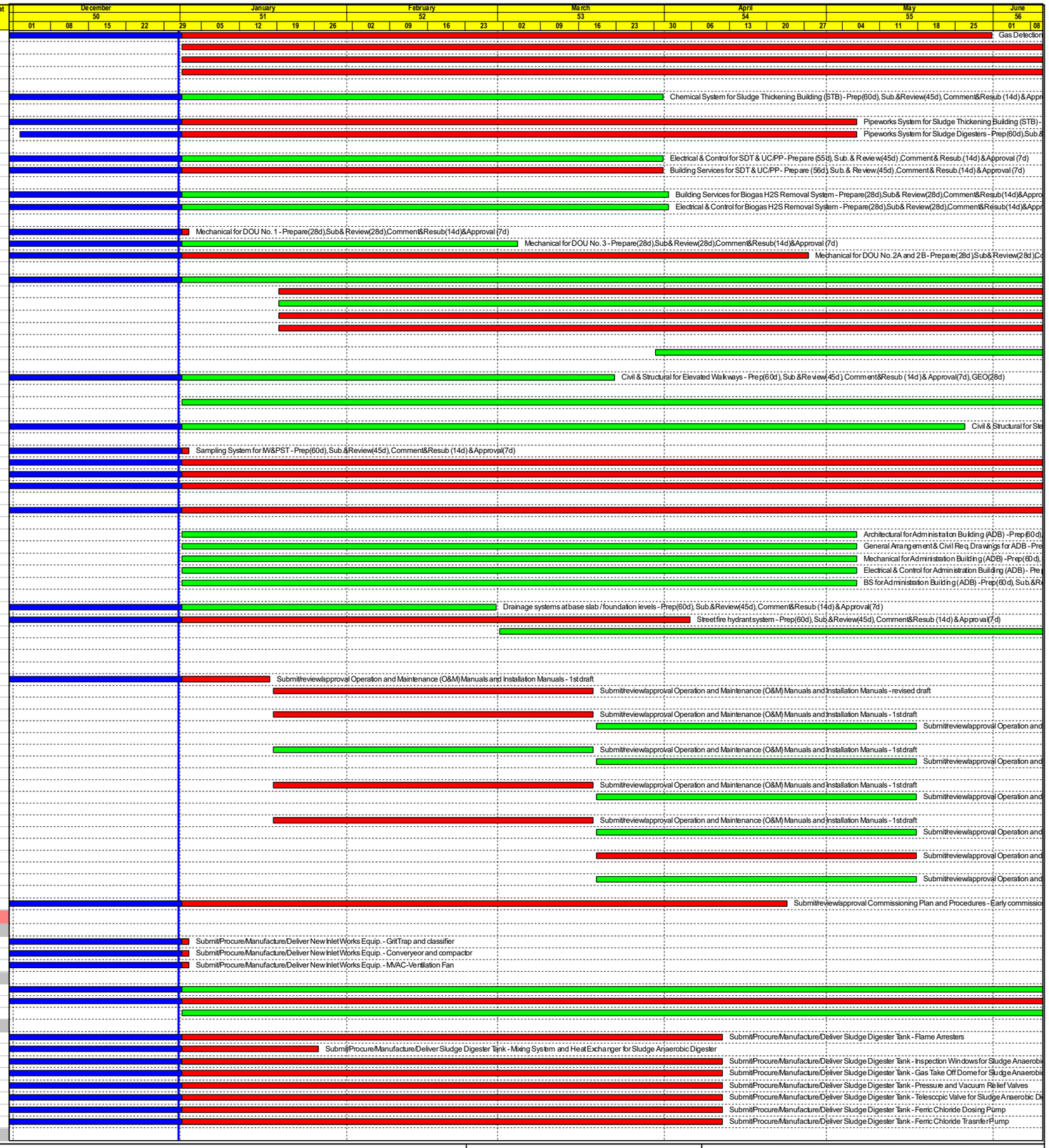
# Contract DC/2019/10 - YLEPP - Main Works for Stage 1
# Monthly Progress Report No. 50- 3MRP (Dec 24)

Project ID : DWPr45_250124
Layout : DC201910 MPR50-3MRP


Monthly Progress Report - 3MRP

| Date | Revision | Checked | Approved |
|---|---|---|---|
| 31-Dec-24 | Rev. 0 | | |

| Activity ID | Activity Name | Orig Dur | Early Start | Early Finish | Total Float |
|---|---|---|---|---|---|
| DDA-1270 | Gas Detection System - Prep(28d),Sub.&Review(28d),Comment&Resub (14d) &Approval (7d) | 91 | 08-May-23 A | 31-May-25 | -205 |
| DDA-560 | Computerised Mainatenance Mangement System (CMMS) - Prep(28d),Sub.&Review(28d),Comment&Resub (14d) & | 273 | 01-Jan-25 | 30-Sep-25 | -205 |
| DDA-570 | Information and Document mangement System (IDMS) - Prep(28d),Sub.&Review(28d),Comment&Resub (14d) &Ap | 273 | 01-Jan-25 | 30-Sep-25 | -205 |
| DDA-1280 | Data Collection, Management, Analysis & Model System - Prep(28d),Sub.&Review(28d),Comment&Resub (14d) &A | 273 | 01-Jan-25 | 30-Sep-25 | -205 |
| **Package 12 - Chemical System for STB** | | | | | |
| DDA-650 | Chemical System for Sludge Thickening Building (STB) - Prep(60d),Sub.&Review(45d),Comment&Resub (14d) &Ap | 150 | 08-Aug-24 A | 31-Mar-25 | 80 |
| **Package 13 - Pipework System** | | | | | |
| DDA-660 | Pipeworks System for Sludge Thickening Building (STB) - Prep(60d),Sub.&Review(45d),Comment&Resub (14d) &A | 126 | 15-Oct-24 A | 06-May-25 | -11 |
| DDA-1030 | Pipeworks System for Sludge Digesters - Prep(60d),Sub.&Review(45d),Comment&Resub (14d) &Approval (7d) | 126 | 02-Dec-24 A | 06-May-25 | -11 |
| **Package 14 - Sludge Anaerobic Digestion System (SDT)** | | | | | |
| DDA-1320 | Electrical & Control for SDT & UC/PP - Prepare (55d), Sub. & Review(45d) ,Comment & Resub.(14d) & Approval (7d) | 460 | 02-Jul-21 A | 31-Mar-25 | 130 |
| DDA-1330 | Building Services for SDT & UC/PP - Prepare (56d ), Sub. & Review.(45d) ,Comment & Resub.(14d) & Approval (7d) | 181 | 02-May-23 A | 31-Mar-25 | -143 |
| **Package 15 - Biogas H2S Removal, Storage and Delivery System** | | | | | |
| DDA-1390 | Building Services for Biogas H2S Removal System - Prepare(28d),Sub& Review(28d),Comment&Resub(14d)&Appr | 137 | 31-May-23 A | 01-Apr-25 | 290 |
| DDA-1380 | Electrical & Control for Biogas H2S Removal System - Prepare(28d),Sub& Review(28d),Comment&Resub(14d)&App | 105 | 25-Sep-23 A | 01-Apr-25 | 290 |
| **Package 16 - Deodorization Unit System** | | | | | |
| DDA-1420 | Mechanical for DOU No. 1 - Prepare(28d),Sub& Review(28d),Comment&Resub(14d)&Approval (7d) | 78 | 04-Mar-22 A | 02-Jan-25 | -344 |
| DDA-1440 | Mechanical for DOU No. 3 - Prepare(28d),Sub& Review(28d),Comment&Resub(14d)&Approval (7d) | 300 | 17-Jul-22 A | 04-Mar-25 | 5 |
| DDA-1430 | Mechanical for DOU No. 2A and 2B - Prepare(28d),Sub& Review(28d),Comment&Resub(14d)&Approval (7d) | 122 | 13-Oct-23 A | 27-Apr-25 | -49 |
| **Package 17 - Sludge Dewatering Building (SDB)** | | | | | |
| DDA-910 | Roof Rainwater Collection Systemfor (SDB) - Prep(60d), Sub.&Review(45d), Comment&Resub (21d) & Approval(7d) | 242 | 06-Mar-24 A | 30-Jun-25 | 87 |
| DDA-920 | Fire Services System for SDB - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d) | 242 | 19-Jan-25 | 17-Sep-25 | -21 |
| DDA-930 | Mechanical for Sludge Dewatering Building (SDB) - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) &Approv | 242 | 19-Jan-25 | 17-Sep-25 | 8 |
| DDA-940 | Plumbing System for Sludge Dewatering Bldg (SDB) - Prep(60d), Sub.&Review(45d), Comment&Resub(14d) & Appr | 242 | 19-Jan-25 | 17-Sep-25 | -21 |
| DDA-950 | BS for Sludge Dewatering Building (SDB) - Prep(118d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7d) | 242 | 19-Jan-25 | 17-Sep-25 | -21 |
| **Package 18 - Miscellaneous** | | | | | |
| DDA-540 | Civil & Structural for Misc, Manholes,DrawPits,FenceWall - Prep(60d),Sub.&Review(45d ),Comment&Resub(14d) &Ap | 235 | 30-Mar-25 | 19-Nov-25 | 218 |
| **Package 19 - Elevated Walkways** | | | | | |
| DDA-710 | Civil & Structural for Elevated Walkways - Prep(60d ), Sub.&Review(45d ), Comment&Resub (14d ) & Approval(7d), GEO( | 101 | 15-Apr-23 A | 22-Mar-25 | 410 |
| **Package 20 - Trellis** | | | | | |
| DDA-720 | Civil & Structural for Trellis - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d) | 207 | 01-Jan-25 | 26-Jul-25 | 349 |
| **Package 21 - Steel Working Platform** | | | | | |
| DDA-730 | Civil & Structural for Steel Working Platform - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) &Approval(7d) | 102 | 02-Sep-22 A | 26-May-25 | 410 |
| **Package 22 - Sampling System of YLEPP** | | | | | |
| DDA-740 | Sampling System for IW&PST - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) &Approval(7d) | 62 | 07-Jul-23 A | 02-Jan-25 | -416 |
| DDA-1610 | Sampling System for AGS&TTB - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d) | 127 | 07-Jul-23 A | 29-Jun-25 | -265 |
| DDA-1620 | Sampling System for SDT - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d) | 127 | 07-Jul-23 A | 29-Jun-25 | -233 |
| DDA-1630 | Sampling System for STB - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d) | 128 | 07-Jul-23 A | 29-Jun-25 | -265 |
| **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 | 29-Jun-25 | -265 |
| **Package 24 - Administration Building (ADB)** | | | | | |
| DDA-0960 | Architectural for Administration Building (ADB) - Prep (60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7( | 126 | 01-Jan-25 | 06-May-25 | 155 |
| DDA-0990 | General Arrangement & Civil Req. Drawings for ADB - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Appr | 126 | 01-Jan-25 | 06-May-25 | 155 |
| DDA-1000 | Mechanical for Administration Building (ADB) - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d | 126 | 01-Jan-25 | 06-May-25 | 155 |
| DDA-1010 | Electrical & Control for Administration Building (ADB) - Prep(60d ), Sub.&Review(45d ), Comment&Resub ( 14d ) & Approv | 126 | 01-Jan-25 | 06-May-25 | 155 |
| DDA-1020 | BS for Administration Building (ADB) - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d) | 126 | 01-Jan-25 | 06-May-25 | 155 |
| **Design out of ATAL's Scope** | | | | | |
| DDA-1540 | Drainage systems at base slab / foundation levels - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) &Approva | 126 | 24-Aug-22 A | 28-Feb-25 | 410 |
| DDA-1560 | Streetfire hydrant system - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d) | 126 | 22-Dec-23 A | 05-Apr-25 | -43 |
| DDA-1550 | Rainwater drainage systems - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval(7d) | 126 | 01-Mar-25 | 04-Jul-25 | 410 |
| **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 draft | 60 | 05-Jan-23 A | 17-Jan-25 | -441 |
| SUBM-1200 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - revised draft | 60 | 18-Jan-25 | 18-Mar-25 | -366 |
| **AGS and TTS system** | | | | | |
| SUBM-1220 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st draft | 60 | 18-Jan-25 | 18-Mar-25 | -162 |
| SUBM-1230 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - revised draft | 60 | 19-Mar-25 | 17-May-25 | 299 |
| **Sludge Thickening System** | | | | | |
| SUBM-1250 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st draft | 60 | 18-Jan-25 | 18-Mar-25 | 269 |
| SUBM-1260 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - revised draft | 60 | 19-Mar-25 | 17-May-25 | 269 |
| **Sludge Digestion System** | | | | | |
| SUBM-1310 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st draft | 60 | 18-Jan-25 | 18-Mar-25 | -397 |
| SUBM-1320 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - revised draft | 60 | 19-Mar-25 | 17-May-25 | 275 |
| **Biogas H2S Removal System** | | | | | |
| SUBM-1280 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st draft | 60 | 18-Jan-25 | 18-Mar-25 | -397 |
| SUBM-1290 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - revised draft | 60 | 19-Mar-25 | 17-May-25 | 522 |
| **Deodourization System** | | | | | |
| SUBM-1340 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st draft | 60 | 19-Mar-25 | 17-May-25 | -397 |
| **Plant Service Water System** | | | | | |
| SUBM-1370 | Submit/review/approval Operation and Maintenance (O&M) Manuals and Installation Manuals - 1st draft | 60 | 19-Mar-25 | 17-May-25 | 463 |
| **Commissioning Plan and Procedures (PS34.20(10))** | | | | | |
| SUBM-1000 | Submit/review/approval Commissioning Plan and Procedures - Early commissioning of IW&PST (KD3) | 120 | 21-Feb-24 A | 23-Apr-25 | -343 |
| **Material Submission, Procurement, Manufacturing and Delivery** | | | | | |
| **Inlet Works** | | | | | |
| PRE-290 | Submit/Procure/Manufacture/Deliver New Inlet Works Equip. - GritTrap and classifier | 270 | 18-Feb-22 A | 02-Jan-25 | -363 |
| PRE-280 | Submit/Procure/Manufacture/Deliver New Inlet Works Equip. - Conveyeor and compactor | 270 | 12-Apr-22 A | 02-Jan-25 | -396 |
| PRE-320 | Submit/Procure/Manufacture/Deliver New Inlet Works Equip. - MVAC-Ventilation Fan | 211 | 10-Jan-23 A | 02-Jan-25 | -346 |
| **Biogas Holder** | | | | | |
| PRE-410 | Submit/Procure/Manufacture/Deliver Waster Gas Burner | 300 | 19-Aug-21 A | 31-Jul-26 | 76 |
| PRE-420 | Submit/Procure/Manufacture/Deliver H2S Removal System | 510 | 25-Feb-22 A | 02-Apr-26 | -76 |
| PRE-430 | Submit/Procure/Manufacture/Deliver Biogas booster and transfer pumps | 513 | 01-Jan-25 | 28-May-26 | 77 |
| **Sludge Digestor Tank** | | | | | |
| PRE-750 | Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Flame Arresters | 100 | 31-Oct-22 A | 11-Apr-25 | -154 |
| PRE-780 | Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Mixing System and Heat Exchanger for Sludge Anaerobic | 420 | 22-Dec-22 A | 26-Jan-25 | -79 |
| PRE-720 | Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Inspection Windows for Sludge Anaerobic System | 365 | 18-Jan-23 A | 11-Apr-25 | -154 |
| PRE-730 | Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Gas Take Off Dome for Sludge Anaerobic Digestion Syste | 365 | 18-Jan-23 A | 11-Apr-25 | -154 |
| PRE-710 | Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Pressure and Vacuum Relief Valves | 300 | 01-Mar-23 A | 11-Apr-25 | -154 |
| PRE-740 | Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Telescopic Valve for Sludge Anaerobic Digestion System | 179 | 10-Jul-23 A | 11-Apr-25 | -154 |
| PRE-760 | Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Ferric Chloride Dosing Pump | 148 | 29-Aug-23 A | 11-Apr-25 | -154 |
| PRE-770 | Submit/Procure/Manufacture/Deliver Sludge Digester Tank - Ferric Chloride Trasnfer Pump | 148 | 29-Aug-23 A | 11-Apr-25 | -154 |
| **Sludge Thickening Building** | | | | | |




保華-中國中鐵聯營體
PAUL Y.-CREC JOINT VENTURE

Remaining Level of Ef...
Actual Work
Remaining Work
Critical Remaining Work
Milestone

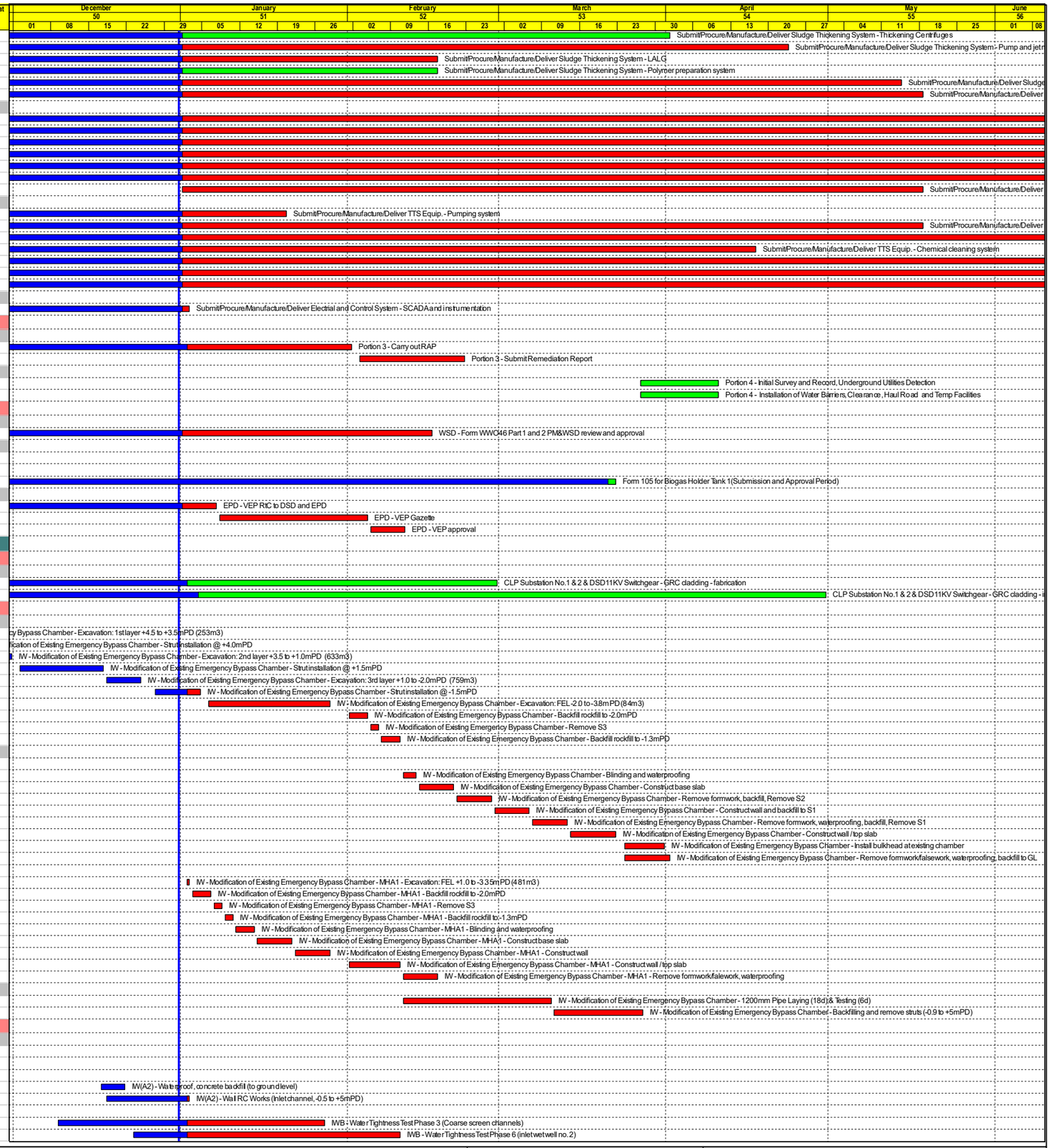
# Contract DC/2019/10 - YLEPP - Main Works for Stage 1
# Monthly Progress Report No. 50- 3MRP (Dec 24)

Project ID : DWPr45_250124
Layout : DC201910 MPR50-3MRP

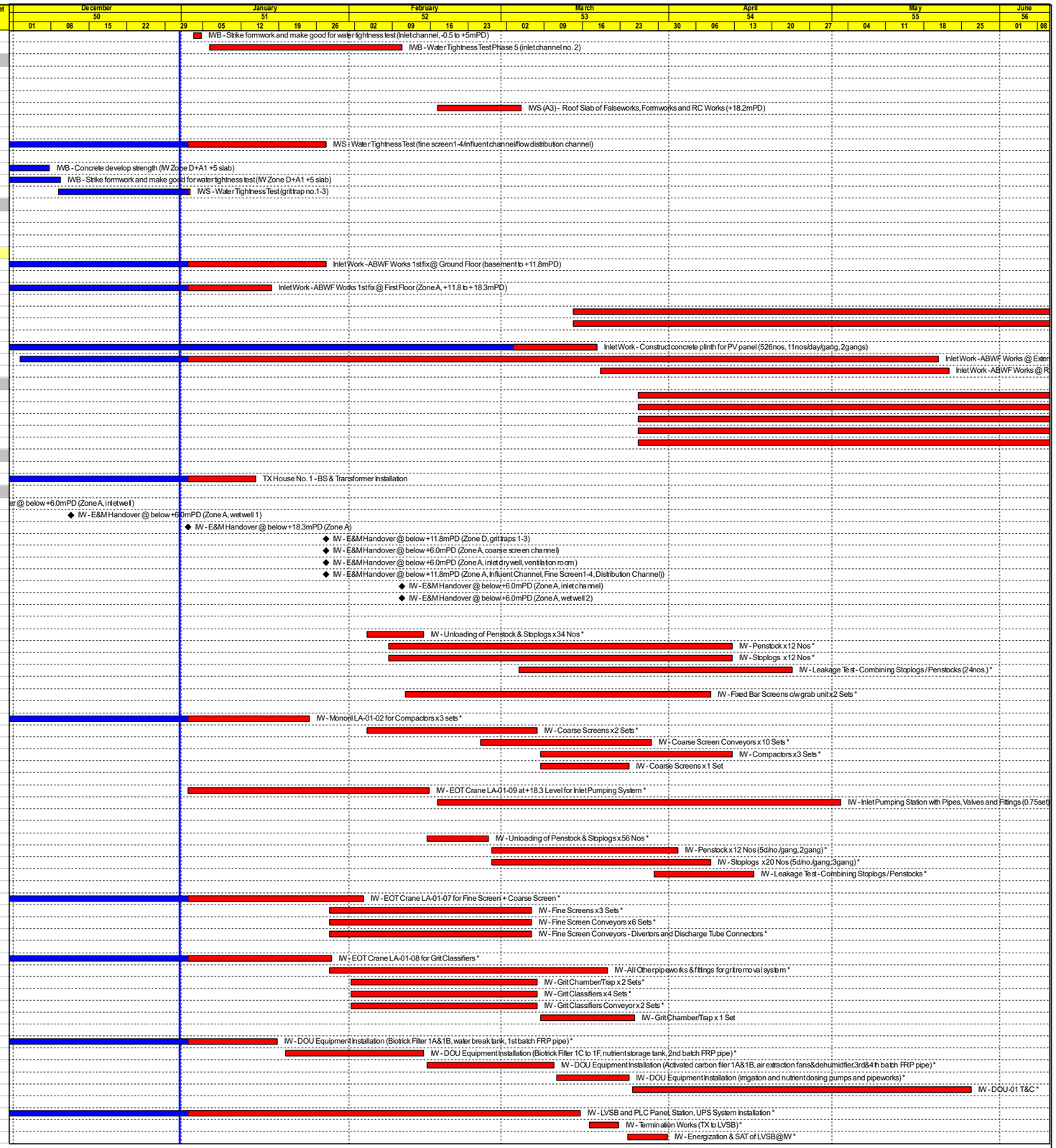

Monthly Progress Report - 3MRP

| Date | Revision | Checked | Approved |
|---|---|---|---|
| 31-Dec-24 | Rev. 0 | | |

| Activity ID | Activity Name | Orig Dur | Early Start | Early Finish | Total Float |
|---|---|---|---|---|---|
| PRE-250 | Submit/Procure/Manufacture/Deliver Sludge Thickening System - Thickening Centrifuges | 360 | 12-Nov-21 A | 01-Apr-25 | 24 |
| PRE-500 | Submit/Procure/Manufacture/Deliver Sludge Thickening System - Pump and jet mixer | 300 | 07-Jan-22 A | 23-Apr-25 | -111 |
| PRE-510 | Submit/Procure/Manufacture/Deliver Sludge Thickening System - LALG | 256 | 28-Mar-23 A | 17-Feb-25 | -19 |
| PRE-480 | Submit/Procure/Manufacture/Deliver Sludge Thickening System - Polymer preparation system | 388 | 12-Apr-23 A | 17-Feb-25 | 32 |
| PRE-490 | Submit/Procure/Manufacture/Deliver Sludge Thickening System - DOU-03 | 264 | 07-Jul-23 A | 14-May-25 | -19 |
| PRE-520 | Submit/Procure/Manufacture/Deliver Sludge Thickening System - MVAC | 212 | 27-Apr-24 A | 18-May-25 | -23 |
| **Mainstream Bio-Reactor** | | | | | |
| PRE-230 | Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - AGS system | 480 | 09-Sep-22 A | 23-Jun-25 | -153 |
| PRE-530 | Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - Penstocks and stoplogs | 345 | 31-Oct-22 A | 16-Sep-25 | -163 |
| PRE-550 | Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - Sludge pre-thickening system | 510 | 31-Oct-22 A | 23-Jun-25 | -171 |
| PRE-540 | Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - Chemical storage and dosing system | 270 | 18-Nov-22 A | 03-Jul-25 | -163 |
| PRE-570 | Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - Instrumentation | 481 | 03-Apr-24 A | 17-Feb-26 | -333 |
| PRE-560 | Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - LALG | 349 | 16-Jul-24 A | 15-Dec-25 | -328 |
| PRE-580 | Submit/Procure/Manufacture/Deliver Main Stream Bio-Reactor E&M Equip. - MVAC | 138 | 01-Jan-25 | 18-May-25 | -117 |
| **Tertiary Treatment System** | | | | | |
| PRE-610 | Submit/Procure/Manufacture/Deliver TTS Equip. - Pumping system | 495 | 19-Jul-22 A | 20-Jan-25 | -14 |
| PRE-600 | Submit/Procure/Manufacture/Deliver TTS Equip. - UV disinfection system | 510 | 08-Sep-22 A | 18-May-25 | -132 |
| PRE-240 | Submit/Procure/Manufacture/Deliver TTS Equip. - Disc Filter | 600 | 27-Sep-22 A | 17-Jun-25 | -162 |
| PRE-590 | Submit/Procure/Manufacture/Deliver TTS Equip. - Chemical cleaning system | 480 | 18-Nov-22 A | 17-Apr-25 | -101 |
| PRE-630 | Submit/Procure/Manufacture/Deliver TTS Equip. - Penstocks and stoplogs | 435 | 30-Nov-22 A | 08-Aug-25 | -214 |
| PRE-620 | Submit/Procure/Manufacture/Deliver TTS Equip. - LALG | 151 | 27-Mar-23 A | 08-Oct-25 | -275 |
| PRE-690 | Submit/Procure/Manufacture/Deliver TTS Equip. - DOU-02 | 506 | 07-Sep-23 A | 28-Oct-25 | -295 |
| **Electrical and Control System** | | | | | |
| PRE-680 | Submit/Procure/Manufacture/Deliver Electrial and Control System - SCADA and instrumentation | 420 | 30-Apr-22 A | 02-Jan-25 | -280 |
| **Site Establishment Works** | | | | | |
| **Portion 3 - PST, SDB, Admin. Bldg** | | | | | |
| P3-140 | Portion 3 - Carry out RAP | 24 | 21-Aug-24 A | 01-Feb-25 | -100 |
| P3-150 | Portion 3 - Submit Remediation Report | 18 | 03-Feb-25 | 22-Feb-25 | -100 |
| **Portion 4 - EVA** | | | | | |
| P4-100 | Portion 4 - Initial Survey and Record, Underground Utilities Detection | 12 | 27-Mar-25 | 10-Apr-25 | 442 |
| P4-110 | Portion 4 - Installation of Water Barriers, Clearance, Haul Road and Temp Facilities | 12 | 27-Mar-25 | 10-Apr-25 | 442 |
| **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 | 16-Feb-25 | -344 |
| **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 | 22-Mar-25 | 206 |
| **EPD Submission & Approval for VEP** | | | | | |
| EPD-1030 | EPD - VEP RtC to DSD and EPD | 7 | 24-Oct-24 A | 07-Jan-25 | -170 |
| EPD-1060 | EPD - VEP Gazette | 28 | 08-Jan-25 | 04-Feb-25 | -170 |
| EPD-1070 | EPD - VEP approval | 7 | 05-Feb-25 | 11-Feb-25 | -170 |
| **Zone 1 Construction** | | | | | |
| **CLP Substations No. 1 & 2** | | | | | |
| **CLP Substation No. 1 & 2 & DSD 11kV Switchgear - GRC Cladding** | | | | | |
| CLP-1590 | CLP Substation No.1 & 2 & DSD11KV Switchgear - GRC cladding - fabrication | 60 | 21-Feb-24 A | 28-Feb-25 | 536 |
| CLP-1600 | CLP Substation No.1 & 2 & DSD11KV Switchgear - GRC cladding - installation | 75 | 18-Sep-24 A | 30-Apr-25 | 536 |
| **Modification of Existing Emergency Bypass Chamber** | | | | | |
| **Emergency Bypass Chamber - Foundation and ELS** | | | | | |
| IW-1270 | IW - Modification of Existing Emergency Bypass Chamber - Excavation: 1st layer +4.5 to +3.5mPD (253m3) | 2 | 31-Oct-24 A | 07-Nov-24 A | |
| IW-3070 | IW - Modification of Existing Emergency Bypass Chamber - Strut installation @ +4.0mPD | 6 | 08-Nov-24 A | 23-Nov-24 A | |
| IW-3080 | IW - Modification of Existing Emergency Bypass Chamber - Excavation: 2nd layer +3.5 to +1.0mPD (633m3) | 2 | 25-Nov-24 A | 30-Nov-24 A | |
| IW-3090 | IW - Modification of Existing Emergency Bypass Chamber - Strut installation @ +1.5mPD | 6 | 02-Dec-24 A | 17-Dec-24 A | |
| IW-3340 | IW - Modification of Existing Emergency Bypass Chamber - Excavation: 3rd layer +1.0 to -2.0mPD (759m3) | 2 | 18-Dec-24 A | 24-Dec-24 A | |
| IW-3350 | IW - Modification of Existing Emergency Bypass Chamber - Strut installation @ -1.5mPD | 6 | 27-Dec-24 A | 04-Jan-25 | -356 |
| IW-3360 | IW - Modification of Existing Emergency Bypass Chamber - Excavation: FEL -2.0 to -3.8mPD (84m3) | 20 | 06-Jan-25 | 28-Jan-25 | -356 |
| IW-3370 | IW - Modification of Existing Emergency Bypass Chamber - Backfill rockfill to -2.0mPD | 3 | 01-Feb-25 | 04-Feb-25 | -356 |
| IW-3380 | IW - Modification of Existing Emergency Bypass Chamber - Remove S3 | 2 | 05-Feb-25 | 06-Feb-25 | -356 |
| IW-3390 | IW - Modification of Existing Emergency Bypass Chamber - Backfill rockfill to -1.3mPD | 3 | 07-Feb-25 | 10-Feb-25 | -356 |
| **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 | 11-Feb-25 | 13-Feb-25 | -356 |
| IW-3110 | IW - Modification of Existing Emergency Bypass Chamber - Construct base slab | 6 | 14-Feb-25 | 20-Feb-25 | -356 |
| IW-3160 | IW - Modification of Existing Emergency Bypass Chamber - Remove formwork, backfill, Remove S2 | 6 | 21-Feb-25 | 27-Feb-25 | -356 |
| IW-3120 | IW - Modification of Existing Emergency Bypass Chamber - Construct wall and backfill to S1 | 6 | 28-Feb-25 | 06-Mar-25 | -356 |
| IW-3170 | IW - Modification of Existing Emergency Bypass Chamber - Remove formwork, waterproofing, backfill, Remove S1 | 6 | 07-Mar-25 | 13-Mar-25 | -356 |
| IW-3180 | IW - Modification of Existing Emergency Bypass Chamber - Construct wall / top slab | 8 | 14-Mar-25 | 22-Mar-25 | -356 |
| IW-3140 | IW - Modification of Existing Emergency Bypass Chamber - Install bulkhead at existing chamber | 7 | 24-Mar-25 | 31-Mar-25 | -337 |
| IW-3540 | IW - Modification of Existing Emergency Bypass Chamber - Remove formwork/falsework, waterproofing, backfill to GL | 8 | 24-Mar-25 | 01-Apr-25 | -356 |
| **Emergency Bypass Chamber - Manhole MHA1** | | | | | |
| IW-3100 | IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Excavation: FEL +1.0 to -3.35mPD (481m3) | 1 | 02-Jan-25 | 02-Jan-25 | -317 |
| IW-3620 | IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Backfill rockfill to -2.0mPD | 3 | 03-Jan-25 | 06-Jan-25 | -317 |
| IW-3630 | IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Remove S3 | 2 | 07-Jan-25 | 08-Jan-25 | -317 |
| IW-3640 | IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Backfill rockfill to -1.3mPD | 2 | 09-Jan-25 | 10-Jan-25 | -317 |
| IW-3550 | IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Blinding and waterproofing | 3 | 11-Jan-25 | 14-Jan-25 | -317 |
| IW-3560 | IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Construct base slab | 6 | 15-Jan-25 | 21-Jan-25 | -317 |
| IW-3580 | IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Construct wall | 6 | 22-Jan-25 | 28-Jan-25 | -317 |
| IW-3600 | IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Construct wall / top slab | 8 | 01-Feb-25 | 10-Feb-25 | -317 |
| IW-3590 | IW - Modification of Existing Emergency Bypass Chamber - MHA1 - Remove formwork/falework, waterproofing | 6 | 11-Feb-25 | 17-Feb-25 | -284 |
| **Emergency Bypass Chamber - Pipe laying** | | | | | |
| IW-1280 | IW - Modification of Existing Emergency Bypass Chamber - 1200mm Pipe Laying (18d) & Testing (6d) | 24 | 11-Feb-25 | 10-Mar-25 | -317 |
| IW-3610 | IW - Modification of Existing Emergency Bypass Chamber - Backfilling and remove struts (-0.9 to +5mPD) | 15 | 11-Mar-25 | 27-Mar-25 | -317 |
| **Inlet Works (IW)** | | | | | |
| **IW Foundation & ELS Works** | | | | | |
| **IW Basement** | | | | | |
| **IW Basement RC Works** | | | | | |
| **IW Zone A,D** | | | | | |
| Z1-IW-6910 | IW(A2) - Waterproof, concrete backfill (to ground level) | 3 | 17-Dec-24 A | 21-Dec-24 A | |
| Z1-IW-6915 | IW(A2) - Wall RC Works (Inlet channel, -0.5 to +5mPD) | 7 | 18-Dec-24 A | 02-Jan-25 | -333 |
| **Water Tightness Test for IW Basement** | | | | | |
| Z1-IW-6920 | IWB - Water Tightness Test Phase 3 (Coarse screen channels) | 18 | 09-Dec-24 A | 27-Jan-25 | -369 |
| Z1-IW-6940 | IWB - Water Tightness Test Phase 6 (inlet wet well no. 2) | 16 | 23-Dec-24 A | 10-Feb-25 | -356 |



| Activity ID | Activity Name | Orig Dur | Early Start | Early Finish | Total Float |
|---|---|---|---|---|---|
| Z1-IW-7090 | IWB - Strike formwork and make good for water tightness test (Inlet channel, -0.5 to +5mPD) | 2 | 03-Jan-25 | 04-Jan-25 | -333 |
| Z1-IW-4110 | IWB - Water Tightness Test Phase 5 (inlet channel no. 2) | 28 | 06-Jan-25 | 10-Feb-25 | -333 |
| **IW Civil and Structural Works** | | | | | |
| **IW Superstructure** | | | | | |
| **RC Works** | | | | | |
| **Zone A3** | | | | | |
| Z1-IW-7080 | IWS (A3) - Roof Slab of Falseworks, Formworks and RC Works (+18.2mPD) | 14 | 17-Feb-25 | 04-Mar-25 | -277 |
| **Water Tightness Test for IW Superstructure** | | | | | |
| **Zone D+A1 (+7.835)** | | | | | |
| Z1-IW-4250 | IWS - Water Tightness Test (fine screen1-4/influent channel/flow distribution channel) | 18 | 31-Oct-24 A | 27-Jan-25 | -315 |
| **Zone D+A1 (+5.0)** | | | | | |
| Z1-IW-7000 | IWB - Concrete develop strength (IW Zone D+A1 +5 slab) | 7 | 15-Nov-24 A | 07-Dec-24 A | |
| Z1-IW-7010 | IWB - Strike formwork and make good for water tightness test (IW Zone D+A1 +5 slab) | 7 | 22-Nov-24 A | 09-Dec-24 A | |
| Z1-IW-6970 | IWS - Water Tightness Test (grit trap no.1-3) | 18 | 09-Dec-24 A | 02-Jan-25 | -306 |
| **IW ABWF Works** | | | | | |
| **IW ABWF Works 1st fix for E&M handover** | | | | | |
| **IW ABWF Works - Zone A/D** | | | | | |
| **Below +11.8mPD** | | | | | |
| **Dry Area** | | | | | |
| IW-2780 | Inlet Work - ABWF Works 1st fix @ Ground Floor (basement to +11.8mPD) | 12 | 19-Oct-24 A | 27-Jan-25 | -355 |
| **Above +11.8mPD** | | | | | |
| IW-3010 | Inlet Work - ABWF Works 1st fix @ First Floor (Zone A, +11.8 to + 18.3mPD) | 12 | 14-Oct-24 A | 17-Jan-25 | -369 |
| **IW ABWF Works final fix** | | | | | |
| IW-3250 | Inlet Work - ABWF Works final fix above +11.8mPD | 90 | 14-Mar-25 | 05-Jul-25 | -347 |
| IW-3260 | Inlet Work - ABWF Works final fix below +11.8mPD | 90 | 14-Mar-25 | 05-Jul-25 | -347 |
| **IW ABWF Works - Roof** | | | | | |
| IW-2990 | Inlet Work - Construct concrete plinth for PV panel (526nos, 11nos/day/gang, 2gangs) | 24 | 14-Nov-24 A | 18-Mar-25 | -277 |
| IW-3030 | Inlet Work - ABWF Works @ External Wall | 120 | 02-Dec-24 A | 20-May-25 | -275 |
| IW-3000 | Inlet Work - ABWF Works @ Roof Floor (+18.3mPD) | 50 | 19-Mar-25 | 22-May-25 | -277 |
| **IW BS Works** | | | | | |
| ATAL-1520 | IW - MVAC Works | 80 | 26-Mar-25 | 05-Jul-25 | -347 |
| ATAL-1530 | IW - ELV Works | 80 | 26-Mar-25 | 05-Jul-25 | -370 |
| ATAL-1540 | IW - P&D Works | 80 | 26-Mar-25 | 05-Jul-25 | -358 |
| ATAL-1550 | IW - EL Works | 80 | 26-Mar-25 | 05-Jul-25 | -370 |
| ATAL-1560 | IW - F.S. Works | 80 | 26-Mar-25 | 05-Jul-25 | -358 |
| **IW Transformer House No. 1** | | | | | |
| **IW Tx1 E&M Works** | | | | | |
| IW-2840 | TX House No. 1 - BS & Transformer Installation | 32 | 25-Mar-24 A | 14-Jan-25 | -287 |
| **IW E&M Works** | | | | | |
| ATAL-1820 | IW - E&M Handover @ below +6.0mPD (Zone A, inlet well) | 0 | | 18-Nov-24 A | |
| ATAL-1832 | IW - E&M Handover @ below +6.0mPD (Zone A, wet well 1) | 0 | | 11-Dec-24 A | |
| ATAL-1140 | IW - E&M Handover @ below +18.3mPD (Zone A) | 0 | | 02-Jan-25 | -369 |
| ATAL-0000 | IW - E&M Handover @ below +11.8mPD (Zone D, grit traps 1-3) | 0 | | 27-Jan-25 | -327 |
| ATAL-1836 | IW - E&M Handover @ below +6.0mPD (Zone A, coarse screen channel) | 0 | | 27-Jan-25 | -369 |
| ATAL-1838 | IW - E&M Handover @ below +6.0mPD (Zone A, inlet dry well, ventilation room) | 0 | | 27-Jan-25 | -355 |
| ATAL-2050 | IW - E&M Handover @ below +11.8mPD (Zone A, Influent Channel, Fine Screen 1-4, Distribution Channel)) | 0 | | 27-Jan-25 | -315 |
| ATAL-1830 | IW - E&M Handover @ below +6.0mPD (Zone A, inlet channel) | 0 | | 10-Feb-25 | -333 |
| ATAL-1834 | IW - E&M Handover @ below +6.0mPD (Zone A, wet well 2) | 0 | | 10-Feb-25 | -356 |
| **Pre-treatment Zone (Below 11.8 mPD)** | | | | | |
| **Penstock & Stoplogs x 34 sets at inlet, Coarse Screen Channels** | | | | | |
| ATAL-1150 | IW - Unloading of Penstock & Stoplogs x 34 Nos * | 10 | 04-Feb-25 | 14-Feb-25 | -356 |
| ATAL-1152 | IW - Penstock x 12 Nos * | 54 | 08-Feb-25 | 12-Apr-25 | -356 |
| ATAL-1154 | IW - Stoplogs x 12 Nos * | 54 | 08-Feb-25 | 12-Apr-25 | -356 |
| ATAL-1156 | IW - Leakage Test - Combining Stoplogs / Penstocks (24nos.) * | 40 | 04-Mar-25 | 23-Apr-25 | -356 |
| **Fixed Bar Screens c/w grab unit x 2 Sets** | | | | | |
| ATAL-1180 | IW - Fixed Bar Screens c/w grab unit x 2 Sets * | 48 | 11-Feb-25 | 08-Apr-25 | -333 |
| **Coarse Screening System** | | | | | |
| ATAL-1210 | IW - Monorail LA-01-02 for Compactors x 3 sets * | 30 | 21-Nov-24 A | 24-Jan-25 | -367 |
| ATAL-1190 | IW - Coarse Screens x 2 Sets * | 28 | 04-Feb-25 | 07-Mar-25 | -372 |
| ATAL-1192 | IW - Coarse Screen Conveyors x 10 Sets * | 28 | 25-Feb-25 | 28-Mar-25 | -355 |
| ATAL-1194 | IW - Compactors x 3 Sets * | 30 | 08-Mar-25 | 12-Apr-25 | -372 |
| ATAL-1960 | IW - Coarse Screens x 1 Set | 14 | 08-Mar-25 | 24-Mar-25 | -333 |
| **Inlet Pumping Station with Pipes, Valves and Fittings** | | | | | |
| ATAL-1860 | IW - EOT Crane LA-01-09 at +18.3 Level for Inlet Pumping System * | 36 | 02-Jan-25 | 15-Feb-25 | -369 |
| ATAL-1200 | IW - Inlet Pumping Station with Pipes, Valves and Fittings (0.75set) * | 60 | 17-Feb-25 | 02-May-25 | -369 |
| **Pre-treatment Zone (Above 11.8 mPD)** | | | | | |
| **Penstock & Stoplogs X 56 Sets at Fine Screen, Grit Removal channels** | | | | | |
| ATAL-1160 | IW - Unloading of Penstock & Stoplogs x 56 Nos * | 10 | 15-Feb-25 | 26-Feb-25 | -348 |
| ATAL-1162 | IW - Penstock x 12 Nos (5d/no./gang, 2gang) * | 30 | 27-Feb-25 | 02-Apr-25 | -337 |
| ATAL-1164 | IW - Stoplogs x 20 Nos (5d/no./gang, 3gang) * | 34 | 27-Feb-25 | 08-Apr-25 | -348 |
| ATAL-1168 | IW - Leakage Test - Combining Stoplogs / Penstocks * | 15 | 29-Mar-25 | 16-Apr-25 | -339 |
| **Fine Screening System** | | | | | |
| ATAL-1840 | IW - EOT Crane LA-01-07 for Fine Screen + Coarse Screen * | 30 | 19-Nov-24 A | 03-Feb-25 | -372 |
| ATAL-1220 | IW - Fine Screens x 3 Sets * | 30 | 28-Jan-25 | 06-Mar-25 | -315 |
| ATAL-1222 | IW - Fine Screen Conveyors x 6 Sets * | 30 | 28-Jan-25 | 06-Mar-25 | -315 |
| ATAL-1224 | IW - Fine Screen Conveyors - Divertors and Discharge Tube Connectors * | 30 | 28-Jan-25 | 06-Mar-25 | -315 |
| **Grit Removal System** | | | | | |
| ATAL-1850 | IW - EOT Crane LA-01-08 for Grit Classifiers * | 30 | 25-Nov-24 A | 28-Jan-25 | -369 |
| ATAL-1236 | IW - All Other pipeworks & fittings for grit removal system * | 42 | 28-Jan-25 | 20-Mar-25 | -327 |
| ATAL-1230 | IW - Grit Chamber/Trap x 2 Sets * | 30 | 01-Feb-25 | 07-Mar-25 | -316 |
| ATAL-1232 | IW - Grit Classifiers x 4 Sets * | 30 | 01-Feb-25 | 07-Mar-25 | -316 |
| ATAL-1234 | IW - Grit Classifiers Conveyor x 2 Sets * | 30 | 01-Feb-25 | 07-Mar-25 | -316 |
| ATAL-1970 | IW - Grit Chamber/Trap x 1 Set | 15 | 08-Mar-25 | 25-Mar-25 | -303 |
| **DOU-01 System - 01** | | | | | |
| ATAL-1250 | IW - DOU Equipment Installation (Biotrick Filter 1A&1B, water break tank, 1st batch FRP pipe) * | 20 | 25-Nov-24 A | 18-Jan-25 | -362 |
| ATAL-1980 | IW - DOU Equipment Installation (Biotrick Filter 1C to 1F, nutrient storage tank, 2nd batch FRP pipe) * | 20 | 20-Jan-25 | 14-Feb-25 | -362 |
| ATAL-1990 | IW - DOU Equipment Installation (Activated carbon filer 1A&1B, air extraction fans&dehumidifier,3rd&4th batch FRP pipe | 20 | 15-Feb-25 | 10-Mar-25 | -362 |
| ATAL-2000 | IW - DOU Equipment Installation (irrigation and nutrient dosing pumps and pipeworks) * | 12 | 11-Mar-25 | 24-Mar-25 | -362 |
| ATAL-1770 | IW - DOU-01 T&C * | 48 | 25-Mar-25 | 26-May-25 | -362 |
| **LV Switch Room (IW + PST)** | | | | | |
| ATAL-1270 | IW - LVSB and PLC Panel, Station, UPS System Installation * | 36 | 09-Sep-24 A | 15-Mar-25 | -342 |
| ATAL-1290 | IW - Termination Works (TX to LVSB) * | 6 | 17-Mar-25 | 22-Mar-25 | -342 |
| ATAL-1330 | IW - Energization & SAT of LVSB@IW * | 7 | 24-Mar-25 | 31-Mar-25 | -342 |




保華-中國中鐵聯營體
PAUL Y.-CREC JOINT VENTURE

Remaining Level of Ef...
Actual Work
Remaining Work
Critical Remaining Work
Milestone

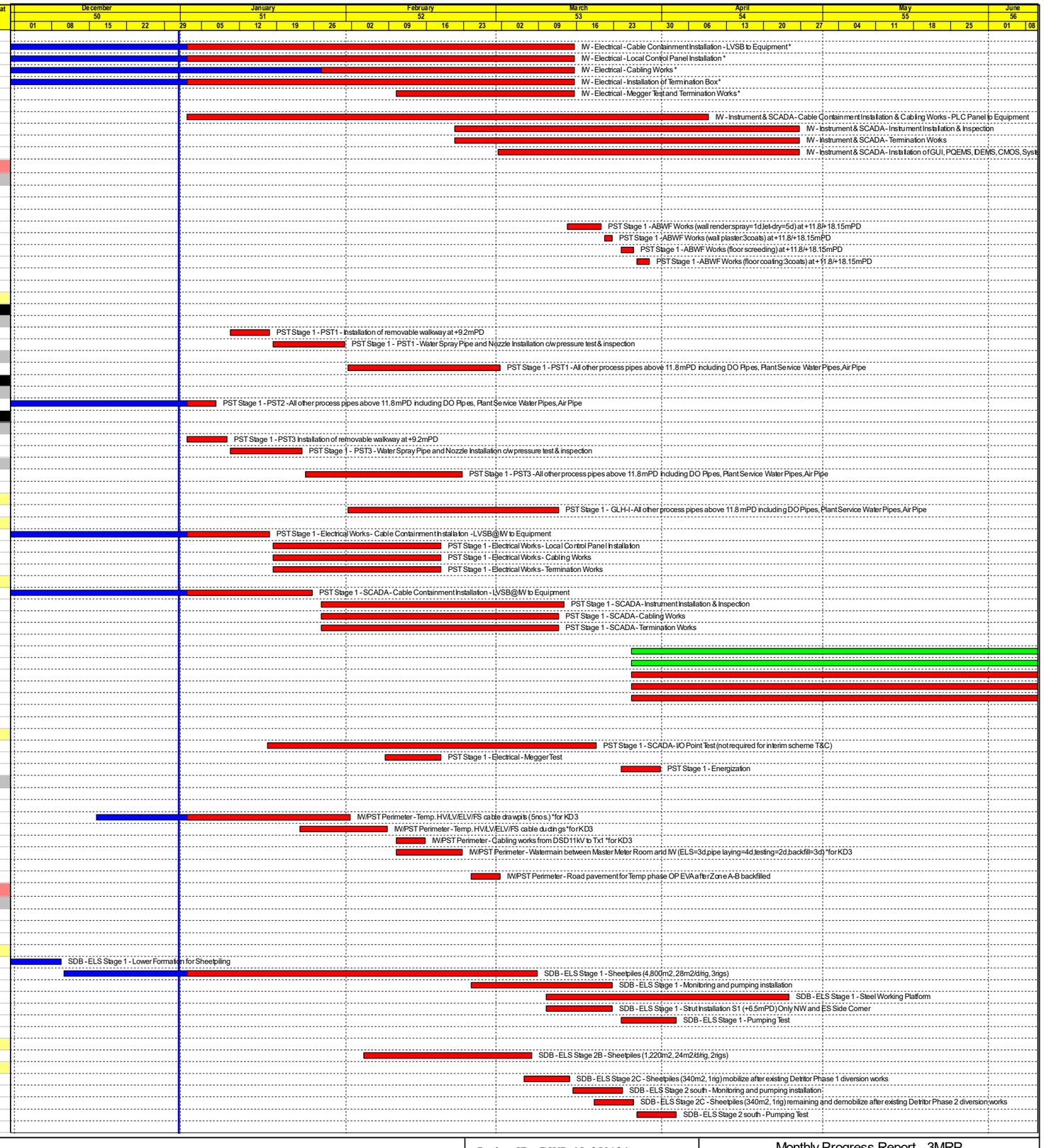
# Contract DC/2019/10 - YLEPP - Main Works for Stage 1
# Monthly Progress Report No. 50- 3MRP (Dec 24)

Project ID : DWPr45_250124
Layout : DC201910 MPR50-3MRP


Monthly Progress Report - 3MRP

| Date | Revision | Checked | Approved |
|---|---|---|---|
| 31-Dec-24 | Rev. 0 | | |

| Activity ID | Activity Name | Orig Dur | Early Start | Early Finish | Total Float |
|---|---|---|---|---|---|
| **Electrical Works** | | | | | |
| ATAL-1340 | IW - Electrical - Cable Containment Installation - LVSB to Equipment * | 60 | 24-Oct-24 A | 15-Mar-25 | -347 |
| ATAL-1350 | IW - Electrical - Local Control Panel Installation * | 60 | 15-Nov-24 A | 15-Mar-25 | -329 |
| ATAL-1370 | IW - Electrical - Cabling Works * | 45 | 15-Nov-24 A | 15-Mar-25 | -329 |
| ATAL-1380 | IW - Electrical - Installation of Termination Box* | 60 | 15-Nov-24 A | 15-Mar-25 | -329 |
| ATAL-1390 | IW - Electrical - Megger Test and Termination Works * | 30 | 10-Feb-25 | 15-Mar-25 | -329 |
| **Instrumentation & SCADAWorks** | | | | | |
| ATAL-1420 | IW - Instrument & SCADA - Cable Containment Installation & Cabling Works - PLC Panel to Equipment | 80 | 02-Jan-25 | 09-Apr-25 | -347 |
| ATAL-1400 | IW - Instrument & SCADA - Instrument Installation & Inspection | 52 | 21-Feb-25 | 26-Apr-25 | -347 |
| ATAL-1440 | IW - Instrument & SCADA - Termination Works | 52 | 21-Feb-25 | 26-Apr-25 | -347 |
| ATAL-1450 | IW - Instrument & SCADA - Installation of GUI, PQEMS, IDEMS, CMOS, System Integration&Mapping , Network Configu | 45 | 01-Mar-25 | 26-Apr-25 | -347 |
| **Primary Sedimentation Tank (PST)** | | | | | |
| **PST ABWF, E&M & T&C** | | | | | |
| **PST Stage 1** | | | | | |
| **PST Stage 1 - ABWF Works** | | | | | |
| **GLA-H above +11.8mPD** | | | | | |
| PST-3135 | PST Stage 1 - ABWF Works (wall renderspray=1d,Jet-dry=5d) at +11.8/+18.15mPD | 6 | 14-Mar-25 | 20-Mar-25 | -237 |
| PST-3165 | PST Stage 1 - ABWF Works (wall plaster:3coats) at +11.8/+18.15mPD | 2 | 21-Mar-25 | 22-Mar-25 | -237 |
| PST-3175 | PST Stage 1 - ABWF Works (floor screeding) at +11.8/+18.15mPD | 3 | 24-Mar-25 | 26-Mar-25 | -237 |
| PST-3185 | PST Stage 1 - ABWF Works (floor coating:3coats) at +11.8/+18.15mPD | 3 | 27-Mar-25 | 29-Mar-25 | -237 |
| **PST Stage 1 - E&M Installation Works** | | | | | |
| **Phase 1 (GLA-H, PST 1-3, Outlet Channel)** | | | | | |
| **PST Stage 1 - E&M Installation Works at Setting Zone (PST 1-3)** | | | | | |
| **PST 1** | | | | | |
| **PST 1 - Inclined Plate Settling System** | | | | | |
| PST-3325 | PST Stage 1 - PST1 - Installation of removable walkway at +9.2mPD | 7 | 10-Jan-25* | 17-Jan-25 | -292 |
| ATALPST-5410 | PST Stage 1 - PST1 - Water Spray Pipe and Nozzle Installation c/w pressure test & inspection | 9 | 18-Jan-25 | 31-Jan-25 | -289 |
| **PST 1 - Compressors , Air blowers c/w associated fittings** | | | | | |
| ATALPST-5470 | PST Stage 1 - PST1 - All other process pipes above 11.8mPD including DO Pipes, Plant Service Water Pipes,Air Pipe | 25 | 01-Feb-25 | 01-Mar-25 | -292 |
| **PST 2** | | | | | |
| **PST 2 - Compressors , Air blowers c/w associated fittings** | | | | | |
| ATALPST-6850 | PST Stage 1 - PST2 - All other process pipes above 11.8mPD including DO Pipes, Plant Service Water Pipes,Air Pipe | 24 | 02-Aug-24 A | 07-Jan-25 | -268 |
| **PST 3** | | | | | |
| **PST 3 - Inclined Plate Settling System** | | | | | |
| PST-3335 | PST Stage 1 - PST3 Installation of removable walkway at +9.2mPD | 7 | 02-Jan-25* | 09-Jan-25 | -292 |
| ATALPST-6710 | PST Stage 1 - PST3 - Water Spray Pipe and Nozzle Installation c/w pressure test & inspection | 12 | 10-Jan-25 | 23-Jan-25 | -285 |
| **PST 3 - Compressors , Air blowers c/w associated fittings** | | | | | |
| ATALPST-6740 | PST Stage 1 - PST3 - All other process pipes above 11.8mPD including DO Pipes, Plant Service Water Pipes,Air Pipe | 23 | 24-Jan-25 | 22-Feb-25 | -285 |
| **Phase 2 (GL H-I, (Inlet Channel, Pump Room) Handover for PST early commissioning *** | | | | | |
| **PST Stage 1 - Compressors , Air blowers c/w associate dfittings** | | | | | |
| ATALPST-6770 | PST Stage 1 - GLH-I - All other process pipes above 11.8 mPD including DO Pipes, Plant Service Water Pipes,Air Pipe | 34 | 01-Feb-25 | 12-Mar-25 | -292 |
| **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 | 17-Jan-25 | -276 |
| ATALPST-5670 | PST Stage 1 - Electrical Works - Local Control Panel Installation | 24 | 18-Jan-25 | 18-Feb-25 | -273 |
| ATALPST-5680 | PST Stage 1 - Electrical Works - Cabling Works | 24 | 18-Jan-25 | 18-Feb-25 | -273 |
| ATALPST-5690 | PST Stage 1 - Electrical Works - Termination Works | 24 | 18-Jan-25 | 18-Feb-25 | -273 |
| **PST Stage 1 - Instrumentation & SCADAWorks (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 | 25-Jan-25 | -298 |
| ATALPST-5700 | PST Stage 1 - SCADA - Instrument Installation & Inspection | 37 | 27-Jan-25 | 13-Mar-25 | -248 |
| ATALPST-5730 | PST Stage 1 - SCADA - Cabling Works | 36 | 27-Jan-25 | 12-Mar-25 | -298 |
| ATALPST-5740 | PST Stage 1 - SCADA - Termination Works | 36 | 27-Jan-25 | 12-Mar-25 | -298 |
| **PST Stage 1 - BS Works (PST 1-3, Inlet/Outlet Channel & Pump Room)** | | | | | |
| ATALPST-5750 | PST Stage 1 - MVAC Works | 78 | 26-Mar-25 | 03-Jul-25 | 229 |
| ATALPST-5760 | PST Stage 1 - ELV Works | 78 | 26-Mar-25 | 03-Jul-25 | 229 |
| ATALPST-5770 | PST Stage 1 - P&D Works | 78 | 26-Mar-25 | 03-Jul-25 | -356 |
| ATALPST-5780 | PST Stage 1 - EL Works | 78 | 26-Mar-25 | 03-Jul-25 | -356 |
| ATALPST-5790 | PST Stage 1 - FS. Works | 78 | 26-Mar-25 | 03-Jul-25 | -356 |
| **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) | 50 | 17-Jan-25 | 19-Mar-25 | -298 |
| ATALPST-5810 | PST Stage 1 - Electrical - Megger Test | 9 | 08-Feb-25 | 18-Feb-25 | -273 |
| ATALPST-5830 | PST Stage 1 - Energization | 7 | 24-Mar-25 | 31-Mar-25 | -308 |
| **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 | 30 | 16-Dec-24 A | 01-Feb-25 | -312 |
| EW-2280 | IW/PST Perimeter - Temp. HV/LV/ELV/FS cable ductings *for KD3 | 12 | 23-Jan-25 | 08-Feb-25 | -312 |
| EW-1710 | IW/PST Perimeter - Cabling works from DSD11kV to Tx1 *for KD3 | 6 | 10-Feb-25 | 15-Feb-25 | -312 |
| EW-2270 | IW/PST Perimeter - Watermain between Master Meter Room and IW (ELS=3d,pipe laying=4d,testing=2d,backfill=3d) *f | 12 | 10-Feb-25 | 22-Feb-25 | -252 |
| **IWPST External Works - Roadworks** | | | | | |
| EW-1550 | IW/PST Perimeter - Road pavement for Temp phase OP EVA after Zone A-B backfilled | 6 | 24-Feb-25 | 01-Mar-25 | -247 |
| **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-1185 | SDB - ELS Stage 1 - Lower Formation for Sheetpiling | 9 | 18-Nov-24 A | 09-Dec-24 A | |
| SDB-1190 | SDB - ELS Stage 1 - Sheetpiles (4,800m2, 28m2/d/rig, 3rigs) | 60 | 10-Dec-24 A | 08-Mar-25 | -119 |
| SDB-1610 | SDB - ELS Stage 1 - Monitoring and pumping installation | 24 | 24-Feb-25 | 22-Mar-25 | -114 |
| SDB-1195 | SDB - ELS Stage 1 - Steel Working Platform | 36 | 10-Mar-25 | 24-Apr-25 | -119 |
| SDB-1200 | SDB - ELS Stage 1 - Strut Installation S1 (+6.5mPD) Only NW and ES Side Corner | 12 | 10-Mar-25 | 22-Mar-25 | -104 |
| SDB-1790 | SDB - ELS Stage 1 - Pumping Test | 10 | 24-Mar-25 | 03-Apr-25 | -114 |
| **SDB Foundation - ELS Stage 2** | | | | | |
| **ELS Stage 2B West (Pump Room)** | | | | | |
| SDB-2330 | SDB - ELS Stage 2B - Sheetpiles (1,220m2, 24m2/d/rig, 2rigs) | 28 | 04-Feb-25 | 07-Mar-25 | -85 |
| **ELS Stage 2C South** | | | | | |
| SDB-2200 | SDB - ELS Stage 2C - Sheetpiles (340m2, 1rig) mobilize after existing Detritor Phase 1 diversion works | 8 | 06-Mar-25 | 14-Mar-25 | -108 |
| SDB-5210 | SDB - ELS Stage 2 south - Monitoring and pumping installation | 8 | 15-Mar-25 | 24-Mar-25 | -106 |
| SDB-6420 | SDB - ELS Stage 2C - Sheetpiles (340m2, 1rig) remaining and demobilize after existing Detritor Phase 2 diversion worl | 7 | 19-Mar-25 | 26-Mar-25 | -108 |
| SDB-5190 | SDB - ELS Stage 2 south - Pumping Test | 7 | 27-Mar-25 | 03-Apr-25 | -108 |
| **Modification of existing Detritor** | | | | | |




保華-中國中鐵聯營體
PAUL Y.-CREC JOINT VENTURE

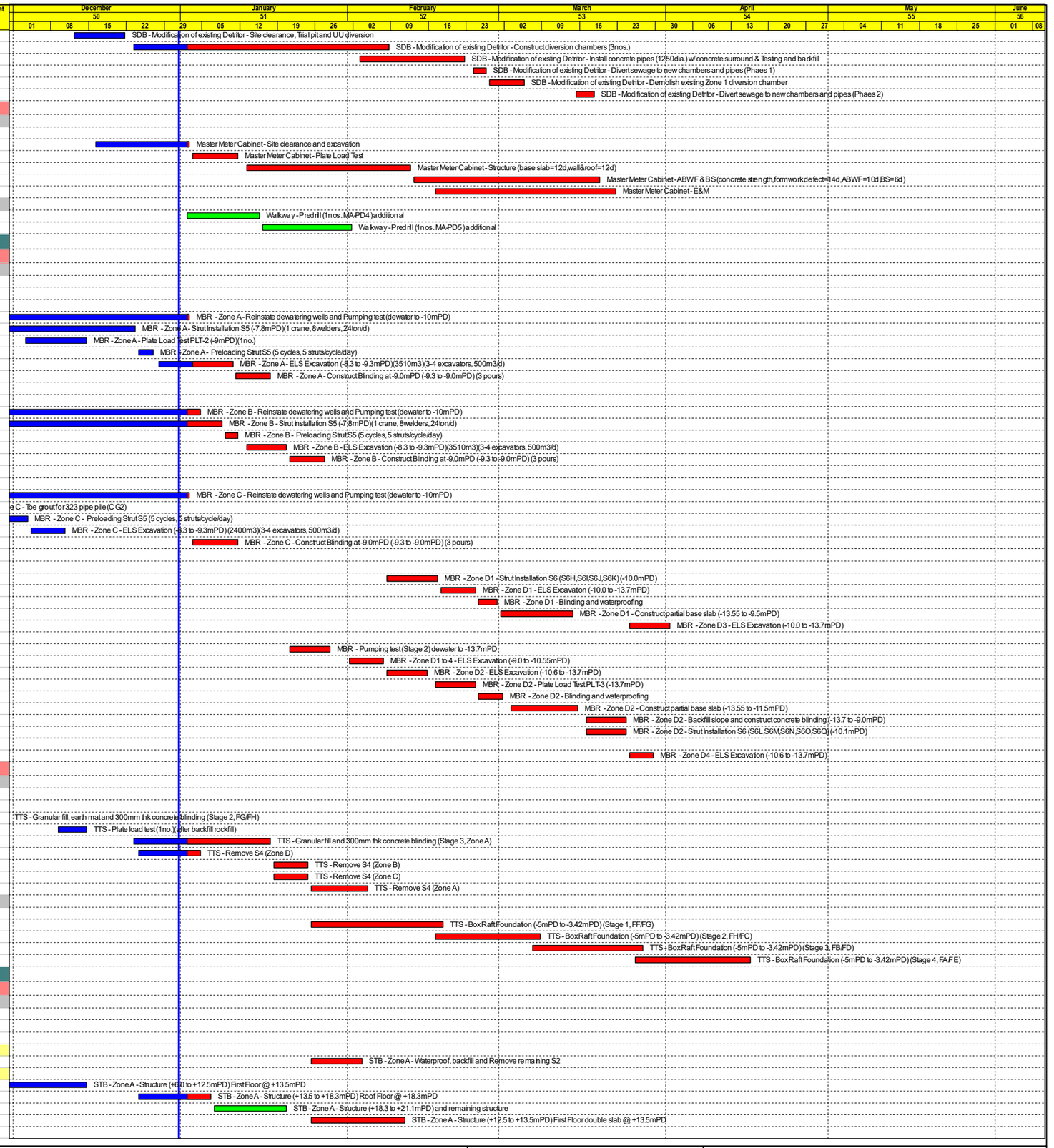
Remaining Level of Ef...
Actual Work
Remaining Work
Critical Remaining Work
Milestone

# Contract DC/2019/10 - YLEPP - Main Works for Stage 1
# Monthly Progress Report No. 50- 3MRP (Dec 24)

Project ID : DWPr45_250124
Layout : DC201910 MPR50-3MRP


| Monthly Progress Report - 3MRP | | | |
|---|---|---|---|
| Date | Revision | Checked | Approved |
| 31-Dec-24 | Rev. 0 | | |

| Activity ID | Activity Name | Orig Dur | Early Start | Early Finish | Total Float |
|---|---|---|---|---|---|
| SDB-6360 | SDB - Modification of existing Detritor - Site clearance, Trial pit and UU diversion | 12 | 12-Dec-24 A | 21-Dec-24 A | |
| SDB-6370 | SDB - Modification of existing Detritor - Construct diversion chambers (3nos.) | 30 | 23-Dec-24 A | 08-Feb-25 | -108 |
| SDB-6380 | SDB - Modification of existing Detritor - Install concrete pipes (1250dia.)w/ concrete surround & Testing and backfill | 18 | 03-Feb-25 | 22-Feb-25 | -108 |
| SDB-6390 | SDB - Modification of existing Detritor - Divert sewage to new chambers and pipes (Phaes 1) | 3 | 24-Feb-25 | 26-Feb-25 | -108 |
| SDB-6400 | SDB - Modification of existing Detritor - Demolish existing Zone 1 diversion chamber | 6 | 27-Feb-25 | 05-Mar-25 | -108 |
| SDB-6410 | SDB - Modification of existing Detritor - Divert sewage to new chambers and pipes (Phaes 2) | 3 | 15-Mar-25 | 18-Mar-25 | -108 |
| **External Works** | | | | | |
| **Water Meter Cabinet** | | | | | |
| **Water Meter Cabinet - Structure** | | | | | |
| CLP-1740 | Master Meter Cabinet - Site clearance and excavation | 7 | 16-Dec-24 A | 02-Jan-25 | -273 |
| CLP-1750 | Master Meter Cabinet - Plate Load Test | 8 | 03-Jan-25 | 11-Jan-25 | -273 |
| CLP-1130 | Master Meter Cabinet - Structure (base slab=12d,wall&roof=12d) | 24 | 13-Jan-25 | 12-Feb-25 | -273 |
| CLP-1360 | Master Meter Cabinet - ABWF & BS (concrete strength,formwork deflect=14d,ABWF=10d,BS=6d) | 30 | 13-Feb-25 | 19-Mar-25 | -273 |
| CLP-1370 | Master Meter Cabinet - E&M | 30 | 17-Feb-25 | 22-Mar-25 | -276 |
| **Walkway Across Tai Tseng Wai Nullah** | | | | | |
| CLP-1720 | Walkway - Predrill (1nos. MA-PD4 ) additional | 12 | 02-Jan-25 | 15-Jan-25 | 210 |
| CLP-1730 | Walkway - Predrill (1nos. MA-PD5 ) additional | 12 | 16-Jan-25 | 01-Feb-25 | 210 |
| **Zone 2 Construction** | | | | | |
| **Mainstream Bio-Reactor & Auxillary Facility (MBR and AF)** | | | | | |
| **MBR and AF Structure** | | | | | |
| **MBR - ELS Excavation & Demolition stage 2** | | | | | |
| **MBR - ELS Zone A** | | | | | |
| **Excavation and Demolition** | | | | | |
| MBRAF-3940 | MBR - Zone A - Reinstate dewatering wells and Pumping test (dewater to -10mPD) | 14 | 23-Sep-24 A | 02-Jan-25 | -306 |
| MBRAF-1700 | MBR - Zone A - Strut Installation S5 (-7.8mPD)(1 crane, 8welders, 24ton/d) | 12 | 31-Oct-24 A | 23-Dec-24 A | |
| MBRAF-4070 | MBR - Zone A - Plate Load Test PLT-2 (-9mPD)(1no.) | 10 | 03-Dec-24 A | 14-Dec-24 A | |
| MBRAF-3510 | MBR - Zone A - Preloading Strut S5 (5 cycles, 5 struts/cycle/day) | 3 | 24-Dec-24 A | 27-Dec-24 A | |
| MBRAF-1710 | MBR - Zone A - ELS Excavation (-8.3 to -9.3mPD)(3510m3)(3-4 excavators, 500m3/d) | 7 | 28-Dec-24 A | 10-Jan-25 | -306 |
| MBRAF-4150 | MBR - Zone A - Construct Blinding at -9.0mPD (-9.3 to -9.0mPD) (3 pours) | 6 | 11-Jan-25 | 17-Jan-25 | -228 |
| **MBR - ELS Zone B** | | | | | |
| **Excavation** | | | | | |
| MBRAF-3920 | MBR - Zone B - Reinstate dewatering wells and Pumping test (dewater to -10mPD) | 14 | 23-Aug-24 A | 04-Jan-25 | -308 |
| MBRAF-3320 | MBR - Zone B - Strut Installation S5 (-7.8mPD)(1 crane, 8welders, 24ton/d) | 12 | 11-Nov-24 A | 08-Jan-25 | -314 |
| MBRAF-3600 | MBR - Zone B - Preloading Strut S5 (5 cycles, 5 struts/cycle/day) | 3 | 09-Jan-25 | 11-Jan-25 | -314 |
| MBRAF-3330 | MBR - Zone B - ELS Excavation (-8.3 to -9.3mPD)(3510m3)(3-4 excavators, 500m3/d) | 7 | 13-Jan-25 | 20-Jan-25 | -314 |
| MBRAF-4180 | MBR - Zone B - Construct Blinding at -9.0mPD (-9.3 to -9.0mPD) (3 pours) | 6 | 21-Jan-25 | 27-Jan-25 | -227 |
| **MBR - ELS Zone C** | | | | | |
| **Excavation** | | | | | |
| MBRAF-3900 | MBR - Zone C - Reinstate dewatering wells and Pumping test (dewater to -10mPD) | 14 | 01-Oct-24 A | 02-Jan-25 | -299 |
| MBRAF-4040 | MBR - Zone C - Toe grout for 323 pipe pile (CG2) | 5 | 14-Nov-24 A | 22-Nov-24 A | |
| MBRAF-3640 | MBR - Zone C - Preloading Strut S5 (5 cycles, 5 struts/cycle/day) | 3 | 28-Nov-24 A | 03-Dec-24 A | |
| MBRAF-3230 | MBR - Zone C - ELS Excavation (-8.3 to -9.3mPD) (2400m3)(3-4 excavators, 500m3/d) | 7 | 04-Dec-24 A | 10-Dec-24 A | |
| MBRAF-4140 | MBR - Zone C - Construct Blinding at -9.0mPD (-9.3 to -9.0mPD) (3 pours) | 8 | 03-Jan-25 | 11-Jan-25 | -214 |
| **MBR - ELS of Central Corridor (Zone D)** | | | | | |
| **MBR - ELS of Central Corridor (North) - D1 and D3** | | | | | |
| MBRAF-1740 | MBR - Zone D1 - Strut Installation S6 (S6H,S6I,S6J,S6K) (-10.0mPD) | 8 | 08-Feb-25 | 17-Feb-25 | -283 |
| MBRAF-1750 | MBR - Zone D1 - ELS Excavation (-10.0 to -13.7mPD) | 6 | 18-Feb-25 | 24-Feb-25 | -283 |
| MBRAF-4160 | MBR - Zone D1 - Blinding and waterproofing | 4 | 25-Feb-25 | 28-Feb-25 | -283 |
| MBRAF-3760 | MBR - Zone D1 - Construct partial base slab (-13.55 to -9.5mPD) | 12 | 01-Mar-25 | 14-Mar-25 | -283 |
| MBRAF-4110 | MBR - Zone D3 - ELS Excavation (-10.0 to -13.7mPD) | 7 | 25-Mar-25 | 01-Apr-25 | -314 |
| **MBR - ELS of Central Corridor (Middle) - D2** | | | | | |
| MBRAF-2370 | MBR - Pumping test (Stage 2) dewater to -13.7mPD | 7 | 21-Jan-25 | 28-Jan-25 | -314 |
| MBRAF-1730 | MBR - Zone D1 to 4 - ELS Excavation (-9.0 to -10.55mPD) | 6 | 01-Feb-25 | 07-Feb-25 | -314 |
| MBRAF-3720 | MBR - Zone D2 - ELS Excavation (-10.6 to -13.7mPD) | 7 | 08-Feb-25 | 15-Feb-25 | -314 |
| MBRAF-3970 | MBR - Zone D2 - Plate Load Test PLT-3 (-13.7mPD) | 7 | 17-Feb-25 | 24-Feb-25 | -314 |
| MBRAF-4100 | MBR - Zone D2 - Blinding and waterproofing | 5 | 25-Feb-25 | 01-Mar-25 | -314 |
| MBRAF-3730 | MBR - Zone D2 - Construct partial base slab (-13.55 to -11.5mPD) | 12 | 03-Mar-25 | 15-Mar-25 | -314 |
| MBRAF-3740 | MBR - Zone D2 - Backfill slope and construct concrete blinding (-13.7 to -9.0mPD) | 7 | 17-Mar-25 | 24-Mar-25 | -314 |
| MBRAF-3750 | MBR - Zone D2 - Strut Installation S6 (S6L,S6M,S6N,S6O,S6Q) (-10.1mPD) | 7 | 17-Mar-25 | 24-Mar-25 | -314 |
| **MBR - ELS of Central Corridor (South) - D4** | | | | | |
| MBRAF-3770 | MBR - Zone D4 - ELS Excavation (-10.6 to -13.7mPD) | 5 | 25-Mar-25 | 29-Mar-25 | -312 |
| **Tertriary Treatment System (TTS)** | | | | | |
| **TTS Foundation and ELS** | | | | | |
| **TTS Foundation and ELS Stage 2** | | | | | |
| **TTS Formation Level** | | | | | |
| TTS-2220 | TTS - Granular fill, earth mat and 300mm thk concrete blinding (Stage 2, FG/FH) | 12 | 13-Nov-24 A | 30-Nov-24 A | |
| TTS-2090 | TTS - Plate load test (1no.)(after backfill rockfill) | 8 | 09-Dec-24 A | 14-Dec-24 A | |
| TTS-2230 | TTS - Granular fill and 300mm thk concrete blinding (Stage 3, Zone A) | 8 | 23-Dec-24 A | 17-Jan-25 | -317 |
| TTS-2280 | TTS - Remove S4 (Zone D) | 6 | 24-Dec-24 A | 04-Jan-25 | -300 |
| TTS-2260 | TTS - Remove S4 (Zone B) | 6 | 18-Jan-25 | 24-Jan-25 | -317 |
| TTS-2270 | TTS - Remove S4 (Zone C) | 6 | 18-Jan-25 | 24-Jan-25 | -317 |
| TTS-1440 | TTS - Remove S4 (Zone A) | 6 | 25-Jan-25 | 04-Feb-25 | -291 |
| **TTS Structure** | | | | | |
| **TTS Substructure** | | | | | |
| TTS-1380 | TTS - Box Raft Foundation (-5mPD to -3.42mPD) (Stage 1, FF/FG) | 18 | 25-Jan-25 | 18-Feb-25 | -317 |
| TTS-2240 | TTS - Box Raft Foundation (-5mPD to -3.42mPD) (Stage 2, FH/FC) | 18 | 17-Feb-25 | 08-Mar-25 | -317 |
| TTS-2250 | TTS - Box Raft Foundation (-5mPD to -3.42mPD) (Stage 3, FB/FD) | 18 | 07-Mar-25 | 27-Mar-25 | -317 |
| TTS-2255 | TTS - Box Raft Foundation (-5mPD to -3.42mPD) (Stage 4, FA/FE) | 18 | 26-Mar-25 | 16-Apr-25 | -317 |
| **Zone 3 Construction** | | | | | |
| **Zone 3 North Portion (Z3N)** | | | | | |
| **New Sludge Thickening Building (STB)** | | | | | |
| **STB : Civil and Structural Works** | | | | | |
| **STB : Structure** | | | | | |
| **STB : Structure Zone A** | | | | | |
| **STB : Substructure Zone A** | | | | | |
| Z3S3-6150 | STB - Zone A - Waterproof, backfill and Remove remaining S2 | 5 | 25-Jan-25 | 03-Feb-25 | -65 |
| **STB : Superstructure Zone A** | | | | | |
| Z3S3-6090 | STB - Zone A - Structure (+6.0 to +12.5mPD) First Floor @ +13.5mPD | 10 | 25-Nov-24 A | 14-Dec-24 A | |
| Z3S3-6180 | STB - Zone A - Structure (+13.5 to +18.3mPD) Roof Floor @ +18.3mPD | 9 | 24-Dec-24 A | 06-Jan-25 | -206 |
| Z3S3-3000 | STB - Zone A - Structure (+18.3 to +21.1mPD) and remaining structure | 12 | 07-Jan-25 | 20-Jan-25 | 264 |
| Z3S3-6190 | STB - Zone A - Structure (+12.5 to +13.5mPD) First Floor double slab @ +13.5mPD | 12 | 25-Jan-25 | 11-Feb-25 | -136 |
| **STB : Structure Zone B** | | | | | |




Remaining Level of Ef...
Actual Work
Remaining Work
Critical Remaining Work
Milestone

保華-中國中鐵聯營體
PAUL Y.-CREC JOINT VENTURE

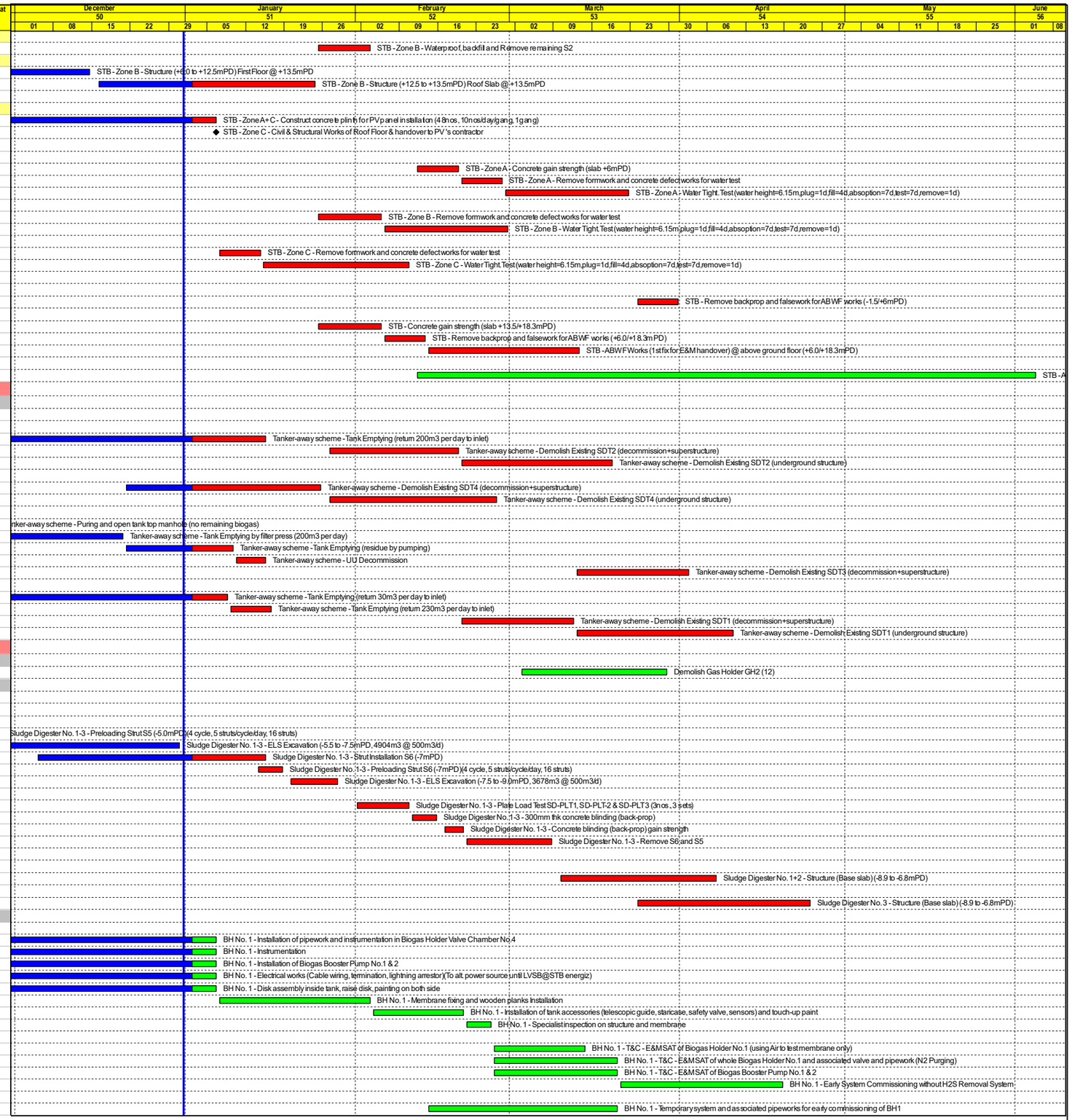
# Contract DC/2019/10 - YLEPP - Main Works for Stage 1
# Monthly Progress Report No. 50- 3MRP (Dec 24)

Project ID : DWPr45_250124
Layout : DC201910 MPR50-3MRP


Monthly Progress Report - 3MRP

| Date | Revision | Checked | Approved |
|---|---|---|---|
| 31-Dec-24 | Rev. 0 | | |

| Activity ID | Activity Name | Orig Dur | Early Start | Early Finish | Total Float |
|---|---|---|---|---|---|
| **STB : Substructure Zone B** | | | | | |
| Z3S3-6300 | STB - Zone B - Waterproof, backfill and Remove remaining S2 | 5 | 25-Jan-25 | 03-Feb-25 | -65 |
| **STB : Superstructure Zone B** | | | | | |
| Z3S3-6250 | STB - Zone B - Structure (+6.0 to +12.5mPD) First Floor @ +13.5mPD | 18 | 28-Nov-24 A | 14-Dec-24 A | |
| Z3S3-6260 | STB - Zone B - Structure (+12.5 to +13.5mPD) Roof Slab @ +13.5mPD | 6 | 16-Dec-24 A | 24-Jan-25 | -136 |
| **STB : Structure Zone C** | | | | | |
| **STB : Superstructure Zone C** | | | | | |
| Z3S3-2720 | STB - Zone A+C - Construct concrete plinth for PV panel installation (48nos, 10nos/day/gang, 1gang) | 12 | 28-Nov-24 A | 06-Jan-25 | -206 |
| Z3S3-2780 | STB - Zone C - Civil & Structural Works of Roof Floor & handover to PV 's contractor | 0 | | 06-Jan-25 | -206 |
| **STB : Water Tightness Test** | | | | | |
| **STB : Water Tightness Test Zone A** | | | | | |
| Z3S3-6310 | STB - Zone A - Concrete gain strength (slab +6mPD) | 7 | 12-Feb-25 | 19-Feb-25 | -136 |
| Z3S3-6320 | STB - Zone A - Remove formwork and concrete defect works for water test | 7 | 20-Feb-25 | 27-Feb-25 | -136 |
| Z3S3-6330 | STB - Zone A - Water Tight Test (water height=6.15m,plug=1d,fill=4d,absoption=7d,test=7d,remove=1d) | 20 | 28-Feb-25 | 22-Mar-25 | -136 |
| **STB : Water Tightness Test Zone B** | | | | | |
| Z3S3-6350 | STB - Zone B - Remove formwork and concrete defect works for water test | 7 | 25-Jan-25 | 05-Feb-25 | -117 |
| Z3S3-6360 | STB - Zone B - Water Tight Test (water height=6.15m,plug=1d,fill=4d,absoption=7d,test=7d,remove=1d) | 20 | 06-Feb-25 | 28-Feb-25 | -117 |
| **STB : Water Tightness Test Zone C** | | | | | |
| Z3S3-6000 | STB - Zone C - Remove formwork and concrete defect works for water test | 7 | 07-Jan-25 | 14-Jan-25 | -101 |
| Z3S3-5200 | STB - Zone C - Water Tight Test (water height=6.15m,plug=1d,fill=4d,absoption=7d,test=7d,remove=1d) | 20 | 15-Jan-25 | 10-Feb-25 | -101 |
| **STB : ABWF** | | | | | |
| **STB : ABWF (-1.5 to +6.0 mPD)** | | | | | |
| Z3S3-5980 | STB - Remove backprop and falsework for ABWF works (-1.5/+6mPD) | 7 | 24-Mar-25 | 31-Mar-25 | -136 |
| **STB : ABWF (+6.0 to +18.3 mPD)** | | | | | |
| Z3S3-6020 | STB - Concrete gain strength (slab +13.5/+18.3mPD) | 7 | 25-Jan-25 | 05-Feb-25 | -98 |
| Z3S3-6010 | STB - Remove backprop and falsework for ABWF works (+6.0/+18.3mPD) | 7 | 06-Feb-25 | 13-Feb-25 | -98 |
| Z3S3-4540 | STB - ABWF Works (1st fix for E&M handover) @ above ground floor (+6.0/+18.3mPD) | 24 | 14-Feb-25 | 13-Mar-25 | -98 |
| **STB : ABWF (above +18.3mPD roof)** | | | | | |
| Z3S3-4560 | STB - ABWF Works @ roof (+18.0/+21.1mPD) | 90 | 12-Feb-25 | 04-Jun-25 | 248 |
| **Zone 3 Middle Portion (Z3M)** | | | | | |
| **Demolition** | | | | | |
| **Existing SDT 1-4** | | | | | |
| **SDT No.2 (Water)** | | | | | |
| Z3S7-2130 | Tanker-away scheme - Tank Emptying (return 200m3 per day to inlet) | 24 | 02-Nov-24 A | 15-Jan-25 | -203 |
| Z3S7-2135 | Tanker-away scheme - Demolish Existing SDT2 (decommission+superstructure) | 18 | 27-Jan-25 | 19-Feb-25 | -212 |
| Z3S7-2030 | Tanker-away scheme - Demolish Existing SDT2 (underground structure) | 24 | 20-Feb-25 | 19-Mar-25 | -212 |
| **SDT No.4 (Sludge)** | | | | | |
| Z3S7-2175 | Tanker-away scheme - Demolish Existing SDT4 (decommission+superstructure) | 18 | 21-Dec-24 A | 25-Jan-25 | -212 |
| Z3S7-2180 | Tanker-away scheme - Demolish Existing SDT4 (underground structure) | 24 | 27-Jan-25 | 26-Feb-25 | -212 |
| **SDT No.3 (Sludge) + Compressor House** | | | | | |
| Z3S7-2190 | Tanker-away scheme - Puring and open tank top manhole (no remaining biogas) | 5 | 22-Nov-24 A | 27-Nov-24 A | |
| Z3S7-2200 | Tanker-away scheme - Tank Emptying by filter press (200m3 per day) | 18 | 28-Nov-24 A | 20-Dec-24 A | |
| Z3S7-2210 | Tanker-away scheme - Tank Emptying (residue by pumping) | 7 | 21-Dec-24 A | 09-Jan-25 | -166 |
| Z3S7-2220 | Tanker-away scheme - UU Decommission | 5 | 10-Jan-25 | 15-Jan-25 | -166 |
| Z3S7-2225 | Tanker-away scheme - Demolish Existing SDT3 (decommission+superstructure) | 18 | 13-Mar-25 | 02-Apr-25 | -212 |
| **SDT No.1 (Water)** | | | | | |
| Z3S7-2240 | Tanker-away scheme - Tank Emptying (return 30m3 per day to inlet) | 60 | 12-Sep-24 A | 08-Jan-25 | -186 |
| Z3S7-2250 | Tanker-away scheme - Tank Emptying (return 230m3 per day to inlet) | 7 | 09-Jan-25 | 16-Jan-25 | -186 |
| Z3S7-2255 | Tanker-away scheme - Demolish Existing SDT1 (decommission+superstructure) | 18 | 20-Feb-25 | 12-Mar-25 | -212 |
| Z3S7-2260 | Tanker-away scheme - Demolish Existing SDT1 (underground structure) | 24 | 13-Mar-25 | 10-Apr-25 | -212 |
| **Zone 3 South Portion (Z3S)** | | | | | |
| **Demolition** | | | | | |
| Z3S4-2000 | Demolish Gas Holder GH2 (12) | 24 | 03-Mar-25* | 29-Mar-25 | 200 |
| **Sludge Digestor No. 1-3 (SD1-3)** | | | | | |
| **SD1-3 : Foundation and ELS** | | | | | |
| **SD1-3 : Excavation and Strut Installation** | | | | | |
| **SD1-3 : ELS** | | | | | |
| Z3S3-5760 | Sludge Digester No. 1-3 - Preloading Strut S5 (-5.0mPD)(4 cycle, 5 struts/cycle/day, 16 struts) | 5 | 25-Nov-24 A | 28-Nov-24 A | |
| Z3S3-3610 | Sludge Digester No. 1-3 - ELS Excavation (-5.5 to -7.5mPD, 4904m3 @ 500m3/d) | 10 | 27-Nov-24 A | 31-Dec-24 A | |
| Z3S3-3620 | Sludge Digester No. 1-3 - Strut Installation S6 (-7mPD) | 24 | 05-Dec-24 A | 15-Jan-25 | -214 |
| Z3S3-5770 | Sludge Digester No. 1-3 - Preloading Strut S6 (-7mPD)(4 cycle, 5 struts/cycle/day, 16 struts) | 5 | 14-Jan-25 | 18-Jan-25 | -214 |
| Z3S3-3630 | Sludge Digester No. 1-3 - ELS Excavation (-7.5 to -9.0mPD, 3678m3 @ 500m3/d) | 8 | 20-Jan-25 | 28-Jan-25 | -214 |
| **SD1-3 : Formation Level** | | | | | |
| Z3S3-5070 | Sludge Digester No. 1-3 - Plate Load Test SD-PLT1, SD-PLT-2 & SD-PLT3 (3nos., 3 sets) | 8 | 01-Feb-25 | 10-Feb-25 | -214 |
| Z3S3-5570 | Sludge Digester No. 1-3 - 300mm thk concrete blinding (back-prop) | 5 | 11-Feb-25 | 15-Feb-25 | -214 |
| Z3S3-5580 | Sludge Digester No. 1-3 - Concrete blinding (back-prop) gain strength | 4 | 17-Feb-25 | 20-Feb-25 | -214 |
| Z3S3-5590 | Sludge Digester No. 1-3 - Remove S6 and S5 | 14 | 21-Feb-25 | 08-Mar-25 | -214 |
| **SD1-3 : Civil and Structural Works** | | | | | |
| **SD1+2 : Structure** | | | | | |
| Z3S3-2270 | Sludge Digester No. 1+2 - Structure (Base slab) (-8.9 to -6.8mPD) | 24 | 10-Mar-25 | 07-Apr-25 | -214 |
| **SD3 : Structure** | | | | | |
| Z3S3-6220 | Sludge Digester No. 3 - Structure (Base slab) (-8.9 to -6.8mPD) | 24 | 24-Mar-25 | 24-Apr-25 | -214 |
| **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 | 06-Jan-25 | 206 |
| ATALZ3BH-1020 | BH No. 1 - Instrumentation | 30 | 08-Jul-24 A | 06-Jan-25 | 206 |
| ATALZ3BH-1030 | BH No. 1 - Installation of Biogas Booster Pump No.1 & 2 | 30 | 08-Jul-24 A | 06-Jan-25 | 206 |
| ATALZ3BH-1040 | BH No. 1 - Electrical works (Cable wiring, termination, lightning arrestor)(To alt. power source until LVSB@STB energiz) | 18 | 08-Jul-24 A | 06-Jan-25 | 206 |
| ATALZ3BH-2485 | BH No. 1 - Disk assembly inside tank, raise disk, painting on both side | 18 | 15-Jul-24 A | 06-Jan-25 | 166 |
| ATALZ3BH-2495 | BH No. 1 - Membrane fixing and wooden planks Installation | 21 | 07-Jan-25 | 03-Feb-25 | 166 |
| ATALZ3BH-2505 | BH No. 1 - Installation of tank accessories (telescopic guide, staricase, safety valve, sensors) and touch-up paint | 15 | 04-Feb-25 | 20-Feb-25 | 166 |
| ATALZ3BH-2515 | BH No. 1 - Specialist inspection on structure and membrane | 4 | 21-Feb-25 | 25-Feb-25 | 166 |
| **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 | 26-Feb-25 | 14-Mar-25 | 166 |
| ATALZ3BH-2090 | BH No. 1 - T&C - E&M SAT of whole Biogas Holder No.1 and associated valve and pipework (N2 Purging) | 20 | 26-Feb-25 | 20-Mar-25 | 166 |
| ATALZ3BH-2100 | BH No. 1 - T&C - E&M SAT of Biogas Booster Pump No.1 & 2 | 20 | 26-Feb-25 | 20-Mar-25 | 166 |
| ATALZ3BH-1050 | BH No. 1 - Early System Commissioning without H2S Removal System | 30 | 21-Mar-25 | 19-Apr-25 | 206 |
| **BH1 : Diversion Works** | | | | | |
| Z3S7-2070 | BH No. 1 - Temporary system and associated pipeworks for early commissioning of BH1 | 30 | 14-Feb-25 | 20-Mar-25 | 166 |




保華-中國中鐵聯營體
PAUL Y.-CREC JOINT VENTURE

Remaining Level of Ef...
Actual Work
Remaining Work
Critical Remaining Work
Milestone

# Contract DC/2019/10 - YLEPP - Main Works for Stage 1
# Monthly Progress Report No. 50- 3MRP (Dec 24)

Project ID : DWPr45_250124
Layout : DC201910 MPR50-3MRP

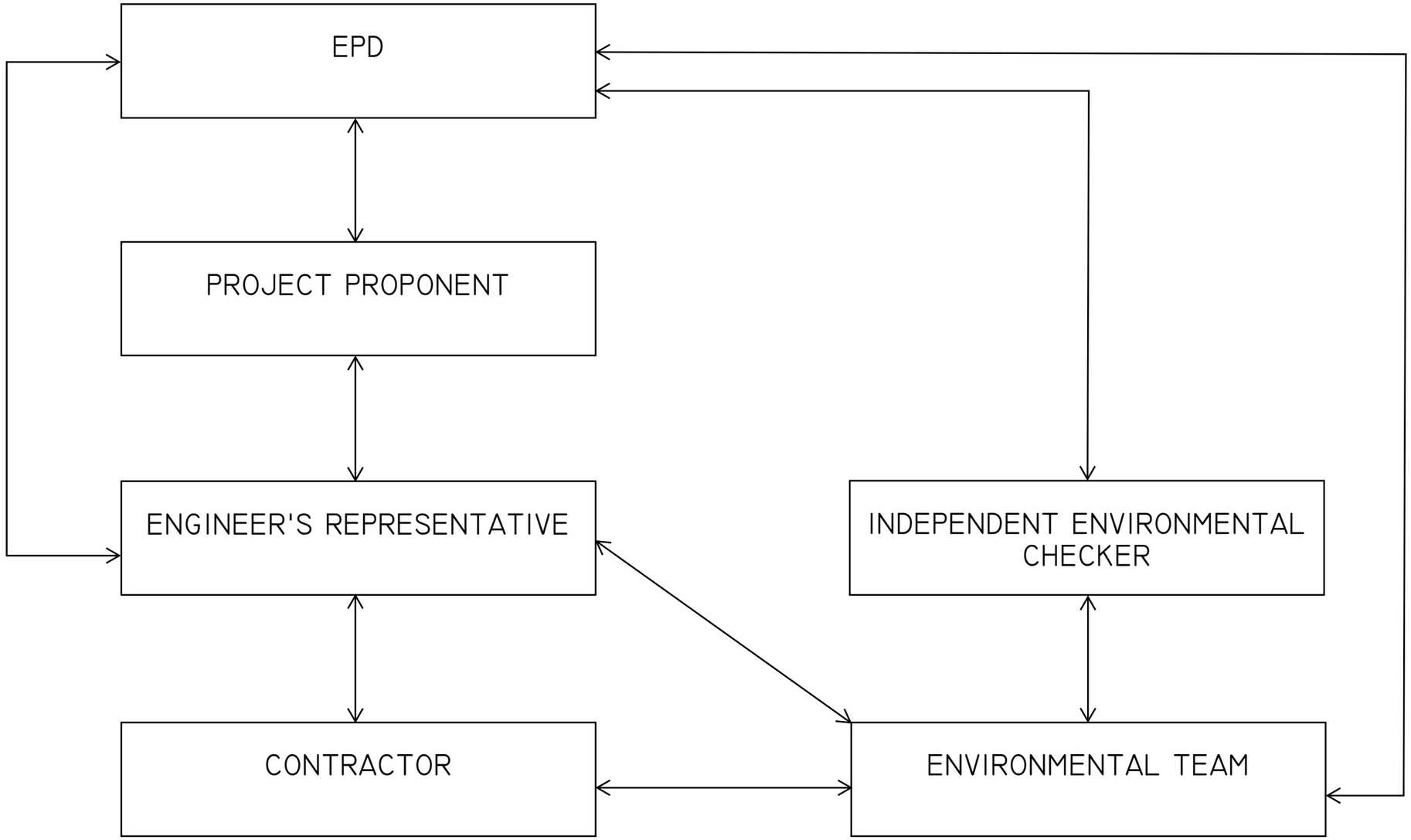

Monthly Progress Report - 3MRP

| Date | Revision | Checked | Approved |
|---|---|---|---|
| 31-Dec-24 | Rev. 0 | | |

# Appendix B
# Project Organization Chart

LEGEND:

LINE OF COMMUNICATION




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

Plot File by: Chanws 5/28/2018
PATH: p:\projects\60505476\drawing\report\EM&A\EM&A_702.dgn

This drawing has been prepared for the use of AECOM's client. It may not be used, modified, reproduced or relied upon by third parties, except as agreed by AECOM or as required by law. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that uses or relies on this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from the stated dimensions.

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
階段

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 ⩽ 384 µg/$m^3$, Action level = (baseline level * 1.3 + Limit level)/2;<br>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<br>(Surface, Middle & Bottom) [2] | Surface & Middle<br>5%-ile of baseline data for surface and middle layer.<br><br>Bottom<br>5%-ile of baseline data for bottom layer. | Surface & Middle<br>4 mg/L or 1%-ile of baseline data for surface and middle layer.<br><br>Bottom<br>2 mg/L or 1%-ile of baseline data for bottom layer. |
| SS in mg/L<br>(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<br>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: | **19-Mar-24** | to | **24-Mar-24** | Next Verification Test Date: | **19-Mar-25** |
| Unit-under-Test- Model No.: | Sibata LD-5R | | | | |
| Unit-under-Test Serial No.: | 882106 | | | | |
| Our Report Refrence No.: | RPT-24-HVS-0067 | | | | |
| Calibration Location: | Emax | | | | |

## Standard Equipment Information

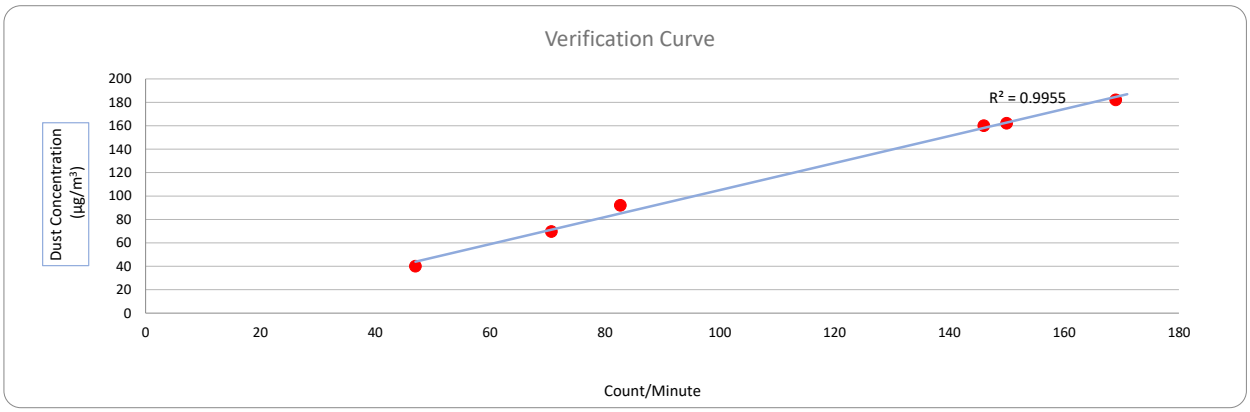
| | | |
|---|---|---|
| Verification Equipment Type: | Tisch TSP HVS | Tisch HVS Calibrator |
| Standard Equipment Model No.: | TE-5170X | TE-5025A |
| Equipment serial no.: | 1049 | 3465 |
| Last Calibration Date: | 19-Mar-24 | 15-Jan-24 |
| Next Calibration Date: | 2-Apr-24 | 15-Jan-25 |

## 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 | 19/03/2024 | 7953.66 | 7956.66 | 180.00 | 27000 | 150 | 162 |
| 2 | 19/03/2024 | 7956.66 | 7959.66 | 180.00 | 26280 | 146 | 160 |
| 3 | 19/03/2024 | 7959.66 | 7962.66 | 180.00 | 30420 | 169 | 182 |
| 4 | 24/03/2024 | 7985.12 | 7988.12 | 180.00 | 8460 | 47 | 40 |
| 5 | 24/03/2024 | 7988.12 | 7991.12 | 180.00 | 14886 | 83 | 92 |
| 6 | 24/03/2024 | 7991.12 | 7994.12 | 180.00 | 12726 | 71 | 70 |

## Linear Regression of y on x

| | | | | | |
|---|---|---|---|---|---|
| Slope, K factor: | **1.1537** | Intercept: | **-10.3266** | *Correlation Coefficient,R: | **0.9977** |
| 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 — Project Technician, Environmental — Date: 29-03-2024

Checked By: Tandy Tse — Senior Consultant, Environmental — Date: 29-03-2024

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

## Information of Calibrated Equipement

| | | | | | |
|---|---|---|---|---|---|
| Verification Test Date: | **19-Mar-24** | to | **24-Mar-24** | Next Verification Test Date: | **19-Mar-25** |
| Unit-under-Test- Model No.: | Sibata LD-5R | | | | |
| Unit-under-Test Serial No.: | 882107 | | | | |
| Our Report Refrence No.: | RPT-24-HVS-0072 | | | | |
| Calibration Location: | Emax | | | | |

## Standard Equipment Information

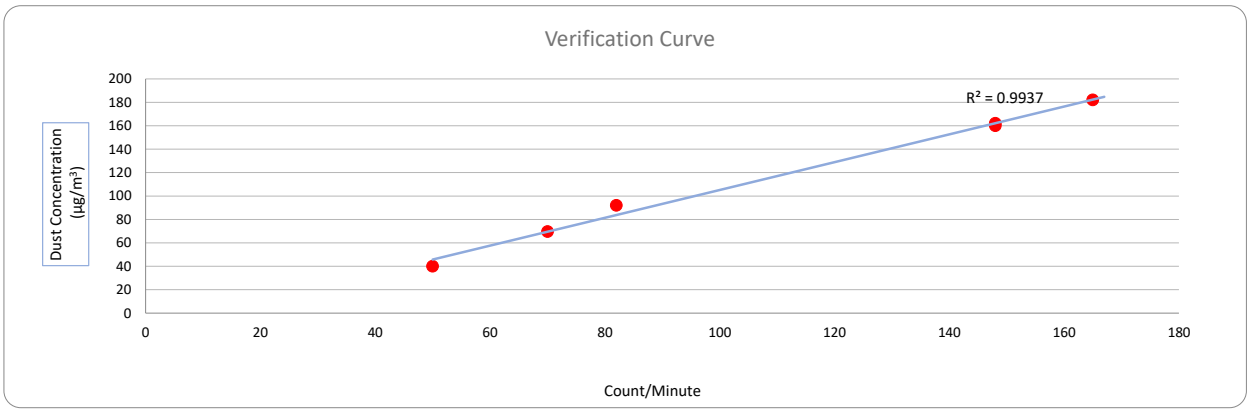
| | | |
|---|---|---|
| Verification Equipment Type: | Tisch TSP HVS | Tisch HVS Calibrator |
| Standard Equipment Model No.: | TE-5170X | TE-5025A |
| Equipment serial no.: | 1049 | 3465 |
| Last Calibration Date: | 19-Mar-24 | 15-Jan-24 |
| Next Calibration Date: | 2-Apr-24 | 15-Jan-25 |

## 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 | 19/03/2024 | 7953.66 | 7956.66 | 180.00 | 26640 | 148 | 162 |
| 2 | 19/03/2024 | 7956.66 | 7959.66 | 180.00 | 26640 | 148 | 160 |
| 3 | 19/03/2024 | 7959.66 | 7962.66 | 180.00 | 29700 | 165 | 182 |
| 4 | 24/03/2024 | 7985.12 | 7988.12 | 180.00 | 9000 | 50 | 40 |
| 5 | 24/03/2024 | 7988.12 | 7991.12 | 180.00 | 14760 | 82 | 92 |
| 6 | 24/03/2024 | 7991.12 | 7994.12 | 180.00 | 12600 | 70 | 70 |

## Linear Regression of y on x

| | | | | | |
|---|---|---|---|---|---|
| Slope, K factor: | **1.1878** | Intercept: | **-13.6322** | *Correlation Coefficient,R: | **0.9969** |
| 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: 29-03-2024
Project Technician, Environmental

Checked By: Tandy Tse — Date: 29-03-2024
Senior Consultant, Environmental

# Noise Quality Monitoring Equipment

# *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***

***Date of issue:*** **24 July 2024**

*Certificate No.: APJ23-154-CC002*



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.



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.:*** | ***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
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 | 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.

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 Meter*** |
| ***Manufacturer:*** | ***NTi Audio*** |
| ***Type No.:*** | ***XL2 (Serial No.: A2A-09696-E0)*** |
| ***Microphone:*** | ***ACO 7052 (Serial No.:73780)*** |
| ***Preamplifier:*** | ***NTi Audio MA220 (Serial No.:6282)*** |

***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 – 8kHz)**
☐ **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: 28 February 2024**

**Date of calibration: 02 March 2024**

**Date of NEXT calibration: 01 March 2025**

***Calibrated by:*** _____ ***Certified by:*** _____

***Calibration Technician*** ***Mr. Ng Yan Wa***
***Laboratory Manager***

***Date of issue:*** **02 March 2024**

*Certificate No.: APJ23-146-CC003*



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:** 22.9 °C
**Air Pressure:** 1005 hPa
**Relative Humidity:** 61.2 %

## 3. *Calibration Equipment:*

| | Type | Serial No. | Calibration Report Number | Traceable to |
|---|---|---|---|---|
| **Multifunction Calibrator** | B&K 4226 | 2288467 | AV220061 | 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 | 94.1 | ±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 | 94.1 | Ref |
| | | | 104 | | 104.1 | ±0.3 |
| | | | 114 | | 114.1 | ±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 | 94.1 | Ref |
| | | Slow | | | 94.1 | ±0.3 |



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

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 | 94.0 | ±2.0 |
| | | | | 63 | 94.1 | ±1.5 |
| | | | | 125 | 94.1 | ±1.5 |
| | | | | 250 | 94.1 | ±1.4 |
| | | | | 500 | 94.1 | ±1.4 |
| | | | | 1000 | 94.1 | Ref |
| | | | | 2000 | 94.4 | ±1.6 |
| | | | | 4000 | 95.2 | ±1.6 |
| | | | | 8000 | 94.5 | +2.1; -3.1 |

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 | 54.6 | -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 | 90.9 | -3.2 ±1.4 |
| | | | | 1000 | 94.1 | Ref |
| | | | | 2000 | 95.6 | +1.2 ±1.6 |
| | | | | 4000 | 96.2 | +1.0 ±1.6 |
| | | | | 8000 | 93.4 | -1.1+2.1; -3.1 |

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 | 91.0 | -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 | 94.2 | -0.0 ±1.4 |
| | | | | 1000 | 94.1 | Ref |
| | | | | 2000 | 94.2 | -0.2 ±1.6 |
| | | | | 4000 | 94.4 | -0.8 ±1.6 |
| | | | | 8000 | 91.5 | –3.0 +2.1: –3.1 |



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

## 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 | ± 0.05 |
| | 250 Hz | ± 0.05 |
| | 500 Hz | ± 0.05 |
| | 1000 Hz | ± 0.05 |
| | 2000 Hz | ± 0.05 |
| | 4000 Hz | ± 0.05 |
| | 8000 Hz | ± 0.10 |
| 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.



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 Meter*** |
| ***Manufacturer:*** | ***NTi Audio*** |
| ***Type No.:*** | ***XL2 (Serial No.: A2A-13548-E0)*** |
| ***Microphone:*** | ***ACO 7052 (Serial No.:84474)*** |
| ***Preamplifier:*** | ***NTi Audio MA220 (Serial No.:7989)*** |

***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 – 8kHz)**
☐ **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: 28 February 2024**

**Date of calibration: 02 March 2024**

**Date of NEXT calibration: 01 March 2025**

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

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

***Date of issue:*** **02 March 2024**

*Certificate No.: APJ23-146-CC004*



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:** 22.4 °C
**Air Pressure:** 1005 hPa
**Relative Humidity:** 59.6 %

## 3. *Calibration Equipment:*

| | Type | Serial No. | Calibration Report Number | Traceable to |
|---|---|---|---|---|
| **Multifunction Calibrator** | B&K 4226 | 2288467 | AV220061 | 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 | 94.1 | ±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 | 94.1 | Ref |
| | | | 104 | | 104.2 | ±0.3 |
| | | | 114 | | 114.2 | ±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 | 94.1 | Ref |
| | | Slow | | | 94.2 | ±0.3 |



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

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 | 94.1 | ±2.0 |
| | | | | 63 | 94.2 | ±1.5 |
| | | | | 125 | 94.2 | ±1.5 |
| | | | | 250 | 94.1 | ±1.4 |
| | | | | 500 | 94.2 | ±1.4 |
| | | | | 1000 | 94.1 | Ref |
| | | | | 2000 | 94.3 | ±1.6 |
| | | | | 4000 | 94.8 | ±1.6 |
| | | | | 8000 | 93.8 | +2.1; -3.1 |

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 | 68.0 | -26.2 ±1.5 |
| | | | | 125 | 78.1 | -16.1 ±1.5 |
| | | | | 250 | 85.5 | -8.6 ±1.4 |
| | | | | 500 | 91.0 | -3.2 ±1.4 |
| | | | | 1000 | 94.1 | Ref |
| | | | | 2000 | 95.5 | +1.2 ±1.6 |
| | | | | 4000 | 95.8 | +1.0 ±1.6 |
| | | | | 8000 | 92.7 | -1.1+2.1; -3.1 |

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 | 91.1 | -3.0 ±2.0 |
| | | | | 63 | 93.3 | -0.8 ±1.5 |
| | | | | 125 | 94.0 | -0.2 ±1.5 |
| | | | | 250 | 94.1 | -0.0 ±1.4 |
| | | | | 500 | 94.2 | -0.0 ±1.4 |
| | | | | 1000 | 94.1 | Ref |
| | | | | 2000 | 94.2 | -0.2 ±1.6 |
| | | | | 4000 | 94.0 | -0.8 ±1.6 |
| | | | | 8000 | 90.8 | –3.0 +2.1: –3.1 |



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

## 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 | ± 0.05 |
| | 63 Hz | ± 0.05 |
| | 125 Hz | ± 0.05 |
| | 250 Hz | ± 0.05 |
| | 500 Hz | ± 0.05 |
| | 1000 Hz | ± 0.05 |
| | 2000 Hz | ± 0.05 |
| | 4000 Hz | ± 0.05 |
| | 8000 Hz | ± 0.10 |
| 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.



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 Meter*** |
| ***Manufacturer:*** | ***NTi Audio*** |
| ***Type No.:*** | ***XL2 (Serial No.: A2A-13661-E0)*** |
| ***Microphone:*** | ***ACO 7052 (Serial No.:84464)*** |
| ***Preamplifier:*** | ***NTi Audio MA220 (M2211) (Serial No.:5287)*** |

## *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 – 8kHz)**
☐ **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: 12 August 2024**

**Date of calibration: 13 August 2024**

**Date of NEXT calibration: 12 August 2025**

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

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

***Date of issue:*** **13 August 2024**

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:** | 23.3 °C |
| **Air Pressure:** | 1006 hPa |
| **Relative Humidity:** | 62.3 % |

## 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 | 94.1 | ±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 | | 104.1 | ±0.3 |
| | | | 114 | | 114.1 | ±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 | | | 94.1 | ±0.3 |



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

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 | 94.1 | ±2.0 |
| | | | | 63 | 94.1 | ±1.5 |
| | | | | 125 | 94.1 | ±1.5 |
| | | | | 250 | 94.0 | ±1.4 |
| | | | | 500 | 94.1 | ±1.4 |
| | | | | 1000 | 94.1 | Ref |
| | | | | 2000 | 94.4 | ±1.6 |
| | | | | 4000 | 95.0 | ±1.6 |
| | | | | 8000 | 94.5 | +2.1; -3.1 |

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 | 77.9 | -16.1 ±1.5 |
| | | | | 250 | 85.4 | -8.6 ±1.4 |
| | | | | 500 | 90.9 | -3.2 ±1.4 |
| | | | | 1000 | 94.1 | Ref |
| | | | | 2000 | 95.6 | +1.2 ±1.6 |
| | | | | 4000 | 96.0 | +1.0 ±1.6 |
| | | | | 8000 | 93.4 | -1.1+2.1; -3.1 |

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 | 91.1 | -3.0 ±2.0 |
| | | | | 63 | 93.3 | -0.8 ±1.5 |
| | | | | 125 | 93.9 | -0.2 ±1.5 |
| | | | | 250 | 94.0 | -0.0 ±1.4 |
| | | | | 500 | 94.1 | -0.0 ±1.4 |
| | | | | 1000 | 94.1 | Ref |
| | | | | 2000 | 94.2 | -0.2 ±1.6 |
| | | | | 4000 | 94.2 | -0.8 ±1.6 |
| | | | | 8000 | 91.5 | –3.0 +2.1: –3.1 |



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

## 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 | ± 0.10 |
| | 250 Hz | ± 0.05 |
| | 500 Hz | ± 0.05 |
| | 1000 Hz | ± 0.05 |
| | 2000 Hz | ± 0.05 |
| | 4000 Hz | ± 0.05 |
| | 8000 Hz | ± 0.10 |
| 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.



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-BD120079
**Date of Issue** : 23 December 2024


## PART A - CUSTOMER INFORMATION

Acuity Sustainability Consulting Limited
Unit E, 12/F, Ford Glory Plaza 37-39 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong

## PART B - SAMPLE INFORMATION

| | |
|---|---|
| Name of Equipment : | YSI ProDSS Multi Parameters |
| Manufacturer : | YSI |
| Serial Number : | 22C106561 |
| Date of Received : | 18 December 2024 |
| Date of Calibration : | 20 December 2024 |
| Date of Next Calibration : | 19 March 2025 |

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

## PART D - CALIBRATION RESULT

### ( 1 ) pH value

| Target ( pH unit ) | Display Reading ( pH unit ) | Tolerance | Result |
|---|---|---|---|
| 4.00 | 4.03 | 0.03 | Satisfactory |
| 7.42 | 7.39 | -0.03 | Satisfactory |
| 10.01 | 9.97 | -0.04 | Satisfactory |

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

### ( 2 ) Temperature

| Reading of Ref. thermometer ( °C ) | Display Reading ( °C ) | Tolerance | Result |
|---|---|---|---|
| 18.5 | 17.8 | -0.7 | Satisfactory |
| 21.0 | 20.8 | -0.2 | Satisfactory |
| 36.0 | 36.0 | 0.0 | Satisfactory |

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

### ( 3 ) Salinity

| Expected Reading ( g/L ) | Display Reading ( g/L ) | Tolerance ( % ) | Result |
|---|---|---|---|
| 10 | 10.15 | 1.50 | Satisfactory |
| 20 | 20.91 | 4.55 | Satisfactory |
| 30 | 31.93 | 6.43 | Satisfactory |

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

--- CONTINUED ON NEXT PAGE ---

**AUTHORIZED SIGNATORY:**

FUNG Yuen-ching
Laboratory Manager

This report shall not be reproduced unless with prior written approval from this laboratory

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-BD120079
**Date of Issue** : 23 December 2024


**( 4 ) Dissolved oxygen**

| Expected Reading ( mg/L ) | Display Reading ( mg/L ) | Tolerance | Result |
|---|---|---|---|
| 9.10 | 9.08 | -0.02 | Satisfactory |
| 6.87 | 6.51 | -0.36 | Satisfactory |
| 4.61 | 4.11 | -0.50 | Satisfactory |
| 0.74 | 0.38 | -0.36 | Satisfactory |

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

**( 5 ) Turbidity**

| Expected Reading ( NTU ) | Display Reading ( NTU ) | Tolerance [a] | Result |
|---|---|---|---|
| 0 | 0.39 | -- | Satisfactory |
| 10 | 10.15 | 1.5 | Satisfactory |
| 20 | 19.75 | -1.3 | Satisfactory |
| 100 | 97.55 | -2.5 | Satisfactory |
| 800 | 753.00 | -5.9 | Satisfactory |

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

[a] For 0 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 ---

This report shall not be reproduced unless with prior written approval from this laboratory

# 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 (January 2025)

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | 1 | 2<br>**WQM**<br>Mid Flood (10:43)<br>Mid Ebb (15:30) | 3 | 4<br>**WQM, AQM**<br>Mid Flood (11:57)<br>Mid Ebb (17:15) |
| 5 | 6 | 7<br>**WQM, EMB** (Day)<br>Mid Flood (13:31)<br>Mid Ebb (09:32) | 8 | 9<br>**WQM**<br>Mid Flood (16:40)<br>Mid Ebb (09:03) | 10<br>**AQM, NM** | 11<br>**WQM**<br>Mid Flood (16:35)<br>Mid Ebb (11:55) |
| 12 | 13 | 14<br>**WQM**<br>Mid Flood (09:15)<br>Mid Ebb (13:55) | 15<br>**ANRM** | 16<br>**WQM, AQM, NM**<br>Mid Flood (10:24)<br>Mid Ebb (15:11) | 17 | 18<br>**WQM**<br>Mid Flood (11:18)<br>Mid Ebb (16:34) |
| 19 | 20 | 21<br>**WQM**<br>Mid Flood (12:22)<br>Mid Ebb (18:35) | 22<br>**AQM, NM** | 23<br>**WQM**<br>Mid Flood (13:34)<br>Mid Ebb (09:24) | 24 | 25<br>**WQM**<br>Mid Flood (09:28)<br>Mid Ebb (11:28) |
| 26 | 27 | 28<br>**WQM, AQM, NM**<br>Mid Flood (08:36)<br>Mid Ebb (13:24) | 29 | 30<br>**WQM**<br>Mid Flood (09:37)<br>Mid Ebb (14:42) | 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 (February 2025)

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | | 1<br>**WQM**<br>Mid Flood (08:01)<br>Mid Ebb (13:41) |
| 2 | 3<br>**AQM, NM** | 4<br>**WQM**<br>Mid Flood (10:30)<br>Mid Ebb (15:31) | 5<br>**AQM, EMB (Day)** | 6<br>**WQM**<br>Mid Flood (12:55)<br>Mid Ebb (16:59) | 7 | 8<br>**WQM**<br>Mid Flood (17:22)<br>Mid Ebb (09:56) |
| 9 | 10 | 11<br>**WQM, AQM, NM**<br>Mid Flood (17:10)<br>Mid Ebb (09:55) | 12 | 13<br>**WQM**<br>Mid Flood (17:39)<br>Mid Ebb (11:40) | 14 | 15<br>**WQM**<br>Mid Flood (09:48)<br>Mid Ebb (13:16) |
| 16 | 17<br>**AQM, NM, ANRM, EMB** (Night time) | 18<br>**WQM**<br>Mid Flood (10:32)<br>Mid Ebb (15:12) | 19 | 20<br>**WQM**<br>Mid Flood (12:19)<br>Mid Ebb (16:57) | 21 | 22<br>**WQM, AQM**<br>Mid Flood (14:36)<br>Mid Ebb (09:52) |
| 23 | 24 | 25<br>**WQM**<br>Mid Flood (16:15)<br>Mid Ebb (09:45) | 26 | 27<br>**WQM**<br>Mid Flood (17:25)<br>Mid Ebb (11:56) | 28<br>**AQM, NM** | |

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 (March 2025)

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | | 1<br>**WQM**<br>Mid Flood (10:25)<br>Mid Ebb (16:20) |
| 2 | 3 | 4<br>**WQM**<br>Mid Flood (10:17)<br>Mid Ebb (15:53) | 5 | 6<br>**WQM, AQM, NM**<br>Mid Flood (16:47)<br>Mid Ebb (08:40) | 7 | 8<br>**WQM**<br>Mid Flood (18:30)<br>Mid Ebb (12:09) |
| 9 | 10 | 11<br>**WQM**<br>Mid Flood (18:20)<br>Mid Ebb (11:06) | 12<br>**ANRM, AQM, NM** | 13<br>**WQM**<br>Mid Flood (16:42)<br>Mid Ebb (12:31) | 24 | 15<br>**WQM**<br>Mid Flood (10:06)<br>Mid Ebb (13:53) |
| 16 | 17 | 18<br>**WQM, AQM, NM**<br>Mid Flood (10:56)<br>Mid Ebb (16:14) | 19<br>**EMB** (Day) | 20<br>**WQM**<br>Mid Flood (17:10)<br>Mid Ebb (09:24) | 21 | 22<br>**WQM**<br>Mid Flood (18:30)<br>Mid Ebb (09:02) |
| 23 | 24<br>**AQM, NM** | 25<br>**WQM**<br>Mid Flood (17:32)<br>Mid Ebb (10:50) | 26 | 27<br>**WQM**<br>Mid Flood (10:56)<br>Mid Ebb (16:14) | 28 | 29<br>**WQM, AQM**<br>Mid Flood (17:10)<br>Mid Ebb (09:24) |
| 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**

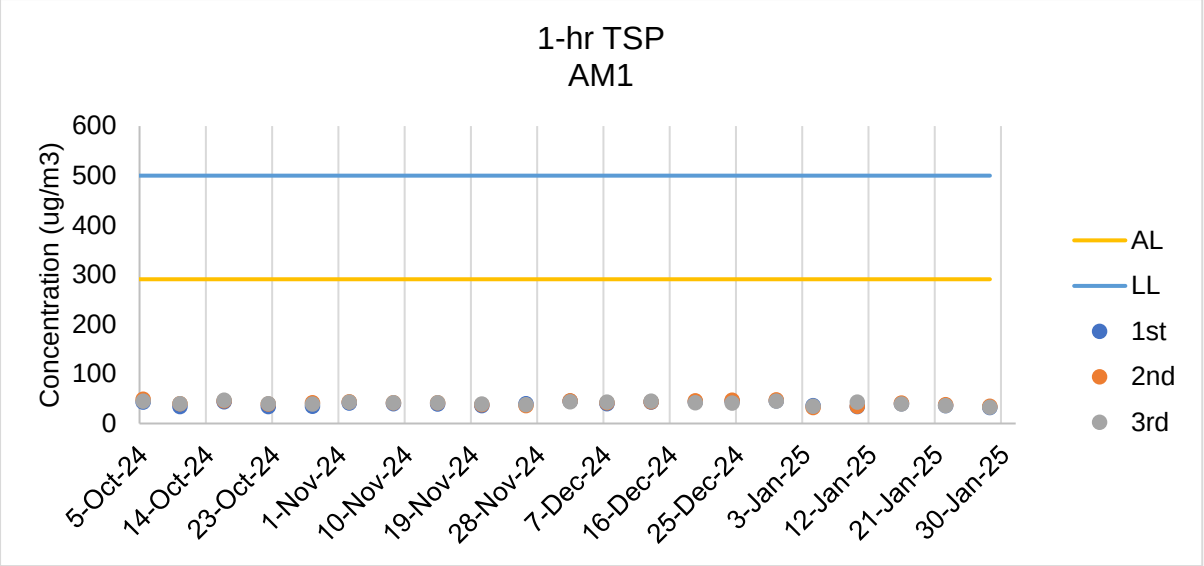
**AM1 - Topfine Machinery (China) Co. Ltd.**

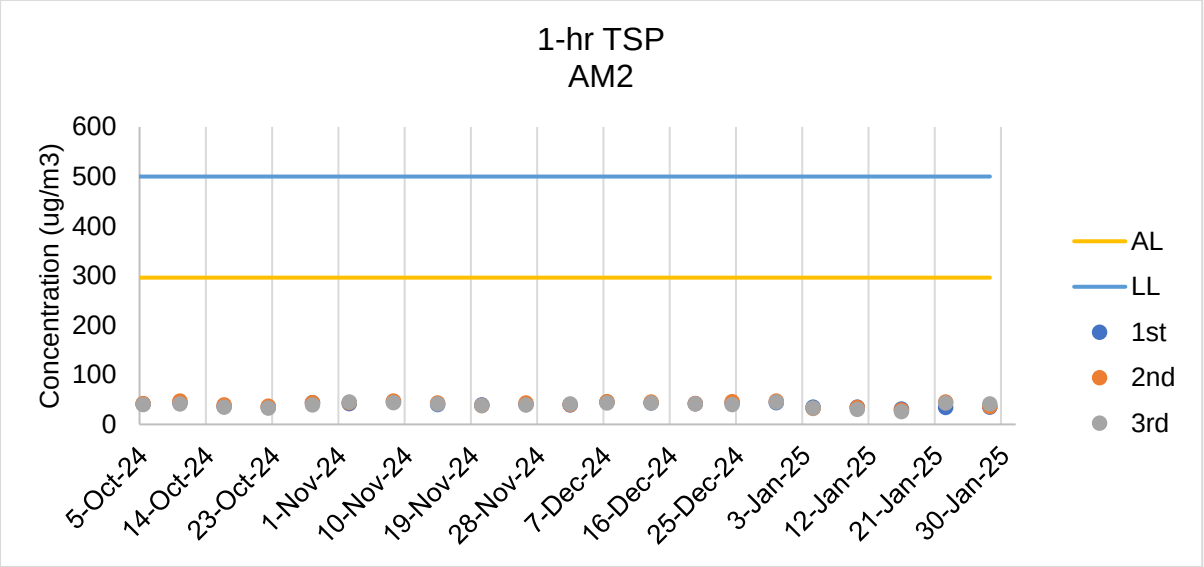
| Date | Weather Condition | Start Time | 1-hour TSP (µg/m³) 1st Measurement | 2nd Measurement | 3rd Measurement | Action Level (ug/m$^3$) | Limit Level (ug/m$^3$) |
|---|---|---|---|---|---|---|---|
| 4/1/2025 | Fine | 8:23 | 36 | 32 | 35 | 291 | 500 |
| 10/1/2025 | Fine | 8:03 | 34 | 35 | 43 | | |
| 16/1/2025 | Fine | 8:45 | 40 | 41 | 39 | | |
| 22/1/2025 | Fine | 8:33 | 36 | 38 | 36 | | |
| 28/1/2025 | Fine | 8:23 | 32 | 35 | 33 | | |
| | | Min | 32 | | | | |
| | | Max | 43 | | | | |
| | | Average | 36 | | | | |

**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$^3$) |
|---|---|---|---|---|---|---|---|
| 4/1/2025 | Fine | 13:10 | 35 | 32 | 33 | 296 | 500 |
| 10/1/2025 | Fine | 13:09 | 35 | 34 | 30 | | |
| 16/1/2025 | Fine | 13:08 | 31 | 29 | 26 | | |
| 22/1/2025 | Fine | 13:33 | 34 | 45 | 43 | | |
| 28/1/2025 | Fine | 13:59 | 35 | 36 | 41 | | |
| | | Min | 26 | | | | |
| | | Max | 45 | | | | |
| | | Average | 35 | | | | |

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) |
|---|---|---|---|---|---|---|---|
| 10/1/2025 | 10:04 | 60.1 | 61.3 | 57.4 | 1.1 | sunny | 75 |
| 16/1/2025 | 10:48 | 59.3 | 60.4 | 57.5 | 0.5 | sunny | 75 |
| 22/1/2025 | 10:31 | 57.5 | 63.4 | 56.6 | 1.6 | sunny | 75 |
| 28/1/2025 | 10:20 | 60.2 | 62.9 | 56.3 | 1.4 | sunny | 75 |
| | **Max** | 60.2 | | | | | |
| | **Min** | 57.5 | | | | | |

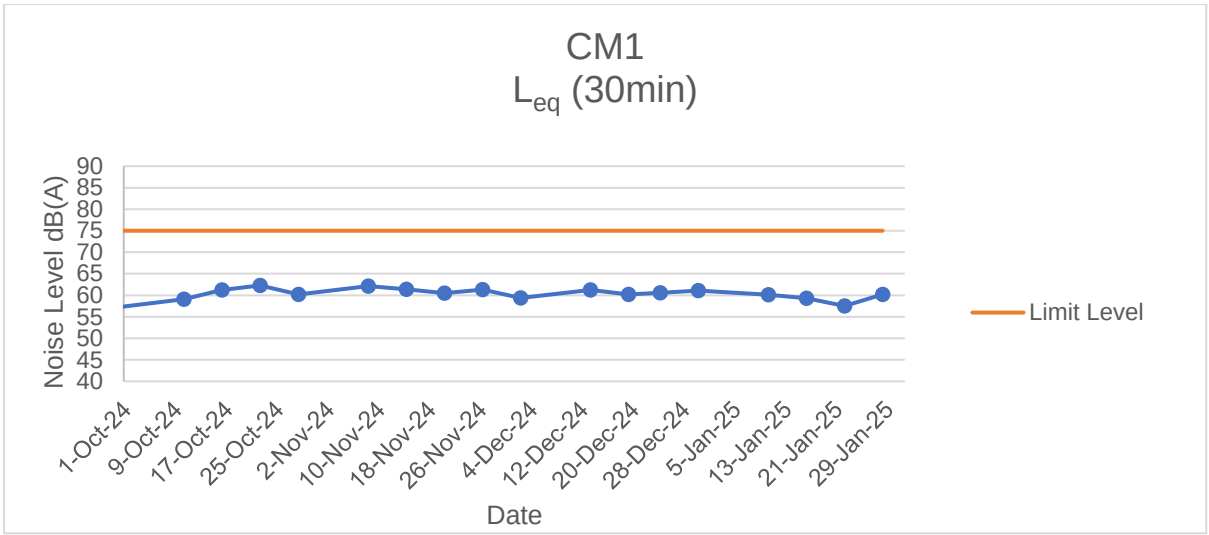
**CM2 - Squatter house to the west of YLSTW**

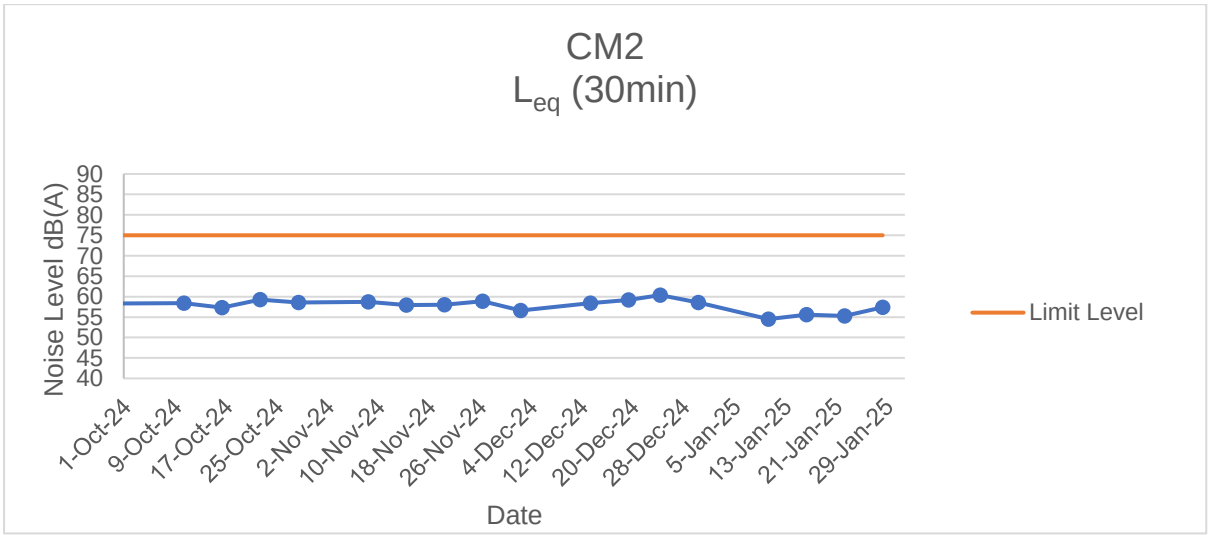
| Date | Start Time | $L_{eq}$ 30min dB(A) | $L_{10}$ dB(A) | $L_{90}$ dB(A) | Wind Speed (m/s) | Weather | Limit Level dB(A) |
|---|---|---|---|---|---|---|---|
| 10/1/2025 | 13:07 | 54.5 | 55.6 | 53.4 | 0.7 | sunny | 75 |
| 16/1/2025 | 13:05 | 55.6 | 56.4 | 54.1 | 0.6 | sunny | 75 |
| 22/1/2025 | 13:30 | 55.3 | 56.6 | 54.3 | 0.2 | sunny | 75 |
| 28/1/2025 | 13:57 | 57.4 | 58.4 | 55.3 | 0.7 | sunny | 75 |
| | **Max** | 57.4 | | | | | |
| | **Min** | 54.5 | | | | | |

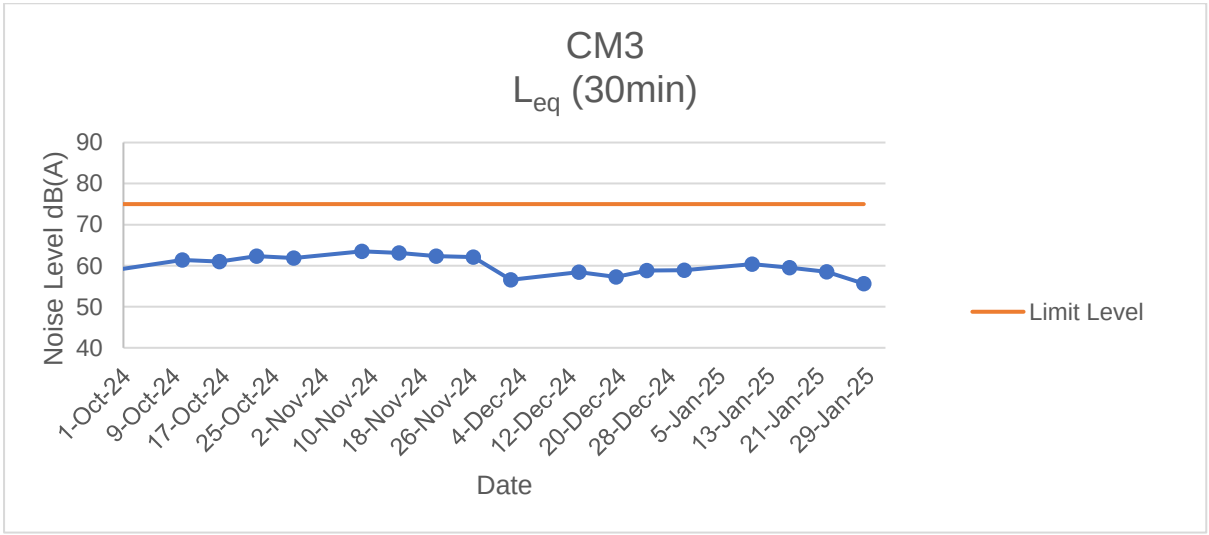
**CM3 - Squatter house to the east of YLSTW**

| 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) |
|---|---|---|---|---|---|---|---|
| 10/1/2025 | 8:34 | 60.4 | 61.5 | 56.0 | 0.8 | sunny | 75 |
| 16/1/2025 | 9:18 | 59.5 | 60.4 | 55.0 | 0.6 | sunny | 75 |
| 22/1/2025 | 9:01 | 58.5 | 59.9 | 56.6 | 0.4 | sunny | 75 |
| 28/1/2025 | 8:50 | 55.6 | 58.8 | 56.4 | 1.2 | sunny | 75 |
| | **Max** | 60.4 | | | | | |
| | **Min** | 55.6 | | | | | |

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 | 2/1/2025 | Mid-Flood | Sunny | Low | 15:00 | 2.7 | M | 1.35 | 1 | 0.074 | 176.906 | 7.2 | 7.19 | 2.83 | 2.79 | 22.1 | 22.10 | 37.0 | 36.30 | 2.78 | 2.73 | 21.67 | 21.75 | 57 | 51 |
| M1 | 2/1/2025 | Mid-Flood | Sunny | Low | 15:00 | 2.7 | M | 1.35 | 2 | | | 7.18 | | 2.75 | | 22.1 | | 35.6 | | 2.68 | | 21.83 | | 44 | |
| M2 | 2/1/2025 | Mid-Flood | Sunny | Low | 15:28 | 2.4 | M | 1.20 | 1 | 0.093 | 182.621 | 7.15 | 7.15 | 2.75 | 2.75 | 22.1 | 22.15 | 37.5 | 37.05 | 2.82 | 2.79 | 21.87 | 22.045 | 46 | 45 |
| M2 | 2/1/2025 | Mid-Flood | Sunny | Low | 15:28 | 2.4 | M | 1.20 | 2 | | | 7.14 | | 2.75 | | 22.2 | | 36.6 | | 2.75 | | 22.22 | | 43 | |
| M3 | 2/1/2025 | Mid-Flood | Sunny | Low | 15:44 | 2.1 | M | 1.05 | 1 | 0.09 | 186.473 | 7.22 | 7.23 | 3.19 | 3.17 | 22.1 | 22.10 | 48.8 | 49.35 | 3.67 | 3.71 | 30.93 | 30.715 | 23 | 24 |
| M3 | 2/1/2025 | Mid-Flood | Sunny | Low | 15:44 | 2.1 | M | 1.05 | 2 | | | 7.24 | | 3.15 | | 22.1 | | 49.9 | | 3.75 | | 30.5 | | 25 | |
| M1 | 2/1/2025 | Mid-Ebb | Sunny | Low | 10:41 | 2.6 | M | 1.30 | 1 | 0.075 | 330.581 | 7.18 | 7.19 | 2.71 | 2.72 | 21.8 | 21.85 | 34.7 | 34.85 | 2.61 | 2.62 | 19.86 | 19.87 | 22 | 23 |
| M1 | 2/1/2025 | Mid-Ebb | Sunny | Low | 10:41 | 2.6 | M | 1.30 | 2 | | | 7.19 | | 2.73 | | 21.9 | | 35.0 | | 2.63 | | 19.88 | | 24 | |
| M2 | 2/1/2025 | Mid-Ebb | Sunny | Low | 10:13 | 2.2 | M | 1.10 | 1 | 0.061 | 328.048 | 7.2 | 7.21 | 2.67 | 2.66 | 21.8 | 21.85 | 33.5 | 33.75 | 2.52 | 2.54 | 19.07 | 19.155 | 26 | 25 |
| M2 | 2/1/2025 | Mid-Ebb | Sunny | Low | 10:13 | 2.2 | M | 1.10 | 2 | | | 7.22 | | 2.65 | | 21.9 | | 34.0 | | 2.56 | | 19.24 | | 24 | |
| M3 | 2/1/2025 | Mid-Ebb | Sunny | Low | 10:55 | 2 | M | 1.00 | 1 | 0.076 | 314.009 | 7.19 | 7.19 | 3.30 | 3.31 | 21.8 | 21.80 | 48.5 | 48.90 | 3.65 | 3.68 | 29.69 | 29.5 | 44 | 50 |
| M3 | 2/1/2025 | Mid-Ebb | Sunny | Low | 10:55 | 2 | M | 1.00 | 2 | | | 7.18 | | 3.31 | | 21.8 | | 49.3 | | 3.71 | | 29.31 | | 56 | |

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 | 4/1/2025 | Mid-Flood | Cloudy | Low | 16:45 | 2.6 | M | 1.30 | 1 | 0.095 | 190.857 | 7.19 | 7.20 | 2.72 | 2.69 | 21.0 | 21.00 | 33.8 | 34.40 | 2.54 | 2.59 | 18.69 | 18.8 | 43 | 45 |
| M1 | 4/1/2025 | Mid-Flood | Cloudy | Low | 16:45 | 2.6 | M | 1.30 | 2 | | | 7.2 | | 2.66 | | 21 | | 35.0 | | 2.63 | | 18.91 | | 47 | |
| M2 | 4/1/2025 | Mid-Flood | Cloudy | Low | 17:15 | 2.4 | M | 1.20 | 1 | 0.079 | 177.967 | 7.18 | 7.19 | 2.80 | 2.83 | 21.0 | 21.00 | 35.6 | 35.75 | 2.68 | 2.69 | 19.94 | 19.845 | 28 | 28 |
| M2 | 4/1/2025 | Mid-Flood | Cloudy | Low | 17:15 | 2.4 | M | 1.20 | 2 | | | 7.2 | | 2.85 | | 21 | | 35.9 | | 2.7 | | 19.75 | | 28 | |
| M3 | 4/1/2025 | Mid-Flood | Cloudy | Low | 17:28 | 2.1 | M | 1.05 | 1 | 0.079 | 189.589 | 7.14 | 7.14 | 3.31 | 3.35 | 21.0 | 21.00 | 48.1 | 47.25 | 3.62 | 3.56 | 26.68 | 26.58 | 27 | 32 |
| M3 | 4/1/2025 | Mid-Flood | Cloudy | Low | 17:28 | 2.1 | M | 1.05 | 2 | | | 7.13 | | 3.38 | | 21 | | 46.4 | | 3.49 | | 26.48 | | 36 | |
| M1 | 4/1/2025 | Mid-Ebb | Cloudy | Low | 11:59 | 2.5 | M | 1.25 | 1 | 0.079 | 326.788 | 7.13 | 7.13 | 2.69 | 2.67 | 21.4 | 21.45 | 36.6 | 37.30 | 2.75 | 2.81 | 19.94 | 19.97 | 26 | 27 |
| M1 | 4/1/2025 | Mid-Ebb | Cloudy | Low | 11:59 | 2.5 | M | 1.25 | 2 | | | 7.12 | | 2.64 | | 21.5 | | 38.0 | | 2.86 | | 20 | | 27 | |
| M2 | 4/1/2025 | Mid-Ebb | Cloudy | Low | 11:30 | 2.3 | M | 1.15 | 1 | 0.069 | 314.104 | 7.2 | 7.20 | 2.71 | 2.67 | 21.4 | 21.40 | 35.1 | 34.70 | 2.64 | 2.61 | 19.56 | 19.36 | 23 | 24 |
| M2 | 4/1/2025 | Mid-Ebb | Cloudy | Low | 11:30 | 2.3 | M | 1.15 | 2 | | | 7.19 | | 2.63 | | 21.4 | | 34.3 | | 2.58 | | 19.16 | | 25 | |
| M3 | 4/1/2025 | Mid-Ebb | Cloudy | Low | 12:14 | 2 | M | 1.00 | 1 | 0.058 | 333.25 | 7.2 | 7.20 | 3.34 | 3.38 | 21.4 | 21.45 | 48.1 | 48.85 | 3.62 | 3.68 | 27.55 | 27.425 | 57 | 53 |
| M3 | 4/1/2025 | Mid-Ebb | Cloudy | Low | 12:14 | 2 | M | 1.00 | 2 | | | 7.19 | | 3.41 | | 21.5 | | 49.6 | | 3.73 | | 27.3 | | 48 | |

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 | 7/1/2025 | Mid-Flood | Cloudy | Low | 9:05 | 2.7 | M | 1.35 | 1 | 0.09 | 163.074 | 7.14 | 7.13 | 2.74 | 2.75 | 20.9 | 20.90 | 33.4 | 33.20 | 2.51 | 2.50 | 20.69 | 20.78 | 16 | 17 |
| M1 | 7/1/2025 | Mid-Flood | Cloudy | Low | 9:05 | 2.7 | M | 1.35 | 2 | | | 7.12 | | 2.75 | | 20.9 | | 33.0 | | 2.48 | | 20.87 | | 18 | |
| M2 | 7/1/2025 | Mid-Flood | Cloudy | Low | 9:36 | 2.5 | M | 1.25 | 1 | 0.078 | 181.183 | 7.19 | 7.19 | 2.85 | 2.85 | 20.9 | 20.95 | 36.3 | 35.30 | 2.73 | 2.66 | 21.90 | 21.855 | 19 | 20 |
| M2 | 7/1/2025 | Mid-Flood | Cloudy | Low | 9:36 | 2.5 | M | 1.25 | 2 | | | 7.18 | | 2.85 | | 21 | | 34.3 | | 2.58 | | 21.81 | | 21 | |
| M3 | 7/1/2025 | Mid-Flood | Cloudy | Low | 9:48 | 2.1 | M | 1.05 | 1 | 0.089 | 166.784 | 7.18 | 7.19 | 3.26 | 3.25 | 20.9 | 20.90 | 53.1 | 52.50 | 3.99 | 3.95 | 28.60 | 28.58 | 22 | 22 |
| M3 | 7/1/2025 | Mid-Flood | Cloudy | Low | 9:48 | 2.1 | M | 1.05 | 2 | | | 7.19 | | 3.23 | | 20.9 | | 51.9 | | 3.9 | | 28.56 | | 22 | |
| M1 | 7/1/2025 | Mid-Ebb | Cloudy | Low | 13:40 | 2.6 | M | 1.30 | 1 | 0.063 | 326.478 | 7.17 | 7.16 | 2.68 | 2.70 | 21.0 | 21.00 | 34.7 | 35.05 | 2.61 | 2.64 | 19.85 | 19.68 | 19 | 20 |
| M1 | 7/1/2025 | Mid-Ebb | Cloudy | Low | 13:40 | 2.6 | M | 1.30 | 2 | | | 7.15 | | 2.71 | | 21.0 | | 35.4 | | 2.66 | | 19.51 | | 20 | |
| M2 | 7/1/2025 | Mid-Ebb | Cloudy | Low | 13:11 | 2.2 | M | 1.10 | 1 | 0.071 | 331.757 | 7.15 | 7.15 | 2.58 | 2.60 | 21.0 | 21.05 | 35.2 | 34.75 | 2.65 | 2.62 | 19.44 | 19.57 | 21 | 22 |
| M2 | 7/1/2025 | Mid-Ebb | Cloudy | Low | 13:11 | 2.2 | M | 1.10 | 2 | | | 7.14 | | 2.62 | | 21.1 | | 34.3 | | 2.58 | | 19.7 | | 23 | |
| M3 | 7/1/2025 | Mid-Ebb | Cloudy | Low | 13:56 | 2 | M | 1.00 | 1 | 0.065 | 341.242 | 7.13 | 7.13 | 3.33 | 3.36 | 21.0 | 21.00 | 53.6 | 53.40 | 4.03 | 4.02 | 27.26 | 27.15 | 18 | 19 |
| M3 | 7/1/2025 | Mid-Ebb | Cloudy | Low | 13:56 | 2 | M | 1.00 | 2 | | | 7.12 | | 3.38 | | 21.0 | | 53.2 | | 4 | | 27.04 | | 20 | |

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 | 9/1/2025 | Mid-Flood | Cloudy | Low | 8:33 | 2.6 | M | 1.30 | 1 | 0.088 | 175.558 | 7.08 | 7.09 | 2.74 | 2.78 | 20.7 | 20.70 | 34.8 | 33.85 | 2.62 | 2.55 | 18.99 | 19.075 | 21 | 21 |
| M1 | 9/1/2025 | Mid-Flood | Cloudy | Low | 8:33 | 2.6 | M | 1.30 | 2 | | | 7.09 | | 2.81 | | 20.7 | | 32.9 | | 2.47 | | 19.16 | | 21 | |
| M2 | 9/1/2025 | Mid-Flood | Cloudy | Low | 9:03 | 2.3 | M | 1.15 | 1 | 0.074 | 167.09 | 7.09 | 7.09 | 2.84 | 2.89 | 20.7 | 20.75 | 37.0 | 37.30 | 2.78 | 2.81 | 20.98 | 21.115 | 29 | 26 |
| M2 | 9/1/2025 | Mid-Flood | Cloudy | Low | 9:03 | 2.3 | M | 1.15 | 2 | | | 7.09 | | 2.93 | | 20.8 | | 37.6 | | 2.83 | | 21.25 | | 22 | |
| M3 | 9/1/2025 | Mid-Flood | Cloudy | Low | 9:21 | 2.1 | M | 1.05 | 1 | 0.086 | 163.632 | 7.11 | 7.10 | 3.44 | 3.46 | 20.7 | 20.70 | 52.1 | 52.25 | 3.92 | 3.93 | 30.60 | 30.45 | 22 | 22 |
| M3 | 9/1/2025 | Mid-Flood | Cloudy | Low | 9:21 | 2.1 | M | 1.05 | 2 | | | 7.09 | | 3.47 | | 20.7 | | 52.4 | | 3.94 | | 30.3 | | 22 | |
| M1 | 9/1/2025 | Mid-Ebb | Cloudy | Low | 14:55 | 2.5 | M | 1.25 | 1 | 0.062 | 307.809 | 7.06 | 7.07 | 2.68 | 2.67 | 20.9 | 20.90 | 35.1 | 34.50 | 2.64 | 2.60 | 19.91 | 19.96 | 22 | 24 |
| M1 | 9/1/2025 | Mid-Ebb | Cloudy | Low | 14:55 | 2.5 | M | 1.25 | 2 | | | 7.07 | | 2.66 | | 20.9 | | 33.9 | | 2.55 | | 20.01 | | 25 | |
| M2 | 9/1/2025 | Mid-Ebb | Cloudy | Low | 14:24 | 2.2 | M | 1.10 | 1 | 0.074 | 331.061 | 7.07 | 7.07 | 2.62 | 2.59 | 20.9 | 20.95 | 35.6 | 35.15 | 2.68 | 2.65 | 19.31 | 19.19 | 23 | 23 |
| M2 | 9/1/2025 | Mid-Ebb | Cloudy | Low | 14:24 | 2.2 | M | 1.10 | 2 | | | 7.06 | | 2.55 | | 21.0 | | 34.7 | | 2.61 | | 19.07 | | 22 | |
| M3 | 9/1/2025 | Mid-Ebb | Cloudy | Low | 15:11 | 2 | M | 1.00 | 1 | 0.063 | 329.147 | 7.11 | 7.10 | 3.56 | 3.59 | 20.9 | 20.90 | 49.2 | 48.60 | 3.7 | 3.66 | 29.74 | 29.885 | 23 | 23 |
| M3 | 9/1/2025 | Mid-Ebb | Cloudy | Low | 15:11 | 2 | M | 1.00 | 2 | | | 7.09 | | 3.61 | | 20.9 | | 48.0 | | 3.61 | | 30.03 | | 22 | |

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 | 11/1/2025 | Mid-Flood | Cloudy | Low | 11:25 | 2.6 | M | 1.30 | 1 | 0.093 | 162.085 | 7.15 | 7.16 | 2.88 | 2.89 | 21.6 | 21.60 | 33.6 | 34.10 | 2.54 | 2.47 | 22.95 | 22.89 | 2.5 | 3 |
| M1 | 11/1/2025 | Mid-Flood | Cloudy | Low | 11:25 | 2.6 | M | 1.30 | 2 | | | 7.17 | | 2.9 | | 21.6 | | 34.6 | | 2.4 | | 22.83 | | 2.5 | |
| M2 | 11/1/2025 | Mid-Flood | Cloudy | Low | 11:56 | 2.4 | M | 1.20 | 1 | 0.076 | 171.849 | 7.11 | 7.12 | 2.90 | 2.89 | 21.6 | 21.60 | 37.1 | 37.75 | 2.79 | 2.84 | 23.89 | 23.75 | 2.5 | 3 |
| M2 | 11/1/2025 | Mid-Flood | Cloudy | Low | 11:56 | 2.4 | M | 1.20 | 2 | | | 7.13 | | 2.88 | | 21.6 | | 38.4 | | 2.89 | | 23.61 | | 2.5 | |
| M3 | 11/1/2025 | Mid-Flood | Cloudy | Low | 12:08 | 2.1 | M | 1.05 | 1 | 0.087 | 176.726 | 7.14 | 7.13 | 3.27 | 3.29 | 21.6 | 21.65 | 50.8 | 51.05 | 3.82 | 3.84 | 31.61 | 31.57 | 2.5 | 3 |
| M3 | 11/1/2025 | Mid-Flood | Cloudy | Low | 12:09 | 2.1 | M | 1.05 | 2 | | | 7.12 | | 3.31 | | 21.7 | | 51.3 | | 3.86 | | 31.53 | | 2.5 | |
| M1 | 11/1/2025 | Mid-Ebb | Cloudy | Low | 16:37 | 2.5 | M | 1.25 | 1 | 0.079 | 337.737 | 7.16 | 7.16 | 2.69 | 2.68 | 21.7 | 21.70 | 37.0 | 37.60 | 2.78 | 2.83 | 21.88 | 21.995 | 2.5 | 3 |
| M1 | 11/1/2025 | Mid-Ebb | Cloudy | Low | 16:37 | 2.5 | M | 1.25 | 2 | | | 7.16 | | 2.66 | | 21.7 | | 38.2 | | 2.87 | | 22.11 | | 2.5 | |
| M2 | 11/1/2025 | Mid-Ebb | Cloudy | Low | 16:05 | 2.3 | M | 1.15 | 1 | 0.062 | 305.001 | 7.15 | 7.14 | 2.75 | 2.73 | 21.7 | 21.75 | 34.4 | 34.00 | 2.59 | 2.56 | 22.20 | 22.07 | 2.5 | 3 |
| M2 | 11/1/2025 | Mid-Ebb | Cloudy | Low | 16:05 | 2.3 | M | 1.15 | 2 | | | 7.13 | | 2.7 | | 21.8 | | 33.6 | | 2.53 | | 21.94 | | 2.5 | |
| M3 | 11/1/2025 | Mid-Ebb | Cloudy | Low | 16:55 | 2 | M | 1.00 | 1 | 0.071 | 338.019 | 7.2 | 7.20 | 3.44 | 3.43 | 21.7 | 21.75 | 49.7 | 49.10 | 3.74 | 3.70 | 32.96 | 33.015 | 2.5 | 3 |
| M3 | 11/1/2025 | Mid-Ebb | Cloudy | Low | 16:55 | 2 | M | 1.00 | 2 | | | 7.2 | | 3.42 | | 21.8 | | 48.5 | | 3.65 | | 33.07 | | 2.5 | |

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 | 14/1/2025 | Mid-Flood | Cloudy | Low | 13:28 | 2.6 | M | 1.30 | 1 | 0.081 | 181.887 | 7.18 | 7.17 | 3.12 | 3.11 | 21.5 | 21.50 | 36.7 | 36.90 | 2.76 | 2.78 | 21.48 | 21.405 | 24 | 26 |
| M1 | 14/1/2025 | Mid-Flood | Cloudy | Low | 13:28 | 2.6 | M | 1.30 | 2 | | | 7.16 | | 3.09 | | 21.5 | | 37.1 | | 2.79 | | 21.33 | | 27 | |
| M2 | 14/1/2025 | Mid-Flood | Cloudy | Low | 13:58 | 2.5 | M | 1.25 | 1 | 0.08 | 164.406 | 7.13 | 7.14 | 3.15 | 3.16 | 21.5 | 21.50 | 34.8 | 35.50 | 2.62 | 2.67 | 21.94 | 21.75 | 25 | 28 |
| M2 | 14/1/2025 | Mid-Flood | Cloudy | Low | 13:58 | 2.5 | M | 1.25 | 2 | | | 7.15 | | 3.16 | | 21.5 | | 36.2 | | 2.72 | | 21.56 | | 31 | |
| M3 | 14/1/2025 | Mid-Flood | Cloudy | Low | 14:11 | 2.1 | M | 1.05 | 1 | 0.089 | 178.896 | 7.21 | 7.21 | 3.48 | 3.45 | 21.5 | 21.55 | 48.9 | 49.05 | 3.68 | 3.69 | 30.82 | 30.755 | 36 | 34 |
| M3 | 14/1/2025 | Mid-Flood | Cloudy | Low | 14:11 | 2.1 | M | 1.05 | 2 | | | 7.2 | | 3.41 | | 21.6 | | 49.2 | | 3.7 | | 30.69 | | 31 | |
| M1 | 14/1/2025 | Mid-Ebb | Cloudy | Low | 9:26 | 2.5 | M | 1.25 | 1 | 0.061 | 326.756 | 7.19 | 7.20 | 2.99 | 2.96 | 21.3 | 21.30 | 37.6 | 38.00 | 2.83 | 2.86 | 19.94 | 20.08 | 34 | 33 |
| M1 | 14/1/2025 | Mid-Ebb | Cloudy | Low | 9:26 | 2.5 | M | 1.25 | 2 | | | 7.2 | | 2.93 | | 21.3 | | 38.4 | | 2.89 | | 20.22 | | 32 | |
| M2 | 14/1/2025 | Mid-Ebb | Cloudy | Low | 8:50 | 2.2 | M | 1.10 | 1 | 0.076 | 312.721 | 7.15 | 7.15 | 2.83 | 2.79 | 21.3 | 21.30 | 34.4 | 34.90 | 2.59 | 2.63 | 19.00 | 18.855 | 36 | 39 |
| M2 | 14/1/2025 | Mid-Ebb | Cloudy | Low | 8:51 | 2.2 | M | 1.10 | 2 | | | 7.15 | | 2.75 | | 21.3 | | 35.4 | | 2.66 | | 18.71 | | 41 | |
| M3 | 14/1/2025 | Mid-Ebb | Cloudy | Low | 9:37 | 2 | M | 1.00 | 1 | 0.062 | 310.076 | 7.15 | 7.15 | 3.55 | 3.53 | 21.3 | 21.35 | 50.5 | 49.85 | 3.8 | 3.75 | 29.55 | 29.4 | 23 | 25 |
| M3 | 14/1/2025 | Mid-Ebb | Cloudy | Low | 9:37 | 2 | M | 1.00 | 2 | | | 7.15 | | 3.5 | | 21.4 | | 49.2 | | 3.7 | | 29.25 | | 27 | |

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 | 16/1/2025 | Mid-Flood | Cloudy | Low | 14:41 | 2.8 | M | 1.40 | 1 | 0.085 | 176.07 | 7.14 | 7.15 | 2.73 | 2.75 | 20.6 | 20.60 | 36.0 | 35.55 | 2.71 | 2.68 | 21.90 | 21.82 | 32 | 30 |
| M1 | 16/1/2025 | Mid-Flood | Cloudy | Low | 14:41 | 2.8 | M | 1.40 | 2 | | | 7.15 | | 2.76 | | 20.6 | | 35.1 | | 2.64 | | 21.74 | | 28 | |
| M2 | 16/1/2025 | Mid-Flood | Cloudy | Low | 15:08 | 2.5 | M | 1.25 | 1 | 0.073 | 161.82 | 7.2 | 7.21 | 2.76 | 2.80 | 20.6 | 20.60 | 35.2 | 34.80 | 2.65 | 2.62 | 21.90 | 21.785 | 29 | 29 |
| M2 | 16/1/2025 | Mid-Flood | Cloudy | Low | 15:08 | 2.5 | M | 1.25 | 2 | | | 7.21 | | 2.84 | | 20.6 | | 34.4 | | 2.59 | | 21.67 | | 28 | |
| M3 | 16/1/2025 | Mid-Flood | Cloudy | Low | 15:20 | 2.1 | M | 1.05 | 1 | 0.089 | 161.755 | 7.18 | 7.17 | 3.32 | 3.33 | 20.6 | 20.60 | 48.9 | 48.65 | 3.68 | 3.66 | 30.82 | 30.8 | 27 | 25 |
| M3 | 16/1/2025 | Mid-Flood | Cloudy | Low | 15:20 | 2.1 | M | 1.05 | 2 | | | 7.16 | | 3.33 | | 20.6 | | 48.4 | | 3.64 | | 30.78 | | 22 | |
| M1 | 16/1/2025 | Mid-Ebb | Cloudy | Low | 10:28 | 2.6 | M | 1.30 | 1 | 0.078 | 341.046 | 7.11 | 7.11 | 2.59 | 2.57 | 20.5 | 20.55 | 34.7 | 34.00 | 2.61 | 2.56 | 19.92 | 20.065 | 27 | 27 |
| M1 | 16/1/2025 | Mid-Ebb | Cloudy | Low | 10:28 | 2.6 | M | 1.30 | 2 | | | 7.11 | | 2.55 | | 20.6 | | 33.3 | | 2.5 | | 20.21 | | 27 | |
| M2 | 16/1/2025 | Mid-Ebb | Cloudy | Low | 9:56 | 2.2 | M | 1.10 | 1 | 0.062 | 329.459 | 7.2 | 7.19 | 2.57 | 2.60 | 20.5 | 20.50 | 34.0 | 33.50 | 2.56 | 2.52 | 19.02 | 19.135 | 31 | 29 |
| M2 | 16/1/2025 | Mid-Ebb | Cloudy | Low | 9:56 | 2.2 | M | 1.10 | 2 | | | 7.18 | | 2.62 | | 20.5 | | 33.0 | | 2.48 | | 19.25 | | 26 | |
| M3 | 16/1/2025 | Mid-Ebb | Cloudy | Low | 10:43 | 2 | M | 1.00 | 1 | 0.065 | 316.973 | 7.16 | 7.16 | 3.47 | 3.49 | 20.5 | 20.55 | 49.2 | 49.40 | 3.7 | 3.72 | 29.79 | 29.96 | 45 | 47 |
| M3 | 16/1/2025 | Mid-Ebb | Cloudy | Low | 10:44 | 2 | M | 1.00 | 2 | | | 7.16 | | 3.5 | | 20.6 | | 49.6 | | 3.73 | | 30.13 | | 48 | |

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 | 18/1/2025 | Mid-Flood | Sunny | Low | 16:04 | 2.5 | M | 1.25 | 1 | 0.09 | 176.028 | 7.04 | 7.05 | 2.86 | 2.86 | 21.5 | 21.55 | 36.2 | 36.85 | 2.72 | 2.77 | 18.55 | 18.575 | 56 | 49 |
| M1 | 18/1/2025 | Mid-Flood | Sunny | Low | 16:04 | 2.5 | M | 1.25 | 2 | | | 7.05 | | 2.86 | | 21.6 | | 37.5 | | 2.82 | | 18.6 | | 42 | |
| M2 | 18/1/2025 | Mid-Flood | Sunny | Low | 16:37 | 2.3 | M | 1.15 | 1 | 0.091 | 178.398 | 7.05 | 7.06 | 2.86 | 2.86 | 21.5 | 21.50 | 37.0 | 37.45 | 2.78 | 2.82 | 26.51 | 26.36 | 39 | 38 |
| M2 | 18/1/2025 | Mid-Flood | Sunny | Low | 16:37 | 2.3 | M | 1.15 | 2 | | | 7.07 | | 2.86 | | 21.5 | | 37.9 | | 2.85 | | 26.21 | | 36 | |
| M3 | 18/1/2025 | Mid-Flood | Sunny | Low | 16:51 | 2 | M | 1.00 | 1 | 0.087 | 169.719 | 7.09 | 7.08 | 3.55 | 3.52 | 21.5 | 21.55 | 51.9 | 51.50 | 3.9 | 3.87 | 24.59 | 24.395 | 37 | 38 |
| M3 | 18/1/2025 | Mid-Flood | Sunny | Low | 16:51 | 2 | M | 1.00 | 2 | | | 7.07 | | 3.49 | | 21.6 | | 51.1 | | 3.84 | | 24.2 | | 39 | |
| M1 | 18/1/2025 | Mid-Ebb | Sunny | Low | 11:26 | 2.5 | M | 1.25 | 1 | 0.058 | 336.923 | 7.07 | 7.08 | 2.61 | 2.64 | 21.7 | 21.70 | 35.4 | 35.00 | 2.66 | 2.63 | 16.55 | 16.475 | 43 | 39 |
| M1 | 18/1/2025 | Mid-Ebb | Sunny | Low | 11:26 | 2.5 | M | 1.25 | 2 | | | 7.08 | | 2.67 | | 21.7 | | 34.6 | | 2.6 | | 16.4 | | 34 | |
| M2 | 18/1/2025 | Mid-Ebb | Sunny | Low | 10:50 | 2.3 | M | 1.15 | 1 | 0.065 | 320.34 | 7.06 | 7.07 | 2.56 | 2.57 | 21.7 | 21.70 | 33.6 | 32.85 | 2.53 | 2.47 | 17.08 | 17.195 | 46 | 46 |
| M2 | 18/1/2025 | Mid-Ebb | Sunny | Low | 10:50 | 2.3 | M | 1.15 | 2 | | | 7.07 | | 2.58 | | 21.7 | | 32.1 | | 2.41 | | 17.31 | | 45 | |
| M3 | 18/1/2025 | Mid-Ebb | Sunny | Low | 11:40 | 2 | M | 1.00 | 1 | 0.077 | 301.105 | 7.12 | 7.13 | 3.67 | 3.71 | 21.7 | 21.75 | 53.3 | 54.05 | 4.01 | 4.07 | 25.69 | 25.61 | 40 | 45 |
| M3 | 18/1/2025 | Mid-Ebb | Sunny | Low | 11:40 | 2 | M | 1.00 | 2 | | | 7.13 | | 3.74 | | 21.8 | | 54.8 | | 4.12 | | 25.53 | | 50 | |

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 | 21/1/2025 | Mid-Flood | Cloudy | Low | 18:05 | 2.6 | M | 1.30 | 1 | 0.085 | 168.47 | 7.12 | 7.13 | 2.88 | 2.84 | 21.1 | 21.15 | 35.0 | 34.90 | 2.63 | 2.63 | 21.02 | 21.1 | 21 | 21 |
| M1 | 21/1/2025 | Mid-Flood | Cloudy | Low | 18:05 | 2.6 | M | 1.30 | 2 | | | 7.13 | | 2.8 | | 21.2 | | 34.8 | | 2.62 | | 21.18 | | 20 | |
| M2 | 21/1/2025 | Mid-Flood | Cloudy | Low | 18:36 | 2.4 | M | 1.20 | 1 | 0.074 | 190.481 | 7.19 | 7.20 | 2.78 | 2.76 | 21.1 | 21.10 | 35.8 | 34.90 | 2.69 | 2.63 | 21.97 | 22.045 | 17 | 18 |
| M2 | 21/1/2025 | Mid-Flood | Cloudy | Low | 18:36 | 2.4 | M | 1.20 | 2 | | | 7.21 | | 2.74 | | 21.1 | | 34.0 | | 2.56 | | 22.12 | | 18 | |
| M3 | 21/1/2025 | Mid-Flood | Cloudy | Low | 18:53 | 2.1 | M | 1.05 | 1 | 0.093 | 169.35 | 7.14 | 7.13 | 3.20 | 3.16 | 21.1 | 21.10 | 49.1 | 48.15 | 3.69 | 3.62 | 30.66 | 30.71 | 19 | 19 |
| M3 | 21/1/2025 | Mid-Flood | Cloudy | Low | 18:53 | 2.1 | M | 1.05 | 2 | | | 7.12 | | 3.11 | | 21.1 | | 47.2 | | 3.55 | | 30.76 | | 19 | |
| M1 | 21/1/2025 | Mid-Ebb | Cloudy | Low | 12:28 | 2.5 | M | 1.25 | 1 | 0.068 | 309.405 | 7.14 | 7.15 | 2.62 | 2.58 | 21.3 | 21.30 | 35.4 | 35.90 | 2.66 | 2.70 | 19.83 | 19.905 | 16 | 17 |
| M1 | 21/1/2025 | Mid-Ebb | Cloudy | Low | 12:28 | 2.5 | M | 1.25 | 2 | | | 7.15 | | 2.53 | | 21.3 | | 36.4 | | 2.74 | | 19.98 | | 17 | |
| M2 | 21/1/2025 | Mid-Ebb | Cloudy | Low | 11:52 | 2.3 | M | 1.15 | 1 | 0.073 | 342.659 | 7.11 | 7.12 | 2.75 | 2.71 | 21.3 | 21.35 | 35.2 | 35.70 | 2.65 | 2.69 | 19.41 | 19.345 | 22 | 22 |
| M2 | 21/1/2025 | Mid-Ebb | Cloudy | Low | 11:52 | 2.3 | M | 1.15 | 2 | | | 7.12 | | 2.66 | | 21.4 | | 36.2 | | 2.72 | | 19.28 | | 22 | |
| M3 | 21/1/2025 | Mid-Ebb | Cloudy | Low | 12:39 | 2 | M | 1.00 | 1 | 0.066 | 306.248 | 7.19 | 7.19 | 3.44 | 3.46 | 21.3 | 21.30 | 50.7 | 49.75 | 3.81 | 3.74 | 29.13 | 29.1 | 18 | 19 |
| M3 | 21/1/2025 | Mid-Ebb | Cloudy | Low | 12:39 | 2 | M | 1.00 | 2 | | | 7.19 | | 3.47 | | 21.3 | | 48.8 | | 3.67 | | 29.07 | | 20 | |

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 | 23/1/2025 | Mid-Flood | Cloudy | Low | 8:54 | 2.5 | M | 1.25 | 1 | 0.08 | 162.869 | 7.12 | 7.13 | 2.76 | 2.75 | 20.9 | 20.95 | 37.0 | 36.60 | 2.78 | 2.75 | 20.77 | 20.7 | 27 | 26 |
| M1 | 23/1/2025 | Mid-Flood | Cloudy | Low | 8:55 | 2.5 | M | 1.25 | 2 | | | 7.13 | | 2.73 | | 21 | | 36.2 | | 2.72 | | 20.63 | | 25 | |
| M2 | 23/1/2025 | Mid-Flood | Cloudy | Low | 9:28 | 2.2 | M | 1.10 | 1 | 0.08 | 166.765 | 7.13 | 7.13 | 2.71 | 2.69 | 20.9 | 20.90 | 36.7 | 35.75 | 2.76 | 2.69 | 21.91 | 21.7 | 32 | 24 |
| M2 | 23/1/2025 | Mid-Flood | Cloudy | Low | 9:28 | 2.2 | M | 1.10 | 2 | | | 7.12 | | 2.66 | | 20.9 | | 34.8 | | 2.62 | | 21.49 | | 16 | |
| M3 | 23/1/2025 | Mid-Flood | Cloudy | Low | 9:44 | 2 | M | 1.00 | 1 | 0.087 | 167.544 | 7.17 | 7.16 | 3.24 | 3.27 | 20.9 | 20.95 | 53.1 | 52.35 | 3.99 | 3.94 | 30.68 | 30.56 | 23 | 25 |
| M3 | 23/1/2025 | Mid-Flood | Cloudy | Low | 9:44 | 2 | M | 1.00 | 2 | | | 7.15 | | 3.29 | | 21 | | 51.6 | | 3.88 | | 30.44 | | 26 | |
| M1 | 23/1/2025 | Mid-Ebb | Cloudy | Low | 13:38 | 2.4 | M | 1.20 | 1 | 0.063 | 322.609 | 7.11 | 7.11 | 2.70 | 2.69 | 21.0 | 21.00 | 36.6 | 36.60 | 2.75 | 2.75 | 19.86 | 19.985 | 27 | 26 |
| M1 | 23/1/2025 | Mid-Ebb | Cloudy | Low | 13:38 | 2.4 | M | 1.20 | 2 | | | 7.11 | | 2.67 | | 21.0 | | 36.6 | | 2.75 | | 20.11 | | 24 | |
| M2 | 23/1/2025 | Mid-Ebb | Cloudy | Low | 13:04 | 2.1 | M | 1.05 | 1 | 0.062 | 340.663 | 7.12 | 7.11 | 2.61 | 2.57 | 21.0 | 21.05 | 37.5 | 37.15 | 2.82 | 2.80 | 19.26 | 19.37 | 24 | 26 |
| M2 | 23/1/2025 | Mid-Ebb | Cloudy | Low | 13:04 | 2.1 | M | 1.05 | 2 | | | 7.1 | | 2.52 | | 21.1 | | 36.8 | | 2.77 | | 19.48 | | 27 | |
| M3 | 23/1/2025 | Mid-Ebb | Cloudy | Low | 13:49 | 1.8 | M | 0.90 | 1 | 0.059 | 307.715 | 7.18 | 7.19 | 3.44 | 3.42 | 21.0 | 21.00 | 54.4 | 53.80 | 4.09 | 4.05 | 29.37 | 29.5 | 27 | 27 |
| M3 | 23/1/2025 | Mid-Ebb | Cloudy | Low | 13:49 | 1.8 | M | 0.90 | 2 | | | 7.2 | | 3.4 | | 21.0 | | 53.2 | | 4 | | 29.63 | | 26 | |

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 | 25/1/2025 | Mid-Flood | Sunny | Low | 10:58 | 2.8 | M | 1.40 | 1 | 0.088 | 190.513 | 7.2 | 7.21 | 2.99 | 2.99 | 21.6 | 21.60 | 35.9 | 36.35 | 2.7 | 2.74 | 21.51 | 21.425 | 2.5 | 3 |
| M1 | 25/1/2025 | Mid-Flood | Sunny | Low | 10:59 | 2.8 | M | 1.40 | 2 | | | 7.21 | | 2.99 | | 21.6 | | 36.8 | | 2.77 | | 21.34 | | 2.5 | |
| M2 | 25/1/2025 | Mid-Flood | Sunny | Low | 11:33 | 2.5 | M | 1.25 | 1 | 0.087 | 166.021 | 7.21 | 7.22 | 3.05 | 3.05 | 21.6 | 21.65 | 37.5 | 38.05 | 2.82 | 2.86 | 21.92 | 21.89 | 2.5 | 3 |
| M2 | 25/1/2025 | Mid-Flood | Sunny | Low | 11:33 | 2.5 | M | 1.25 | 2 | | | 7.22 | | 3.05 | | 21.7 | | 38.6 | | 2.9 | | 21.86 | | 2.5 | |
| M3 | 25/1/2025 | Mid-Flood | Sunny | Low | 11:49 | 2.1 | M | 1.05 | 1 | 0.084 | 187.407 | 7.24 | 7.25 | 4.25 | 4.22 | 21.6 | 21.65 | 50.0 | 49.65 | 3.76 | 3.74 | 32.24 | 32.26 | 2.5 | 3 |
| M3 | 25/1/2025 | Mid-Flood | Sunny | Low | 11:50 | 2.1 | M | 1.05 | 2 | | | 7.26 | | 4.19 | | 21.7 | | 49.3 | | 3.71 | | 32.28 | | 2.5 | |
| M1 | 25/1/2025 | Mid-Ebb | Sunny | Low | 9:36 | 2.6 | M | 1.30 | 1 | 0.081 | 302.036 | 7.16 | 7.16 | 2.96 | 3.01 | 21.6 | 21.65 | 35.2 | 35.95 | 2.65 | 2.71 | 22.88 | 21.53 | 2.5 | 3 |
| M1 | 25/1/2025 | Mid-Ebb | Sunny | Low | 9:36 | 2.6 | M | 1.30 | 2 | | | 7.16 | | 3.05 | | 21.7 | | 36.7 | | 2.76 | | 20.18 | | 2.5 | |
| M2 | 25/1/2025 | Mid-Ebb | Sunny | Low | 8:59 | 2.2 | M | 1.10 | 1 | 0.073 | 326.17 | 7.18 | 7.17 | 3.08 | 3.06 | 21.6 | 21.60 | 34.7 | 34.35 | 2.61 | 2.59 | 21.59 | 20.745 | 2.5 | 3 |
| M2 | 25/1/2025 | Mid-Ebb | Sunny | Low | 9:00 | 2.2 | M | 1.10 | 2 | | | 7.16 | | 3.04 | | 21.6 | | 34.0 | | 2.56 | | 19.9 | | 2.5 | |
| M3 | 25/1/2025 | Mid-Ebb | Sunny | Low | 9:51 | 2 | M | 1.00 | 1 | 0.074 | 325.14 | 7.23 | 7.24 | 4.11 | 4.11 | 21.6 | 21.60 | 50.4 | 50.35 | 3.79 | 3.79 | 31.28 | 31.36 | 2.5 | 3 |
| M3 | 25/1/2025 | Mid-Ebb | Sunny | Low | 9:51 | 2 | M | 1.00 | 2 | | | 7.24 | | 4.11 | | 21.6 | | 50.3 | | 3.78 | | 31.44 | | 2.5 | |

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 | 28/1/2025 | Mid-Flood | Sunny | Low | 12:54 | 2.5 | M | 1.25 | 1 | 0.079 | 162.416 | 7.16 | 7.17 | 3.61 | 3.65 | 21.9 | 21.90 | 36.7 | 36.75 | 2.76 | 2.77 | 25.88 | 25.675 | 2.5 | 3 |
| M1 | 28/1/2025 | Mid-Flood | Sunny | Low | 12:54 | 2.5 | M | 1.25 | 2 | | | 7.18 | | 3.68 | | 21.9 | | 36.8 | | 2.77 | | 25.47 | | 2.5 | |
| M2 | 28/1/2025 | Mid-Flood | Sunny | Low | 13:28 | 2.2 | M | 1.10 | 1 | 0.077 | 186.229 | 7.18 | 7.18 | 3.77 | 3.79 | 21.9 | 21.95 | 35.4 | 34.60 | 2.66 | 2.60 | 25.97 | 26.02 | 2.5 | 3 |
| M2 | 28/1/2025 | Mid-Flood | Sunny | Low | 13:28 | 2.2 | M | 1.10 | 2 | | | 7.17 | | 3.81 | | 22 | | 33.8 | | 2.54 | | 26.07 | | 2.5 | |
| M3 | 28/1/2025 | Mid-Flood | Sunny | Low | 13:45 | 2 | M | 1.00 | 1 | 0.095 | 174.9 | 7.17 | 7.18 | 4.69 | 4.67 | 21.9 | 21.90 | 48.1 | 48.25 | 3.62 | 3.63 | 36.77 | 36.71 | 3 | 3 |
| M3 | 28/1/2025 | Mid-Flood | Sunny | Low | 13:45 | 2 | M | 1.00 | 2 | | | 7.19 | | 4.65 | | 21.9 | | 48.4 | | 3.64 | | 36.65 | | 2.5 | |
| M1 | 28/1/2025 | Mid-Ebb | Sunny | Low | 8:42 | 2.5 | M | 1.25 | 1 | 0.07 | 337.33 | 7.11 | 7.11 | 3.22 | 3.23 | 21.8 | 21.80 | 36.0 | 36.00 | 2.71 | 2.71 | 24.91 | 24.73 | 2.5 | 3 |
| M1 | 28/1/2025 | Mid-Ebb | Sunny | Low | 8:43 | 2.5 | M | 1.25 | 2 | | | 7.11 | | 3.24 | | 21.8 | | 36.0 | | 2.71 | | 24.55 | | 2.5 | |
| M2 | 28/1/2025 | Mid-Ebb | Sunny | Low | 8:06 | 2.1 | M | 1.05 | 1 | 0.075 | 302.86 | 7.14 | 7.14 | 3.35 | 3.38 | 21.8 | 21.80 | 35.6 | 35.75 | 2.68 | 2.69 | 25.28 | 25.415 | 2.5 | 3 |
| M2 | 28/1/2025 | Mid-Ebb | Sunny | Low | 8:06 | 2.1 | M | 1.05 | 2 | | | 7.13 | | 3.41 | | 21.8 | | 35.9 | | 2.7 | | 25.55 | | 2.5 | |
| M3 | 28/1/2025 | Mid-Ebb | Sunny | Low | 8:55 | 1.9 | M | 0.95 | 1 | 0.073 | 301.757 | 7.17 | 7.17 | 4.88 | 4.92 | 21.8 | 21.80 | 50.0 | 49.15 | 3.76 | 3.70 | 37.00 | 36.815 | 2.5 | 3 |
| M3 | 28/1/2025 | Mid-Ebb | Sunny | Low | 8:55 | 1.9 | M | 0.95 | 2 | | | 7.17 | | 4.95 | | 21.8 | | 48.3 | | 3.63 | | 36.63 | | 2.5 | |

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 | 30/1/2025 | Mid-Flood | Sunny | Low | 14:12 | 2.5 | M | 1.25 | 1 | 0.076 | 182.448 | 7.12 | 7.12 | 2.79 | 2.77 | 21.1 | 21.10 | 39.8 | 39.70 | 2.99 | 2.99 | 21.84 | 21.98 | 2.5 | 3 |
| M1 | 30/1/2025 | Mid-Flood | Sunny | Low | 14:12 | 2.5 | M | 1.25 | 2 | | | 7.12 | | 2.75 | | 21.1 | | 39.6 | | 2.98 | | 22.12 | | 2.5 | |
| M2 | 30/1/2025 | Mid-Flood | Sunny | Low | 14:49 | 2.2 | M | 1.10 | 1 | 0.092 | 162.183 | 7.2 | 7.21 | 2.78 | 2.76 | 21.1 | 21.10 | 40.8 | 40.20 | 3.07 | 3.03 | 23.55 | 23.725 | 2.5 | 3 |
| M2 | 30/1/2025 | Mid-Flood | Sunny | Low | 14:49 | 2.2 | M | 1.10 | 2 | | | 7.21 | | 2.74 | | 21.1 | | 39.6 | | 2.98 | | 23.9 | | 2.5 | |
| M3 | 30/1/2025 | Mid-Flood | Sunny | Low | 15:03 | 2 | M | 1.00 | 1 | 0.084 | 172.191 | 7.2 | 7.21 | 3.23 | 3.20 | 21.1 | 21.15 | 54.5 | 54.00 | 4.1 | 4.06 | 34.83 | 34.675 | 2.5 | 3 |
| M3 | 30/1/2025 | Mid-Flood | Sunny | Low | 15:03 | 2 | M | 1.00 | 2 | | | 7.21 | | 3.17 | | 21.2 | | 53.5 | | 4.02 | | 34.52 | | 2.5 | |
| M1 | 30/1/2025 | Mid-Ebb | Sunny | Low | 9:41 | 2.5 | M | 1.25 | 1 | 0.067 | 341.723 | 7.19 | 7.20 | 2.63 | 2.66 | 21.0 | 21.00 | 39.5 | 39.45 | 2.97 | 2.97 | 19.84 | 19.75 | 2.5 | 3 |
| M1 | 30/1/2025 | Mid-Ebb | Sunny | Low | 9:41 | 2.5 | M | 1.25 | 2 | | | 7.21 | | 2.68 | | 21.0 | | 39.4 | | 2.96 | | 19.66 | | 2.5 | |
| M2 | 30/1/2025 | Mid-Ebb | Sunny | Low | 9:07 | 2.2 | M | 1.10 | 1 | 0.079 | 305.896 | 7.17 | 7.18 | 2.72 | 2.75 | 21.0 | 21.00 | 40.3 | 40.35 | 3.03 | 3.04 | 21.55 | 21.655 | 2.5 | 3 |
| M2 | 30/1/2025 | Mid-Ebb | Sunny | Low | 9:08 | 2.2 | M | 1.10 | 2 | | | 7.18 | | 2.78 | | 21.0 | | 40.4 | | 3.04 | | 21.76 | | 2.5 | |
| M3 | 30/1/2025 | Mid-Ebb | Sunny | Low | 9:56 | 1.9 | M | 0.95 | 1 | 0.076 | 308.26 | 7.11 | 7.11 | 3.51 | 3.55 | 21.0 | 21.00 | 56.9 | 57.65 | 4.28 | 4.34 | 36.74 | 36.575 | 2.5 | 3 |
| M3 | 30/1/2025 | Mid-Ebb | Sunny | Low | 9:56 | 1.9 | M | 0.95 | 2 | | | 7.11 | | 3.58 | | 21.0 | | 58.4 | | 4.39 | | 36.41 | | 2.5 | |

Remark

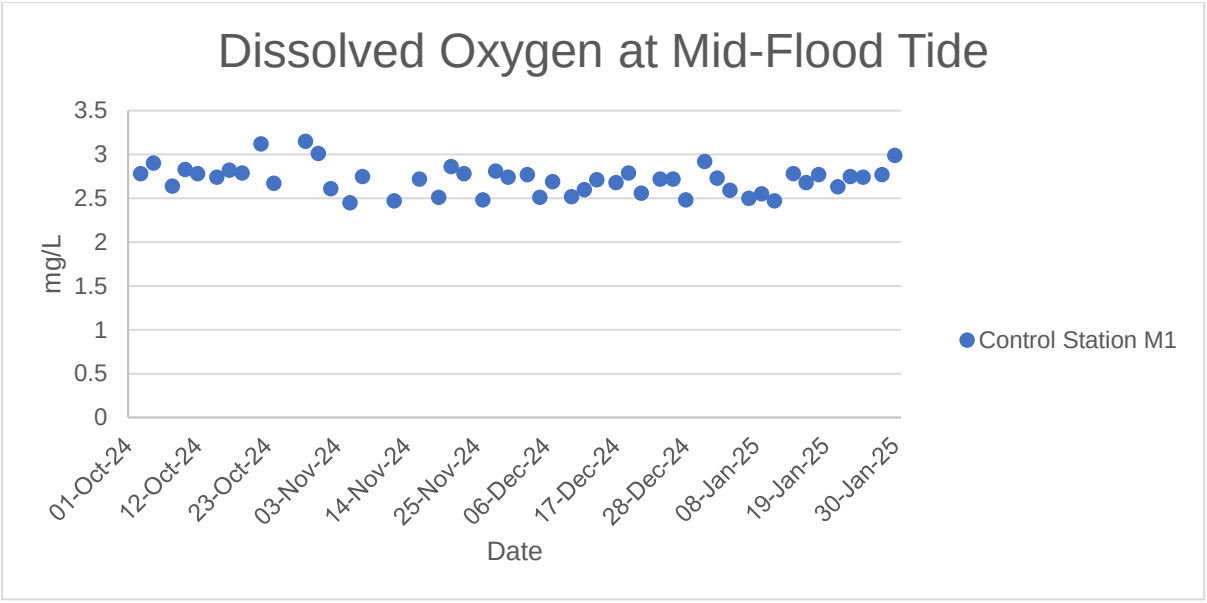
1. Orange and Bold: Action Level Exceedance (For Impact Station Only)
2. Red and Bold: Limit Level Exceedance (For Impact Station Only)
3. Action Level for Turbidity: 95%-ile of baseline data or 120% of upstream control station's turbidity recorded on the same day.
4. Limit Level for Turbidity: 99%-ile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

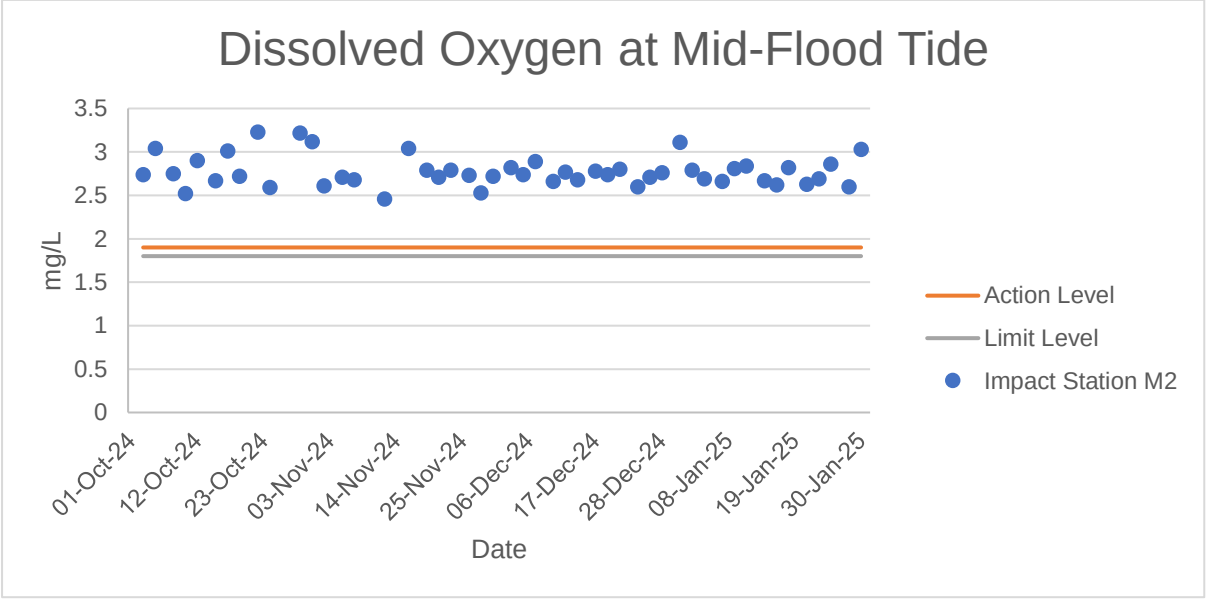
For Flood Tide

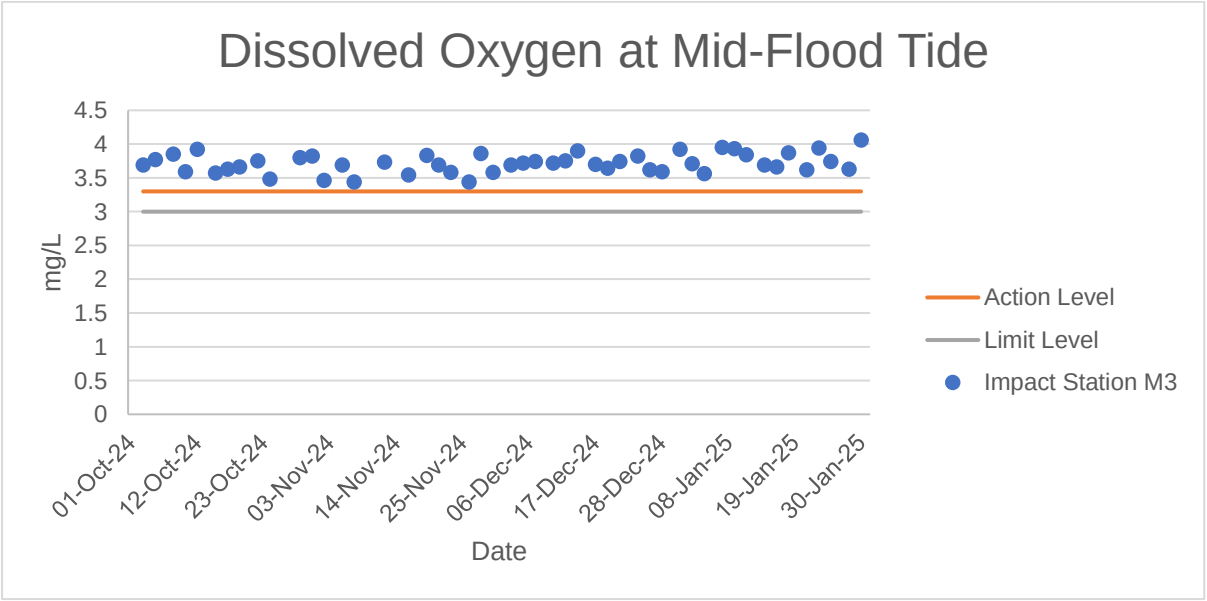
| Monitoring Location | DO | | NTU | | SS | |
|---|---|---|---|---|---|---|
| | AL | LL | AL | LL | AL | LL |
| M2(Impact Station) | 1.88 | 1.79 | 43.0 | 52.4 | 81 | 112 |
| M3(Impact Station) | 3.28 | 3.14 | 74 | 78 | 104 | 167 |

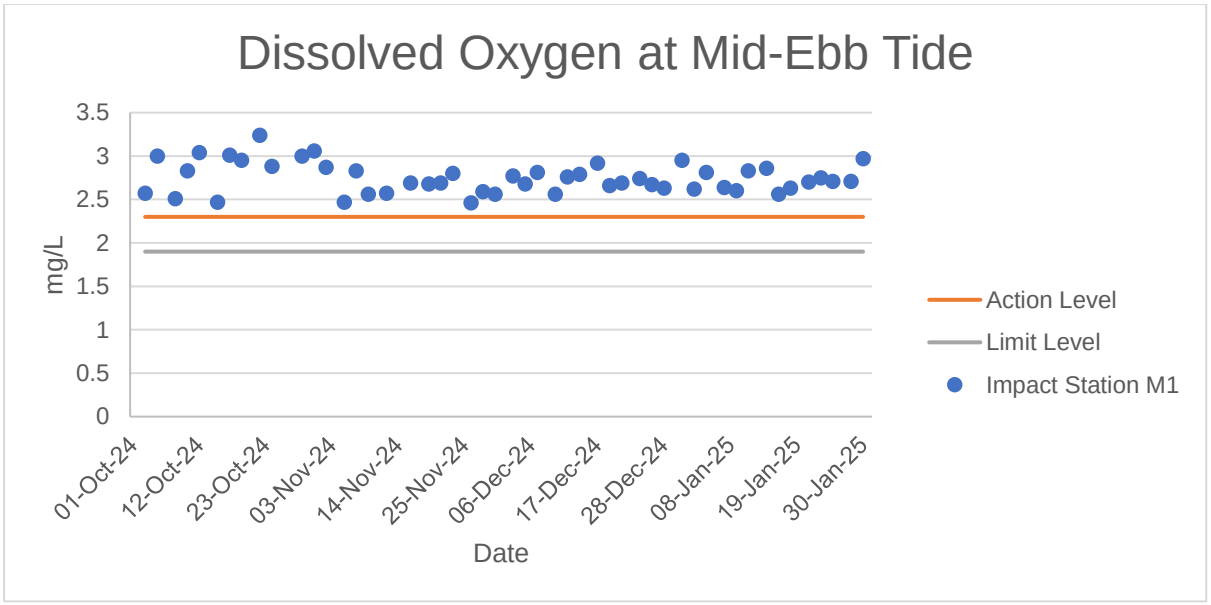
For Ebb Tide

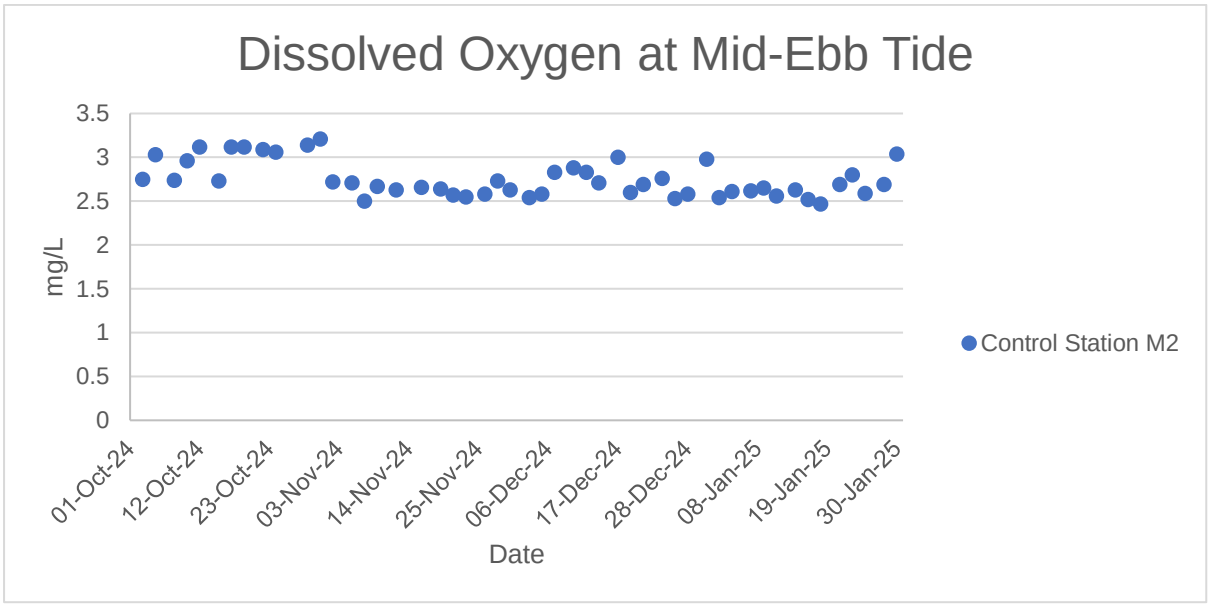
| Monitoring Location | DO | | NTU | | SS | |
|---|---|---|---|---|---|---|
| | AL | LL | AL | LL | AL | LL |
| M1(Impact Station) | 2.25 | 1.91 | 48.4 | 50.4 | 59 | 68 |

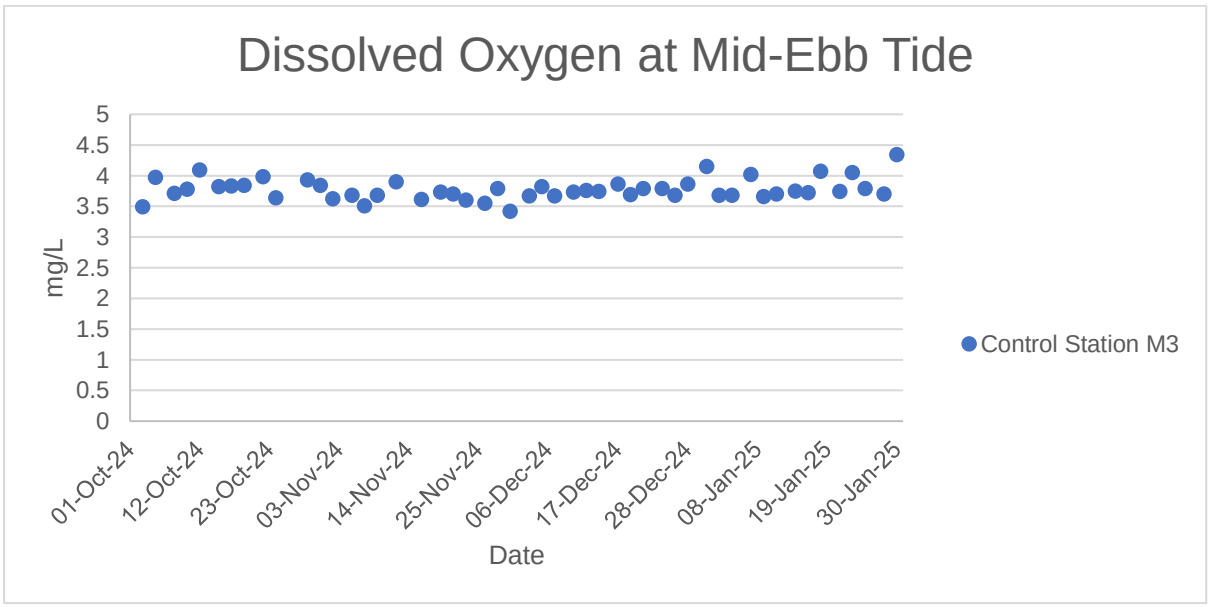

Dissolved Oxygen at Mid-Flood Tide
mg/L
3.5
3
2.5
2
1.5
1
0.5
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Control Station M1

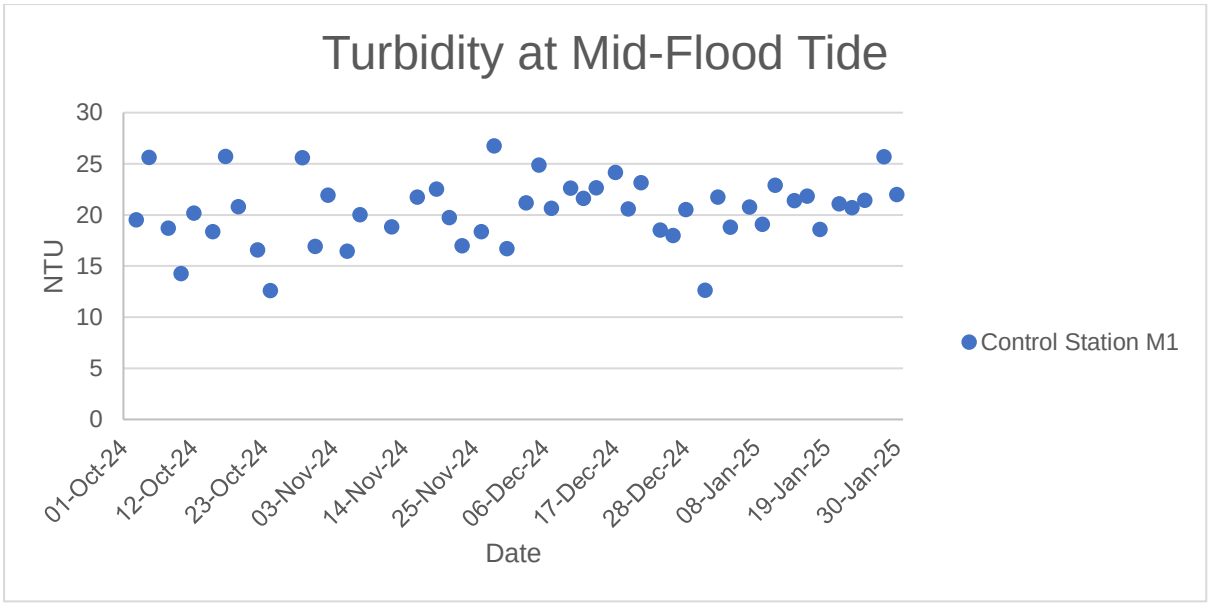

Dissolved Oxygen at Mid-Flood Tide
mg/L
3.5
3
2.5
2
1.5
1
0.5
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Action Level
Limit Level
Impact Station M2

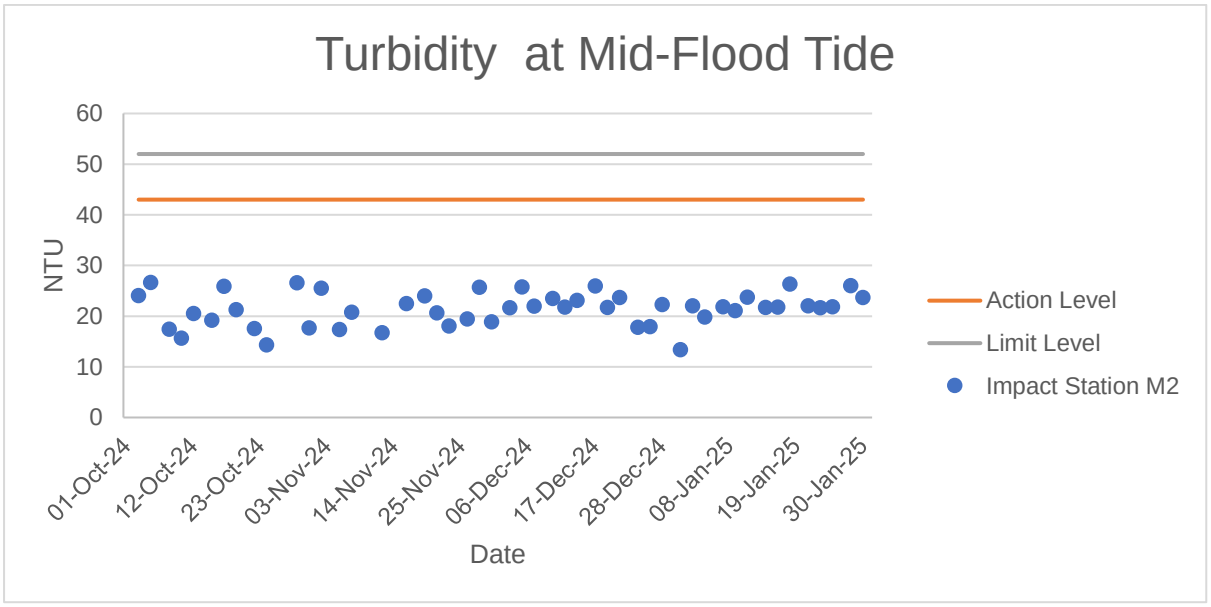

Dissolved Oxygen at Mid-Flood Tide
mg/L
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Action Level
Limit Level
Impact Station M3

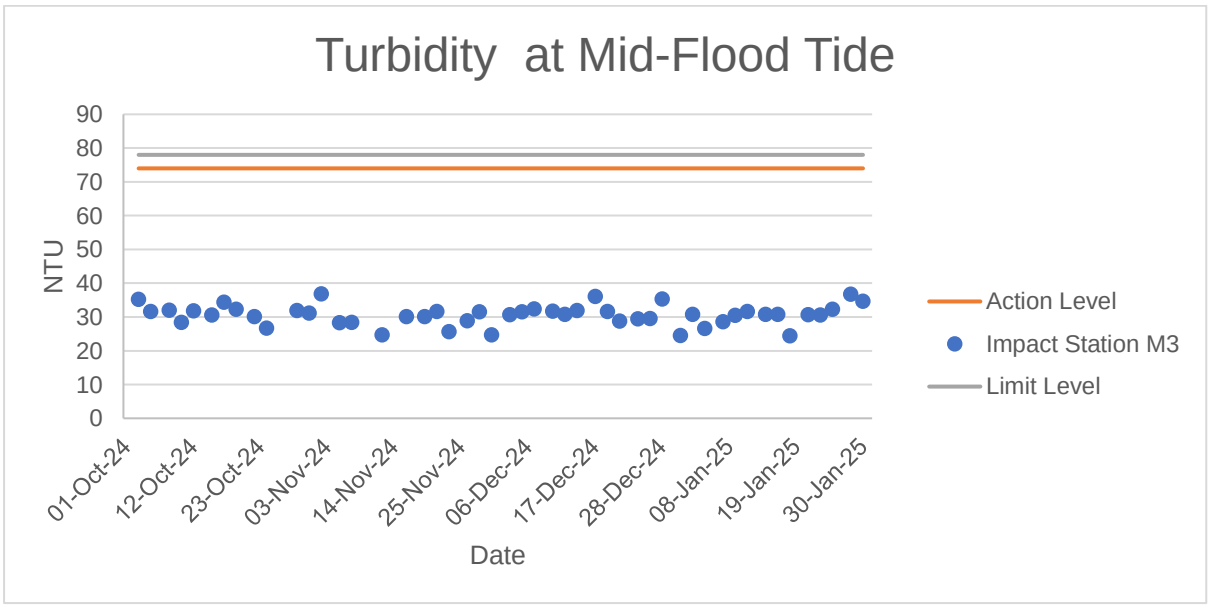

Dissolved Oxygen at Mid-Ebb Tide
mg/L
3.5
3
2.5
2
1.5
1
0.5
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Action Level
Limit Level
Impact Station M1

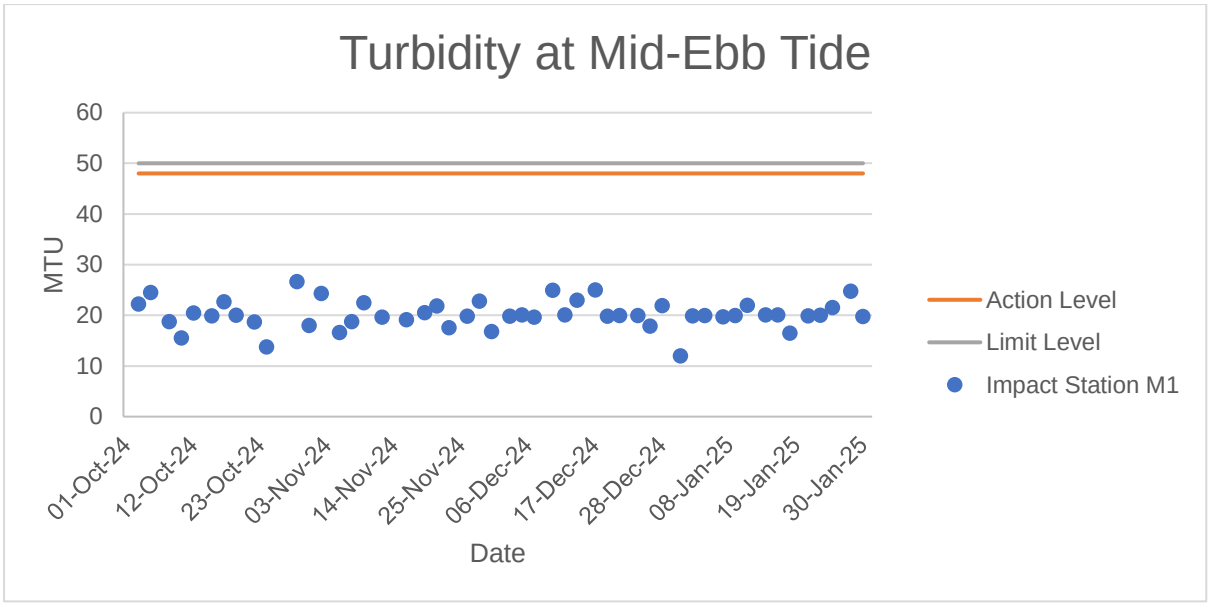

Dissolved Oxygen at Mid-Ebb Tide
mg/L
3.5
3
2.5
2
1.5
1
0.5
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Control Station M2

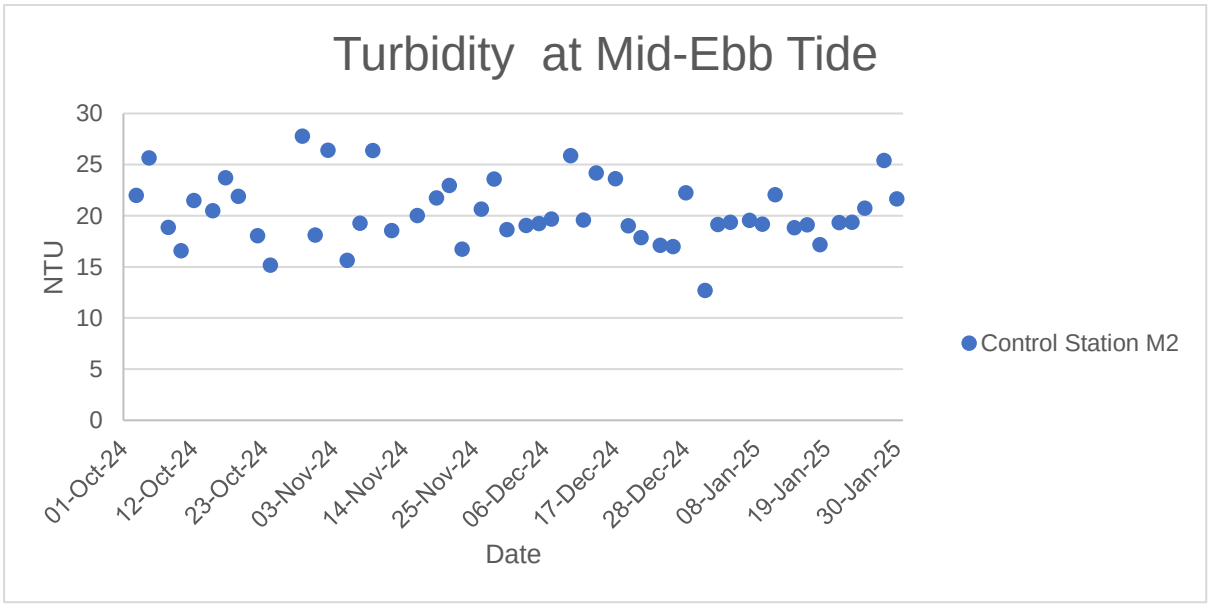

Dissolved Oxygen at Mid-Ebb Tide
mg/L
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Control Station M3

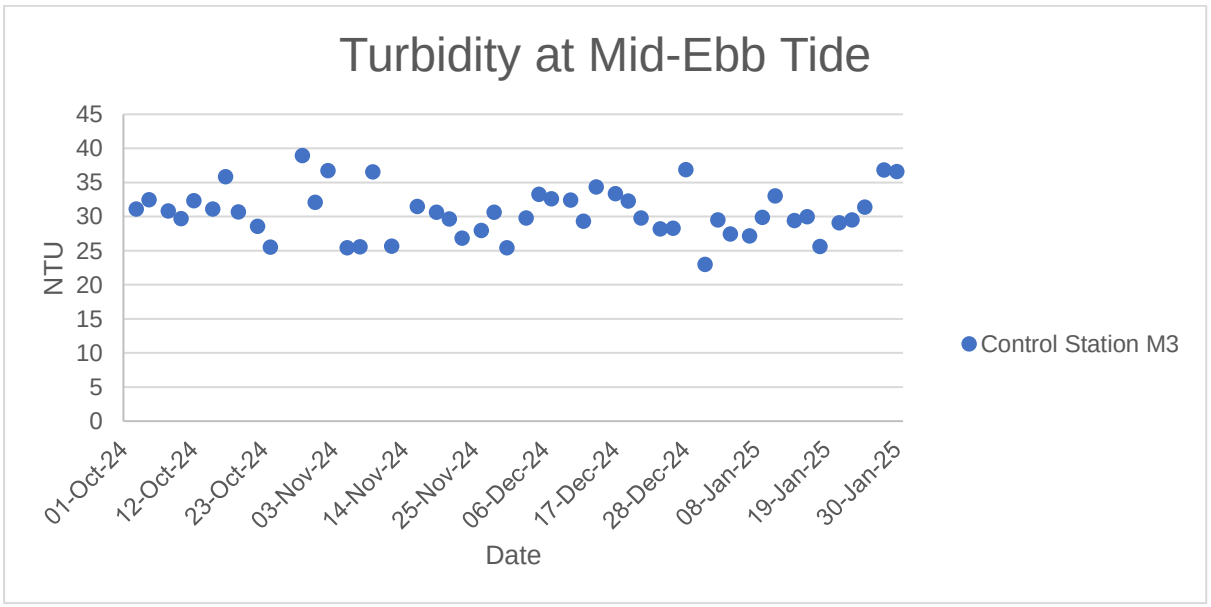

Turbidity at Mid-Flood Tide
NTU
30
25
20
15
10
5
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Control Station M1

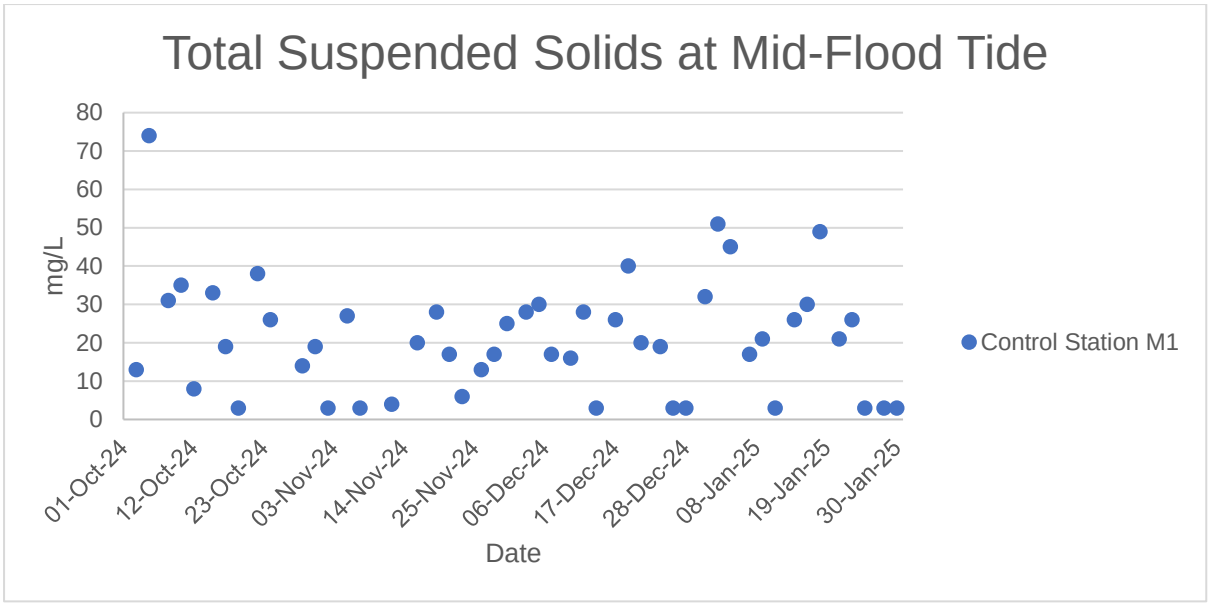

Turbidity at Mid-Flood Tide
NTU
60
50
40
30
20
10
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Action Level
Limit Level
Impact Station M2

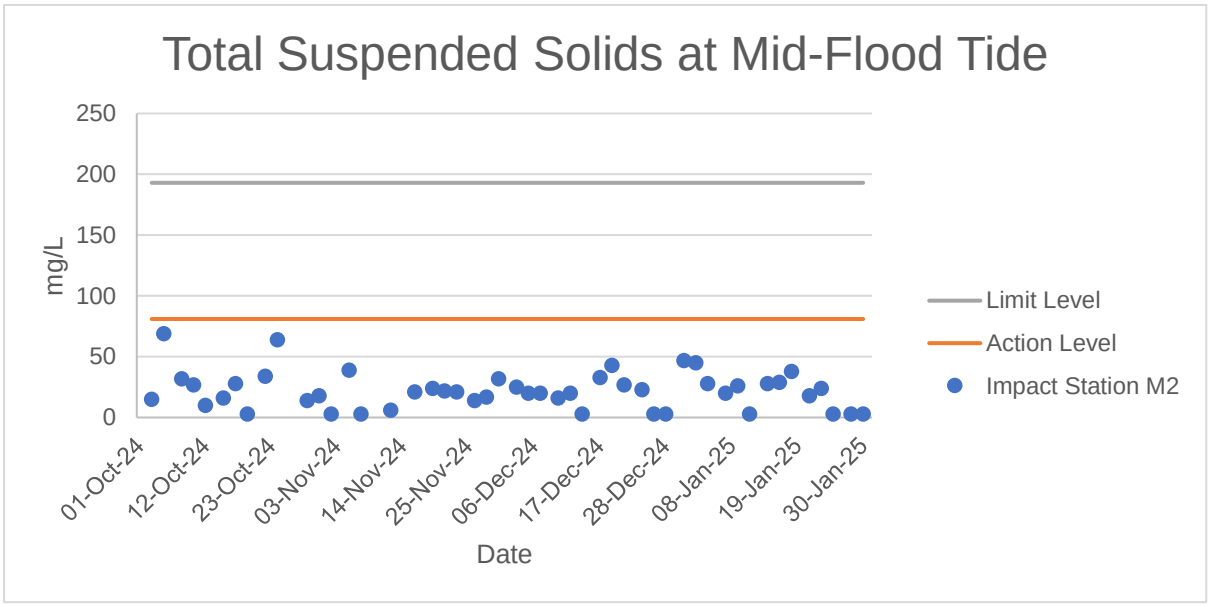

Turbidity at Mid-Flood Tide
NTU
90
80
70
60
50
40
30
20
10
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Action Level
Impact Station M3
Limit Level

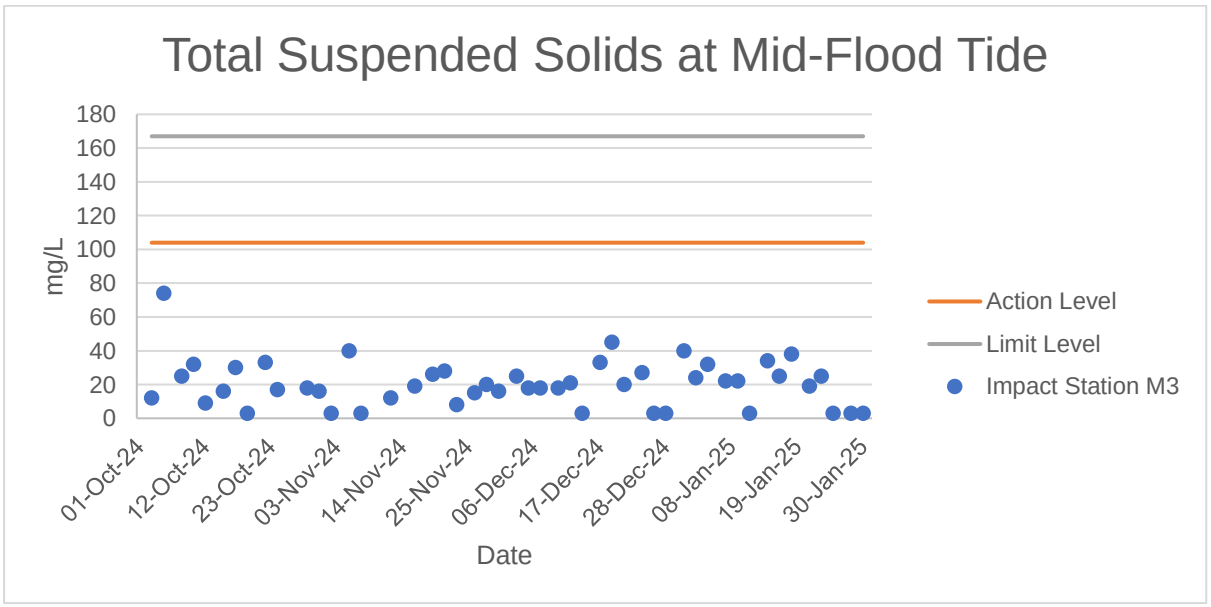

Turbidity at Mid-Ebb Tide
MTU
60
50
40
30
20
10
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Action Level
Limit Level
Impact Station M1

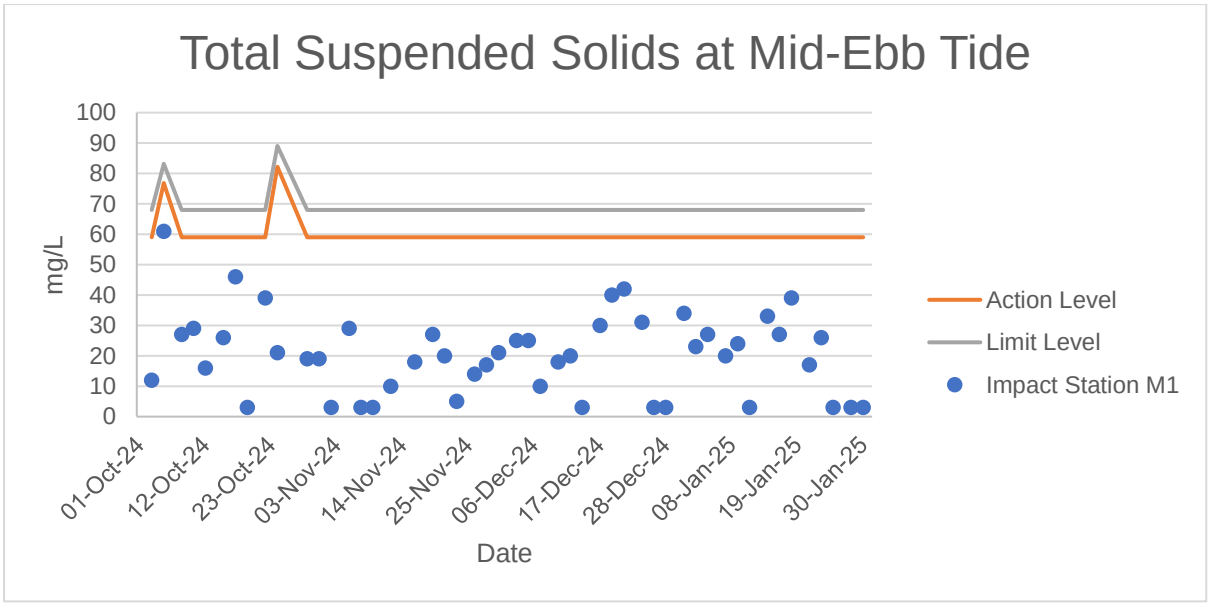

Turbidity at Mid-Ebb Tide
NTU
30
25
20
15
10
5
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Control Station M2

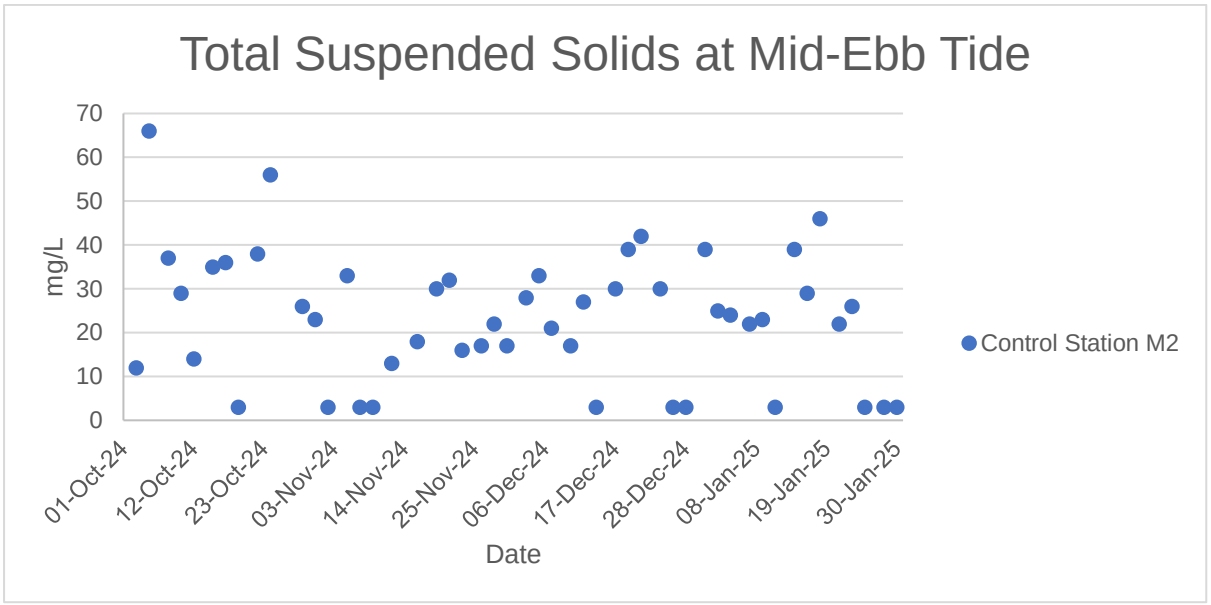

Turbidity at Mid-Ebb Tide
NTU
45
40
35
30
25
20
15
10
5
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Control Station M3

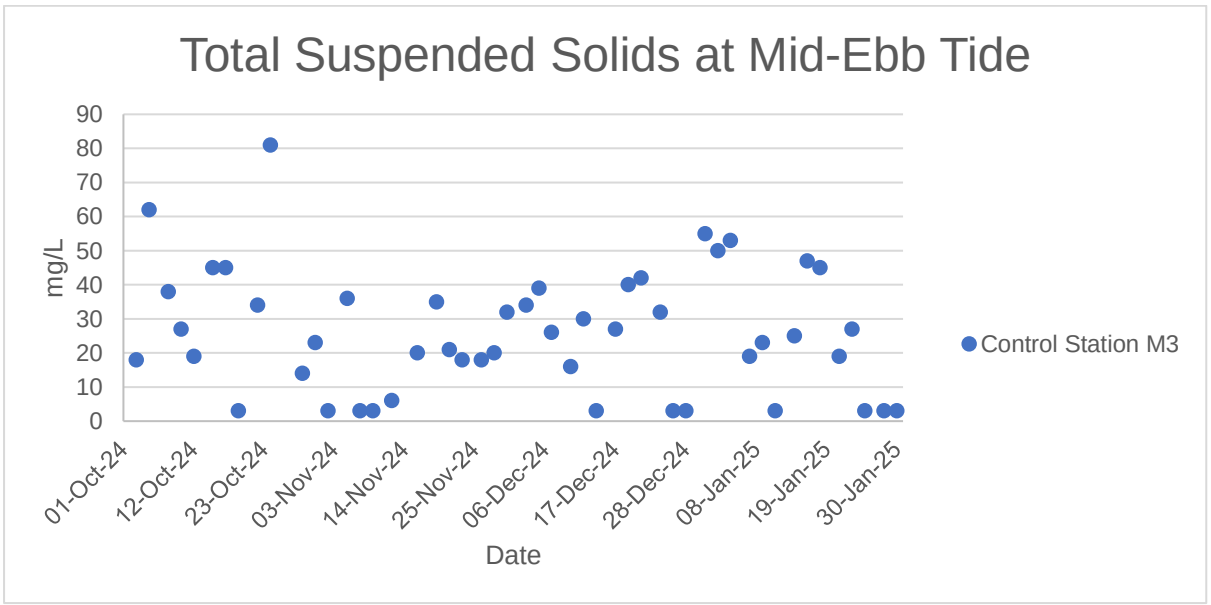

Total Suspended Solids at Mid-Flood Tide
mg/L
80
70
60
50
40
30
20
10
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Control Station M1


Total Suspended Solids at Mid-Flood Tide
mg/L
250
200
150
100
50
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-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-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Action Level
Limit Level
Impact Station M3


Total Suspended Solids at Mid-Ebb Tide
mg/L
100
90
80
70
60
50
40
30
20
10
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-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-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-25
Date
Control Station M2


Total Suspended Solids at Mid-Ebb Tide
mg/L
90
80
70
60
50
40
30
20
10
0
01-Oct-24
12-Oct-24
23-Oct-24
03-Nov-24
14-Nov-24
25-Nov-24
06-Dec-24
17-Dec-24
28-Dec-24
08-Jan-25
19-Jan-25
30-Jan-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 (7 January 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] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW1 | Little Grebe | *Tachybaptus ruficollis* | 5 | Common | R | LC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW1 | Chinese Pond Heron | *Ardeola bacchus* | 2 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW1 | Little Egret | *Egretta garzetta* | 1 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW1 | Red-whiskered Bulbul | *Pycnonotus jocosus* | 5 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW1 | Crested Myna | *Acridotheres cristatellus* | 6 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW1 | Black-collared Starling | *Gracupica nigricollis* | 8 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW1 | White Wagtail | *Motacilla alba* | 1 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW2 | Great Cormorant | *Phalacrocorax carbo* | 1 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW2 | Black-collared Starling | *Gracupica nigricollis* | 3 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW3 | Black Kite | *Milvus migrans* | 1 | Common | R,WV | (RC) | Class II | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW3 | White Wagtail | *Motacilla alba* | 1 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW4 | Northern Shoveler | *Spatula clypeata* | 2 | Abundant | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW4 | Tufted Duck | *Aythya fuligula* | 3 | Uncommon | WV | LC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW4 | Little Grebe | *Tachybaptus ruficollis* | 2 | Common | R | LC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW4 | Chinese Pond Heron | *Ardeola bacchus* | 1 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW4 | Great Cormorant | *Phalacrocorax carbo* | 5 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW4 | Common Moorhen | *Gallinula chloropus* | 6 | Common | R | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW4 | Plain Prinia | *Prinia inornata* | 1 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Little Grebe | *Tachybaptus ruficollis* | 5 | Common | R | LC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Chinese Pond Heron | *Ardeola bacchus* | 6 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Eastern Cattle Egret | *Bubulcus coromandus* | 12 | Common | R.PM | (LC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Great Egret | *Ardea alba* | 3 | Common | R,WV | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Little Egret | *Egretta garzetta* | 1 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Great Cormorant | *Phalacrocorax carbo* | 12 | Common | WV | PRC | - | - | LC | LC | Y | Y |

Appendix F.1 Ecological Bird Monitoring Result (7 January 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] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Spotted Dove | *Spilopelia chinensis* | 2 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Azure-winged Magpie | *Cyanopica cyanus* | 6 | Introduced | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Chinese Bulbul | *Pycnonotus sinensis* | 3 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Crested Myna | *Acridotheres cristatellus* | 2 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Black-collared Starling | *Gracupica nigricollis* | 4 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Eastern Yellow Wagtail | *Motacilla tschutschensis* | 2 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | White Wagtail | *Motacilla alba* | 2 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW5 | Olive-backed Pipit | *Anthus hodgsoni* | 2 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW6 | Chinese Pond Heron | *Ardeola bacchus* | 2 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW6 | Black Kite | *Milvus migrans* | 1 | Common | R,WV | (RC) | Class II | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW6 | Chinese Bulbul | *Pycnonotus sinensis* | 6 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW6 | Plain Prinia | *Prinia inornata* | 1 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW6 | Stejneger's Stonechat | *Saxicola stejnegeri* | 1 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW7 | Azure-winged Magpie | *Cyanopica cyanus* | 14 | Introduced | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW7 | Japanese Tit | *Parus minor* | 2 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW7 | Red-whiskered Bulbul | *Pycnonotus jocosus* | 4 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW7 | Crested Myna | *Acridotheres cristatellus* | 3 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW7 | Black-collared Starling | *Gracupica nigricollis* | 9 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW7 | Scaly-breasted Munia | *Lonchura punctulata* | 3 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Point Count | FLW7 | White Wagtail | *Motacilla alba* | 1 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Tufted Duck | *Aythya fuligula* | 5 | Uncommon | WV | LC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Little Grebe | *Tachybaptus ruficollis* | 2 | Common | R | LC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Great Egret | *Ardea alba* | 5 | Common | R,WV | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Great Cormorant | *Phalacrocorax carbo* | 3 | Common | WV | PRC | - | - | LC | LC | Y | Y |

Appendix F.1 Ecological Bird Monitoring Result (7 January 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] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Common Moorhen | *Gallinula chloropus* | 1 | Common | R | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Azure-winged Magpie | *Cyanopica cyanus* | 12 | Introduced | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Japanese Tit | *Parus minor* | 1 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Red-whiskered Bulbul | *Pycnonotus jocosus* | 3 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Crested Myna | *Acridotheres cristatellus* | 3 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Common Myna | *Acridotheres tristis* | 2 | Uncommon | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Black-collared Starling | *Gracupica nigricollis* | 2 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Chinese Pond Heron | *Ardeola bacchus* | 3 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Little Egret | *Egretta garzetta* | 1 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Great Cormorant | *Phalacrocorax carbo* | 87 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | White-breasted Waterhen | *Amaurornis phoenicurus* | 1 | Common | R | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Common Sandpiper | *Actitis hypoleucos* | 1 | Common | PM,WV | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Eurasian Collared Dove | *Streptopelia decaocto* | 3 | Common | - | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Spotted Dove | *Spilopelia chinensis* | 6 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Common Kingfisher | *Alcedo atthis* | 1 | Common | PM,WV | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Azure-winged Magpie | *Cyanopica cyanus* | 12 | Introduced | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Collared Crow | *Corvus torquatus* | 1 | Uncommon | R | LC | - | - | NT | VU | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Large-billed Crow | *Corvus macrorhynchos* | 1 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Chinese Bulbul | *Pycnonotus sinensis* | 3 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Dusky Warbler | *Phylloscopus fuscatus* | 2 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Plain Prinia | *Prinia inornata* | 1 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Masked Laughingthrush | *Pterorhinus perspicillatus* | 8 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Black-collared Starling | *Gracupica nigricollis* | 5 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Oriental Magpie Robin | *Copsychus saularis* | 1 | Abundant | R | - | - | - | LC | LC | N | N |

Appendix F.1 Ecological Bird Monitoring Result (7 January 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] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Daurian Redstart | *Phoenicurus auroreus* | 1 | Common | WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | Eurasian Tree Sparrow | *Passer montanus* | 12 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | NSW1 | White Wagtail | *Motacilla alba* | 3 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Northern Shoveler | *Spatula clypeata* | 8 | Abundant | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Chinese Pond Heron | *Ardeola bacchus* | 5 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Great Egret | *Ardea alba* | 1 | Common | R,WV | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Little Egret | *Egretta garzetta* | 2 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | White-breasted Waterhen | *Amaurornis phoenicurus* | 4 | Common | R | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Pied Avocet | *Recurvirostra avosetta* | 18 | Abundant | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Little Ringed Plover | *Charadrius dubius* | 2 | Common | WV,PM | (LC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Common Sandpiper | *Actitis hypoleucos* | 1 | Common | PM,WV | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Common Redshank | *Tringa totanus* | 6 | Common | PM | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Marsh Sandpiper | *Tringa stagnatilis* | 1 | Common | PM,WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Common Greenshank | *Tringa nebularia* | 3 | Abundant | PM,WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Black-headed Gull | *Chroicocephalus ridibundus* | 20 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Spotted Dove | *Spilopelia chinensis* | 1 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Azure-winged Magpie | *Cyanopica cyanus* | 5 | Introduced | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Red-whiskered Bulbul | *Pycnonotus jocosus* | 11 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Chinese Bulbul | *Pycnonotus sinensis* | 2 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Crested Myna | *Acridotheres cristatellus* | 4 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | White Wagtail | *Motacilla alba* | 2 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW1 | Pallas's Leaf Warbler | *Phylloscopus proregulus* | 1 | Common | W | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Northern Shoveler | *Spatula clypeata* | 6 | Abundant | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Black-faced Spoonbill | *Platalea minor* | 2 | Common | WV | PGC | Class II | EN | EN | EN | Y | Y |

Appendix F.1 Ecological Bird Monitoring Result (7 January 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] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Chinese Pond Heron | *Ardeola bacchus* | 7 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Great Egret | *Ardea alba* | 3 | Common | R,WV | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Little Egret | *Egretta garzetta* | 7 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Great Cormorant | *Phalacrocorax carbo* | 9 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Black-headed Gull | *Chroicocephalus ridibundus* | 30 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Spotted Dove | *Spilopelia chinensis* | 1 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | White-throated Kingfisher | *Halcyon smyrnensis* | 1 | Common | R | (LC) | Class II | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Crested Myna | *Acridotheres cristatellus* | 5 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Oriental Magpie Robin | *Copsychus saularis* | 1 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Daurian Redstart | *Phoenicurus auroreus* | 1 | Common | WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW2 | Pallas's Leaf Warbler | *Phylloscopus proregulus* | 1 | Common | W | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Northern Shoveler | *Spatula clypeata* | 33 | Abundant | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Eurasian Wigeon | *Mareca penelope* | 6 | Common | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Eurasian Teal | *Anas crecca* | 6 | Common | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Black-faced Spoonbill | *Platalea minor* | 44 | Common | WV | PGC | Class II | EN | EN | EN | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Grey Heron | *Ardea cinerea* | 3 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Great Egret | *Ardea alba* | 75 | Common | R,WV | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Little Egret | *Egretta garzetta* | 44 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Great Cormorant | *Phalacrocorax carbo* | 8 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | White-breasted Waterhen | *Amaurornis phoenicurus* | 2 | Common | R | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Common Moorhen | *Gallinula chloropus* | 4 | Common | R | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Black-winged stilt | *Himantopus himantopus* | 18 | Common | PM | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Pied Avocet | *Recurvirostra avosetta* | 8 | Abundant | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Common Sandpiper | *Actitis hypoleucos* | 1 | Common | PM,WV | - | - | - | LC | LC | N | Y |

Appendix F.1 Ecological Bird Monitoring Result (7 January 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] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Common Redshank | *Tringa totanus* | 6 | Common | PM | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Marsh Sandpiper | *Tringa stagnatilis* | 2 | Common | PM,WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Common Greenshank | *Tringa nebularia* | 2 | Abundant | PM,WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Black-headed Gull | *Chroicocephalus ridibundus* | 250 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Spotted Dove | *Spilopelia chinensis* | 1 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Pied Kingfisher | *Ceryle rudis* | 1 | Uncommon | R | - | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Daurian Redstart | *Phoenicurus auroreus* | 1 | Common | WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Point Count | SP/NSW3 | Eurasian Spoonbill | *Platalea leucorodia* | 1 | Common | W | LC | Class II | VU | NT | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Tufted Duck | *Aythya fuligula* | 5 | Uncommon | WV | LC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Little Grebe | *Tachybaptus ruficollis* | 3 | Common | R | LC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Great Egret | *Ardea alba* | 5 | Common | R,WV | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Great Cormorant | *Phalacrocorax carbo* | 3 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Black Kite | *Milvus migrans* | 1 | Common | R,WV | (RC) | Class II | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Common Moorhen | *Gallinula chloropus* | 2 | Common | R | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Spotted Dove | *Spilopelia chinensis* | 3 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Common Kingfisher | *Alcedo atthis* | 1 | Common | PM,WV | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Azure-winged Magpie | *Cyanopica cyanus* | 12 | Introduced | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Collared Crow | *Corvus torquatus* | 1 | Uncommon | R | LC | - | - | NT | VU | Y | Y |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Japanese Tit | *Parus minor* | 3 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Red-whiskered Bulbul | *Pycnonotus jocosus* | 6 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Crested Myna | *Acridotheres cristatellus* | 16 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Common Myna | *Acridotheres tristis* | 3 | Uncommon | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Black-collared Starling | *Gracupica nigricollis* | 5 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Stejneger's Stonechat | *Saxicola stejnegeri* | 1 | Common | PM,WV | - | - | - | LC | LC | N | N |

Appendix F.1 Ecological Bird Monitoring Result (7 January 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] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/01/2025 | Daytime | Dry | FLW | Transect | FLW | Eastern Yellow Wagtail | *Motacilla tschutschensis* | 2 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Northern Shoveler | *Spatula clypeata* | 37 | Abundant | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Great Cormorant | *Phalacrocorax carbo* | 9 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Black-winged stilt | *Himantopus himantopus* | 16 | Common | PM | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Pied Avocet | *Recurvirostra avosetta* | 37 | Abundant | WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Common Redshank | *Tringa totanus* | 4 | Common | PM | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Black-headed Gull | *Chroicocephalus ridibundus* | 20 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Eurasian Collared Dove | *Streptopelia decaocto* | 2 | Common | - | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Greater Coucal | *Centropus sinensis* | 1 | Common | R | - | Class II | VU | LC | LC | Y | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Azure-winged Magpie | *Cyanopica cyanus* | 8 | Introduced | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Large-billed Crow | *Corvus macrorhynchos* | 1 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Yellow-browed Warbler | *Phylloscopus inornatus* | 2 | Common | WV,Sp | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Yellow-bellied Prinia | *Prinia flaviventris* | 2 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Swinhoe's White-eye | *Zosterops simplex* | 5 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Black-collared Starling | *Gracupica nigricollis* | 11 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Oriental Magpie Robin | *Copsychus saularis* | 2 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Daurian Redstart | *Phoenicurus auroreus* | 1 | Common | WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Fork-tailed Sunbird | *Aethopyga christinae* | 1 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Eurasian Tree Sparrow | *Passer montanus* | 6 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Scaly-breasted Munia | *Lonchura punctulata* | 8 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Olive-backed Pipit | *Anthus hodgsoni* | 2 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Pallas's Leaf Warbler | *Phylloscopus proregulus* | 2 | Common | W | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | NSW | Transect | NSW | Chinese Blackbird | *Turdus mandarinus* | 2 | Common | W,M | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Black-faced Spoonbill | *Platalea minor* | 1 | Common | WV | PGC | Class II | EN | EN | EN | Y | Y |

Appendix F.1 Ecological Bird Monitoring Result (7 January 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] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Chinese Pond Heron | *Ardeola bacchus* | 6 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Grey Heron | *Ardea cinerea* | 3 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Little Egret | *Egretta garzetta* | 3 | Common | R | PRC (RC) | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | White-breasted Waterhen | *Amaurornis phoenicurus* | 2 | Common | R | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Common Moorhen | *Gallinula chloropus* | 2 | Common | R | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Black-winged stilt | *Himantopus himantopus* | 25 | Common | PM | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Common Sandpiper | *Actitis hypoleucos* | 1 | Common | PM,WV | - | - | - | LC | LC | N | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Common Redshank | *Tringa totanus* | 8 | Common | PM | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Common Greenshank | *Tringa nebularia* | 6 | Abundant | PM,WV | RC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Black-headed Gull | *Chroicocephalus ridibundus* | 22 | Common | WV | PRC | - | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | White-throated Kingfisher | *Halcyon smyrnensis* | 1 | Common | R | (LC) | Class II | - | LC | LC | Y | Y |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Azure-winged Magpie | *Cyanopica cyanus* | 2 | Introduced | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Chinese Bulbul | *Pycnonotus sinensis* | 6 | Abundant | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Dusky Warbler | *Phylloscopus fuscatus* | 2 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Plain Prinia | *Prinia inornata* | 2 | Common | R | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | White Wagtail | *Motacilla alba* | 2 | Common | PM,WV | - | - | - | LC | LC | N | N |
| 07/01/2025 | Daytime | Dry | YLIE-CW | Transect | YLIE-CW | Pallas's Leaf Warbler | *Phylloscopus proregulus* | 1 | Common | W | - | - | - | 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 (7 January 2025)**

| Scientific Name | Count | P | Ln(P) | P*Ln(P) | $P*Ln(P)^2$ |
|---|---|---|---|---|---|
| *Spatula clypeata* | 49 | 0.0489 | -3.0189 | -0.1475 | 0.4452 |
| *Mareca penelope* | 6 | 0.0060 | -5.1190 | -0.0306 | 0.1568 |
| *Anas crecca* | 6 | 0.0060 | -5.1190 | -0.0306 | 0.1568 |
| *Aythya fuligula* | 3 | 0.0030 | -5.8121 | -0.0174 | 0.1010 |
| *Tachybaptus ruficollis* | 12 | 0.0120 | -4.4258 | -0.0530 | 0.2344 |
| *Platalea leucorodia* | 1 | 0.0010 | -6.9108 | -0.0069 | 0.0476 |
| *Platalea minor* | 46 | 0.0459 | -3.0821 | -0.1414 | 0.4357 |
| *Ardeola bacchus* | 26 | 0.0259 | -3.6527 | -0.0947 | 0.3459 |
| *Bubulcus coromandus* | 12 | 0.0120 | -4.4258 | -0.0530 | 0.2344 |
| *Ardea cinerea* | 3 | 0.0030 | -5.8121 | -0.0174 | 0.1010 |
| *Ardea alba* | 82 | 0.0818 | -2.5040 | -0.2047 | 0.5126 |
| *Egretta garzetta* | 56 | 0.0558 | -2.8854 | -0.1611 | 0.4648 |
| *Phalacrocorax carbo* | 122 | 0.1216 | -2.1067 | -0.2563 | 0.5399 |
| *Milvus migrans* | 2 | 0.0020 | -6.2176 | -0.0124 | 0.0771 |
| *Amaurornis phoenicurus* | 7 | 0.0070 | -4.9648 | -0.0346 | 0.1720 |
| *Gallinula chloropus* | 10 | 0.0100 | -4.6082 | -0.0459 | 0.2117 |
| *Himantopus himantopus* | 18 | 0.0179 | -4.0204 | -0.0722 | 0.2901 |
| *Recurvirostra avosetta* | 26 | 0.0259 | -3.6527 | -0.0947 | 0.3459 |
| *Charadrius dubius* | 2 | 0.0020 | -6.2176 | -0.0124 | 0.0771 |
| *Actitis hypoleucos* | 3 | 0.0030 | -5.8121 | -0.0174 | 0.1010 |
| *Tringa totanus* | 12 | 0.0120 | -4.4258 | -0.0530 | 0.2344 |
| *Tringa stagnatilis* | 3 | 0.0030 | -5.8121 | -0.0174 | 0.1010 |
| *Tringa nebularia* | 5 | 0.0050 | -5.3013 | -0.0264 | 0.1401 |
| *Chroicocephalus ridibundus* | 300 | 0.2991 | -1.2070 | -0.3610 | 0.4357 |
| *Streptopelia decaocto* | 3 | 0.0030 | -5.8121 | -0.0174 | 0.1010 |
| *Spilopelia chinensis* | 11 | 0.0110 | -4.5129 | -0.0495 | 0.2234 |
| *Halcyon smyrnensis* | 1 | 0.0010 | -6.9108 | -0.0069 | 0.0476 |
| *Alcedo atthis* | 1 | 0.0010 | -6.9108 | -0.0069 | 0.0476 |
| *Ceryle rudis* | 1 | 0.0010 | -6.9108 | -0.0069 | 0.0476 |
| *Cyanopica cyanus* | 37 | 0.0369 | -3.2998 | -0.1217 | 0.4017 |
| *Corvus torquatus* | 1 | 0.0010 | -6.9108 | -0.0069 | 0.0476 |
| *Corvus macrorhynchos* | 1 | 0.0010 | -6.9108 | -0.0069 | 0.0476 |
| *Parus minor* | 2 | 0.0020 | -6.2176 | -0.0124 | 0.0771 |
| *Pycnonotus jocosus* | 20 | 0.0199 | -3.9150 | -0.0781 | 0.3056 |
| *Pycnonotus sinensis* | 14 | 0.0140 | -4.2717 | -0.0596 | 0.2547 |
| *Phylloscopus proregulus* | 2 | 0.0020 | -6.2176 | -0.0124 | 0.0771 |
| *Phylloscopus fuscatus* | 2 | 0.0020 | -6.2176 | -0.0124 | 0.0771 |
| *Prinia inornata* | 3 | 0.0030 | -5.8121 | -0.0174 | 0.1010 |
| *Pterorhinus perspicillatus* | 8 | 0.0080 | -4.8313 | -0.0385 | 0.1862 |
| *Acridotheres cristatellus* | 20 | 0.0199 | -3.9150 | -0.0781 | 0.3056 |
| *Gracupica nigricollis* | 29 | 0.0289 | -3.5435 | -0.1025 | 0.3630 |
| *Copsychus saularis* | 2 | 0.0020 | -6.2176 | -0.0124 | 0.0771 |
| *Phoenicurus auroreus* | 3 | 0.0030 | -5.8121 | -0.0174 | 0.1010 |
| *Saxicola stejnegeri* | 1 | 0.0010 | -6.9108 | -0.0069 | 0.0476 |
| *Passer montanus* | 12 | 0.0120 | -4.4258 | -0.0530 | 0.2344 |
| *Lonchura punctulata* | 3 | 0.0030 | -5.8121 | -0.0174 | 0.1010 |
| *Motacilla tschutschensis* | 2 | 0.0020 | -6.2176 | -0.0124 | 0.0771 |
| *Motacilla alba* | 10 | 0.0100 | -4.6082 | -0.0459 | 0.2117 |
| *Anthus hodgsoni* | 2 | 0.0020 | -6.2176 | -0.0124 | 0.0771 |

| Scientific Name | Count | P | Ln(P) | P*Ln(P) | $P*Ln(P)^2$ |
|---|---|---|---|---|---|
| | | | | | |
| Total | 1003 | 1 | -246.4561 | -2.7739 | 9.6007 |
| Richness | 49 | | | | |
| SS | 9.6007 | | | | |
| SQ | 7.6945 | | | | |
| H | 2.7739 | | | | |
| $S^2H$ | 0.0019 | | | | |

**Appendix F.2.2 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Point Count Method) in All Habitats (7 January 2025)**

| Scientific Name | Count | P | Ln(P) | P*Ln(P) | P*Ln(P)$^2$ |
|---|---|---|---|---|---|
| *Spatula clypeata* | 49 | 0.0616 | -2.7865 | -0.1717 | 0.4786 |
| *Mareca penelope* | 6 | 0.0075 | -4.8866 | -0.0369 | 0.1802 |
| *Anas crecca* | 6 | 0.0075 | -4.8866 | -0.0369 | 0.1802 |
| *Aythya fuligula* | 3 | 0.0038 | -5.5797 | -0.0211 | 0.1175 |
| *Tachybaptus ruficollis* | 12 | 0.0151 | -4.1934 | -0.0633 | 0.2654 |
| *Platalea leucorodia* | 1 | 0.0013 | -6.6783 | -0.0084 | 0.0561 |
| *Platalea minor* | 46 | 0.0579 | -2.8497 | -0.1649 | 0.4699 |
| *Ardeola bacchus* | 26 | 0.0327 | -3.4202 | -0.1119 | 0.3826 |
| *Bubulcus coromandus* | 12 | 0.0151 | -4.1934 | -0.0633 | 0.2654 |
| *Ardea cinerea* | 3 | 0.0038 | -5.5797 | -0.0211 | 0.1175 |
| *Ardea alba* | 82 | 0.1031 | -2.2716 | -0.2343 | 0.5323 |
| *Egretta garzetta* | 56 | 0.0704 | -2.6530 | -0.1869 | 0.4958 |
| *Phalacrocorax carbo* | 122 | 0.1535 | -1.8743 | -0.2876 | 0.5391 |
| *Milvus migrans* | 2 | 0.0025 | -5.9852 | -0.0151 | 0.0901 |
| *Himantopus himantopus* | 18 | 0.0226 | -3.7880 | -0.0858 | 0.3249 |
| *Recurvirostra avosetta* | 26 | 0.0327 | -3.4202 | -0.1119 | 0.3826 |
| *Charadrius dubius* | 2 | 0.0025 | -5.9852 | -0.0151 | 0.0901 |
| *Tringa totanus* | 12 | 0.0151 | -4.1934 | -0.0633 | 0.2654 |
| *Tringa stagnatilis* | 3 | 0.0038 | -5.5797 | -0.0211 | 0.1175 |
| *Tringa nebularia* | 5 | 0.0063 | -5.0689 | -0.0319 | 0.1616 |
| *Chroicocephalus ridibundus* | 300 | 0.3774 | -0.9746 | -0.3678 | 0.3584 |
| *Halcyon smyrnensis* | 1 | 0.0013 | -6.6783 | -0.0084 | 0.0561 |
| *Ceryle rudis* | 1 | 0.0013 | -6.6783 | -0.0084 | 0.0561 |
| *Corvus torquatus* | 1 | 0.0013 | -6.6783 | -0.0084 | 0.0561 |
| | | | | | |
| Total | 795 | 1 | -106.8835 | -2.1451 | 6.0395 |
| Richness | 24 | | | | |
| SS | 6.0395 | | | | |
| SQ | 4.6015 | | | | |
| H | 2.1451 | | | | |
| $S^2H$ | 0.0018 | | | | |

**Appendix F.2.3 Ecological Bird Monitoring Diversity (All avifauna species in Transect Walk Method) in All Habitats (7 January 2025)**

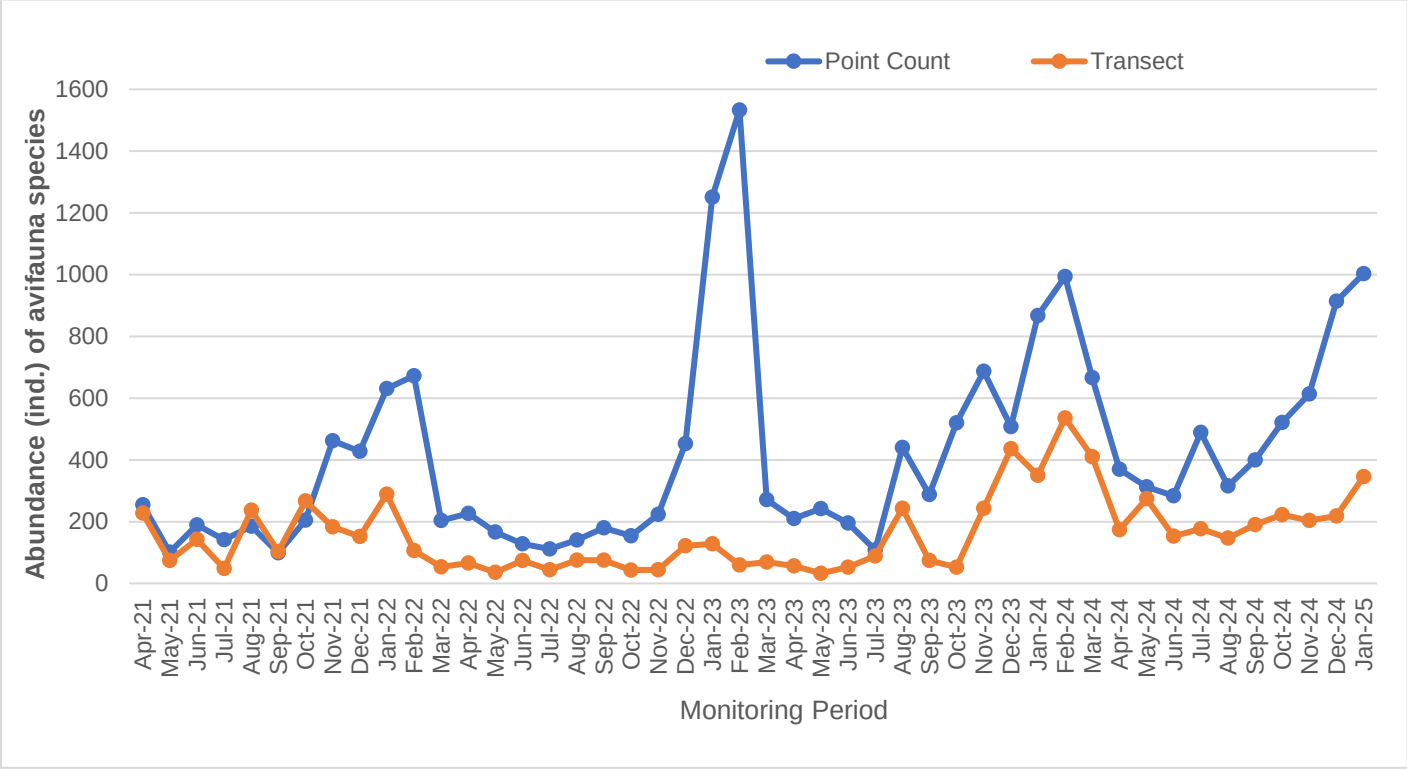
| Scientific Name | Count | P | Ln(P) | P*Ln(P) | P*Ln(P)$^2$ |
|---|---|---|---|---|---|
| *Spatula clypeata* | 37 | 0.1069 | -2.2355 | -0.2391 | 0.5344 |
| *Aythya fuligula* | 5 | 0.0145 | -4.2370 | -0.0612 | 0.2594 |
| *Tachybaptus ruficollis* | 3 | 0.0087 | -4.7478 | -0.0412 | 0.1954 |
| *Platalea minor* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Ardeola bacchus* | 6 | 0.0173 | -4.0547 | -0.0703 | 0.2851 |
| *Ardea cinerea* | 3 | 0.0087 | -4.7478 | -0.0412 | 0.1954 |
| *Ardea alba* | 5 | 0.0145 | -4.2370 | -0.0612 | 0.2594 |
| *Egretta garzetta* | 3 | 0.0087 | -4.7478 | -0.0412 | 0.1954 |
| *Phalacrocorax carbo* | 12 | 0.0347 | -3.3615 | -0.1166 | 0.3919 |
| *Milvus migrans* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Amaurornis phoenicurus* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Gallinula chloropus* | 4 | 0.0116 | -4.4601 | -0.0516 | 0.2300 |
| *Himantopus himantopus* | 41 | 0.1185 | -2.1329 | -0.2527 | 0.5391 |
| *Recurvirostra avosetta* | 37 | 0.1069 | -2.2355 | -0.2391 | 0.5344 |
| *Actitis hypoleucos* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Tringa totanus* | 12 | 0.0347 | -3.3615 | -0.1166 | 0.3919 |
| *Tringa nebularia* | 6 | 0.0173 | -4.0547 | -0.0703 | 0.2851 |
| *Chroicocephalus ridibundus* | 42 | 0.1214 | -2.1088 | -0.2560 | 0.5398 |
| *Streptopelia decaocto* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Spilopelia chinensis* | 3 | 0.0087 | -4.7478 | -0.0412 | 0.1954 |
| *Centropus sinensis* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Halcyon smyrnensis* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Alcedo atthis* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Cyanopica cyanus* | 22 | 0.0636 | -2.7554 | -0.1752 | 0.4827 |
| *Corvus torquatus* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Corvus macrorhynchos* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Parus minor* | 3 | 0.0087 | -4.7478 | -0.0412 | 0.1954 |
| *Pycnonotus jocosus* | 6 | 0.0173 | -4.0547 | -0.0703 | 0.2851 |
| *Pycnonotus sinensis* | 6 | 0.0173 | -4.0547 | -0.0703 | 0.2851 |
| *Phylloscopus inornatus* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Phylloscopus proregulus* | 3 | 0.0087 | -4.7478 | -0.0412 | 0.1954 |
| *Phylloscopus fuscatus* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Prinia flaviventris* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Prinia inornata* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Zosterops simplex* | 5 | 0.0145 | -4.2370 | -0.0612 | 0.2594 |
| *Acridotheres cristatellus* | 16 | 0.0462 | -3.0739 | -0.1421 | 0.4369 |
| *Acridotheres tristis* | 3 | 0.0087 | -4.7478 | -0.0412 | 0.1954 |
| *Gracupica nigricollis* | 16 | 0.0462 | -3.0739 | -0.1421 | 0.4369 |
| *Turdus mandarinus* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Copsychus saularis* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Phoenicurus auroreus* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Saxicola stejnegeri* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Aethopyga christinae* | 1 | 0.0029 | -5.8464 | -0.0169 | 0.0988 |
| *Passer montanus* | 6 | 0.0173 | -4.0547 | -0.0703 | 0.2851 |

| Scientific Name | Count | P | Ln(P) | P*Ln(P) | $P*Ln(P)^2$ |
|---|---|---|---|---|---|
| *Lonchura punctulata* | 8 | 0.0231 | -3.7670 | -0.0871 | 0.3281 |
| *Motacilla tschutschensis* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Motacilla alba* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| *Anthus hodgsoni* | 2 | 0.0058 | -5.1533 | -0.0298 | 0.1535 |
| | | | | | |
| Total | 346 | 1 | -219.7822 | -3.1551 | 11.1933 |
| Richness | 48 | | | | |
| SS | 11.1933 | | | | |
| SQ | 9.9546 | | | | |
| H | 3.1551 | | | | |
| $S^2H$ | 0.0038 | | | | |

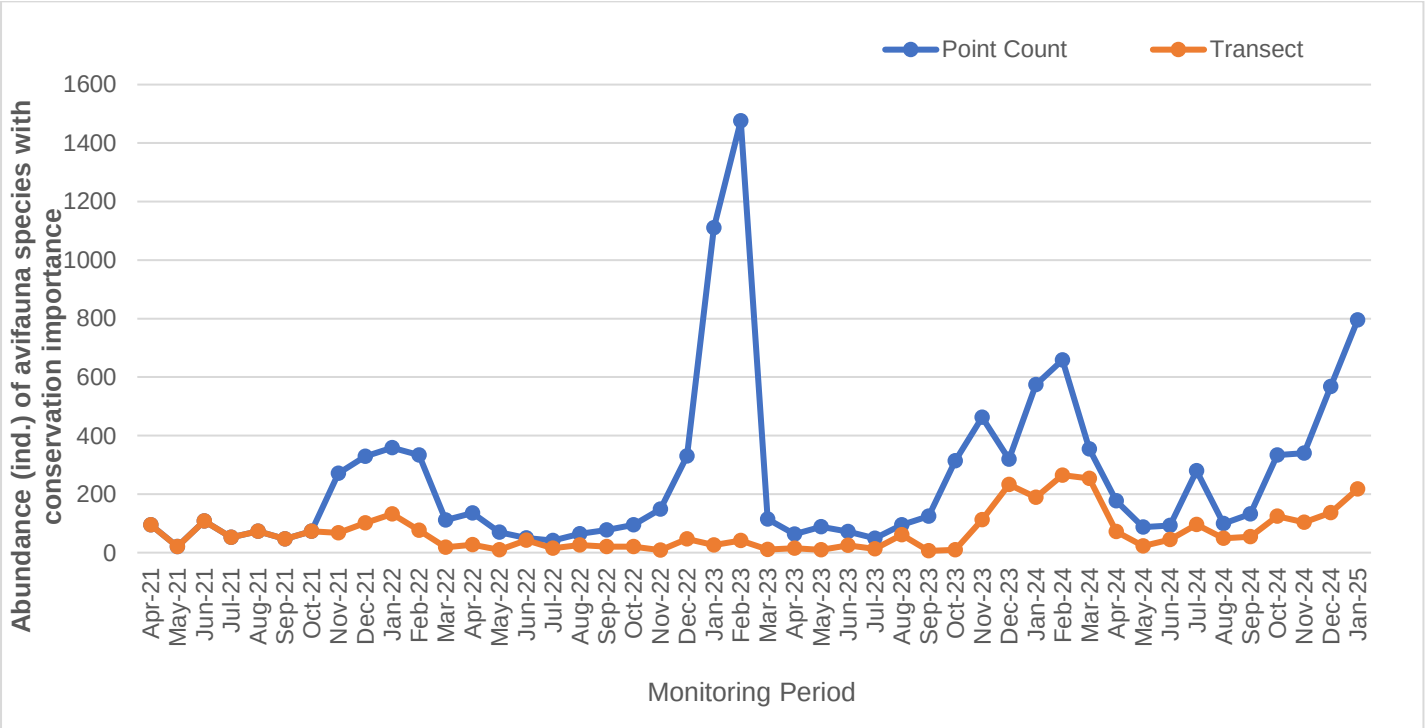
**Appendix F.2.4 Ecological Bird Monitoring Diversity (Avifauna species of conservation importance in Transect Walk Method) in All Habitats (7 January 2025)**

| Scientific Name | Count | P | Ln(P) | P*Ln(P) | $P*Ln(P)^2$ |
|---|---|---|---|---|---|
| *Spatula clypeata* | 37 | 0.1705 | -1.7690 | -0.3016 | 0.5336 |
| *Aythya fuligula* | 5 | 0.0230 | -3.7705 | -0.0869 | 0.3276 |
| *Tachybaptus ruficollis* | 3 | 0.0138 | -4.2813 | -0.0592 | 0.2534 |
| *Platalea minor* | 1 | 0.0046 | -5.3799 | -0.0248 | 0.1334 |
| *Ardeola bacchus* | 6 | 0.0276 | -3.5881 | -0.0992 | 0.3560 |
| *Ardea cinerea* | 3 | 0.0138 | -4.2813 | -0.0592 | 0.2534 |
| *Ardea alba* | 5 | 0.0230 | -3.7705 | -0.0869 | 0.3276 |
| *Egretta garzetta* | 3 | 0.0138 | -4.2813 | -0.0592 | 0.2534 |
| *Phalacrocorax carbo* | 12 | 0.0553 | -2.8950 | -0.1601 | 0.4635 |
| *Milvus migrans* | 1 | 0.0046 | -5.3799 | -0.0248 | 0.1334 |
| *Himantopus himantopus* | 41 | 0.1889 | -1.6663 | -0.3148 | 0.5246 |
| *Recurvirostra avosetta* | 37 | 0.1705 | -1.7690 | -0.3016 | 0.5336 |
| *Tringa totanus* | 12 | 0.0553 | -2.8950 | -0.1601 | 0.4635 |
| *Tringa nebularia* | 6 | 0.0276 | -3.5881 | -0.0992 | 0.3560 |
| *Chroicocephalus ridibundus* | 42 | 0.1935 | -1.6422 | -0.3179 | 0.5220 |
| *Centropus sinensis* | 1 | 0.0046 | -5.3799 | -0.0248 | 0.1334 |
| *Halcyon smyrnensis* | 1 | 0.0046 | -5.3799 | -0.0248 | 0.1334 |
| *Corvus torquatus* | 1 | 0.0046 | -5.3799 | -0.0248 | 0.1334 |
| | | | | | |
| Total | 217 | 1 | -67.0970 | -2.2298 | 5.8349 |
| Richness | 18 | | | | |
| SS | 5.8349 | | | | |
| SQ | 4.9721 | | | | |
| H | 2.2298 | | | | |
| $S^2H$ | 0.0042 | | | | |

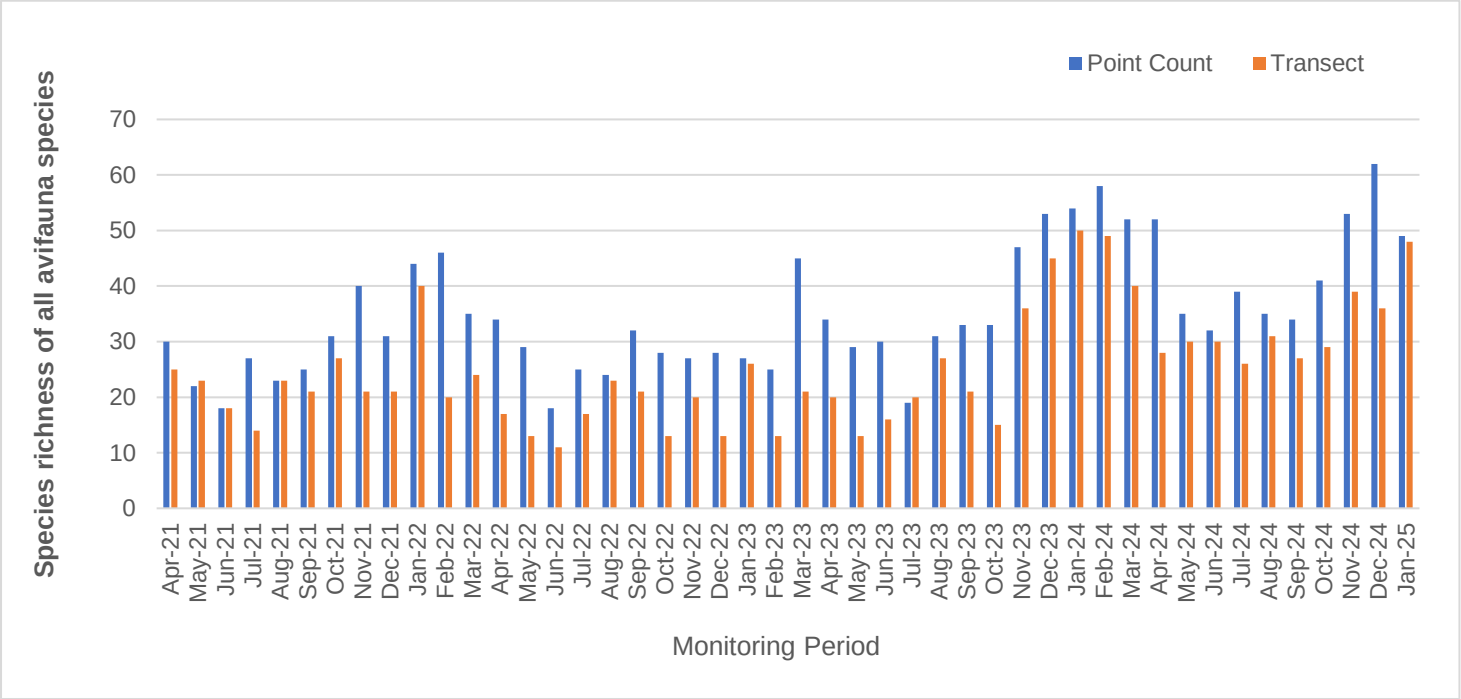
**Appendix F.3.1 Abundance of all avifauna species throughout the monitoring period**



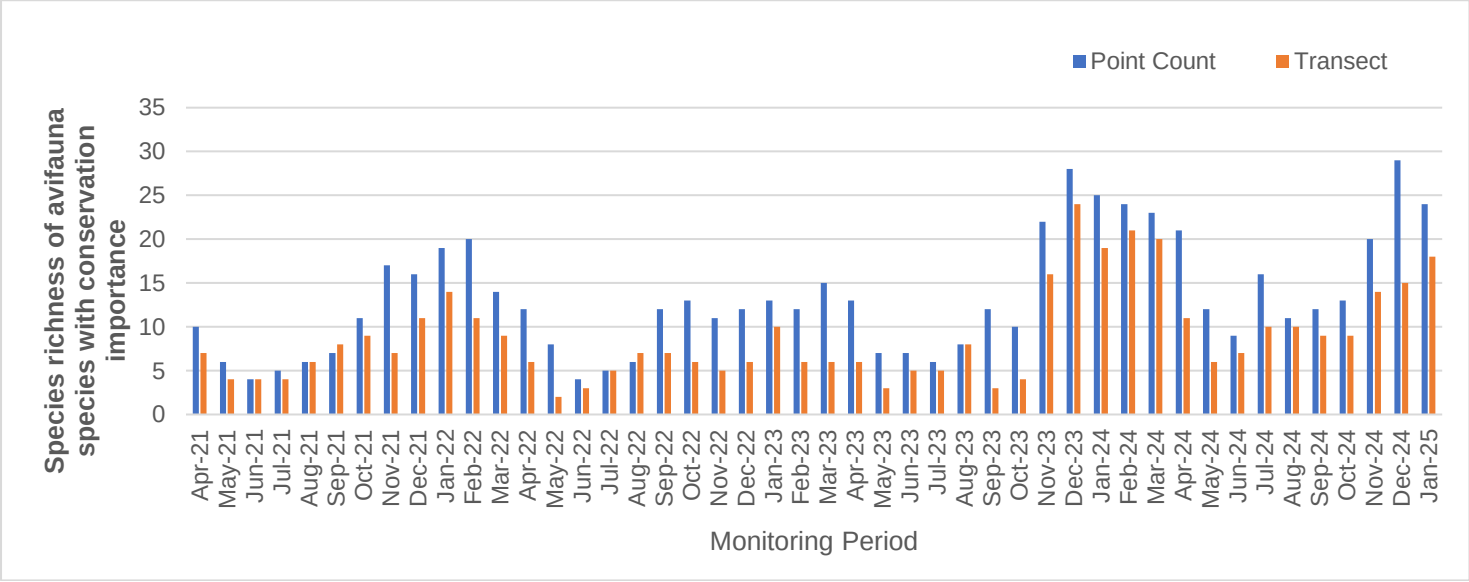

**Appendix F.3.2 Abundance of avifauna species with conservation importance throughout the monitoring period**



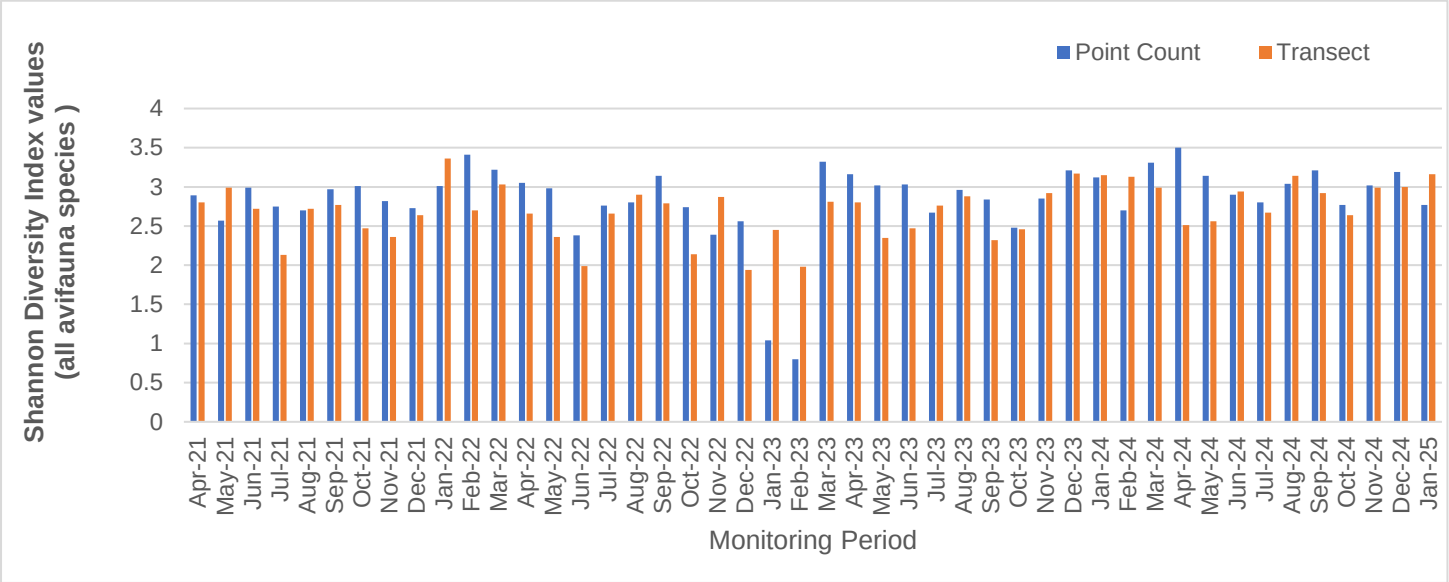
**Appendix F.4.1 Species richness of all avifauna species throughout the monitoring period**



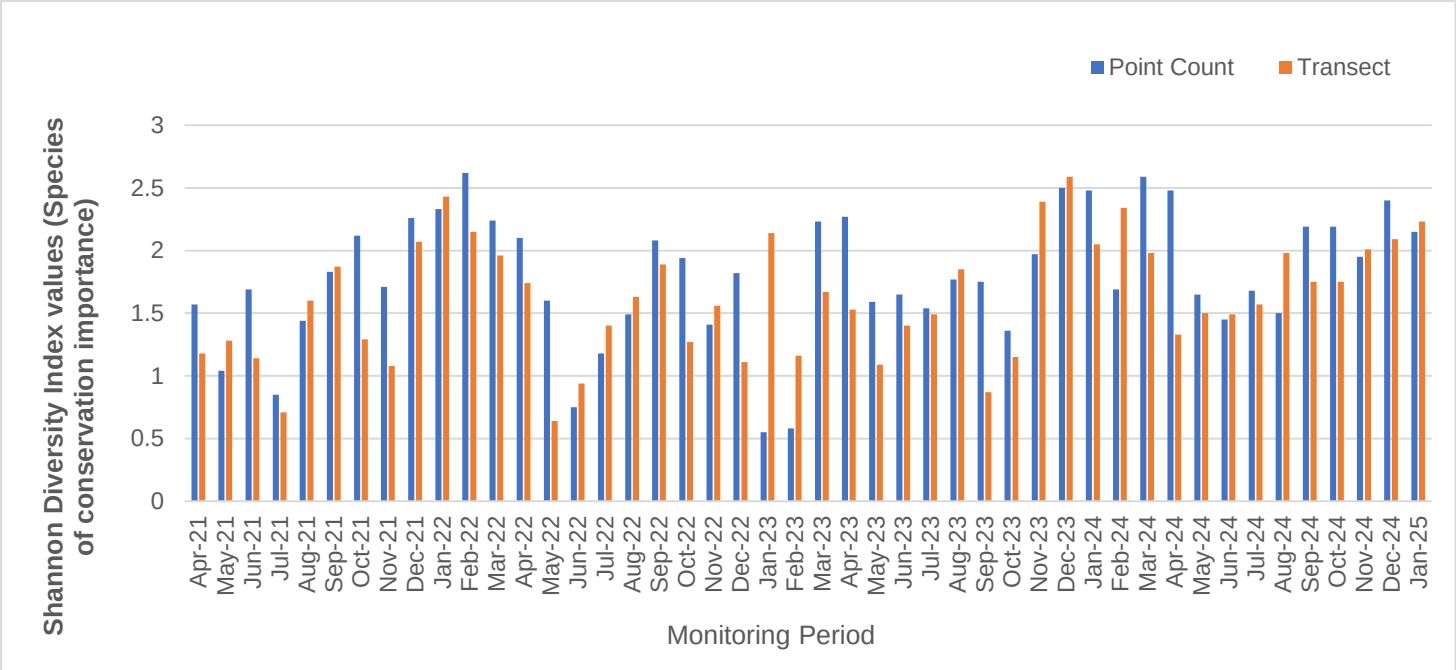

**Appendix F.4.2 Species richness of avifauna species with conservation importance throughout the monitoring period**



**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 | January 2017 | January 2025 |
|---|---|---|
| Total | 708 | 1003 |
| Richness | 47 | 49 |
| H | 2.8234 | 2.7739 |
| $S^2H$ | 0.0026 | 0.0019 |
| t | 0.7362 | |
| df | 1546.0446 | |
| Crit | 1.9615 | |
| p | 4.61E-01 | |
| CI | 0.1020 | 0.0877 |

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

| Months | January 2017 | January 2025 |
|---|---|---|
| Total | 347 | 346 |
| Richness | 50 | 48 |
| H | 3.3086 | 3.1551 |
| $S^2H$ | 0.0028 | 0.0038 |
| t | 1.8895 | |
| df | 678.4552 | |
| Crit | 1.9635 | |
| p | 0.0592 | |
| CI | 0.1062 | 0.1229 |

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

| Months | January 2017 | January 2025 |
|---|---|---|
| Total | 528 | 795 |
| Richness | 22 | 24 |
| H | 2.2413 | 2.1451 |
| $S^2H$ | 0.0029 | 0.0018 |
| t | 1.3992 | |
| df | 1110.1967 | |
| Crit | 1.9621 | |
| p | 0.1620 | |
| CI | 0.1077 | 0.0855 |

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

| Months | January 2017 | January 2025 |
|---|---|---|
| Total | 83 | 217 |
| Richness | 11 | 18 |
| H | 1.7885 | 2.2298 |
| $S^2H$ | 0.0112 | 0.0042 |
| t | 3.5615 | |
| df | 148.2269 | |
| Crit | 1.9761 | |
| p | 4.96E-4 | |
| CI | 0.2117 | 0.1289 |

# Appendix G
# Wind Data

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 1/01/2025 0:00 | 0.6 | NE |
| 1/01/2025 1:00 | 1.3 | NE |
| 1/01/2025 2:00 | 1.1 | E |
| 1/01/2025 3:00 | 0.0 | SE |
| 1/01/2025 4:00 | 0.0 | E |
| 1/01/2025 5:00 | 1.8 | E |
| 1/01/2025 6:00 | 0.0 | E |
| 1/01/2025 7:00 | 1.0 | SW |
| 1/01/2025 8:00 | 0.5 | N |
| 1/01/2025 9:00 | 1.6 | N |
| 1/01/2025 10:00 | 0.4 | E |
| 1/01/2025 11:00 | 0.0 | SW |
| 1/01/2025 12:00 | 0.0 | S |
| 1/01/2025 13:00 | 0.0 | SW |
| 1/01/2025 14:00 | 1.9 | SE |
| 1/01/2025 15:00 | 1.1 | E |
| 1/01/2025 16:00 | 0.5 | SE |
| 1/01/2025 17:00 | 0.0 | E |
| 1/01/2025 18:00 | 1.4 | SE |
| 1/01/2025 19:00 | 0.0 | E |
| 1/01/2025 20:00 | 0.0 | E |
| 1/01/2025 21:00 | 0.0 | S |
| 1/01/2025 22:00 | 1.9 | SE |
| 1/01/2025 23:00 | 0.3 | SE |
| 1/01/2025 0:00 | 0.0 | N |
| 2/01/2025 1:00 | 0.6 | NE |
| 2/01/2025 2:00 | 2.2 | E |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 2/01/2025 3:00 | 1.6 | E |
| 2/01/2025 4:00 | 0.3 | NE |
| 2/01/2025 5:00 | 0.1 | N |
| 2/01/2025 6:00 | 0.1 | NW |
| 2/01/2025 7:00 | 1.1 | NE |
| 2/01/2025 8:00 | 1.6 | NE |
| 2/01/2025 9:00 | 1.9 | NE |
| 2/01/2025 10:00 | 0.1 | E |
| 2/01/2025 11:00 | 0.6 | N |
| 2/01/2025 12:00 | 0.0 | N |
| 2/01/2025 13:00 | 0.1 | N |
| 2/01/2025 14:00 | 0.3 | N |
| 2/01/2025 15:00 | 0.1 | N |
| 2/01/2025 16:00 | 0.0 | N |
| 2/01/2025 17:00 | 0.0 | N |
| 2/01/2025 18:00 | 0.1 | N |
| 2/01/2025 19:00 | 0.0 | N |
| 2/01/2025 20:00 | 0.0 | N |
| 2/01/2025 21:00 | 0.0 | N |
| 2/01/2025 22:00 | 0.0 | N |
| 2/01/2025 23:00 | 0.2 | N |
| 2/01/2025 0:00 | 1.6 | E |
| 3/01/2025 1:00 | 3.2 | E |
| 3/01/2025 2:00 | 3.6 | S |
| 3/01/2025 3:00 | 1.8 | W |
| 3/01/2025 4:00 | 1.7 | S |
| 3/01/2025 5:00 | 2.0 | NE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 3/01/2025 6:00 | 1.8 | NE |
| 3/01/2025 7:00 | 2.1 | SW |
| 3/01/2025 8:00 | 1.8 | SE |
| 3/01/2025 9:00 | 2.1 | NE |
| 3/01/2025 10:00 | 1.8 | NE |
| 3/01/2025 11:00 | 0.0 | SW |
| 3/01/2025 12:00 | 0.0 | E |
| 3/01/2025 13:00 | 0.0 | S |
| 3/01/2025 14:00 | 1.3 | S |
| 3/01/2025 15:00 | 0.0 | S |
| 3/01/2025 16:00 | 0.8 | SW |
| 3/01/2025 17:00 | 0.0 | SW |
| 3/01/2025 18:00 | 0.0 | NE |
| 3/01/2025 19:00 | 1.3 | NE |
| 3/01/2025 20:00 | 2.2 | E |
| 3/01/2025 21:00 | 3.9 | NE |
| 3/01/2025 22:00 | 0.8 | SE |
| 3/01/2025 23:00 | 3.6 | E |
| 3/01/2025 0:00 | 4.0 | E |
| 4/01/2025 1:00 | 2.5 | N |
| 4/01/2025 2:00 | 2.1 | NW |
| 4/01/2025 3:00 | 0.0 | N |
| 4/01/2025 4:00 | 1.5 | SW |
| 4/01/2025 5:00 | 0.4 | NE |
| 4/01/2025 6:00 | 1.5 | NE |
| 4/01/2025 7:00 | 1.9 | E |
| 4/01/2025 8:00 | 1.6 | E |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 4/01/2025 9:00 | 1.1 | NE |
| 4/01/2025 10:00 | 1.3 | NE |
| 4/01/2025 11:00 | 1.3 | S |
| 4/01/2025 12:00 | 0.2 | NE |
| 4/01/2025 13:00 | 2.0 | NE |
| 4/01/2025 14:00 | 1.9 | NE |
| 4/01/2025 15:00 | 2.0 | NE |
| 4/01/2025 16:00 | 2.0 | N |
| 4/01/2025 17:00 | 2.0 | E |
| 4/01/2025 18:00 | 2.1 | NW |
| 4/01/2025 19:00 | 2.3 | E |
| 4/01/2025 20:00 | 1.7 | SE |
| 4/01/2025 21:00 | 2.2 | E |
| 4/01/2025 22:00 | 1.9 | NE |
| 4/01/2025 23:00 | 3.4 | NW |
| 4/01/2025 0:00 | 3.6 | E |
| 5/01/2025 1:00 | 2.1 | E |
| 5/01/2025 2:00 | 1.1 | E |
| 5/01/2025 3:00 | 0.7 | E |
| 5/01/2025 4:00 | 0.0 | E |
| 5/01/2025 5:00 | 0.0 | N |
| 5/01/2025 6:00 | 0.0 | S |
| 5/01/2025 7:00 | 1.4 | E |
| 5/01/2025 8:00 | 1.4 | SE |
| 5/01/2025 9:00 | 1.1 | NE |
| 5/01/2025 10:00 | 0.1 | NE |
| 5/01/2025 11:00 | 0.8 | E |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 5/01/2025 12:00 | 0.9 | E |
| 5/01/2025 13:00 | 1.5 | N |
| 5/01/2025 14:00 | 2.2 | NW |
| 5/01/2025 15:00 | 1.0 | NW |
| 5/01/2025 16:00 | 3.2 | NE |
| 5/01/2025 17:00 | 1.5 | S |
| 5/01/2025 18:00 | 2.2 | E |
| 5/01/2025 19:00 | 0.0 | SW |
| 5/01/2025 20:00 | 2.8 | NW |
| 5/01/2025 21:00 | 1.9 | NW |
| 5/01/2025 22:00 | 1.1 | W |
| 5/01/2025 23:00 | 1.9 | NE |
| 5/01/2025 0:00 | 1.0 | E |
| 6/01/2025 1:00 | 0.0 | E |
| 6/01/2025 2:00 | 0.0 | NW |
| 6/01/2025 3:00 | 1.7 | N |
| 6/01/2025 4:00 | 2.1 | E |
| 6/01/2025 5:00 | 0.3 | NE |
| 6/01/2025 6:00 | 0.1 | E |
| 6/01/2025 7:00 | 0.1 | E |
| 6/01/2025 8:00 | 0.3 | E |
| 6/01/2025 9:00 | 0.1 | NE |
| 6/01/2025 10:00 | 1.9 | NE |
| 6/01/2025 11:00 | 0.1 | E |
| 6/01/2025 12:00 | 0.1 | E |
| 6/01/2025 13:00 | 0.3 | E |
| 6/01/2025 14:00 | 0.1 | NE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 6/01/2025 15:00 | 0.2 | NW |
| 6/01/2025 16:00 | 0.0 | NE |
| 6/01/2025 17:00 | 0.1 | NE |
| 6/01/2025 18:00 | 0.9 | NE |
| 6/01/2025 19:00 | 1.4 | NE |
| 6/01/2025 20:00 | 1.1 | NE |
| 6/01/2025 21:00 | 1.2 | NE |
| 6/01/2025 22:00 | 1.7 | NE |
| 6/01/2025 23:00 | 0.7 | E |
| 6/01/2025 0:00 | 2.0 | SE |
| 7/01/2025 1:00 | 4.0 | NE |
| 7/01/2025 2:00 | 2.0 | SW |
| 7/01/2025 3:00 | 3.9 | E |
| 7/01/2025 4:00 | 1.2 | S |
| 7/01/2025 5:00 | 0.0 | E |
| 7/01/2025 6:00 | 1.8 | E |
| 7/01/2025 7:00 | 0.2 | E |
| 7/01/2025 8:00 | 0.0 | E |
| 7/01/2025 9:00 | 0.8 | NE |
| 7/01/2025 10:00 | 0.3 | N |
| 7/01/2025 11:00 | 1.1 | NE |
| 7/01/2025 12:00 | 1.2 | NE |
| 7/01/2025 13:00 | 1.7 | NE |
| 7/01/2025 14:00 | 0.7 | E |
| 7/01/2025 15:00 | 2.0 | SE |
| 7/01/2025 16:00 | 4.0 | NE |
| 7/01/2025 17:00 | 2.0 | SW |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 7/01/2025 18:00 | 3.9 | E |
| 7/01/2025 19:00 | 1.2 | S |
| 7/01/2025 20:00 | 0.0 | E |
| 7/01/2025 21:00 | 1.8 | E |
| 7/01/2025 22:00 | 0.2 | E |
| 7/01/2025 23:00 | 0.0 | E |
| 7/01/2025 0:00 | 0.8 | NE |
| 8/01/2025 1:00 | 0.0 | NW |
| 8/01/2025 2:00 | 1.1 | NE |
| 8/01/2025 3:00 | 1.2 | NE |
| 8/01/2025 4:00 | 1.7 | NE |
| 8/01/2025 5:00 | 0.7 | E |
| 8/01/2025 6:00 | 2.0 | SE |
| 8/01/2025 7:00 | 4.0 | NE |
| 8/01/2025 8:00 | 2.0 | SW |
| 8/01/2025 9:00 | 3.9 | E |
| 8/01/2025 10:00 | 0.0 | N |
| 8/01/2025 11:00 | 1.3 | NE |
| 8/01/2025 12:00 | 1.8 | E |
| 8/01/2025 13:00 | 2.1 | E |
| 8/01/2025 14:00 | 0.0 | NE |
| 8/01/2025 15:00 | 1.9 | N |
| 8/01/2025 16:00 | 0.3 | SW |
| 8/01/2025 17:00 | 0.3 | S |
| 8/01/2025 18:00 | 0.0 | NW |
| 8/01/2025 19:00 | 0.0 | E |
| 8/01/2025 20:00 | 0.0 | SE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 8/01/2025 21:00 | 0.0 | E |
| 8/01/2025 22:00 | 0.0 | S |
| 8/01/2025 23:00 | 0.0 | NE |
| 8/01/2025 0:00 | 0.0 | S |
| 9/01/2025 1:00 | 0.0 | E |
| 9/01/2025 2:00 | 0.0 | SE |
| 9/01/2025 3:00 | 0.1 | SE |
| 9/01/2025 4:00 | 0.0 | S |
| 9/01/2025 5:00 | 0.0 | E |
| 9/01/2025 6:00 | 0.0 | S |
| 9/01/2025 7:00 | 0.0 | S |
| 9/01/2025 8:00 | 0.0 | E |
| 9/01/2025 9:00 | 0.0 | E |
| 9/01/2025 10:00 | 1.2 | E |
| 9/01/2025 11:00 | 0.5 | N |
| 9/01/2025 12:00 | 0.1 | NE |
| 9/01/2025 13:00 | 0.1 | NE |
| 9/01/2025 14:00 | 0.1 | N |
| 9/01/2025 15:00 | 0.8 | NE |
| 9/01/2025 16:00 | 0.2 | NE |
| 9/01/2025 17:00 | 0.2 | N |
| 9/01/2025 18:00 | 0.0 | N |
| 9/01/2025 19:00 | 0.0 | NE |
| 9/01/2025 20:00 | 0.0 | E |
| 9/01/2025 21:00 | 0.1 | E |
| 9/01/2025 22:00 | 0.0 | E |
| 9/01/2025 23:00 | 0.1 | NE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 9/01/2025 0:00 | 0.4 | E |
| 10/01/2025 1:00 | 0.3 | SE |
| 10/01/2025 2:00 | 0.9 | NE |
| 10/01/2025 3:00 | 0.7 | N |
| 10/01/2025 4:00 | 0.3 | NE |
| 10/01/2025 5:00 | 0.0 | S |
| 10/01/2025 6:00 | 0.3 | E |
| 10/01/2025 7:00 | 0.0 | NE |
| 10/01/2025 8:00 | 0.2 | NW |
| 10/01/2025 9:00 | 0.1 | E |
| 10/01/2025 10:00 | 0.4 | N |
| 10/01/2025 11:00 | 0.3 | NE |
| 10/01/2025 12:00 | 0.1 | E |
| 10/01/2025 13:00 | 0.5 | E |
| 10/01/2025 14:00 | 0.0 | NE |
| 10/01/2025 15:00 | 0.3 | NW |
| 10/01/2025 16:00 | 0.4 | NE |
| 10/01/2025 17:00 | 0.4 | N |
| 10/01/2025 18:00 | 0.0 | E |
| 10/01/2025 19:00 | 0.0 | E |
| 10/01/2025 20:00 | 0.0 | E |
| 10/01/2025 21:00 | 0.0 | N |
| 10/01/2025 22:00 | 0.0 | E |
| 10/01/2025 23:00 | 0.1 | E |
| 10/01/2025 0:00 | 0.6 | E |
| 11/01/2025 1:00 | 0.1 | E |
| 11/01/2025 2:00 | 0.0 | E |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 11/01/2025 3:00 | 0.1 | NE |
| 11/01/2025 4:00 | 0.0 | NE |
| 11/01/2025 5:00 | 0.0 | NE |
| 11/01/2025 6:00 | 0.0 | N |
| 11/01/2025 7:00 | 0.0 | NW |
| 11/01/2025 8:00 | 2.2 | NE |
| 11/01/2025 9:00 | 0.6 | NE |
| 11/01/2025 10:00 | 0.2 | NE |
| 11/01/2025 11:00 | 0.0 | S |
| 11/01/2025 12:00 | 0.9 | NE |
| 11/01/2025 13:00 | 0.1 | W |
| 11/01/2025 14:00 | 0.3 | NW |
| 11/01/2025 15:00 | 1.0 | N |
| 11/01/2025 16:00 | 1.1 | NW |
| 11/01/2025 17:00 | 1.2 | NE |
| 11/01/2025 18:00 | 0.2 | N |
| 11/01/2025 19:00 | 0.1 | N |
| 11/01/2025 20:00 | 0.2 | NE |
| 11/01/2025 21:00 | 0.0 | E |
| 11/01/2025 22:00 | 0.0 | E |
| 11/01/2025 23:00 | 0.0 | N |
| 11/01/2025 0:00 | 0.0 | E |
| 12/01/2025 1:00 | 0.0 | NE |
| 12/01/2025 2:00 | 0.0 | NE |
| 12/01/2025 3:00 | 0.0 | NE |
| 12/01/2025 4:00 | 0.0 | E |
| 12/01/2025 5:00 | 0.0 | E |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 12/01/2025 6:00 | 0.0 | S |
| 12/01/2025 7:00 | 0.0 | NE |
| 12/01/2025 8:00 | 0.0 | NE |
| 12/01/2025 9:00 | 0.3 | N |
| 12/01/2025 10:00 | 1.4 | NE |
| 12/01/2025 11:00 | 1.4 | NE |
| 12/01/2025 12:00 | 0.0 | NE |
| 12/01/2025 13:00 | 0.3 | E |
| 12/01/2025 14:00 | 0.9 | N |
| 12/01/2025 15:00 | 1.1 | NE |
| 12/01/2025 16:00 | 0.9 | NE |
| 12/01/2025 17:00 | 0.0 | NE |
| 12/01/2025 18:00 | 0.1 | E |
| 12/01/2025 19:00 | 0.0 | S |
| 12/01/2025 20:00 | 0.0 | S |
| 12/01/2025 21:00 | 0.0 | S |
| 12/01/2025 22:00 | 0.0 | SE |
| 12/01/2025 23:00 | 0.0 | S |
| 12/01/2025 0:00 | 0.0 | SE |
| 13/01/2025 1:00 | 0.0 | S |
| 13/01/2025 2:00 | 0.1 | S |
| 13/01/2025 3:00 | 0.0 | SW |
| 13/01/2025 4:00 | 0.1 | SE |
| 13/01/2025 5:00 | 0.1 | NE |
| 13/01/2025 6:00 | 0.0 | E |
| 13/01/2025 7:00 | 0.1 | SE |
| 13/01/2025 8:00 | 0.0 | N |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 13/01/2025 9:00 | 0.0 | NE |
| 13/01/2025 10:00 | 0.0 | N |
| 13/01/2025 11:00 | 0.1 | NE |
| 13/01/2025 12:00 | 0.0 | N |
| 13/01/2025 13:00 | 0.5 | NE |
| 13/01/2025 14:00 | 0.1 | E |
| 13/01/2025 15:00 | 1.4 | E |
| 13/01/2025 16:00 | 0.5 | E |
| 13/01/2025 17:00 | 0.1 | SE |
| 13/01/2025 18:00 | 0.0 | E |
| 13/01/2025 19:00 | 0.3 | NE |
| 13/01/2025 20:00 | 0.0 | S |
| 13/01/2025 21:00 | 0.0 | E |
| 13/01/2025 22:00 | 0.0 | S |
| 13/01/2025 23:00 | 0.1 | E |
| 13/01/2025 0:00 | 0.0 | E |
| 14/01/2025 1:00 | 0.0 | E |
| 14/01/2025 2:00 | 0.2 | E |
| 14/01/2025 3:00 | 0.0 | NE |
| 14/01/2025 4:00 | 0.5 | NE |
| 14/01/2025 5:00 | 0.0 | N |
| 14/01/2025 6:00 | 0.0 | NE |
| 14/01/2025 7:00 | 0.0 | W |
| 14/01/2025 8:00 | 0.1 | NW |
| 14/01/2025 9:00 | 0.0 | E |
| 14/01/2025 10:00 | 0.9 | E |
| 14/01/2025 11:00 | 0.0 | SE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 14/01/2025 12:00 | 0.0 | E |
| 14/01/2025 13:00 | 0.4 | N |
| 14/01/2025 14:00 | 0.0 | E |
| 14/01/2025 15:00 | 0.5 | NW |
| 14/01/2025 16:00 | 0.1 | E |
| 14/01/2025 17:00 | 0.1 | N |
| 14/01/2025 18:00 | 0.0 | SE |
| 14/01/2025 19:00 | 0.0 | NE |
| 14/01/2025 20:00 | 0.0 | N |
| 14/01/2025 21:00 | 0.0 | S |
| 14/01/2025 22:00 | 0.0 | S |
| 14/01/2025 23:00 | 0.0 | NW |
| 14/01/2025 0:00 | 0.0 | S |
| 15/01/2025 1:00 | 0.0 | NE |
| 15/01/2025 2:00 | 0.1 | SE |
| 15/01/2025 3:00 | 0.0 | S |
| 15/01/2025 4:00 | 0.0 | NE |
| 15/01/2025 5:00 | 0.0 | E |
| 15/01/2025 6:00 | 0.4 | NE |
| 15/01/2025 7:00 | 0.0 | E |
| 15/01/2025 8:00 | 0.4 | NE |
| 15/01/2025 9:00 | 0.3 | NE |
| 15/01/2025 10:00 | 2.1 | NE |
| 15/01/2025 11:00 | 1.7 | NE |
| 15/01/2025 12:00 | 1.2 | N |
| 15/01/2025 13:00 | 1.6 | NW |
| 15/01/2025 14:00 | 1.4 | NE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 15/01/2025 15:00 | 0.4 | N |
| 15/01/2025 16:00 | 0.7 | E |
| 15/01/2025 17:00 | 0.1 | N |
| 15/01/2025 18:00 | 0.2 | N |
| 15/01/2025 19:00 | 0.4 | NE |
| 15/01/2025 20:00 | 0.0 | SE |
| 15/01/2025 21:00 | 0.1 | E |
| 15/01/2025 22:00 | 0.1 | N |
| 15/01/2025 23:00 | 0.1 | E |
| 15/01/2025 0:00 | 0.1 | E |
| 16/01/2025 1:00 | 0.0 | NE |
| 16/01/2025 2:00 | 0.0 | SE |
| 16/01/2025 3:00 | 0.0 | NE |
| 16/01/2025 4:00 | 0.0 | NE |
| 16/01/2025 5:00 | 0.0 | E |
| 16/01/2025 6:00 | 0.0 | E |
| 16/01/2025 7:00 | 0.1 | N |
| 16/01/2025 8:00 | 0.1 | NE |
| 16/01/2025 9:00 | 0.2 | E |
| 16/01/2025 10:00 | 1.7 | E |
| 16/01/2025 11:00 | 0.2 | E |
| 16/01/2025 12:00 | 0.5 | NW |
| 16/01/2025 13:00 | 0.1 | NW |
| 16/01/2025 14:00 | 0.3 | N |
| 16/01/2025 15:00 | 0.8 | NW |
| 16/01/2025 16:00 | 0.9 | N |
| 16/01/2025 17:00 | 0.0 | NE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 16/01/2025 18:00 | 0.0 | NE |
| 16/01/2025 19:00 | 0.0 | E |
| 16/01/2025 20:00 | 0.0 | NE |
| 16/01/2025 21:00 | 0.0 | E |
| 16/01/2025 22:00 | 0.0 | NE |
| 16/01/2025 23:00 | 0.0 | NE |
| 16/01/2025 0:00 | 0.0 | E |
| 17/01/2025 1:00 | 0.0 | NE |
| 17/01/2025 2:00 | 0.0 | E |
| 17/01/2025 3:00 | 0.0 | E |
| 17/01/2025 4:00 | 0.0 | E |
| 17/01/2025 5:00 | 0.0 | E |
| 17/01/2025 6:00 | 0.0 | NE |
| 17/01/2025 7:00 | 0.0 | E |
| 17/01/2025 8:00 | 0.0 | E |
| 17/01/2025 9:00 | 0.1 | E |
| 17/01/2025 10:00 | 0.1 | N |
| 17/01/2025 11:00 | 0.2 | N |
| 17/01/2025 12:00 | 0.3 | NW |
| 17/01/2025 13:00 | 0.0 | E |
| 17/01/2025 14:00 | 0.1 | W |
| 17/01/2025 15:00 | 0.2 | SW |
| 17/01/2025 16:00 | 0.1 | W |
| 17/01/2025 17:00 | 0.0 | W |
| 17/01/2025 18:00 | 0.1 | S |
| 17/01/2025 19:00 | 0.0 | S |
| 17/01/2025 20:00 | 0.0 | S |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 17/01/2025 21:00 | 0.0 | SE |
| 17/01/2025 22:00 | 0.1 | NE |
| 17/01/2025 23:00 | 0.0 | NE |
| 17/01/2025 0:00 | 0.0 | NE |
| 18/01/2025 1:00 | 0.0 | NE |
| 18/01/2025 2:00 | 0.1 | SW |
| 18/01/2025 3:00 | 0.0 | NE |
| 18/01/2025 4:00 | 0.1 | S |
| 18/01/2025 5:00 | 0.1 | E |
| 18/01/2025 6:00 | 0.0 | E |
| 18/01/2025 7:00 | 0.0 | E |
| 18/01/2025 8:00 | 0.0 | NE |
| 18/01/2025 9:00 | 0.4 | E |
| 18/01/2025 10:00 | 0.0 | SE |
| 18/01/2025 11:00 | 0.2 | N |
| 18/01/2025 12:00 | 0.3 | N |
| 18/01/2025 13:00 | 0.1 | NW |
| 18/01/2025 14:00 | 0.0 | SW |
| 18/01/2025 15:00 | 0.8 | NW |
| 18/01/2025 16:00 | 0.0 | N |
| 18/01/2025 17:00 | 0.0 | SW |
| 18/01/2025 18:00 | 0.0 | SW |
| 18/01/2025 19:00 | 0.0 | S |
| 18/01/2025 20:00 | 0.0 | SE |
| 18/01/2025 21:00 | 0.0 | S |
| 18/01/2025 22:00 | 0.0 | S |
| 18/01/2025 23:00 | 0.0 | S |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 18/01/2025 0:00 | 0.0 | SE |
| 19/01/2025 1:00 | 0.1 | SE |
| 19/01/2025 2:00 | 0.1 | S |
| 19/01/2025 3:00 | 0.1 | S |
| 19/01/2025 4:00 | 0.1 | S |
| 19/01/2025 5:00 | 0.1 | SE |
| 19/01/2025 6:00 | 0.1 | S |
| 19/01/2025 7:00 | 0.1 | S |
| 19/01/2025 8:00 | 0.1 | S |
| 19/01/2025 9:00 | 0.0 | E |
| 19/01/2025 10:00 | 0.2 | N |
| 19/01/2025 11:00 | 0.0 | SE |
| 19/01/2025 12:00 | 0.1 | E |
| 19/01/2025 13:00 | 0.0 | N |
| 19/01/2025 14:00 | 0.1 | NW |
| 19/01/2025 15:00 | 0.0 | NW |
| 19/01/2025 16:00 | 0.2 | W |
| 19/01/2025 17:00 | 0.0 | S |
| 19/01/2025 18:00 | 0.1 | S |
| 19/01/2025 19:00 | 0.0 | S |
| 19/01/2025 20:00 | 0.0 | S |
| 19/01/2025 21:00 | 0.0 | S |
| 19/01/2025 22:00 | 0.0 | S |
| 19/01/2025 23:00 | 0.0 | S |
| 19/01/2025 0:00 | 0.0 | NE |
| 20/01/2025 1:00 | 0.1 | S |
| 20/01/2025 2:00 | 0.1 | S |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 20/01/2025 3:00 | 0.1 | SE |
| 20/01/2025 4:00 | 0.1 | SE |
| 20/01/2025 5:00 | 0.1 | E |
| 20/01/2025 6:00 | 0.0 | SE |
| 20/01/2025 7:00 | 0.1 | S |
| 20/01/2025 8:00 | 0.0 | E |
| 20/01/2025 9:00 | 0.0 | NW |
| 20/01/2025 10:00 | 0.0 | NE |
| 20/01/2025 11:00 | 0.0 | NW |
| 20/01/2025 12:00 | 0.9 | E |
| 20/01/2025 13:00 | 0.0 | N |
| 20/01/2025 14:00 | 0.0 | W |
| 20/01/2025 15:00 | 0.2 | NW |
| 20/01/2025 16:00 | 0.1 | N |
| 20/01/2025 17:00 | 0.3 | W |
| 20/01/2025 18:00 | 0.0 | W |
| 20/01/2025 19:00 | 0.0 | S |
| 20/01/2025 20:00 | 0.0 | S |
| 20/01/2025 21:00 | 0.0 | S |
| 20/01/2025 22:00 | 0.0 | S |
| 20/01/2025 23:00 | 0.1 | S |
| 20/01/2025 0:00 | 0.1 | S |
| 21/01/2025 1:00 | 0.1 | N |
| 21/01/2025 2:00 | 0.0 | E |
| 21/01/2025 3:00 | 0.0 | E |
| 21/01/2025 4:00 | 0.0 | NE |
| 21/01/2025 5:00 | 0.3 | N |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 21/01/2025 6:00 | 0.0 | NE |
| 21/01/2025 7:00 | 0.0 | W |
| 21/01/2025 8:00 | 0.0 | N |
| 21/01/2025 9:00 | 0.3 | N |
| 21/01/2025 10:00 | 1.8 | E |
| 21/01/2025 11:00 | 0.2 | NE |
| 21/01/2025 12:00 | 0.1 | NE |
| 21/01/2025 13:00 | 1.4 | E |
| 21/01/2025 14:00 | 0.3 | E |
| 21/01/2025 15:00 | 0.4 | NE |
| 21/01/2025 16:00 | 0.0 | S |
| 21/01/2025 17:00 | 0.0 | E |
| 21/01/2025 18:00 | 0.0 | SE |
| 21/01/2025 19:00 | 0.0 | NW |
| 21/01/2025 20:00 | 0.0 | NE |
| 21/01/2025 21:00 | 0.0 | SE |
| 21/01/2025 22:00 | 0.2 | NE |
| 21/01/2025 23:00 | 0.0 | NE |
| 21/01/2025 0:00 | 0.0 | NE |
| 22/01/2025 1:00 | 0.0 | NE |
| 22/01/2025 2:00 | 0.0 | SE |
| 22/01/2025 3:00 | 0.1 | SE |
| 22/01/2025 4:00 | 0.3 | NE |
| 22/01/2025 5:00 | 0.2 | E |
| 22/01/2025 6:00 | 0.0 | E |
| 22/01/2025 7:00 | 0.0 | E |
| 22/01/2025 8:00 | 0.0 | E |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 22/01/2025 9:00 | 0.1 | N |
| 22/01/2025 10:00 | 1.4 | NE |
| 22/01/2025 11:00 | 0.5 | E |
| 22/01/2025 12:00 | 0.4 | E |
| 22/01/2025 13:00 | 1.2 | NE |
| 22/01/2025 14:00 | 0.0 | NE |
| 22/01/2025 15:00 | 0.4 | E |
| 22/01/2025 16:00 | 0.1 | E |
| 22/01/2025 17:00 | 0.0 | SE |
| 22/01/2025 18:00 | 0.0 | NE |
| 22/01/2025 19:00 | 0.0 | N |
| 22/01/2025 20:00 | 0.0 | SE |
| 22/01/2025 21:00 | 0.1 | N |
| 22/01/2025 22:00 | 0.2 | N |
| 22/01/2025 23:00 | 0.1 | E |
| 22/01/2025 0:00 | 0.1 | E |
| 23/01/2025 1:00 | 0.1 | S |
| 23/01/2025 2:00 | 0.1 | NE |
| 23/01/2025 3:00 | 0.1 | S |
| 23/01/2025 4:00 | 0.1 | N |
| 23/01/2025 5:00 | 0.1 | N |
| 23/01/2025 6:00 | 0.2 | NE |
| 23/01/2025 7:00 | 0.2 | S |
| 23/01/2025 8:00 | 0.0 | N |
| 23/01/2025 9:00 | 0.0 | E |
| 23/01/2025 10:00 | 0.0 | SW |
| 23/01/2025 11:00 | 0.0 | NW |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 23/01/2025 12:00 | 0.0 | NW |
| 23/01/2025 13:00 | 0.1 | W |
| 23/01/2025 14:00 | 0.1 | W |
| 23/01/2025 15:00 | 0.0 | NW |
| 23/01/2025 16:00 | 0.0 | NW |
| 23/01/2025 17:00 | 0.0 | W |
| 23/01/2025 18:00 | 0.0 | N |
| 23/01/2025 19:00 | 0.0 | N |
| 23/01/2025 20:00 | 0.0 | S |
| 23/01/2025 21:00 | 0.0 | N |
| 23/01/2025 22:00 | 0.0 | NE |
| 23/01/2025 23:00 | 0.0 | SE |
| 23/01/2025 0:00 | 0.1 | E |
| 24/01/2025 1:00 | 0.0 | E |
| 24/01/2025 2:00 | 0.3 | NE |
| 24/01/2025 3:00 | 0.2 | E |
| 24/01/2025 4:00 | 0.2 | E |
| 24/01/2025 5:00 | 0.0 | NE |
| 24/01/2025 6:00 | 0.0 | SE |
| 24/01/2025 7:00 | 0.0 | E |
| 24/01/2025 8:00 | 0.4 | E |
| 24/01/2025 9:00 | 0.1 | NE |
| 24/01/2025 10:00 | 0.0 | SW |
| 24/01/2025 11:00 | 0.9 | E |
| 24/01/2025 12:00 | 1.6 | SE |
| 24/01/2025 13:00 | 0.5 | NE |
| 24/01/2025 14:00 | 0.5 | NE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 24/01/2025 15:00 | 1.7 | NE |
| 24/01/2025 16:00 | 0.1 | E |
| 24/01/2025 17:00 | 0.1 | E |
| 24/01/2025 18:00 | 0.0 | E |
| 24/01/2025 19:00 | 0.0 | SE |
| 24/01/2025 20:00 | 0.0 | NE |
| 24/01/2025 21:00 | 0.0 | NE |
| 24/01/2025 22:00 | 0.0 | E |
| 24/01/2025 23:00 | 0.1 | S |
| 24/01/2025 0:00 | 0.0 | S |
| 25/01/2025 1:00 | 0.1 | NE |
| 25/01/2025 2:00 | 0.2 | NE |
| 25/01/2025 3:00 | 0.0 | S |
| 25/01/2025 4:00 | 0.0 | E |
| 25/01/2025 5:00 | 0.6 | E |
| 25/01/2025 6:00 | 0.4 | E |
| 25/01/2025 7:00 | 2.5 | E |
| 25/01/2025 8:00 | 0.0 | SE |
| 25/01/2025 9:00 | 0.2 | SE |
| 25/01/2025 10:00 | 1.0 | SE |
| 25/01/2025 11:00 | 0.7 | E |
| 25/01/2025 12:00 | 0.7 | E |
| 25/01/2025 13:00 | 2.9 | E |
| 25/01/2025 14:00 | 2.4 | E |
| 25/01/2025 15:00 | 0.6 | E |
| 25/01/2025 16:00 | 0.2 | NE |
| 25/01/2025 17:00 | 0.0 | SW |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 25/01/2025 18:00 | 0.0 | SE |
| 25/01/2025 19:00 | 0.1 | E |
| 25/01/2025 20:00 | 0.0 | NE |
| 25/01/2025 21:00 | 0.0 | NE |
| 25/01/2025 22:00 | 0.0 | NE |
| 25/01/2025 23:00 | 0.0 | S |
| 26/01/2025 0:00 | 0.0 | SE |
| 26/01/2025 1:00 | 0.0 | NE |
| 26/01/2025 2:00 | 0.0 | E |
| 26/01/2025 3:00 | 0.0 | E |
| 26/01/2025 4:00 | 0.1 | N |
| 26/01/2025 5:00 | 0.0 | S |
| 26/01/2025 6:00 | 0.0 | NE |
| 26/01/2025 7:00 | 0.2 | NE |
| 26/01/2025 8:00 | 0.0 | NE |
| 26/01/2025 9:00 | 0.0 | NW |
| 26/01/2025 10:00 | 0.1 | NW |
| 26/01/2025 11:00 | 0.1 | N |
| 26/01/2025 12:00 | 0.3 | N |
| 26/01/2025 13:00 | 0.5 | NW |
| 26/01/2025 14:00 | 0.2 | N |
| 26/01/2025 15:00 | 0.3 | NE |
| 26/01/2025 16:00 | 0.0 | NE |
| 26/01/2025 17:00 | 2.5 | NE |
| 26/01/2025 18:00 | 1.3 | N |
| 26/01/2025 19:00 | 0.0 | NE |
| 26/01/2025 20:00 | 0.1 | E |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 26/01/2025 21:00 | 2.0 | N |
| 26/01/2025 22:00 | 0.0 | NW |
| 26/01/2025 23:00 | 0.4 | E |
| 27/01/2025 0:00 | 2.9 | NE |
| 27/01/2025 1:00 | 0.7 | NE |
| 27/01/2025 2:00 | 0.2 | N |
| 27/01/2025 3:00 | 0.3 | N |
| 27/01/2025 4:00 | 0.4 | NE |
| 27/01/2025 5:00 | 0.3 | N |
| 27/01/2025 6:00 | 0.0 | N |
| 27/01/2025 7:00 | 2.3 | E |
| 27/01/2025 8:00 | 5.3 | E |
| 27/01/2025 9:00 | 1.8 | E |
| 27/01/2025 10:00 | 0.9 | NE |
| 27/01/2025 11:00 | 3.8 | NE |
| 27/01/2025 12:00 | 3.3 | E |
| 27/01/2025 13:00 | 1.2 | SE |
| 27/01/2025 14:00 | 0.4 | E |
| 27/01/2025 15:00 | 0.1 | E |
| 27/01/2025 16:00 | 0.5 | NE |
| 27/01/2025 17:00 | 0.0 | NE |
| 27/01/2025 18:00 | 0.0 | NE |
| 27/01/2025 19:00 | 0.0 | E |
| 27/01/2025 20:00 | 0.0 | S |
| 27/01/2025 21:00 | 0.0 | SE |
| 27/01/2025 22:00 | 0.2 | E |
| 27/01/2025 23:00 | 0.1 | NE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 28/01/2025 0:00 | 1.6 | NE |
| 28/01/2025 1:00 | 1.8 | NE |
| 28/01/2025 2:00 | 2.0 | NE |
| 28/01/2025 3:00 | 0.5 | NW |
| 28/01/2025 4:00 | 1.2 | E |
| 28/01/2025 5:00 | 0.3 | E |
| 28/01/2025 6:00 | 0.2 | E |
| 28/01/2025 7:00 | 0.8 | NE |
| 28/01/2025 8:00 | 0.2 | E |
| 28/01/2025 9:00 | 1.0 | NE |
| 28/01/2025 10:00 | 0.1 | E |
| 28/01/2025 11:00 | 0.7 | NE |
| 28/01/2025 12:00 | 0.0 | N |
| 28/01/2025 13:00 | 0.0 | NE |
| 28/01/2025 14:00 | 1.1 | NE |
| 28/01/2025 15:00 | 2.0 | NE |
| 28/01/2025 16:00 | 0.4 | N |
| 28/01/2025 17:00 | 0.0 | N |
| 28/01/2025 18:00 | 0.0 | SE |
| 28/01/2025 19:00 | 0.0 | SE |
| 28/01/2025 20:00 | 0.0 | SE |
| 28/01/2025 21:00 | 0.0 | NE |
| 28/01/2025 22:00 | 0.0 | E |
| 28/01/2025 23:00 | 0.0 | NE |
| 29/01/2025 0:00 | 0.0 | E |
| 29/01/2025 1:00 | 0.0 | S |
| 29/01/2025 2:00 | 0.0 | SE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 29/01/2025 3:00 | 0.0 | E |
| 29/01/2025 4:00 | 0.0 | NE |
| 29/01/2025 5:00 | 0.1 | E |
| 29/01/2025 6:00 | 0.0 | SE |
| 29/01/2025 7:00 | 0.0 | NE |
| 29/01/2025 8:00 | 0.0 | NE |
| 29/01/2025 9:00 | 0.1 | NE |
| 29/01/2025 10:00 | 0.8 | NE |
| 29/01/2025 11:00 | 0.0 | NE |
| 29/01/2025 12:00 | 0.0 | SE |
| 29/01/2025 13:00 | 0.1 | E |
| 29/01/2025 14:00 | 1.4 | NE |
| 29/01/2025 15:00 | 0.5 | SE |
| 29/01/2025 16:00 | 1.0 | E |
| 29/01/2025 17:00 | 0.5 | NE |
| 29/01/2025 18:00 | 0.0 | E |
| 29/01/2025 19:00 | 0.1 | NE |
| 29/01/2025 20:00 | 0.0 | S |
| 29/01/2025 21:00 | 0.0 | S |
| 29/01/2025 22:00 | 0.1 | E |
| 29/01/2025 23:00 | 0.0 | E |
| 30/01/2025 0:00 | 0.0 | E |
| 30/01/2025 1:00 | 0.3 | NE |
| 30/01/2025 2:00 | 0.3 | NE |
| 30/01/2025 3:00 | 0.3 | E |
| 30/01/2025 4:00 | 0.2 | E |
| 30/01/2025 5:00 | 0.0 | NE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 30/01/2025 6:00 | 0.0 | S |
| 30/01/2025 7:00 | 0.0 | E |
| 30/01/2025 8:00 | 0.0 | W |
| 30/01/2025 9:00 | 0.0 | NW |
| 30/01/2025 10:00 | 0.8 | NE |
| 30/01/2025 11:00 | 0.4 | E |
| 30/01/2025 12:00 | 0.7 | NE |
| 30/01/2025 13:00 | 0.5 | E |
| 30/01/2025 14:00 | 1.3 | NE |
| 30/01/2025 15:00 | 1.1 | NE |
| 30/01/2025 16:00 | 0.7 | E |
| 30/01/2025 17:00 | 0.4 | E |
| 30/01/2025 18:00 | 0.0 | S |
| 30/01/2025 19:00 | 0.0 | SE |
| 30/01/2025 20:00 | 0.8 | NE |
| 30/01/2025 21:00 | 0.4 | NE |
| 30/01/2025 22:00 | 0.1 | NE |
| 30/01/2025 23:00 | 0.4 | NE |
| 31/01/2025 0:00 | 0.0 | E |
| 31/01/2025 1:00 | 0.4 | NE |
| 31/01/2025 2:00 | 0.7 | NE |
| 31/01/2025 3:00 | 0.3 | NE |
| 31/01/2025 4:00 | 0.0 | NE |
| 31/01/2025 5:00 | 0.4 | NE |
| 31/01/2025 6:00 | 0.0 | NE |
| 31/01/2025 7:00 | 0.0 | S |
| 31/01/2025 8:00 | 0.0 | NE |

| Date | Wind Speed (m/s) | Wind Direction |
|---|---|---|
| 31/01/2025 9:00 | 0.8 | NE |
| 31/01/2025 10:00 | 1.2 | E |
| 31/01/2025 11:00 | 0.5 | NE |
| 31/01/2025 12:00 | 1.2 | E |
| 31/01/2025 13:00 | 0.3 | E |
| 31/01/2025 14:00 | 0.3 | E |
| 31/01/2025 15:00 | 0.2 | E |
| 31/01/2025 16:00 | 0.4 | E |
| 31/01/2025 17:00 | 1.4 | NE |
| 31/01/2025 18:00 | 0.6 | NE |
| 31/01/2025 19:00 | 0.0 | E |
| 31/01/2025 20:00 | 0.1 | NE |
| 31/01/2025 21:00 | 0.1 | NE |
| 31/01/2025 22:00 | 0.0 | NE |
| 31/01/2025 23:00 | 0.1 | E |
| 01/02/2025 0:00 | 0.0 | E |

# 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;<br>2. Inform Contractor, IEC and ER;<br>3. Repeat measurement to confirm finding; and<br>4. Increase monitoring frequency to daily. | 1. Check monitoring data submitted by ET;<br>2. Check Contractor's working method; and<br>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;<br>2. Implement remedial measures; and<br>3. Amend working methods agreed with the ER as appropriate. |
| Action level being exceeded by two or more consecutive sampling | 1. Identify source;<br>2. Inform Contractor, IEC and ER;<br>3. Advise the Contractor and ER on the effectiveness of the proposed remedial measures;<br>4. Repeat measurements to confirm findings;<br>5. Increase monitoring frequency to daily;<br>6. Discuss with IEC and Contractor on remedial actions required;<br>7. If exceedance continues, arrange meeting with Contractor, IEC and ER; and<br>8. If exceedance stops, cease additional monitoring. | 1. Check monitoring data submitted by ET;<br>2. Check Contractor's working method;<br>3. Discuss with ET, ER and Contractor on possible remedial measures;<br>4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and<br>5. Supervise Implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Notify Contractor;<br>3. Ensure remedial measures properly implemented. | 1. Identify source and investigate the causes of exceedance;<br>2. Submit proposals for remedial measures to the ER with a copy to ET and IEC within three working days of notification;<br>3. Implement the agreed proposals; and<br>4. Amend proposal as appropriate. |
| Limit level being exceeded by one sampling | 1. Identify source, investigate the causes of exceedance and propose remedial measures;<br>2. Inform Contractor, IEC, ER, and EPD;<br>3. Repeat measurement to confirm finding;<br>4. Increase monitoring frequency to daily; and<br>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;<br>2. Check Contractor's working method;<br>3. Discuss with ET and Contractor on possible remedial measures;<br>4. Advise the ER on the effectiveness of the proposed remedial measures; and<br>5. Supervise implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Notify Contractor;<br>3. Ensure remedial measures properly implemented. | 1. Identify source(s) and investigate the causes of exceedance;<br>2. Take immediate action to avoid further exceedance;<br>3. Submit proposals for remedial measures to ER with a copy to ET and IEC within three working days of notification;<br>4. Implement the agreed proposals; and<br>5. Amend proposal if appropriate. |
| Limit level being exceeded by two or more consecutive sampling | 1. Notify IEC, ER, Contractor and EPD;<br>2. Identify source;<br>3. Repeat measurement to confirm findings;<br>4. Increase monitoring frequency to daily;<br>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;<br>6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken;<br>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and<br>8. If exceedance stops, cease additional monitoring. | 1. Check monitoring data submitted by the ET;<br>2. Discuss amongst ER, ET, and Contractor on the potential remedial actions;<br>3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and<br>4. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented;<br>3. Supervise the implementation of remedial measures; and<br>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;<br>2. Take immediate action to avoid further exceedance;<br>3. Submit proposals for remedial measures to the ER with a copy to the IEC and ET within three working days of notification;<br>4. Implement the agreed proposals;<br>5. Revise and resubmit proposals if problem still not under control; and<br>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;<br>2. Carry out investigation;<br>3. Report the results of investigation to the IEC, ER and Contractor;<br>4. Discuss with the Contractor and formulate remedial measures; and<br>5. Increase monitoring frequency to check mitigation effectiveness. | 1. Review the analyzed results submitted by the ET;<br>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and<br>3. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor;<br>3. Require Contractor to propose remedial measures for the analyzed noise problem; and<br>4. Ensure remedial measures are properly implemented. | 1. Submit noise mitigation proposals to IEC; and<br>2. Implement noise mitigation proposals. |
| Limit Level | 1. Identify source;<br>2. Inform IEC, ER, EPD and Contractor;<br>3. Repeat measurements to confirm findings;<br>4. Increase monitoring frequency;<br>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;<br>6. Inform IEC, ER and EPD the causes and actions taken for the exceedances;<br>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and<br>8. If exceedance stops, cease additional monitoring. | 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions;<br>2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and<br>3. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor;<br>3. Require Contractor to propose remedial measures for the analyzed noise problem;<br>4. Ensure remedial measures properly implemented; and<br>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;<br>2. Submit proposals for remedial actions to IEC within 3 working days of notification;<br>3. Implement the agreed proposals;<br>4. Resubmit proposals if problem still not under control; and<br>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;<br>2. Check monitoring data, plant, equipment and Contractor(s)'s working methods;<br>3. Identify source(s) of impact and record in notification of exceedance;<br>4. Inform IEC, Contractor(s) and ER | 1. Check monitoring data submitted by ET and Contractor(s)'s working methods;<br>2. Inform EPD and AFCD. | 1. Confirm receipt of notification of exceedance in writing | 1. Confirm receipt of notification of exceedance in writing;<br>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;<br>2. Check monitoring data, plant, equipment and Contractor(s)'s working methods;<br>3. Identify source(s) of impact and record in notification of exceedance;<br>4. Inform IEC, Contractor(s) and ER;<br>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;<br>2. Inform EPD and AFCD;<br>3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly;<br>4. Assess the effectiveness of the implemented mitigation measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented.<br>3. Ensure additional mitigation measures are properly implemented. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Check plant and equipment and rectify unacceptable practice;<br>3. Consider changes of working methods;<br>4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days;<br>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;<br>2. Check monitoring data, plant, equipment and Contractor(s)'s working methods;<br>3. Identify source(s) of impact and record in notification of exceedance;<br>4. Inform IEC, Contractor(s) and ER;<br>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;<br>2. Inform EPD and AFCD;<br>3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly;<br>4. Assess the effectiveness of the implemented mitigation measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented.<br>3. Ensure additional mitigation measures are properly implemented.<br>4. Request Contractor(s) to critically review the working methods. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Check plant and equipment and rectify unacceptable practice;<br>3. Critically review the need to change working methods;<br>4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days;<br>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;<br>2. Check monitoring data, plant, equipment and Contractor(s)'s working methods;<br>3. Identify source(s) of impact and record in notification of exceedance;<br>4. Inform IEC, Contractor(s) and ER;<br>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;<br>2. Inform EPD and AFCD;<br>3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly;<br>4. Assess the effectiveness of the implemented mitigation measures. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented.<br>3. Ensure additional mitigation measures are properly implemented.<br>4. Request Contractor(s) to critically review the working methods. | 1. Confirm receipt of notification of exceedance in writing;<br>2. Check plant and equipment and rectify unacceptable practice;<br>3. Critically review the need to change working methods;<br>4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days;<br>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;<br>2. Carry out investigation;<br>3. Report the results of investigation to the IEC, ER and Contractor;<br>4. Discuss with the Contractor and formulate remedial measures; and<br>5. Increase monitoring frequency to check mitigation effectiveness. | 1. Review the analyzed results submitted by the ET;<br>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and<br>3. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor;<br>3. Require Contractor to propose remedial measures for the analyzed noise problem; and<br>4. Ensure remedial measures are properly implemented. | 1. Submit noise mitigation proposals to IEC; and<br>2. Implement noise mitigation proposals. |
| Limit Level | 1. Identify source;<br>2. Inform IEC, ER, EPD and Contractor;<br>3. Repeat measurements to confirm findings;<br>4. Increase monitoring frequency;<br>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;<br>6. Inform IEC, ER and EPD the causes and actions taken for the exceedances;<br>7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and<br>8. If exceedance stops, cease additional monitoring. | 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions;<br>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and<br>3. Supervise the implementation of remedial measures. | 1. Confirm receipt of notification of failure in writing;<br>2. Notify Contractor;<br>3. Require Contractor to propose remedial measures for the analysed noise problem;<br>4. Ensure remedial measures are properly implemented; and<br>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;<br>2. Submit proposals for remedial actions to IEC within 3 working days of notification;<br>3. Implement the agreed proposals;<br>4. Resubmit proposals if problem still not under control; and<br>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 | Nil | 0.03 | Nil | Nil | 130.33 |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Total | **3,435.58** | **Nil** | **Nil** | **Nil** | **3,305.22** | **777.24** | **Nil** | **0.03** | **Nil** | **Nil** | **130.33** |

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.<br>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<br>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<br>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<br>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<br>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<br>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<br>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.<br>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<br>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<br>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<br>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<br>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.<br>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<br>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.<br>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.<br>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<br>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><br>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><br>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><br>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><br>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><br>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><br>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

# December 2024 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) | | |
| December 2024 | | | | | | |
| 1 | 1014.8 | 26.2 | 17.6 | 12.5 | 82 | 0 |
| 2 | 1014.9 | 28.0# | 19.6 | 14.4# | 80 | 0 |
| 3 | 1015.5 | 28.2 | 20.7 | 16 | 83 | 0 |
| 4 | 1016 | 26.9 | 22.2 | 19.2 | 78 | 0 |
| 5 | 1016.3 | 25.7 | 20.5 | 17.4 | 86 | 0 |
| 6 | 1016.6 | 25.8# | 19.9 | 17.1# | 79 | 0 |
| 7 | 1018.6 | 25.8 | 19.5 | 16 | 71 | 0 |
| 8 | 1021.5 | 22.3 | 17.7 | 14 | 67 | 0 |
| 9 | 1019.6 | 23.4 | 17.6 | 15 | 74 | 0 |
| 10 | 1016.1 | 25.1 | 20.2 | 16.1 | 78 | 0 |
| 11 | 1016.5 | 28 | 22.1 | 18.2 | 75 | 0 |
| 12 | 1018.7 | 22.9 | 18.7 | 15.1 | 65 | 0 |
| 13 | 1020.9 | 22.5 | 18 | 13.9 | 61 | 0 |
| 14 | 1025.4 | 19.5 | 15.3 | 12.8 | 51 | 0 |
| 15 | 1025.7 | 18.1 | 14.5 | 12 | 36 | 0 |
| 16 | 1022.9 | 22.2 | 15.4 | 11.4 | 47 | 0 |
| 17 | 1021 | 24.6 | 16.1 | 10 | 68 | 0 |
| 18 | 1021.2 | 24.7 | 18 | 15.3 | 49 | 0 |
| 19 | 1023.1 | 21.1 | 14.7 | 11.1 | 45 | 0 |
| 20 | 1020.7 | 21.1 | 13.4 | 9.3 | 54 | 0 |
| 21 | 1020.4 | 23.9 | 15.3 | 9.2 | 54 | 0 |
| 22 | 1021.6 | 21 | 15.3 | 11.8 | 48 | 0 |
| 23 | 1020.8 | 18.9 | 16.3 | 14.7 | 52 | 0 |
| 24 | 1021.4 | 21.2 | 17.2 | 14.7 | 53 | 0 |
| 25 | 1021.5 | 20.8 | 17.4 | 15.6 | 73 | 0 |
| 26 | 1021.7 | 23.9 | 19.9 | 16.4 | 77 | 0 |
| 27 | 1023 | 24.2 | 19.7 | 16.7 | 67 | 0 |
| 28 | 1025.3 | 21.3 | 17.1 | 14.5 | 43 | 0 |
| 29 | 1023.4 | 21.8 | 14.5 | 10.8 | 61 | 0 |
| 30 | 1021.3 | 25.1 | 16.3 | 11.4 | 77 | 0 |
| 31 | 1019.3 | 25.8 | 19 | 13.7 | 60 | 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

# January 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) | | |
| January 2025 | | | | | | |
| 1 | 1018.4 | 19.1 | 17.8 | 16.7 | 73 | Trace |
| 2 | 1018.3 | 22 | 19.1 | 16.9 | 69 | 0 |
| 3 | 1019.8 | 21.1 | 18.8 | 17.1 | 42 | 0 |
| 4 | 1020.5 | 19.7 | 17.6 | 15.9 | 66 | Trace |
| 5 | 1019.5 | 21.7 | 18.8 | 17.1 | 62 | Trace |
| 6 | 1018.9 | 21.5 | 18.2 | 15.7 | 52 | 0 |
| 7 | 1019.8 | 19.1 | 17.3 | 15.9 | 65 | 0 |
| 8 | 1020 | 20.6 | 17.8 | 16.6 | 67 | 0 |
| 9 | 1022.1 | 20.3 | 17.7 | 15.8 | 66 | 0 |
| 10 | 1027.7 | 17.5 | 15.1 | 12.7 | 45 | 0 |
| 11 | 1029.1 | 16.6 | 14 | 11.5 | 43 | 0 |
| 12 | 1026.1 | 18.2 | 14.5 | 11 | 41 | 0 |
| 13 | 1023.1 | 18.7 | 16.2 | 13.9 | 55 | 0 |
| 14 | 1021.9 | 20.2 | 18.2 | 16.2 | 57 | 0 |
| 15 | 1023.6 | 22.3 | 19.5 | 17.2 | 49 | Trace |
| 16 | 1024.9 | 18.3 | 16.2 | 14.1 | 48 | 0 |
| 17 | 1022.9 | 18.6 | 15.5 | 12.9 | 53 | 0 |
| 18 | 1019.7 | 19.5 | 16.2 | 14.2 | 59 | 0 |
| 19 | 1016.6 | 21.6 | 17.2 | 14.3 | 60 | 0 |
| 20 | 1016.3 | 20.9 | 17.8 | 15.4 | 59 | 0 |
| 21 | 1017.2 | 20 | 17.4 | 15.9 | 59 | 0.6 |
| 22 | 1017.4 | 21.4 | 18.6 | 17.3 | 67 | 1 |
| 23 | 1016.2 | 21.7 | 19.2 | 17.7 | 80 | 1.2 |
| 24 | 1015.2 | 20.8 | 18.5 | 17.1 | 72 | 0 |
| 25 | 1016.5 | 20 | 17.9 | 16.8 | 77 | Trace |
| 26 | 1020.9 | 17.5 | 15.2 | 12.2 | 72 | 0.2 |
| 27 | 1022.1 | 17.3 | 13.9 | 10.6 | 40 | 0 |
| 28 | 1024.4 | 19.1 | 15.1 | 11.8 | 40 | 0 |
| 29 | 1024.2 | 18.5 | 15.8 | 14.3 | 54 | 0 |
| 30 | 1019.9 | 18.4 | 16.4 | 14.5 | 66 | 0 |
| 31 | 1015.9 | 20.4 | 18.1 | 16.8 | 63 | 1.2 |

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 | | |
| Noise | | | |
| Water Quality | NA | | |
| Chemical and Construction Waste Management | NA | | |
| Land Contamination | NA | | |
| Ecological Impact | NA | | |
| Landscape and Visual Impact | NA | | |
| Permit / Licenses | 14 January 2025 | Observation 1:<br>NRMM label should be provided for the excavator at SD. | NRMM label was provided |
| Others | | | |

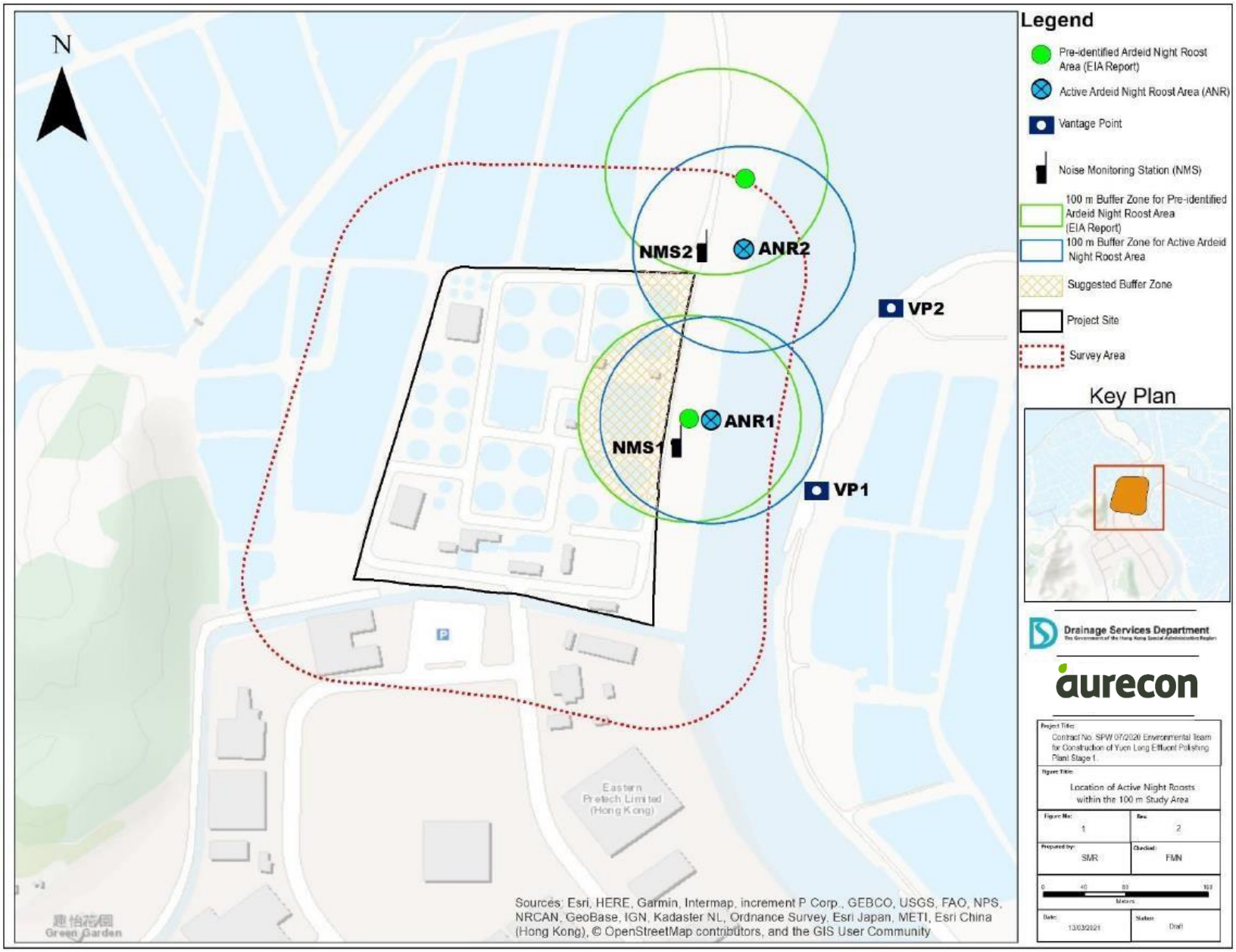
# Appendix N
# Outstanding Issues and Deficiencies

**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



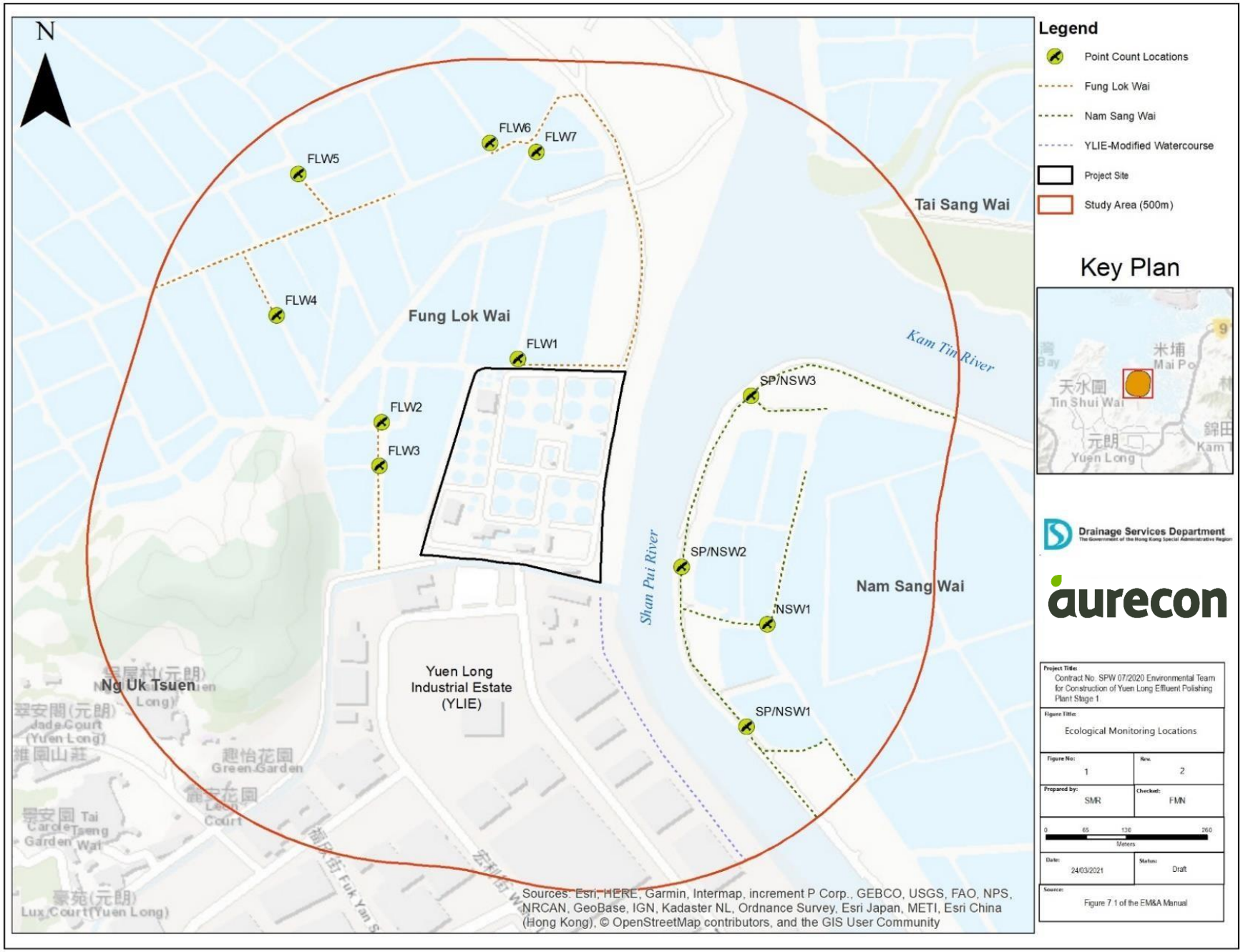
Appendix O.2.1a: Pre-roost aggregate of ardeids in the mudflat east side of the Project boundary (ANR1) observed on 15 January 2025 at around 17:31.

## O.2.2 Active Night Roosting Site and Roosting Substrates



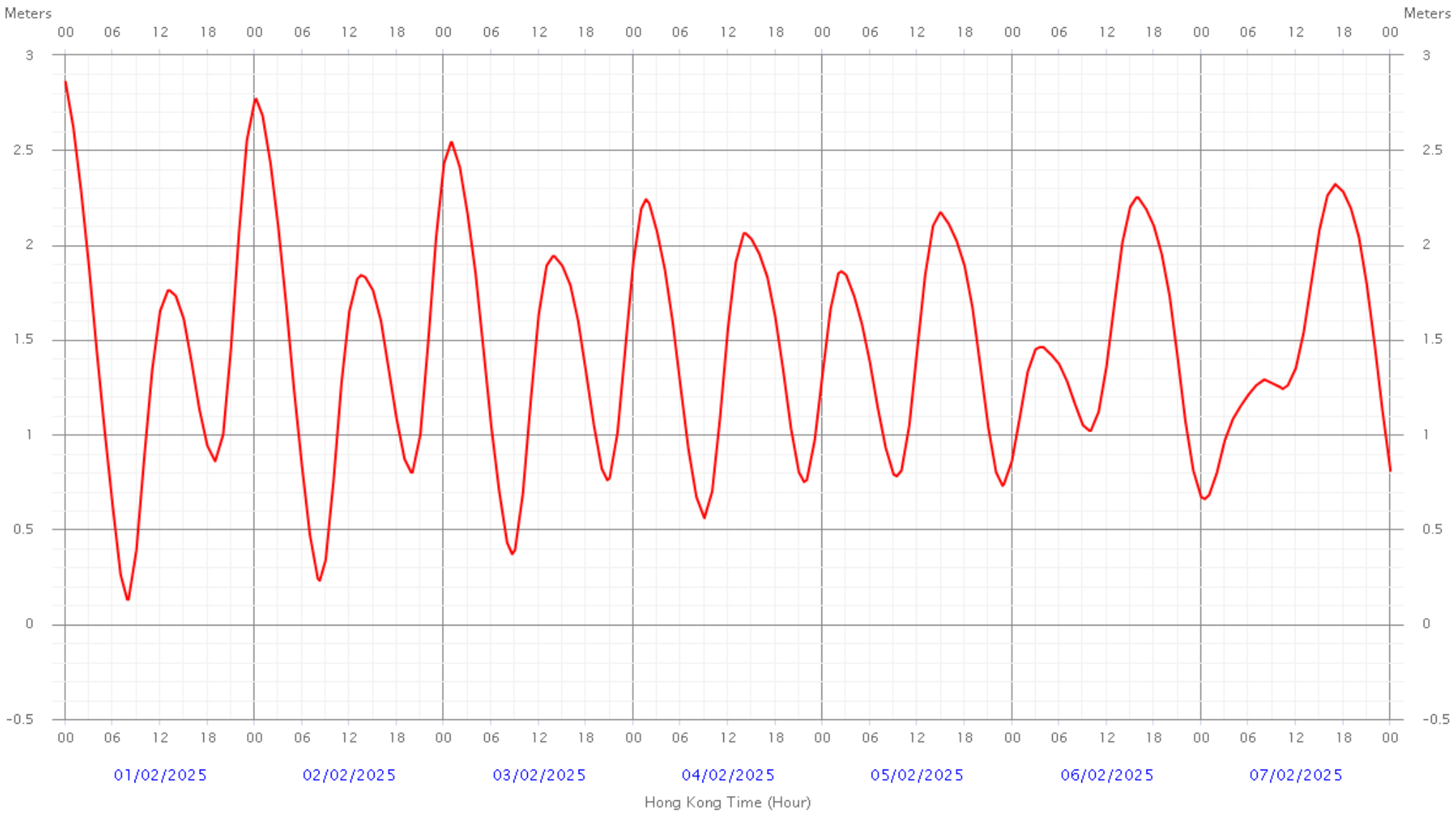
Appendix O.2.2a: Active night roost in the mudflat northeast side of the Project boundary (ANR2) observed on 15 January 2025 at around 17:59.

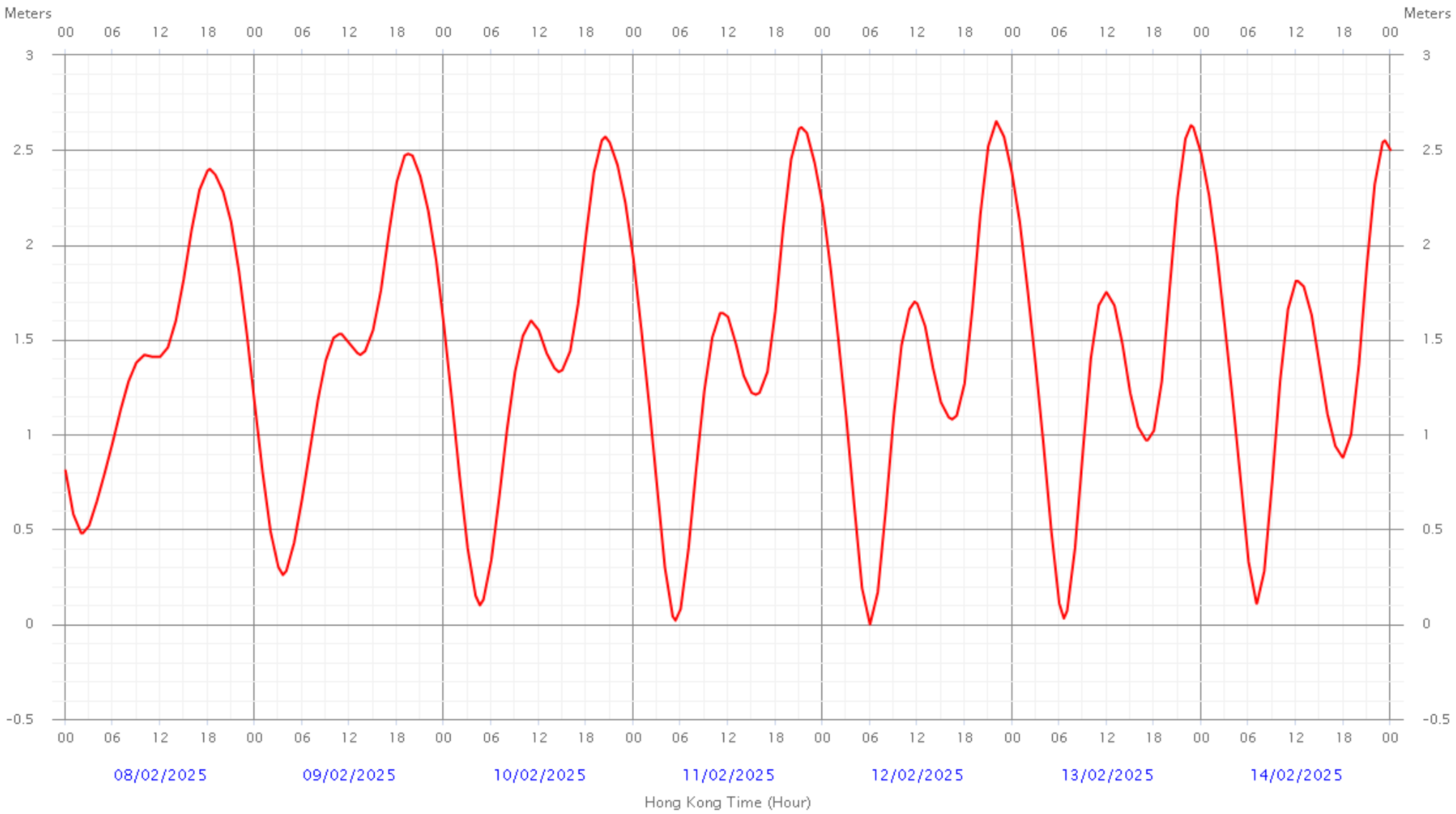
# Appendix P
# Ecological Bird Monitoring Area with Locations of Point Count Sites and Transect Route

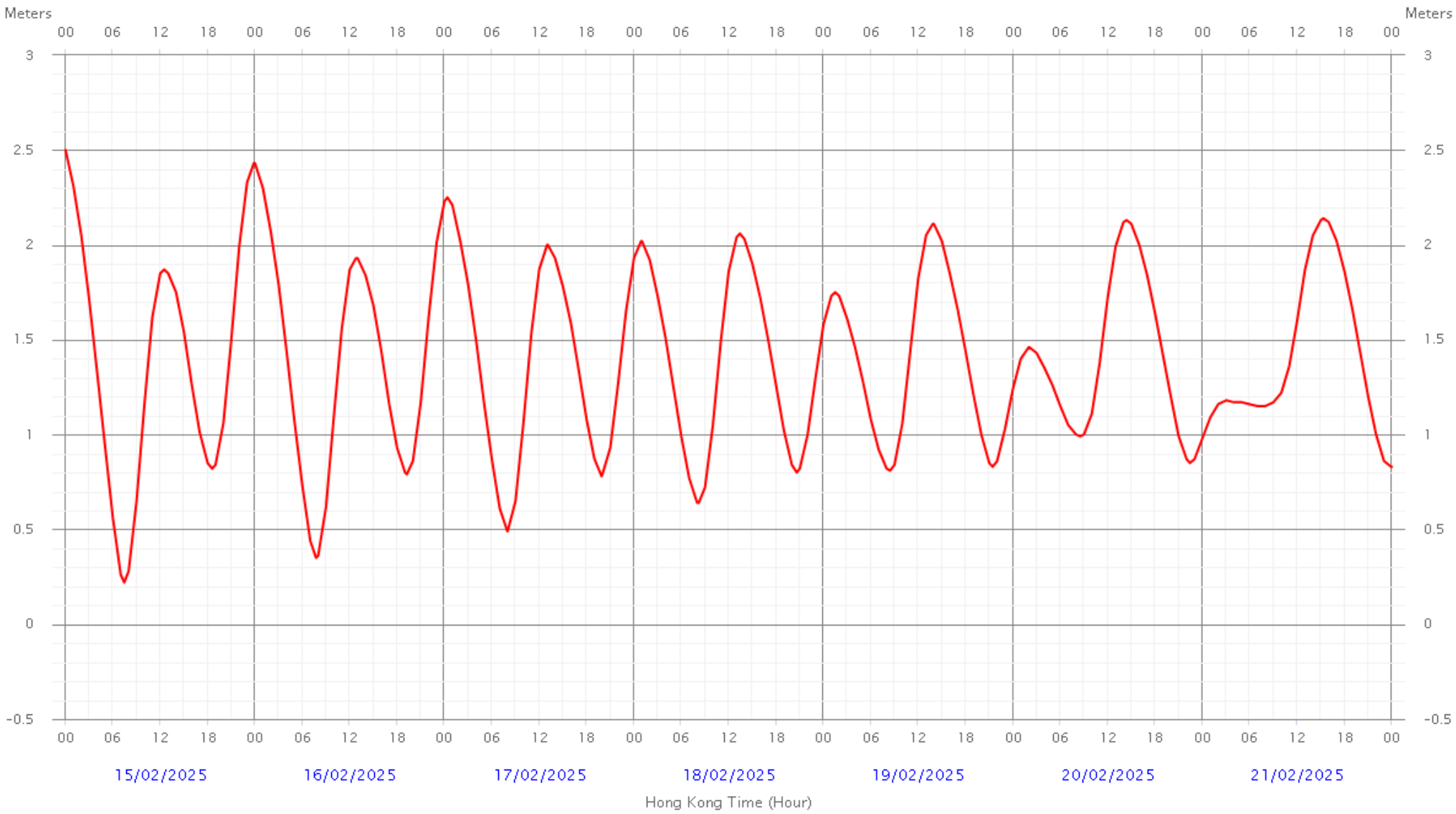


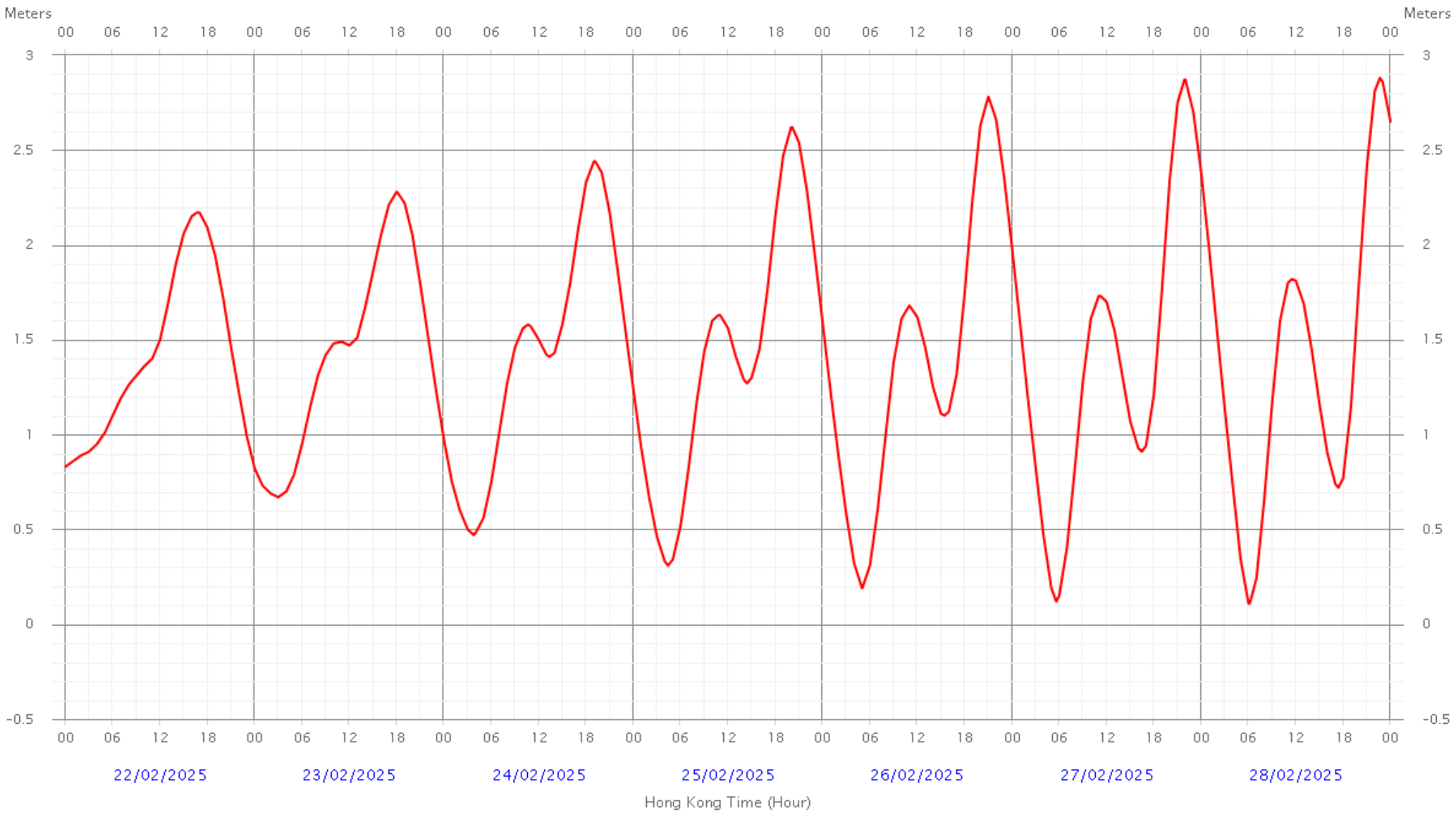

Appendix P: Ecological bird monitoring area with the locations of point count sites and transect routes

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


Tsim Bei Tsui
Meters
Meters
3
2.5
2
1.5
1
0.5
0
-0.5
00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00
01/02/2025
02/02/2025
03/02/2025
04/02/2025
05/02/2025
06/02/2025
07/02/2025
Hong Kong Time (Hour)


Tsim Bei Tsui
Meters
Meters
3
2.5
2
1.5
1
0.5
0
-0.5
00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00
08/02/2025
09/02/2025
10/02/2025
11/02/2025
12/02/2025
13/02/2025
14/02/2025
Hong Kong Time (Hour)


Tsim Bei Tsui
Meters
Meters
3
2.5
2
1.5
1
0.5
0
-0.5
00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00
15/02/2025
16/02/2025
17/02/2025
18/02/2025
19/02/2025
20/02/2025
21/02/2025
Hong Kong Time (Hour)


Tsim Bei Tsui
Meters
Meters
00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00
3
2.5
2
1.5
1
0.5
0
-0.5
00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00 06 12 18 00
22/02/2025
23/02/2025
24/02/2025
25/02/2025
26/02/2025
27/02/2025
28/02/2025
Hong Kong Time (Hour)

**Prepared by:**

Aurecon Hong Kong Limited

Unit 1608, 16/F, Tower B, Manulife Financial Centre,

223 – 231 Wai Yip Street, Kwun Tong,

Kowloon Hong Kong S. A. R.

T: +852 3664 6888

F: +852 3664 6999

E: **hongkong@aurecongroup.com**

aurecon

Bringing ideas to life