

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

Quarterly EM&A Report

(October 2023 - December 2023)

Drainage Services Department

2024-01-26

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Attn: Mr. Simon H.M. YEUNG – CRE(C)

Your Reference

Contract No. SPW 03/2023

Our Reference

AFK/EC/TC/BW/bw/
T601100237/02/02/L051

Independent Environmental Checker for Construction of Yuen Long Effluent Polishing Plant Stage 1 (2023-2024)

Environmental Permit No. EP-565/2019

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Quarterly EM&A Summary Report for October 2023 to December 2023

29 January 2024

By Hand and By Email

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Dear Sir,

I refer to the captioned Quarterly EM&A Summary Report for October 2023 to December 2023 (Revision 1) which was produced by the Environmental Team (ET) Leader, received via e-mail on 26 January 2024 and duly certified by the ET Leader on 29 January 2024 (ref.: PL-202401061).

I have no comment on the captioned report and hereby verify that this submission has in general fulfilled the requirements set out in the EM&A Manual (in particular Section 12.4.5) for the captioned project.

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

Yours faithfully

for MOTT MACDONALD HONG KONG LIMITED

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Ref: PL-202401061

By Email

29 January 2024

Mott MacDonald
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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
EP Condition 3.5 – Quarterly EM&A Report for October to December 2023

Pursuant to Clause 3.5 of Further Environmental Permit No. EP-565/2019 for the captioned project, we are pleased to submit the certified Quarterly EM&A Report for October to December 2023 (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

A handwritten signature in black ink, appearing to be "Vincent M. J. Lu".

Vincent M. J. Lu
Environmental Team Leader

Encl.

cc. AECOM – Mr. Patrick Leung (patrick.leung@ylepp-aecon.com)
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Contents

EXECUTIVE SUMMARY	1
1 INTRODUCTION	2
2 SUMMARY OF EM&A REQUIREMENTS AND MONITORING RESULTS	7
3 LANDSCAPE AND VISUAL	29
4 LAND CONTAMINATION	30
5 SITE INSPECTION AND AUDIT	32
6 NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS	33
7 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURE	34
8 CONCLUSION AND RECOMMENDATION	38

Tables

Table 1	Contact Information of Key Personnel	3
Table 2	Main Construction Works carried out in the Reporting Period	4
Table 3	Air Quality and Noise Monitoring Locations.....	7
Table 4	Coordinates of Water Quality Monitoring Locations	8
Table 5	Summary of Water Quality Exceedance	9
Table 6	Observations and Recommendations of Site Audit	32
Table 7	Waste Generated by the Construction and Disposal Ground	33
Table 8	Status of submissions required under the EP	34

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	

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Appendix

APPENDIX A CONSTRUCTION PROGRAMME

APPENDIX B PROJECT ORGANIZATION CHART

APPENDIX C ACTION AND LIMIT LEVELS

APPENDIX D GRAPHICAL PRESENTATION OF MONITORING DATA

APPENDIX E EVENT AND ACTION PLANS

APPENDIX F WASTE FLOW TABLE

APPENDIX G IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

APPENDIX H CUMULATIVE STATISTICS ON ENVIRONMENTAL COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

EXECUTIVE SUMMARY

This Quarterly 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 11th Quarterly EM&A Report for the construction phase which summaries findings of the EM&A programme during the reporting period from 1 October 2023 to 31 December 2023. As informed by the Contractor, major activities in the reporting month were shown in section 1.4.1.

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 period.

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

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

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

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" and "SAS Thickener House-2" were submitted to EPD respectively on 1st November 2021, 23rd November 2021, 29th April 2022, 6th July 2022 and 19th June 2023. No contaminated soil and ground water was found within the Main Storeroom & Workshop, Mechanical Workshop, Waste Storage Area, SAS Thickener House-1 and SAS Thickener House-2, 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.

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 m³ per day. Based on the latest planning data, the volume of sewage generation from the YLSTW catchment is estimated to increase to 150,000 m³ 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 m³ per day. The proposed works, as Stage 1 of the project, will firstly increase the treatment capacity to 100,000 m³ 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.
- 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 11th Quarterly EM&A Summary Report to document the findings of site inspection activities and EM&A programme for this project from 1 October 2023 to 31 December 2023 (reporting period) and is submitted to fulfil Condition 3.5 of the EP and Section 12.4.5 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)	Assistant Environmental Officer (Until 3 October 2023)	Mr. Sam Tsang	4634 2581
	Deputy Site Agent (Until 31 October 2023)	Mr. Kenneth Lau	6239 2589
	Environmental Specialist (From 3 November 2023)	Mr. Gabriel Wong	5269 5723
	Environmental Officer (From 6 November 2023)	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 Period

1.4.1 The main construction works carried out in the reporting period were summarized in **Table 2**:

Table 2 Main Construction Works carried out in the Reporting Period

October 2023	November 2023	December 2023
<ul style="list-style-type: none"> • Ground investigation at SDB, AGS & TTS • ABWF and E&M works at CLP substation • ELS work and RC structure at IW & PST • Driven pile works at SDB • Installation of King Post at AGS • Installation of observation wells and dewatering well at AGS • ELS work at AGS • Demolition of underground structure at Aeration Tank no. 5-8 • Demolition of underground structure at pump room of AFT • Installation of King post at TTS • Installation of observation wells and dewatering well at TTS • ELS work and RC construction at Biogas Holder no. 1 • Sheet piling work around Sludge digester no. 1-3 • Installation of sheet pile at STB • Disposal of construction waste as indicated in Appendix F. 	<ul style="list-style-type: none"> • Ground investigation at SDB, AGS & TTS • ABWF and E&M works at CLP substation • ELS work and RC structure at IW & PST • Driven pile works at SDB • Installation of King Post at AGS • Installation of observation wells and dewatering well at AGS • ELS work at AGS • Demolition of underground structure at Aeration Tank no. 5-8 • Demolition of underground structure at pump room of AFT • Installation of King post at TTS • Installation of observation wells and dewatering well at TTS • ELS work and RC construction at Biogas Holder no. 1 • Sheet piling work around Sludge digester no. 1-3 • Installation of sheet pile at STB • Disposal of construction waste as indicated in Appendix F. 	<ul style="list-style-type: none"> • Ground investigation at SDB, AGS & TTS • ABWF and E&M works at CLP substation • ELS work and RC structure at IW & PST • Driven pile works at SDB • Installation of King Post at AGS • Installation of observation wells and dewatering well at AGS • ELS work at AGS • Demolition of underground structure at Aeration Tank no. 5-8 • Demolition of underground structure at pump room of AFT • Installation of King post at TTS • Installation of observation wells and dewatering well at TTS • ELS work and RC construction at Biogas Holder no. 1 • Sheet piling work around Sludge digester no. 1-3 • Installation of sheet pile at STB • Disposal of construction waste as indicated in Appendix F.

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

2 SUMMARY OF EM&A REQUIREMENTS AND MONITORING RESULTS

2.1 Monitoring Requirement

2.1.1 The EM&A programme was undertaken in accordance with the EM&A Manual. It should be noted that the air quality, noise, water quality and ecology monitoring works are covered by this contract.

Air quality Monitoring

2.1.2 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.

Noise Monitoring

2.1.3 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.

Water quality Monitoring

2.1.4 Turbidity (in NTU), pH, DO (in mg/L and % of saturation), Temperature (in °C), Salinity (in ppt) and Suspended Solids are conducted for three days per week at mid-flood and mid-ebb with sampling and measurement at the designated monitoring stations.

Ecology Monitoring

2.1.5 Ardeid night roost monitoring was conducted once a month in areas within 100 m from the Project boundary to monitor the effectiveness of proposed mitigation measures and detect any unpredicted indirect ecological impacts arising from the Project.

2.1.6 Ecological monitoring of birds was conducted monthly during the quarter at point count sites and transect routes along the wetland habitats in Fung Lok Wai and Nam Sang Wai as well as along Shan Pui River and Kam Tin River within 500 m from the Project boundary.

2.2 Monitoring Locations

2.2.1 The air quality and noise monitoring are summarized in **Table 3**. The locations of the air quality and noise monitoring stations shown in **Figure 2** and **Figure 3**, respectively.

Table 3 Air Quality and Noise Monitoring Locations

Environmental Monitoring	Monitoring Station	Location
Air Quality	AM1	Topfine Machinery (China) Co. Ltd
	AM2	Squatter house at the west of YLSTW
Noise	CM1	Squatter house at the north of Yuen Long STW
	CM2	Squatter house at the west of Yuen Long STW
	CM3	Squatter house at the east of Yuen Long STW

2.2.2 The coordinates of water quality monitoring locations are summarized in **Table 4**. The locations of the water quality monitoring stations shown in **Figure 4**.

Table 4 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

2.3 Results & Observations

2.3.1 Graphical presentation of the environmental monitoring data in the reporting period is presented in **Appendix D**.

Air quality Monitoring

2.3.2 1-hour TSP impact monitoring at AM1 and AM2 were carried out in the reporting period, the air quality monitoring results are reported in the monthly EM&A Report prepared for this Contract.

2.3.3 No Action and Limit Level exceedance was recorded for air quality monitoring in the reporting period.

Noise Monitoring

2.3.4 Construction noise monitoring were carried out in the reporting period, the construction noise monitoring results for CM1, CM2 and CM3 are reported in the monthly EM&A Reports prepared for this Contract.

2.3.5 No Action and Limit Level exceedance was recorded for construction noise monitoring in the reporting period.

2.3.6 No raining and wind with speed over 5 m/s was observed during noise monitoring according to the onsite observation.

2.3.7 During the noise monitoring period, 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 period.

Water quality Monitoring

2.3.8 Water quality monitoring were carried out in the reporting period, the monitoring results for M1, M2 and M3 are reported in the monthly EM&A Reports prepared for this Contract.

2.3.9 Due to safety concerns, the water quality monitoring on 7 October 2023 [Mid-Flood and Mid-Ebb] has been cancelled by Typhoon Signal No. 3.

2.3.10 No Action and Limit Level exceedance was recorded for Dissolved Oxygen, Turbidity and Suspended Solids. Number of water quality exceedance recorded in the reporting period at each impact stations is summarized in **Table 5**.

Table 5 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	

Ecology Monitoring

2.3.11 Ardeid night roost monitoring and ecological bird monitoring were carried out in the reporting period. The monitoring results are reported in the monthly EM&A Reports prepared for this Contract.

2.3.12 Results of the ardeid night roost monitoring showed that the two confirmed ardeid night roosts (ANR 1 and ANR 2) during the pre-construction survey were still observed to be active from October 2023 to December 2023. No Action / Limit Level exceedance at NMS1 and NMS2 was recorded during the reporting period.

2.3.13 Results of the ecological bird monitoring recorded no exceedance in Action / Limit Level during the reporting period.

2.4 Action and Limit Levels

2.4.1 The Action and Limit Levels for air quality, noise, water quality and ecology monitoring have been set and are presented in **Appendix C**.

2.5 Event and Action Plans

2.5.1 The event and action plans for air quality, noise, water quality and ecology monitoring are presented in **Appendix E**.

2.6 Mitigation Measures

2.6.1 The Contractor had implemented environmental mitigation measures and requirements as stated in the EIA Report, the EP and EM&A Manual. The implementation status of the environmental mitigation measures during the reporting period is summarized in **Appendix G**.

3 LANDSCAPE AND VISUAL

3.1 Audit Requirements

- 3.1.1 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 planning, control of night-time lighting glare, erection of decorative screen hoarding and management of construction activities and facilities are summarized in **Appendix G**.

3.2 Results and Observations

- 3.2.1 According to the EM&A Manual, 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.
- 3.2.2 To monitor and audit the implementation of landscape and visual mitigation measures, 13 weekly landscape and visual site audits were carried out in the reporting period. No outstanding issues were reported during the reporting period. Observations and recommendations during site audits are summarized in **Table 6**.

4 LAND CONTAMINATION

4.1 Contamination Assessment Report

- 4.1.1 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.
- 4.1.2 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.
- 4.1.3 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.
- 4.1.4 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.
- 4.1.5 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 (C_{sat}) 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 19 June 2023.

5 SITE INSPECTION AND AUDIT

5.1 Site Inspection

5.1.1 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.

5.1.2 In the reporting period, 13 site inspections were carried out. No outstanding issues were reported during the reporting period. Details of observations recorded during the site inspections are presented in **Table 6**.

Table 6 Observations and Recommendations of Site Audit

Parameters	Date	Observations and Recommendations	Follow-up
Air Quality	20231220	Reminder 1: Stockpiling area at AGS should be provided with covers and water spraying system.	Water spraying system is provided.
	20231227	Reminder 1: The Contractor was reminded that the frequency of watering spraying should be increased to reduce the dust impact.	NA
Noise	20231114	Reminder 1: The noise barrier at STB should be enclosed.	NA
	20231205	Reminder 1: Provide NRMM label for generator G169.	NA
Water Quality	20231010	Reminder 1: Domestic waste should be collected and stored in proper container.	NA
Chemical and Waste Management	20231010	Reminder 1: Intercepting channels should be provided to prevent storm run-off from washing across exposed soil surface.	NA
	20231114	Reminder 1: The construction waste should be stored at a temporary storage area for disposal.	NA
Land Contamination	20231129	Reminder 1: Please keep tree protection zone clear of building materials.	NA
Ecological Impact		NA	
Landscape and Visual Impact		NA	
Permit / Licenses		NA	
Others		NA	

5.2 Advice on the Solid and Liquid Waste Management Status

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

5.2.2 The management of waste generated by the construction is presented in **Table 7**.

Table 7 Waste Generated by the Construction and Disposal Ground

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

5.2.3 The amount of wastes generated by the site activities in the reporting period is shown in **Appendix F**.

5.2.4 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.

5.2.5 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.

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

6.1 Non-compliance (Exceedances of AL levels)

- 6.1.1 No Action and Limit Level exceedance was recorded for air quality monitoring and construction noise monitoring in the reporting period.
- 6.1.2 No Action and Limit Level exceedance was recorded was recorded for water quality in the reporting period.
- 6.1.3 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 period.
- 6.1.4 No Action / Limit exceedance was noted for the ecological monitoring of birds during the reporting period.
- 6.1.5 No corrective actions were required according to the Event and Action Plans.

6.2 Complaints, Notification of Summons and Successful Prosecutions

- 6.2.1 No environmental complaints, notification of summons and successful prosecutions was recorded in the reporting period.
- 6.2.2 Cumulative complaint log, summaries of complaints, notification of summons and successful prosecutions are presented in **Appendix H**.
- 6.2.3 No corrective actions were required.

7 IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURE

7.1 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. The implementation status of the recommended mitigation measures during the reporting period is summarized in **Appendix G**.

The status of required submissions under the EP as of the reporting period are summarized in **Table 8**.

Table 8 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.
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.

EP Condition (EP-565/2019)	Submission Title	Submission Status
Condition 2.14	Contamination Assessment Report for SAS Thickener House-2	Submitted to EPD with ET certification and IEC verification, 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 2023)	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 September 2023)	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 2023	Submitted to EPD with ET certification and IEC verification, finalised and available for public inspection via the dedicated website.

8 CONCLUSION AND RECOMMENDATION

8.1 Conclusions

- 8.1.1 No Action and Limit Level exceedance was recorded for air quality monitoring and construction noise monitoring in the reporting period.
- 8.1.2 No Action and Limit Level exceedance was recorded for water quality in the reporting period.
- 8.1.3 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 monitoring period.
- 8.1.4 No Action / Limit exceedance was noted for the ecological monitoring of birds during the reporting period.
- 8.1.5 13 environmental site inspections and 13 landscape and visual site audits were carried out in the reporting period. Recommendations on mitigation measures were given to the Contractor for remediating the deficiencies identified during the site inspections.
- 8.1.6 No environmental complaints, notification of summons and successful prosecutions were recorded in the reporting period.
- 8.1.7 The EM&A methodology has been effective in monitoring the environmental impacts of the Project and the effectiveness of the mitigation measures. The data collected were useful in determining whether the Project had caused unacceptable impacts on the sensitive receivers. Analysis of all EM&A data collected throughout the baseline and the impact monitoring periods demonstrated the environmental acceptability of the Project.

8.2 Comment and Recommendations

- 8.2.1 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.
- 8.2.2 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 period.

Construction Noise Impact

- The noise barrier at STB should be enclosed.
- The noise barrier at the west of STB should be enclosed.

Water Quality Impact

- No specific observation was identified in the reporting period.

Chemical Waste and Construction Waste Management

- No specific observation was identified in the reporting period.

Land Contamination

- No specific observation was identified in the reporting period.

Ecological Impact

- No specific observation was identified in the reporting period.

Landscape and Visual Impact

- No specific observation was identified in the reporting period.

Hazard to Life

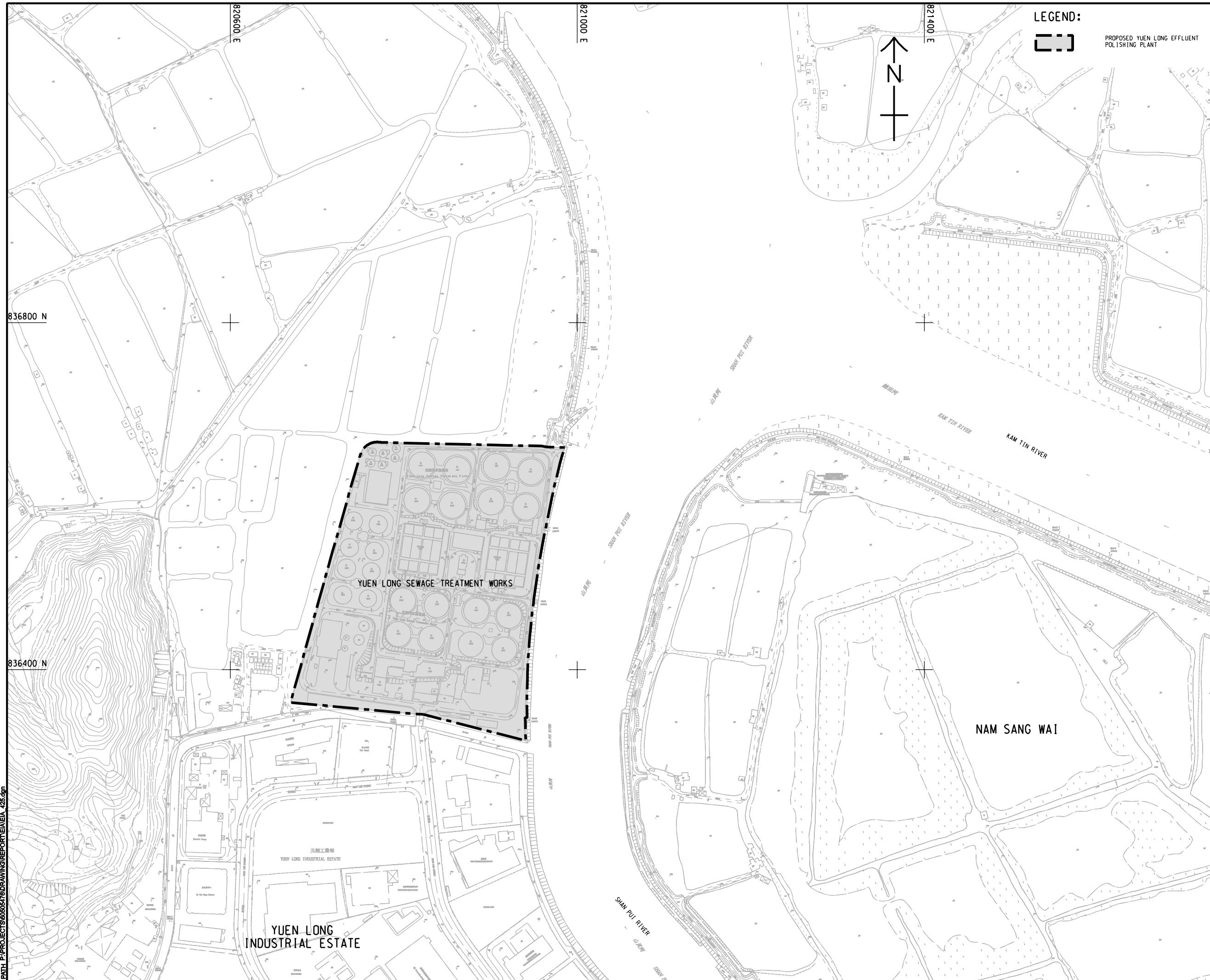
- No specific observation was identified in the reporting period.


Permit/ Licenses

- No specific observation was identified in the reporting period.

Figure 1 Location of Proposed Yuen Long Effluent Polishing Plant

Plot File by: SongYN 2018/02/27
 PATH: P:\PROJECTS\8060547\DRAWING\REPORT\EA\EA_425.dgn
 Project Management Initials: Designer: Checked: Approved: ISO A1 594mm x 841mm



LEGEND:
 PROPOSED YUEN LONG EFFLUENT POLISHING PLANT

AECOM
PROJECT
YUEN LONG EFFLUENT POLISHING PLANT - INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
 渠務署
 Drainage Services Department

CONSULTANT
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SUB-CONSULTANTS
 分判工程顧問公司

ISSUE/REVISION

NO.	DATE	DESCRIPTION	CHK.

STATUS

SCALE
 1:2000
DIMENSION UNIT
 METRES

KEY PLAN

PROJECT NO.
 60505476
CONTRACT NO.
 CE 3/2015 (DS)

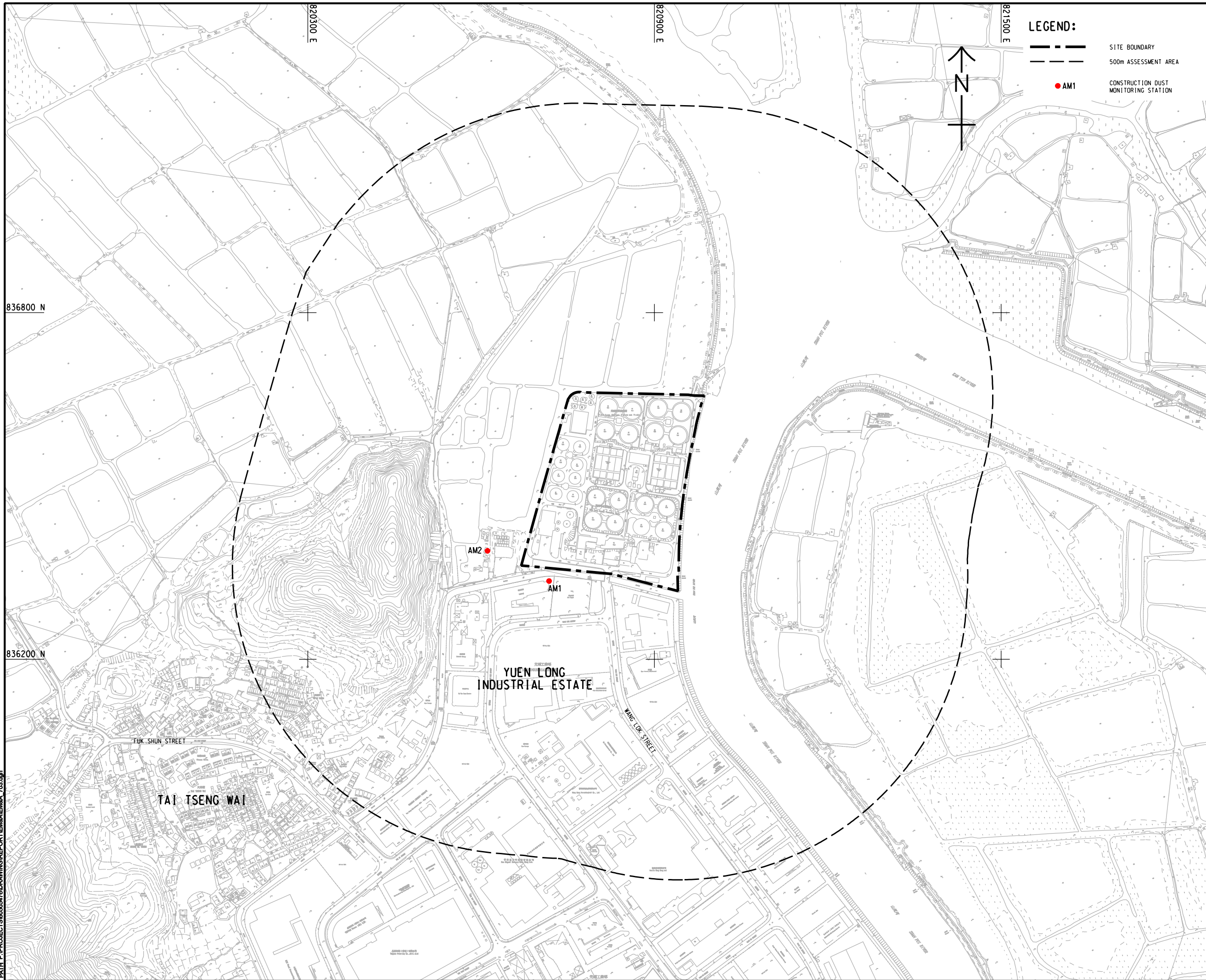
SHEET TITLE
 LOCATION OF PROPOSED YUEN LONG EFFLUENT POLISHING PLANT

SHEET NUMBER

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Figure 2 Location of Construction Dust Monitoring Stations

ISO A1 594mm x 841mm
 Approved:
 Checked:
 Designer:
 Project Management Initials:
 836800 N
 836200 N
 P:\PROJECTS\60565476\DRAWING\REPORT\EM\EA\EA_703.dgn
 11/29
 P:\PROJECTS\60565476\DRAWING\REPORT\EM\EA\EA_703.dgn



LEGEND:

- SITE BOUNDARY
- 500m ASSESSMENT AREA
- AM1 CONSTRUCTION DUST MONITORING STATION



PROJECT
 項目
YUEN LONG EFFLUENT POLISHING PLANT - INVESTIGATION, DESIGN AND CONSTRUCTION

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

STATUS
 階段

SCALE
 比例
 A1 1 : 3000

DIMENSION UNIT
 尺寸單位
 METRES

KEY PLAN
 索引圖

PROJECT NO.
 項目編號
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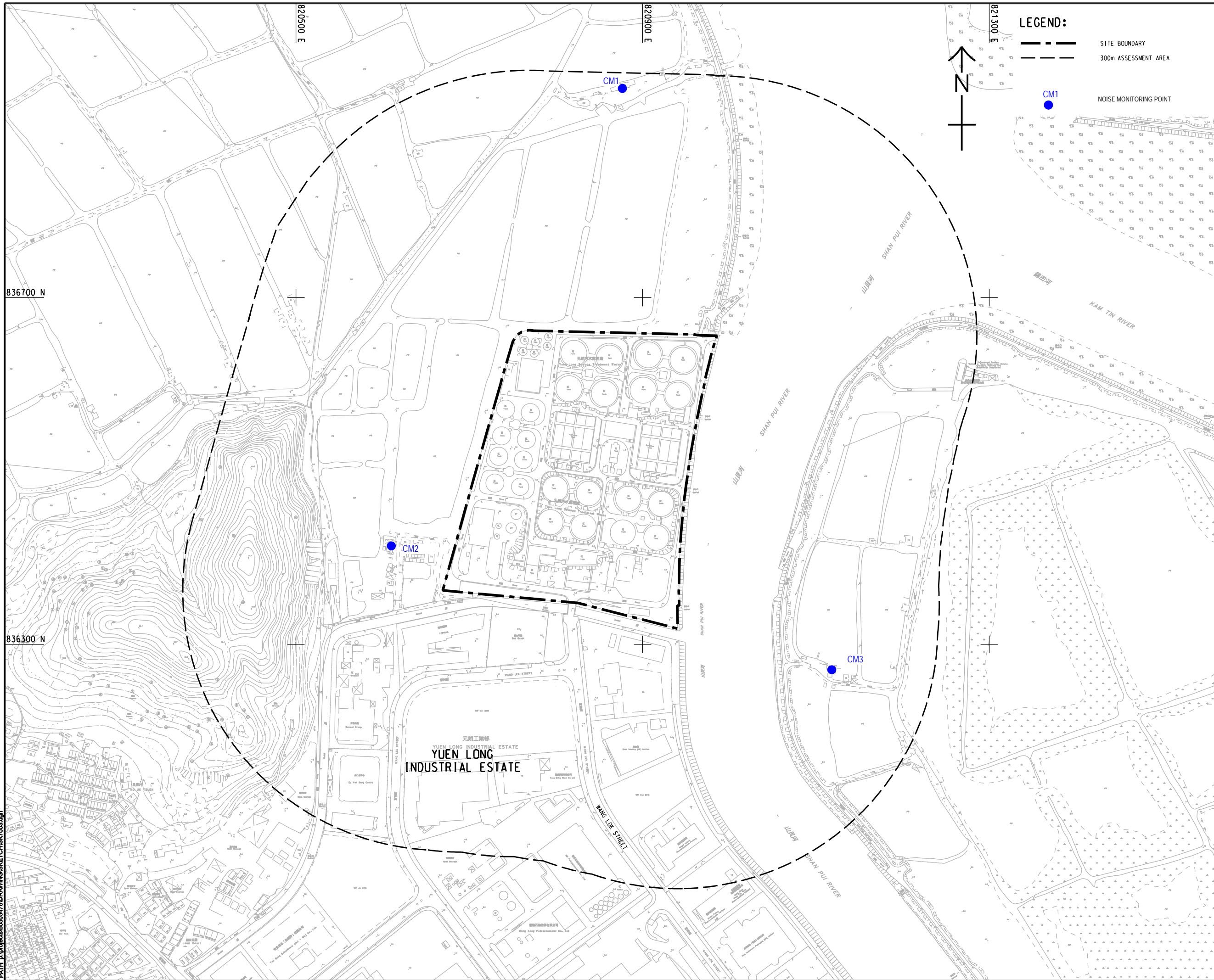
CONTRACT NO.
 合約編號
 CE 3/2015 (DS)

SHEET TITLE
 圖紙名稱
 LOCATION OF CONSTRUCTION DUST MONITORING STATIONS

SHEET NUMBER
 圖紙編號

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Figure 3 Noise Monitoring Locations



LEGEND:

- SITE BOUNDARY
- 300m ASSESSMENT AREA
- NOISE MONITORING POINT



PROJECT
YUEN LONG EFFLUENT POLISHING PLANT - INVESTIGATION, DESIGN AND CONSTRUCTION

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STATUS

SCALE **DIMENSION UNIT**
 1:2000 METRES

KEY PLAN

PROJECT NO. **CONTRACT NO.**
 60505476 CE 3/2015 (DS)

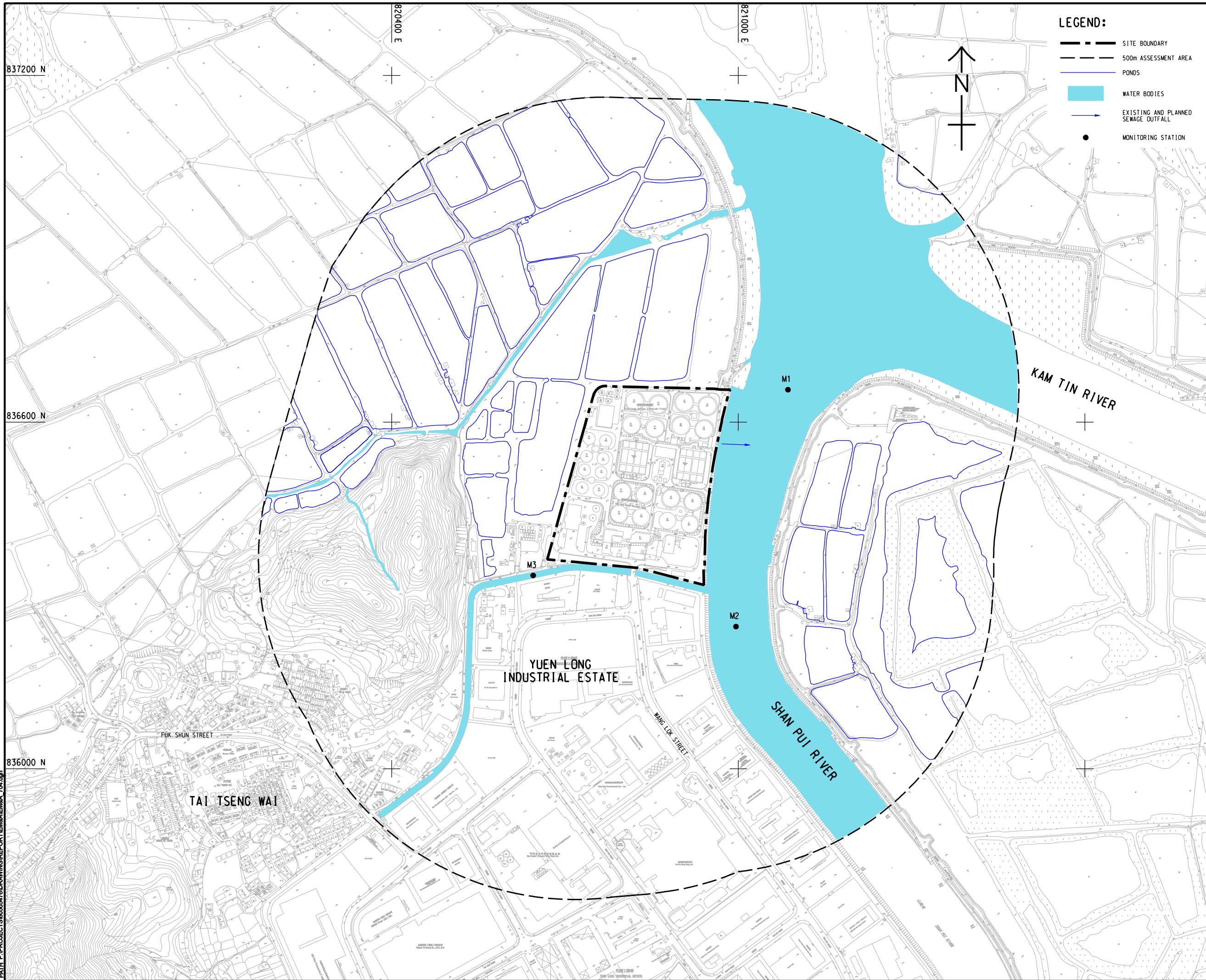
SHEET TITLE
 LOCATIONS OF NOISE MONITORING POINTS

SHEET NUMBER

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Figure 4 Water Quality Monitoring Locations

Pld File by: Guo YU 12/18
 PATH: P:\PROJECTS\60505476\DRAWING\REPORT\EMBA\EMBA_704.dgn
 ISO A1 594mm x 841mm
 Approved:
 Checked:
 Designer:
 Project Management Initials:



LEGEND:

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

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YUEN LONG EFFLUENT POLISHING PLANT - INVESTIGATION, DESIGN AND CONSTRUCTION

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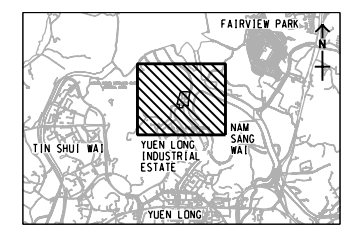
STATUS
 階段

SCALE
 比例

A3 1: 8000

DIMENSION UNIT
 尺寸單位

METRES



PROJECT NO.
 項目編號

60505476

CONTRACT NO.
 合約編號

CE 3/2015 (DS)

SHEET TITLE
 圖名

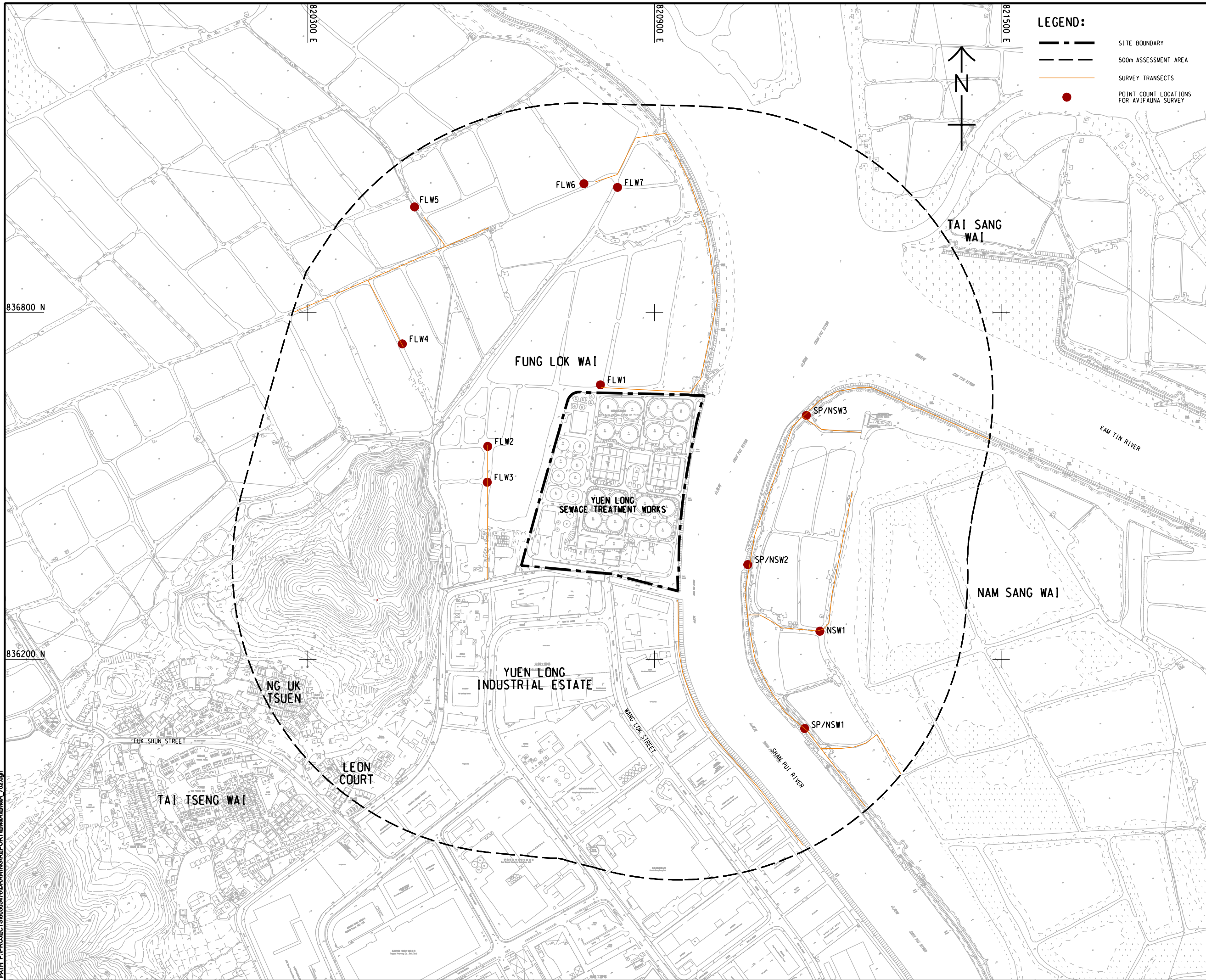
LOCATIONS OF WATER QUALITY MONITORING STATIONS FOR CONSTRUCTION PHASE

SHEET NUMBER
 圖號

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Figure 5 Ecology Monitoring Locations

ISO A1 594mm x 841mm
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 Designer:
 Project Management Initials:
 836800 N
 836200 N
 Pld File by: ZENGFY 2018/05/30
 PATH: P:\PROJECTS\60505476\DRAWING\REPORT\EM\EN\EA_702.dgn



LEGEND:

- SITE BOUNDARY
- 500m ASSESSMENT AREA
- SURVEY TRANSECTS
- POINT COUNT LOCATIONS FOR AVIFAUNA SURVEY



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I/R	DATE	DESCRIPTION	CHK.

STATUS
 階段

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

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Appendix A

Construction Programme

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	November					December					January					February					March					April					May				
						29	05	12	19	26	03	10	17	24	31	07	14	21	28	04	11	18	25	03	10	17	24	31	07	14	21	28	05							
YL Effluent Polishing Plant - Main Works Stage 1 - Detailed Works Programme DPv32_231219																																								
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	25-Mar-24*	-32																									WorkArea WA2 (sd) (new site possession) validity for 12 months and subject to renewal										
Contract Key Dates																																								
CKD10	KD10 - Completion of Civil & Structural works of roof floor of sludge thickening bldg (RevKD10=6Feb24)	0		06-Feb-24*	0																									◆ KD10 - Completion of Civil & Structural works of roof floor of sludge thickening bldg (RevKD10=6Feb24)										
Environmental Constraints																																								
NMM-2165	PS 1.105A Noise Mitigation Measures 2023-2024	152	01-Nov-23 A	31-Mar-24	0																									PS 1.105A Noise Mitigation Measures 2023-2024										
Preliminary and Preparation Works																																								
Subletting																																								
SUB-270	Subletting for ELS works for IW, PST, SDB, STB, SD, MBB, TTB, underpass and open cut for admin. bldg	312	12-Oct-21 A	30-Dec-23	-212																									Subletting for ELS works for IW, PST, SDB, STB, SD, MBB, TTB, underpass and open cut for admin. bldg										
SUB-380	Subletting for Sheet piling works for remaining areas	333	12-Oct-21 A	10-Feb-24	173																									Subletting for Sheet piling works for remaining areas										
SUB-280	Subletting for RC works for IW, PST, SDB, STB, SD, Biogas holder, underpass and admin. bldg	256	29-Nov-21 A	12-Jan-24	-263																									Subletting for RC works for IW, PST, SDB, STB, SD, Biogas holder, underpass and admin. bldg										
SUB-350	Subletting for Waterproofing membrane and protection board	300	29-Nov-21 A	04-Jan-24	-66																									Subletting for Waterproofing membrane and protection board										
SUB-360	Subletting for Rebar fixing	86	29-Nov-21 A	30-Jan-24	-263																									Subletting for Rebar fixing										
SUB-310	Subletting for Utilities Corridor ELS	60	08-Aug-22 A	09-Jan-24	-97																									Subletting for Utilities Corridor ELS										
SUB-290	Subletting for ABWF works for IW, PST, SDB, STB, MBR, TTB and admin. bldg	60	01-Aug-23 A	29-Jan-24	-218																									Subletting for ABWF works for IW, PST, SDB, STB, MBR, TTB and admin. bldg										
SUB-300	Subletting for RC works for MBR and TTB	60	05-Feb-24	04-Apr-24	-93																									Subletting for RC works for MBR and TTB										
SUB-340	Subletting for Drainage, Sewage & waterworks	90	05-Feb-24	04-May-24	-93																									Subletting for Drainage, Sewage & waterworks										
Design Submission																																								
Temporary Works Design																																								
Mainstream Bio-Reactor System																																								
TWD-250	ELS - Obtain Approval	7	23-Aug-23 A	20-Dec-23	128																									ELS - Obtain Approval										
Sludge Thickening Building																																								
One-stage design																																								
TWD-210	ELS - Obtain Approval	7	10-Dec-22 A	22-Dec-23	-39																									ELS - Obtain Approval										
Sludge Digester 1-3 & Utilities Corridor																																								
TWD-370	ELS - Obtain Approval	7	21-Dec-22 A	22-Dec-23	-178																									ELS - Obtain Approval										
Sludge Digester 4-6																																								
TWD-460	ELS - Prepare & Submission for PMs review	45	02-Jan-24*	15-Feb-24	319																									ELS - Prepare & Submission for PMs review										
TWD-470	ELS - Review by PMs & ICE review (28 d + 7d)	35	16-Feb-24	21-Mar-24	319																									ELS - Review by PMs & ICE review (28 d + 7d)										
Sludge Dewatering and Underpass																																								
TWD-260	ELS - Prepare & Submission for PMs review	45	02-Jan-24*	15-Feb-24	112																									ELS - Prepare & Submission for PMs review										
TWD-270	ELS - Review by PMs & ICE review (28 d + 7d)	35	16-Feb-24	21-Mar-24	112																									ELS - Review by PMs & ICE review (28 d + 7d)										
Modification of Existing Emergency Bypass Chamber																																								
TWD-680	ELS - Obtain Approval	7	04-Oct-23 A	25-Oct-23 A																										Obtain Approval										
Modification of Existing Inspection Chamber & Inlet Effluent Pipes from NSWSPS																																								
TWD-700	ELS - Prepare & Submission for PMs review	45	26-Oct-22 A	07-Dec-23	-167																									ELS - Prepare & Submission for PMs review										
TWD-710	ELS - Review by PMs & ICE review (28 d + 7d)	35	08-Dec-23	11-Jan-24	-167																									ELS - Review by PMs & ICE review (28 d + 7d)										
TWD-720	ELS - Resubmission for PMs & ICE review (7d prep & resub. + 7d ICE)	14	12-Jan-24	25-Jan-24	-167																									ELS - Resubmission for PMs & ICE review (7d prep & resub. + 7d ICE)										
TWD-730	ELS - Obtain Approval	7	26-Jan-24	01-Feb-24	-167																									ELS - Obtain Approval										
Temporary pipework between PST Stage 1 and A-Tank Inlet [Temporary pumping system]																																								
TWD-750	Hydraulic design - Prep(45d), Sub.&Review(30d), Comment&Resub (14d) & Approval (7d)	96	14-Sep-23 A	14-Dec-23	-139																									Hydraulic design - Prep(45d), Sub.&Review(30d), Comment&Resub (14d) & Approval (7d)										
TWD-760	Civil structure design - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7d)	31	03-Oct-23 A	14-Dec-23	-139																									Civil structure design - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7d)										
TWD-770	ELS - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7d)	31	03-Oct-23 A	07-Dec-23	-139																									ELS - Prep(60d), Sub.&Review(45d), Comment&Resub (14d) & Approval (7d)										
Temporary pumping and pipeworks between existing Detritor and PST Stage 1 [Temp. pumping system]																																								
TWD-780	Hydraulic design - Prep(45d), Sub.&Review(21d), Comment&Resub (14d) & Approval (7d)	96	01-Aug-23 A	14-Dec-23	-171																									Hydraulic design - Prep(45d), Sub.&Review(21d), Comment&Resub (14d) & Approval (7d)										
TWD-790	Civil structure design - Prep(45d), Sub.&Review(21d), Comment&Resub (14d) & Approval (7d)	96	03-Oct-23 A	14-Dec-23	-171																									Civil structure design - Prep(45d), Sub.&Review(21d), Comment&Resub (14d) & Approval (7d)										
TWD-800	ELS - Prep(45d), Sub.&Review(30d), Comment&Resub (14d) & Approval (7d)	24	03-Oct-23 A	25-Nov-23 A																										ELS - Prep(45d), Sub.&Review(30d), Comment&Resub (14d) & Approval (7d)										
Temporary Working Platform at AGS ELS																																								
TWD-910	Temp. Working Platform - AGS ELS - Resubmission for PMs & ICE review (7d prep & resub. + 7d ICE)	14	06-May-23 A	08-Dec-23	-211																									Temp. Working Platform - AGS ELS - Resubmission for PMs & ICE review (7d prep & resub. + 7d ICE)										
TWD-920	Temp. Working Platform - AGS ELS - Obtain Approval	7	09-Dec-23	15-Dec-23	-211																									Temp. Working Platform - AGS ELS - Obtain Approval										
Temporary Working Platform at TTS ELS																																								
TWD-950	Temp. Working Platform - TTS ELS - Resubmission for PMs & ICE review (7d prep & resub. + 7d ICE)	14	17-Apr-23 A	16-Dec-23	-193																									Temp. Working Platform - TTS ELS - Resubmission for PMs & ICE review (7d prep & resub. + 7d ICE)										
TWD-960	Temp. Working Platform - TTS ELS - Obtain Approval	7	17-Dec-23	23-Dec-23	-193																									Temp. Working Platform - TTS ELS - Obtain Approval										
Temporary diversion scheme for Early commissioning of SD, BH1, H2S and STB																																								
TWD-970	Temp. pipe. for BH1 Early Comm.-Prep(90d), Sub.&Review(30d), Comment&Resub(14d) & Approval(7d)	141	30-Jun-23 A	03-Feb-24	-50																									Temp. pipe. for BH1 Early Comm.-Prep(90d), Sub.&Review(30d), Comment&Resub(14d) & Approval(7d)										
TWD-1010	Temp. pipe. for SD1-2 Early Comm.-Prep(90d), Sub.&Review(30d), Comment&Resub(14d) & Approval(7d)	141	01-Dec-23	19-Apr-24	17																									Temp. pipe. for SD1-2 Early Comm.-Prep(90d), Sub.&Review(30d), Comment&Resub(14d) & Approval(7d)										
Contractor's Permanent Works Design (Include ATAL)																																								
AIP																																								
Package 3A - Plant Service Water																																								
AP-520	E&MAP Report for Plant Service Water - Resubmission for further review	45	20-Dec-21 A	30-Dec-23	17																									E&MAP Report for Plant Service Water - Resubmission for further review										
AP-530	E&MAP Report for Plant Service Water - Obtain Approval	7	31-Dec-23	06-Jan-24	17																									E&MAP Report for Plant Service Water - Obtain Approval										
Package 23A - Security, Public Address and Communication System																																								
AP-970	SPC - Resubmission for further review	45	12-Oct-23 A	07-Jan-24	-81																									SPC - Resubmission for further review										
AP-980	SPC - Obtain Approval	13	08-Jan-24	20-Jan-24	-81																									SPC - Obtain Approval										
DDA																																								
Package 2 - Tertiary Treatment System																																								
DDA-170	Civil Req. for TTS (Foundation design) - Prepare(27d), Sub. & Review(45d), Comment & Resub.(14d), GEO(28d) & Approval (7d)	121	13-Jun-21 A	23-Dec-23	-87																									Civil Req. for TTS (Foundation design) - Prepare(27d), Sub. & Review(45d), Comment & Resub.(14d), GEO(28d) & Approval (7d)										
DDA-150	Foundation for TTS - Prepare (90d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d), GEO (28d)	213	08-Oct-21 A	17-Jan-24	-109																									Foundation for TTS - Prepare (90d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d), GEO (28d)										
DDA-180	Civil Req. for TTS (Superstruct design) - Prepare (147d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	213	11-Oct-21 A	23-Dec-23	32																									Civil Req. for TTS (Superstruct design) - Prepare (147d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-200	Mechanical for TTS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	213	31-Dec-21 A	24-Dec-23	178																									Mechanical for TTS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-210	Electrical & Control for TTS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	213	31-Dec-21 A	24-Dec-23	178																									Electrical & Control for TTS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-140	Architectural for TTS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	126	17-Nov-22 A	25-Apr-24	-27																									Architectural for TTS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-160	Civil & Structural for TTS - Prepare (120d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	177	17-Nov-22 A	23-Mar-24	-178																									Civil & Structural for TTS - Prepare (120d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-220	Building Services (BS) for TTS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	199	30-Oct-23 A	26-May-24	24																									Building Services (BS) for TTS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
Package 3 - Mainstream Bio-Reactor System																																								
DDA-260	Civil Req. for MBS-AGS (Foundation design) - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	126	09-Jun-21 A	23-Dec-23	-14																									Civil Req. for MBS-AGS (Foundation design) - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-280	P&ID for MBS (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	126	08-Oct-21 A	11-Jan-24	214																									P&ID for MBS (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-290	Mechanical for MBS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	126	08-Oct-21 A	17-Jan-24	214																									Mechanical for MBS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-300	Electrical & Control for MBS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	405	08-Oct-21 A	11-Jan-24	220																									Electrical & Control for MBS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-270	Civil Req. for MBS-AGS (Superstruct design) - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	126	01-Mar-22 A	23-Dec-23	-14																									Civil Req. for MBS-AGS (Superstruct design) - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-240	Foundation for MBS - Prepare (97d), Sub. & Review(45d), Comment & Resub.(14d), GEO (28d) & Approval (7d)	230	18-Mar-22 A	09-Mar-24	-93																									Foundation for MBS - Prepare (97d), Sub. & Review(45d), Comment & Resub.(14d), GEO (28d) & Approval (7d)										
DDA-250	Civil & Structural for MBS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)	170	20-Jan-23 A	28-Mar-24	-14																									Civil & Structural for MBS - Prepare (60d), Sub. & Review(45d), Comment & Resub.(14d) & Approval (7d)										
DDA-1530	VCAB for AGS&TTS - Prepare (30d), Sub. & Review(30d)	204	16-Jun-23 A	20-Apr-24	120																									VCAB for AGS&TTS - Prepare (30d), Sub. & Review(30d)										



■ 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. 37- 3MRP (Nov23)

Project ID : DWPr32_231219
 Layout : DC201910 MPR37-3MRP
 Page 1 of 9

Monthly Progress Report - 3MRP

Date	Revision	Checked	Approved
30-Nov-23	Rev. 0		

Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	November					December					January					February					March					April					May				
						29	05	12	19	26	03	10	17	24	31	07	14	21	28	04	11	18	25	03	10	17	24	31	07	14	21	28	05							
FSI, FSD and OP Requirements																																								
FSI Submission & Approval																																								
FSD-1200	Submission/Review/Approval by PM and FSD - Full GBP+GBP for TOP1 with DG- RIC & 3rd submission	120	30-May-23 A	10-Feb-24	-208	Submission/Review/Approval by PM and FSD - Full GBP+GBP for TOP1 with DG- RIC & 3rd submission																																		
FSD-1210	Submission/Review/Approval by PM and FSD - Full GBP+GBP for TOP1 with DG- RIC & 4th submission	120	12-Jan-24	10-May-24	-208	Submission/Review/Approval by PM and FSD - Full GBP+GBP for TOP1 with DG- RIC & 4th submission																																		
WSD Submission & Approval																																								
WSD-1010	WSD - Form WWO542 PM&WSD review and approval	90	10-Mar-22 A	14-Feb-24	-188	WSD - Form WWO542 PM&WSD review and approval																																		
WSD-1020	WSD - Submit Form WWO46 Part 1 and 2	0		14-Feb-24	-188	WSD - Submit Form WWO46 Part 1 and 2																																		
WSD-1030	WSD - Form WWO46 Part 1 and 2 PM&WSD review and approval	90	15-Feb-24	14-May-24	-188	WSD - Form WWO46 Part 1 and 2 PM&WSD review and approval																																		
EMSD Submission & Approval																																								
Biogas System (ATAL)																																								
Phase 1																																								
ATAL-FS-020	Form 105 for Biogas Holder Tank 1 (Submission and Approval Period)	184	08-Nov-22 A	03-Feb-24	67	Form 105 for Biogas Holder Tank 1 (Submission and Approval Period)																																		
EPD Submission & Approval for VEP																																								
EPD-1000	EPD - VEP Review, prepare and submit to PM	60	24-May-23 A	22-Dec-23	165	EPD - VEP Review, prepare and submit to PM																																		
EPD-1010	EPD - VEP RIC to PM and approval	7	23-Dec-23	29-Dec-23	165	EPD - VEP RIC to PM and approval																																		
EPD-1050	EPD - VEP consultation with HKBW	28	23-Dec-23	19-Jan-24	179	EPD - VEP consultation with HKBW																																		
EPD-1020	EPD - VEP Submission to DSD and EPD	28	30-Dec-23	26-Jan-24	165	EPD - VEP Submission to DSD and EPD																																		
EPD-1030	EPD - VEP RIC to DSD and EPD	7	27-Jan-24	02-Feb-24	165	EPD - VEP RIC to DSD and EPD																																		
EPD-1060	EPD - VEP Gazette	28	03-Feb-24	01-Mar-24	165	EPD - VEP Gazette																																		
General Advance Works																																								
Dissolved Air Flotation (DAF) Pilot Plant																																								
ATALGA-1220	Post-commissioning	128	20-May-23 A	22-Dec-23	191	Post-commissioning																																		
Aerobic Granular Sludge (AGS) Pilot Plant																																								
ATALGA-1270	Post-commissioning	128	20-May-23 A	22-Dec-23	191	Post-commissioning																																		
Zone 1 Construction																																								
CLP Substations No. 1 & 2																																								
CLP Substation No. 1 & 2 Handover Inspection and Installation																																								
CLP-1630	CLP Substation 1 & 2 - CLP pre-inspection	1	19-Oct-23 A	19-Oct-23 A		&2 - CLP pre-inspection																																		
CLP-1500	CLP Substation No.1 & 2 - Defectworks	10	20-Oct-23 A	04-Dec-23	-84	CLP Substation No.1 & 2 - Defectworks																																		
CLP-1510	CLP Substation No.1 & 2 - CLP final inspection and handover	1	05-Dec-23	05-Dec-23	-84	CLP Substation No.1 & 2 - CLP final inspection and handover																																		
CLP-1070	CLP Substation No.1 - CLP Installation	60	06-Dec-23	20-Feb-24	-84	CLP Substation No.1 - CLP Installation																																		
CLP-1080	CLP Substation No.2 - CLP Installation	60	06-Dec-23	20-Feb-24	-84	CLP Substation No.2 - CLP Installation																																		
CLP-1090	CLP Substation No.1 - Energization	0		20-Feb-24	-84	CLP Substation No.1 - Energization																																		
CLP-1100	CLP Substation No.2 - Energization	0		20-Feb-24	-84	CLP Substation No.2 - Energization																																		
DSD 11kV Switchgear																																								
CLP-1060	DSD 11kV Switchgear - internal ABWF Works	36	25-Feb-23 A	14-Dec-23	-73	DSD 11kV Switchgear - internal ABWF Works																																		
CLP-1110	DSD 11kV Switchgear - E&M and BS Installation	51	18-Jul-23 A	03-Feb-24	-73	DSD 11kV Switchgear - E&M and BS Installation																																		
CLP-1220	DSD 11kV Switchgear - Energization	12	21-Feb-24	05-Mar-24	-84	DSD 11kV Switchgear - Energization																																		
CLP Substation No. 1 & 2 & DSD 11kV Switchgear - GRC Cladding																																								
CLP-1620	CLP Substation No.1 & 2 & DSD 11kV Switchgear - GRC cladding - mock-up inspection and approval	1	14-Sep-23 A	01-Dec-23	803	CLP Substation No.1 & 2 & DSD 11kV Switchgear - GRC cladding - mock-up inspection and approval																																		
CLP-1590	CLP Substation No.1 & 2 & DSD 11kV Switchgear - GRC cladding - fabrication	60	02-Dec-23	16-Feb-24	803	CLP Substation No.1 & 2 & DSD 11kV Switchgear - GRC cladding - fabrication																																		
CLP-1600	CLP Substation No.1 & 2 & DSD 11kV Switchgear - GRC cladding - installation	75	14-Dec-23	16-Mar-24	803	CLP Substation No.1 & 2 & DSD 11kV Switchgear - GRC cladding - installation																																		
Modification of Existing Emergency Bypass Chamber																																								
Emergency Bypass Chamber - Foundation and ELS																																								
IW-3200	IW - Modification of Existing Emergency Bypass Chamber - Site clearance and mobilization of sheetpile	3	02-Jan-24*	04-Jan-24	-170	IW - Modification of Existing Emergency Bypass Chamber - Site clearance and mobilization of sheetpile																																		
IW-1260	IW - Modification of Existing Emergency Bypass Chamber - Sheet Piles Installation (1283m2, 60m2/day/1rig)	21	05-Jan-24	29-Jan-24	-170	IW - Modification of Existing Emergency Bypass Chamber - Sheet Piles Installation (1283m2, 60m2/day/1rig)																																		
IW-3190	IW - Modification of Existing Emergency Bypass Chamber - Pumping test	5	30-Jan-24	03-Feb-24	-206	IW - Modification of Existing Emergency Bypass Chamber - Pumping test																																		
IW-1270	IW - Modification of Existing Emergency Bypass Chamber - Excavation: 1st layer +4.5 to +3.5mPD (253m3)	6	05-Feb-24	14-Feb-24	-171	IW - Modification of Existing Emergency Bypass Chamber - Excavation: 1st layer +4.5 to +3.5mPD (253m3)																																		
IW-3070	IW - Modification of Existing Emergency Bypass Chamber - Strut installation @ +4.0mPD	6	15-Feb-24	21-Feb-24	-171	IW - Modification of Existing Emergency Bypass Chamber - Strut installation @ +4.0mPD																																		
IW-3080	IW - Modification of Existing Emergency Bypass Chamber - Excavation: 2nd layer +3.5 to +1.0mPD (633m3)	8	22-Feb-24	01-Mar-24	-171	IW - Modification of Existing Emergency Bypass Chamber - Excavation: 2nd layer +3.5 to +1.0mPD (633m3)																																		
Inlet Works (IW)																																								
IW Foundation & ELS Works																																								
IW Basement																																								
IW Excavation Works & ELS																																								
IW Zone A-D - ELS																																								
Modification of Zone A/D Strut																																								
Z1-IW-6400	IW - Strutting: Modify S1 and S2 strut	14	25-Oct-23 A	20-Nov-23 A		IW - Strutting: Modify S1 and S2 strut																																		
Z1-IW-6410	IW - Strutting: Remove backprop at PST	7	21-Nov-23 A	25-Nov-23 A		IW - Strutting: Remove backprop at PST																																		
IW Base Slab																																								
Z1-IW-6760	IW - Zone A - Pile Cap @ -5.95mPD, -4.95mPD, -3.95mPD (capping plate and vertical blinding)	4	28-Oct-23 A	09-Dec-23	-215	IW - Zone A - Pile Cap @ -5.95mPD, -4.95mPD, -3.95mPD (capping plate and vertical blinding)																																		
Z1-IW-6090	IW - Zone A - Pile Cap @ -4.95mPD (1st pour)	12	11-Dec-23	23-Dec-23	-215	IW - Zone A - Pile Cap @ -4.95mPD (1st pour)																																		
Z1-IW-6100	IW - Zone A - Pile Cap @ -5.90/4.95/3.95/0.55mPD (2nd pour)	12	27-Dec-23	10-Jan-24	-215	IW - Zone A - Pile Cap @ -5.90/4.95/3.95/0.55mPD (2nd pour)																																		
Z1-IW-6710	IW - Zone A - Strutting: Remove knee strut of S3 strut (MS2-3)	3	27-Dec-23	29-Dec-23	-74	IW - Zone A - Strutting: Remove knee strut of S3 strut (MS2-3)																																		
Z1-IW-6620	IW - Zone D - Pile Cap @ -1.65 (GL4-5 upper portion)	12	30-Dec-23	13-Jan-24	-74	IW - Zone D - Pile Cap @ -1.65 (GL4-5 upper portion)																																		
Z1-IW-6660	IW - Zone A - Remove strut S4 and remaining S3	6	11-Jan-24	17-Jan-24	-215	IW - Zone A - Remove strut S4 and remaining S3																																		
Z1-IW-6350	IW - Zone A - Pile Cap @ -4.90/-1.60/0.55mPD (3rd pour)	8	18-Jan-24	26-Jan-24	-215	IW - Zone A - Pile Cap @ -4.90/-1.60/0.55mPD (3rd pour)																																		
Z1-IW-6360	IW - Zone A - Pile Cap @ -1.60/0.05mPD (4th pour)	10	27-Jan-24	07-Feb-24	-215	IW - Zone A - Pile Cap @ -1.60/0.05mPD (4th pour)																																		
Z1-IW-6820	IW - Zone A - Pile Cap @ -0.55mPD (5th pour)	10	08-Feb-24	22-Feb-24	-215	IW - Zone A - Pile Cap @ -0.55mPD (5th pour)																																		
IW Basement RC Works																																								
IW Zone C																																								
Z1-IW-6600	IW(C) - Zone C2 - GF Slab of Falseworks, Formworks and RC Works (+6.00 mPD)	12	19-Oct-23 A	06-Nov-23 A		IW(C) - Zone C2 - GF Slab of Falseworks, Formworks and RC Works (+6.00 mPD)																																		
Z1-IW-6700	IW(C) - Zone C1 & 2 - Waterproof, remove strut and concrete backfill	15	13-Nov-23 A	23-Dec-23	-104	IW(C) - Zone C1 & 2 - Waterproof, remove strut and concrete backfill																																		
Z1-IW-6720	IW(C) - Zone C3 - Strutting: Remove S1 & S2 strut (MS3-1 & MS3-2) at GL4	3	27-Dec-23	29-Dec-23	-74	IW(C) - Zone C3 - Strutting: Remove S1 & S2 strut (MS3-1 & MS3-2) at GL4																																		
Z1-IW-6730	IW(C) - Zone C3 - Wall & Column, GF Slab of Falseworks, Formworks and RC Works (+6.00 mPD)	9	30-Dec-23	10-Jan-24	-51	IW(C) - Zone C3 - Wall & Column, GF Slab of Falseworks, Formworks and RC Works (+6.00 mPD)																																		
IW Zone D early for PST early commissioning*																																								
Z1-IW-6450	IW(D) - Wall Erection of Formworks and RC Works (-1.6 to +4.95mPD)	6	20-Dec-23	28-Dec-23	-129	IW(D) - Wall Erection of Formworks and RC Works (-1.6 to +4.95mPD)																																		
IW Zone AD																																								
Z1-IW-6240	IW(AD) - Remove S1 (after road lowering to +4mPD)	4	13-Dec-23	16-Dec-23	-155	IW(AD) - Remove S1 (after road lowering to +4mPD)																																		
Z1-IW-6230	IW(AD) - Wall Erection of Formworks and RC Works (-0.55 to +3.5 mPD) with S2 cast-in	8	23-Feb-24	02-Mar-24	-215	IW(AD) - Wall Erection of Formworks and RC Works (-0.55 to +3.5 mPD) with S2 cast-in																																		
IW Civil and Structural Works																																								
IW Superstructure																																								
RC Works																																								
Zone C																																								
Zone C1																																								
Z1-IW-4140	IWS(C) - Zone C1 - Column Erection of Formworks and RC Works (+11.8mPD)	10	03-Oct-23 A	28-Oct-23 A		IWS(C) - Zone C1 - Column Erection of Formworks and RC Works (+11.8mPD)																																		
Z1-IW-4180	IWS(C) - Zone C1 - Wall (+6 to +11.8) & 1F Slab of Falseworks, Formworks and RC Works (+11.8mPD)	13	27-Oct-23 A	29-Nov-23 A		IWS(C) - Zone C1 - Wall (+6 to +11.8) & 1F Slab of Falseworks, Formworks and RC Works (+11.8mPD)																																		
Z1-IW-4230	IWS(C) - Zone C1 - Wall (+11.8 to +18.2) & Roof Slab of Falseworks, Formworks and RC Works (+18.2mPD)	10	30-Nov-23 A	23-Dec-23	-166	IWS(C) - Zone C1 - Wall (+11.8 to +18.2) & Roof Slab of Falseworks, Formworks and RC Works (+18.2mPD)																																		
Z1-IW-4220	IWS(C) - Zone C1 - Column Erection of Formworks and RC Works (+18.2mPD)	8	30-Nov-23 A	09-Dec-23	-154	IWS(C) - Zone C1 - Column Erection of Formworks and RC Works (+18.2mPD)																																		
Zone C2																																								



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

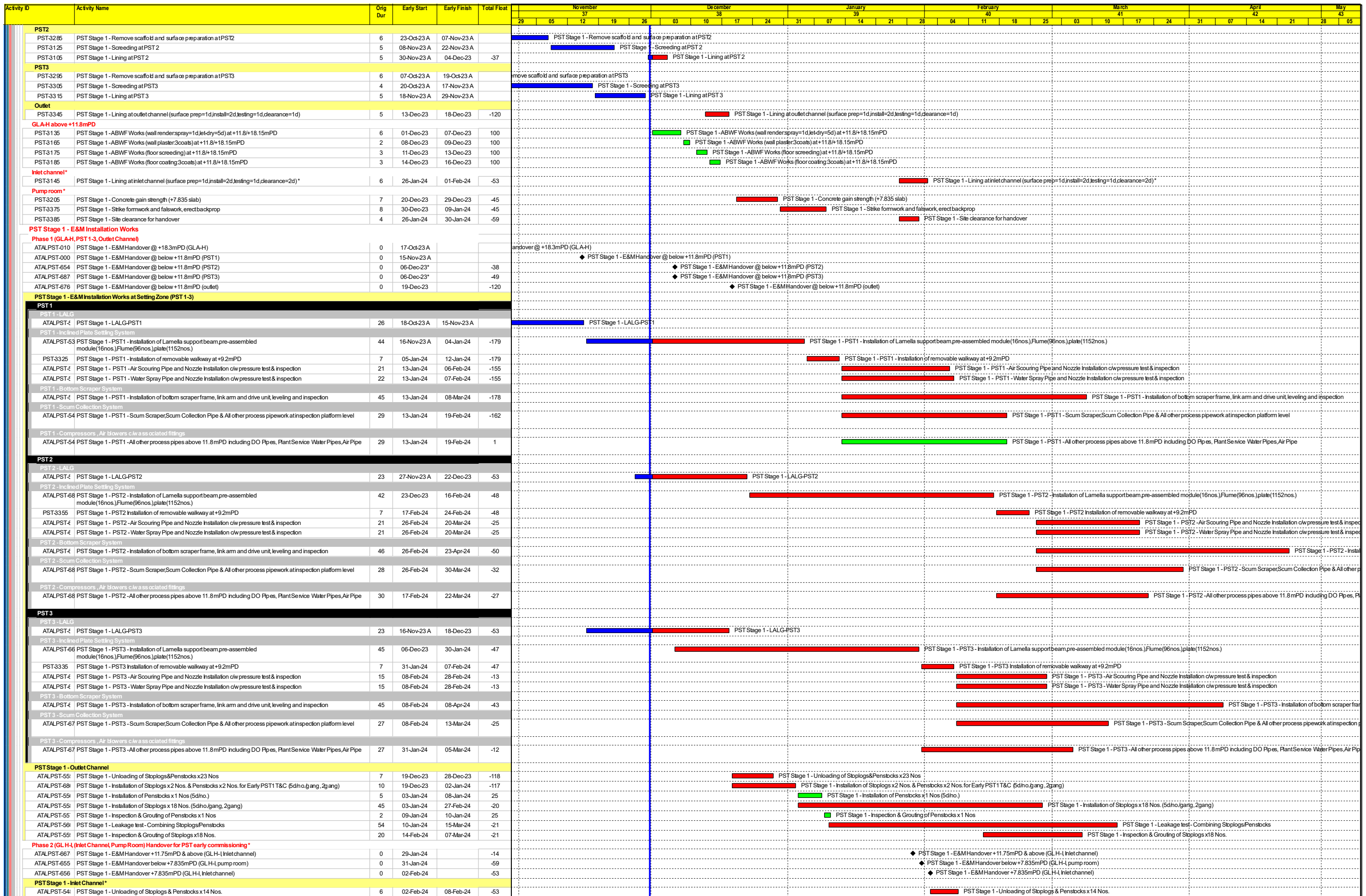
Contract DC/2019/10 - YLEPP - Main Works for Stage 1

Monthly Progress Report No. 37- 3MRP (Nov23)

Project ID : DWPr32_231219
 Layout : DC201910 MPR37-3MRP
 Page 4 of 9

Monthly Progress Report - 3MRP

Date	Revision	Checked	Approved
30-Nov-23	Rev. 0		



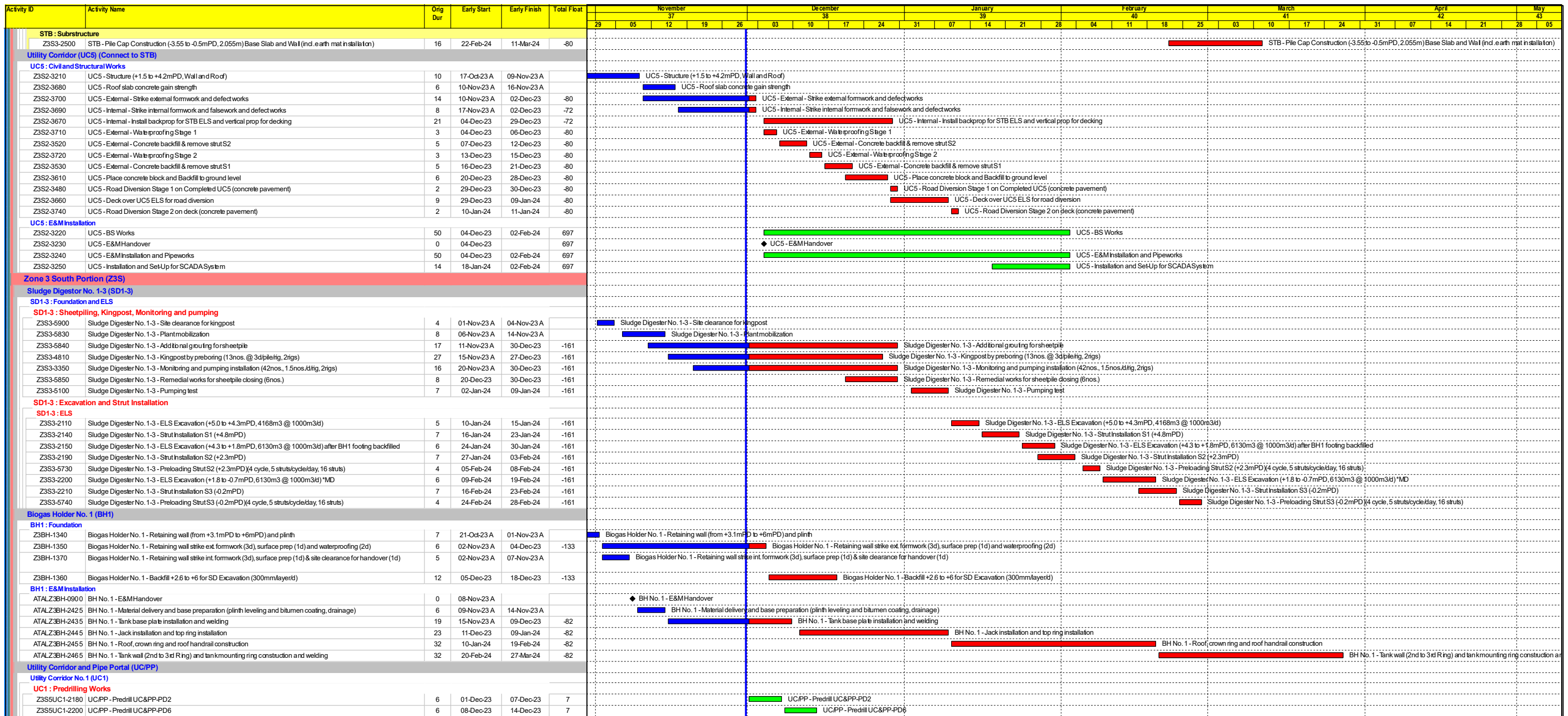
- Remaining Level of Eff...
- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

Contract DC/2019/10 - YLEPP - Main Works for Stage 1

Monthly Progress Report No. 37- 3MRP (Nov23)

Project ID : DWPr32_231219
 Layout : DC201910 MPR37-3MRP
 Page 6 of 9

Monthly Progress Report - 3MRP			
Date	Revision	Checked	Approved
30-Nov-23	Rev. 0		



- Remaining Level of Eff...
- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

Contract DC/2019/10 - YLEPP - Main Works for Stage 1

Monthly Progress Report No. 37- 3MRP (Nov23)

Project ID : DWPr32_231219
 Layout : DC201910 MPR37-3MRP
 Page 9 of 9

Monthly Progress Report - 3MRP

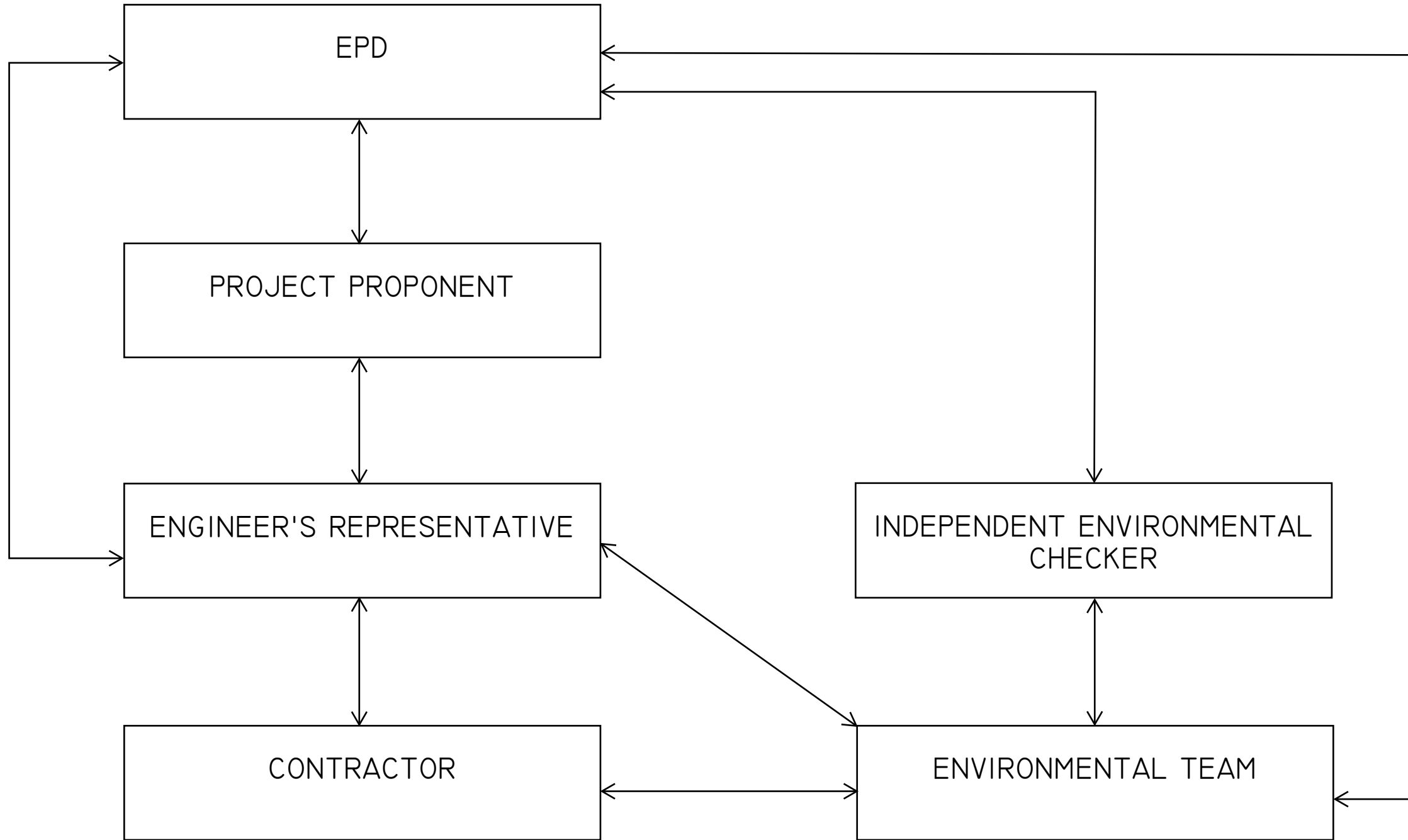
Date	Revision	Checked	Approved
30-Nov-23	Rev. 0		

Appendix B

Project Organization Chart

LEGEND:

↔ LINE OF COMMUNICATION



PROJECT

YUEN LONG EFFLUENT
POLISHING PLANT -
INVESTIGATION, DESIGN
AND CONSTRUCTION

CLIENT

渠務署
Drainage Services Department

CONSULTANT

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE

A3 1 : 40000

DIMENSION UNIT

METRES

KEY PLAN

PROJECT NO.

60505476

CONTRACT NO.

CE 3/2015 (DS)

SHEET TITLE

PROJECT ORGANISATION

SHEET NUMBER

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Appendix C

Action and Limit Levels

Action and Limit Levels for Air Quality

Parameters	Action Level	Limit Level
1-hour TSP Level in $\mu\text{g}/\text{m}^3$	¹ For baseline level $\leq 384 \mu\text{g}/\text{m}^3$, Action level = (baseline level * 1.3 + Limit level)/2; For baseline level $> 384 \mu\text{g}/\text{m}^3$, Action level = Limit level	500 $\mu\text{g}/\text{m}^3$

Notes:

1. The Action Level for 1-hour TSP Level:

a) AM1 = $(63 \times 1.3 + 500) / 2 = 291 \mu\text{g}/\text{m}^3$;

b) AM2 = $(70 \times 1.3 + 500) / 2 = 296 \mu\text{g}/\text{m}^3$.

Action and Limit Levels for Construction Noise

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

Notes:

1. If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

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

Action and Limit Levels for Water Quality

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

Notes:

1. "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths;

2. For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits;

3. For SS and turbidity, non-compliance of the water quality limits occurs when monitoring result is higher than the limits

Action and Limit Levels for Ecology

Active Ardeid Night Roost Survey

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

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

Notes:

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

Ecological Monitoring of Birds

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

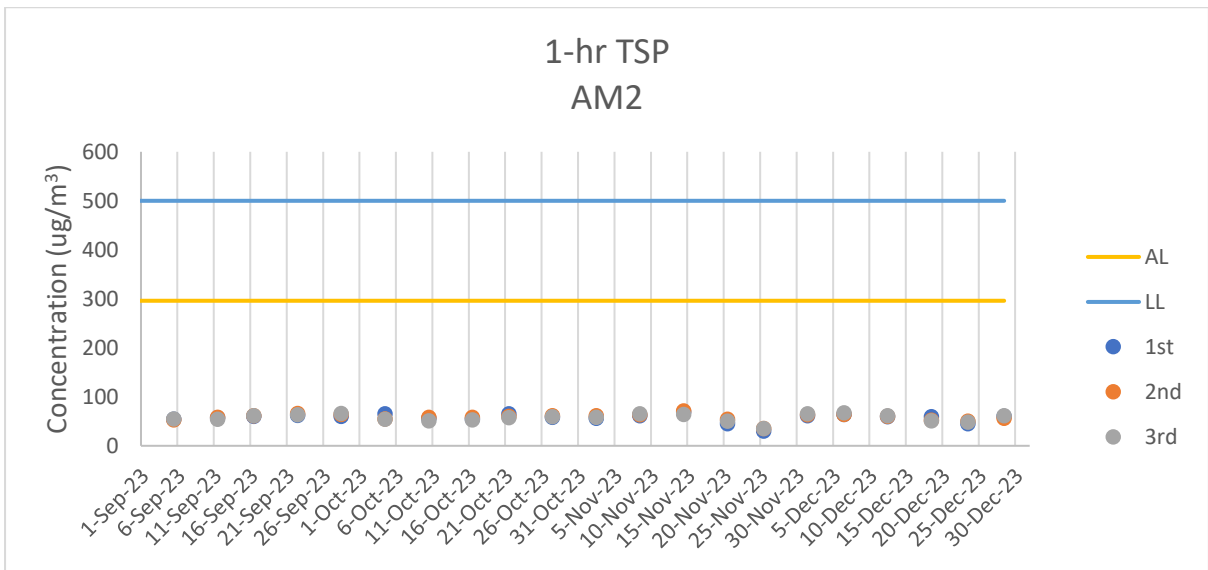
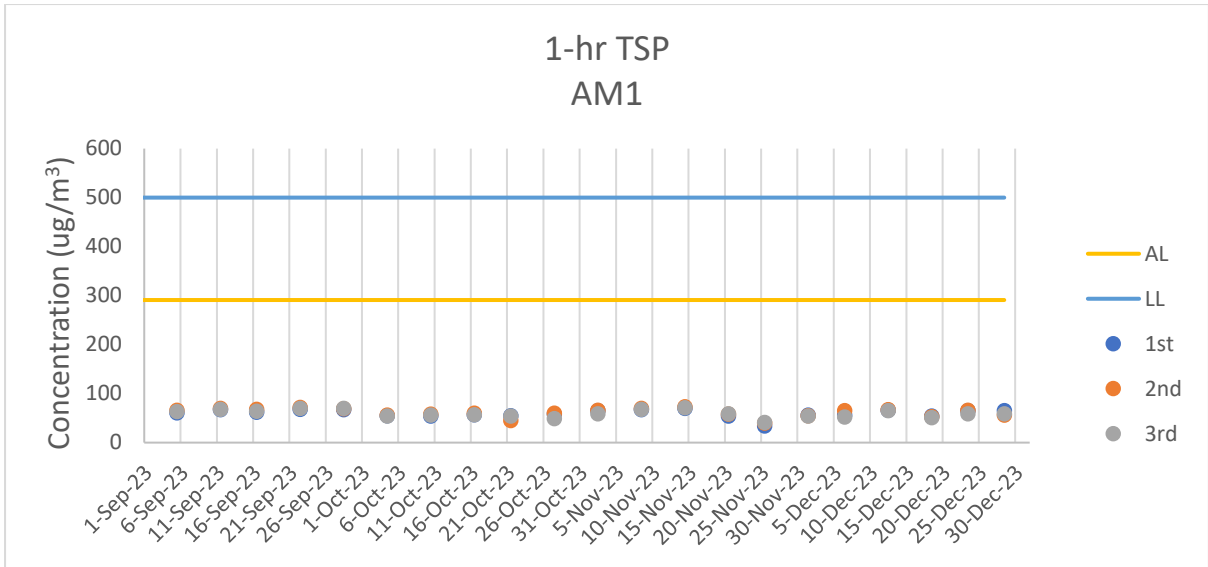
Notes:

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

Appendix D

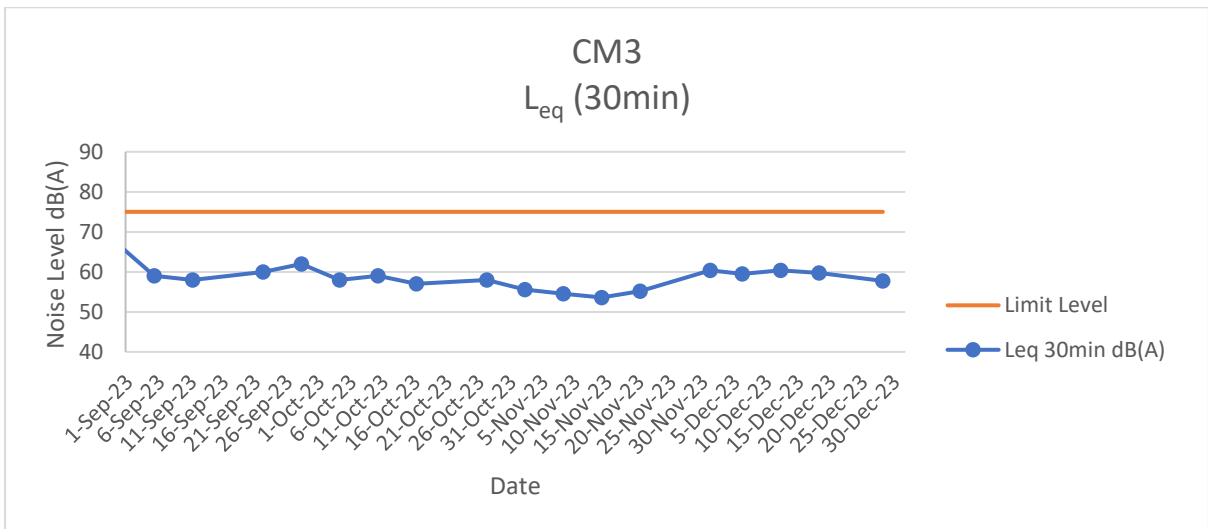
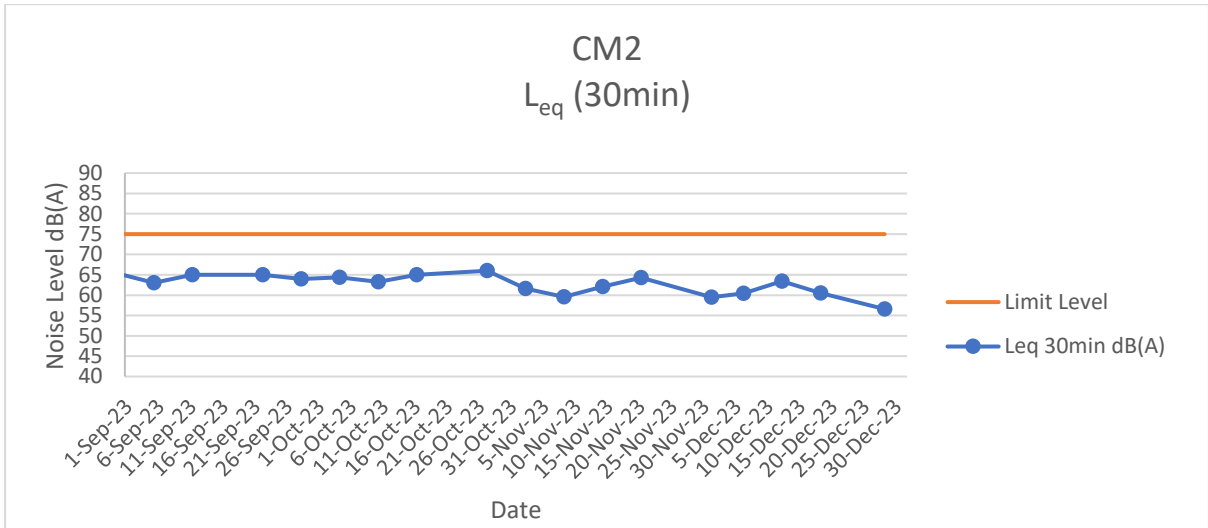
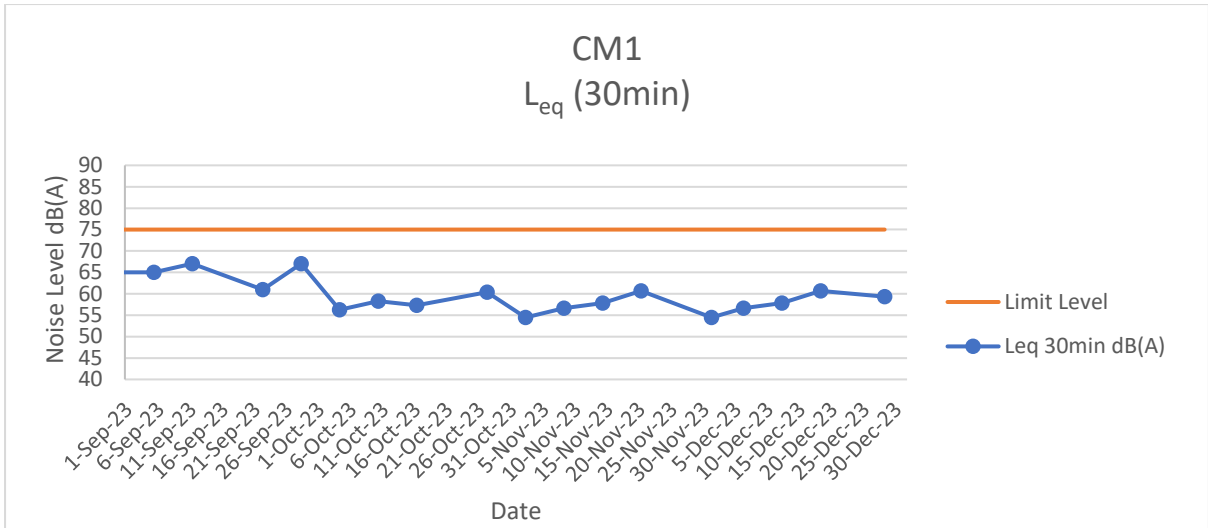
Graphical Presentation of Monitoring Data

Air Quality Monitoring Results



Air Quality Monitoring Results

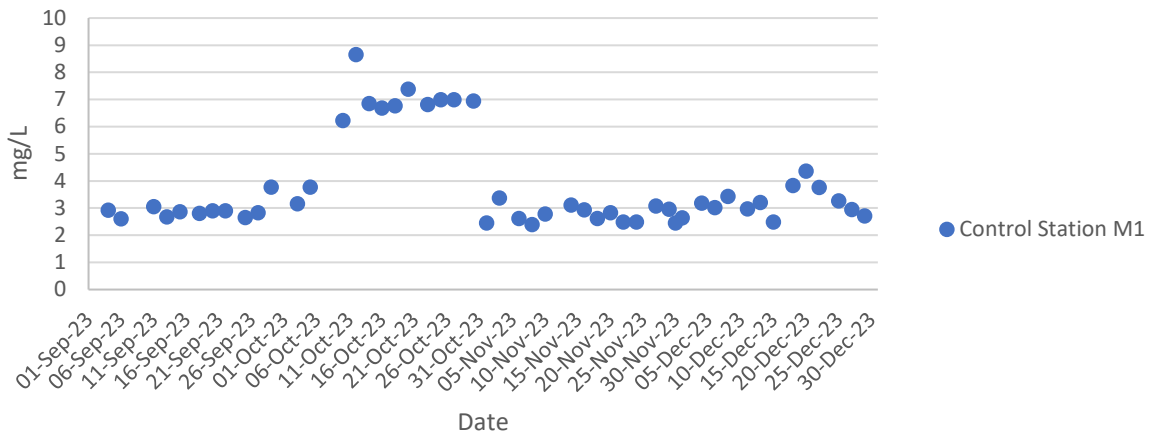
Noise Monitoring Results



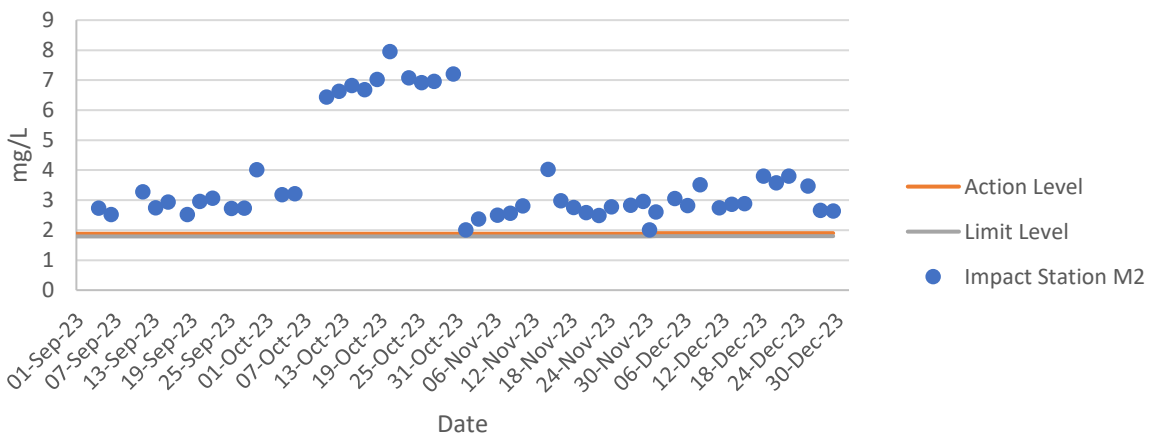
Noise Monitoring Results

Water Quality Monitoring Results

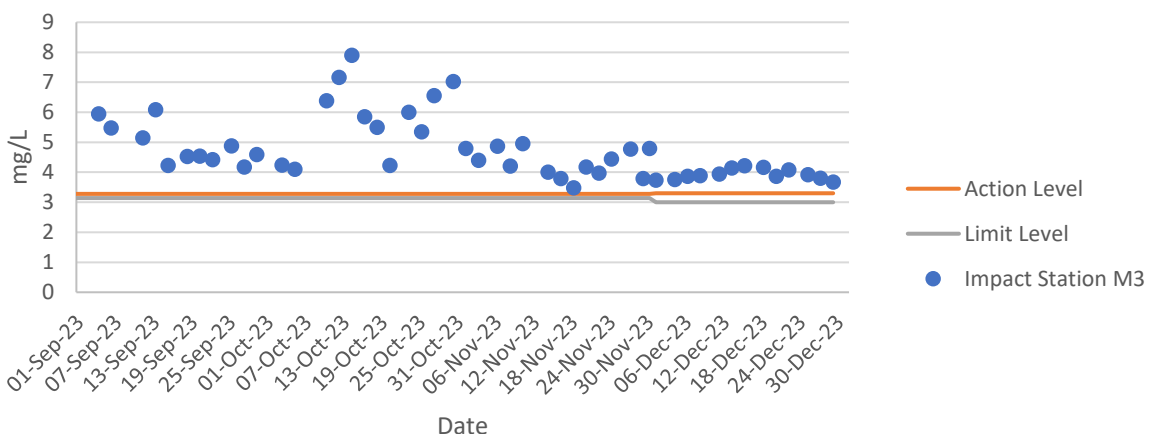
Dissolved Oxygen at Mid-Flood Tide



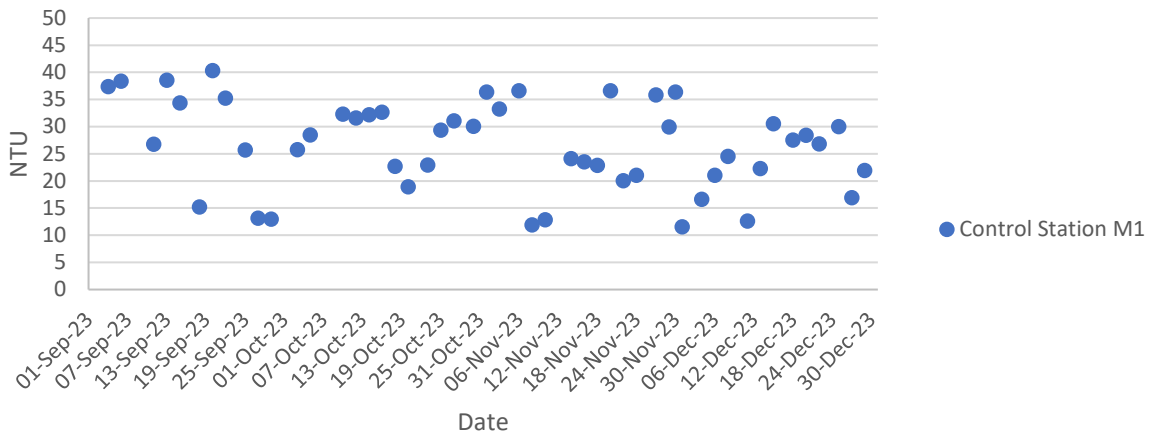
Dissolved Oxygen at Mid-Flood Tide



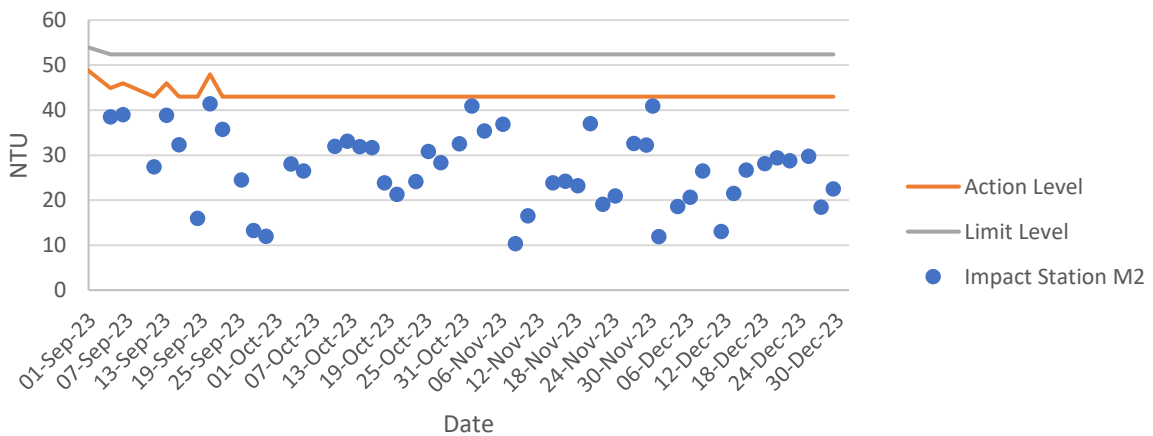
Dissolved Oxygen at Mid-Flood Tide



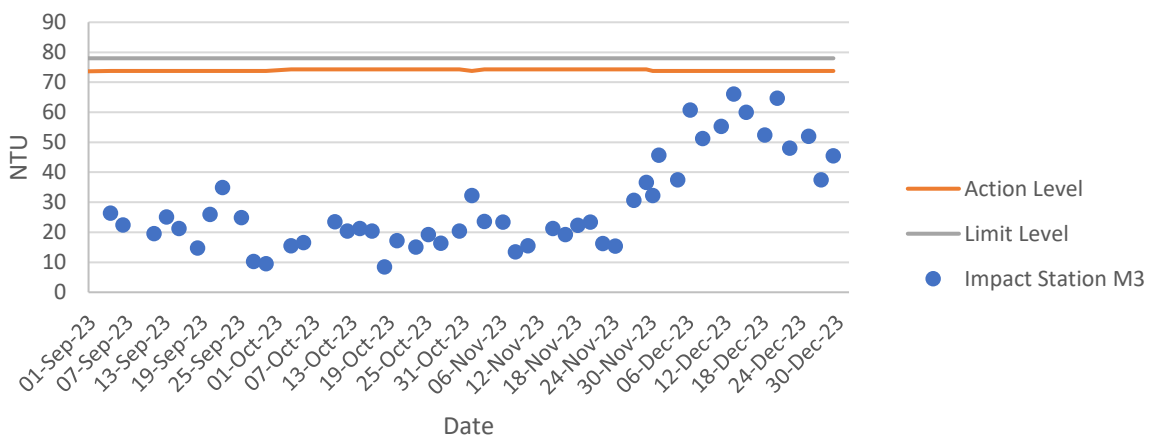
Turbidity at Mid-Flood Tide



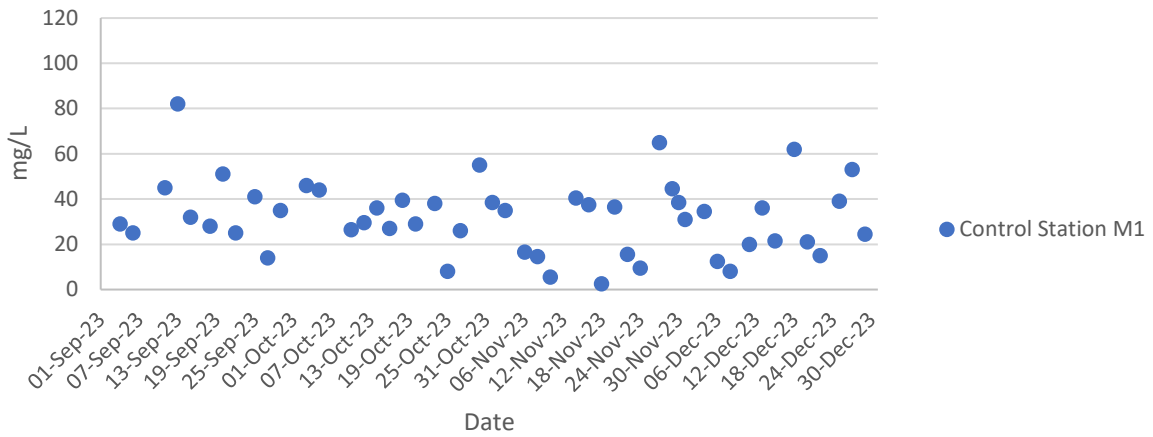
Turbidity at Mid-Flood Tide



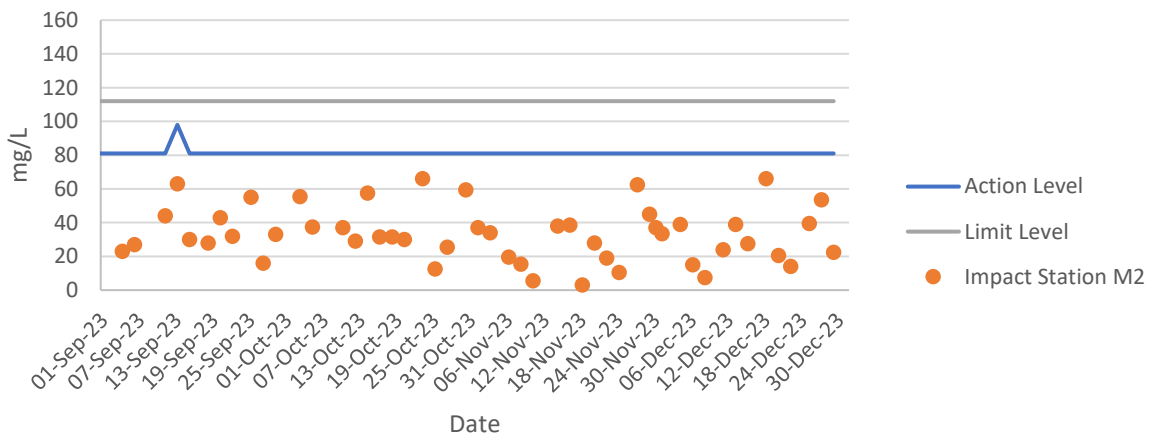
Turbidity at Mid-Flood Tide



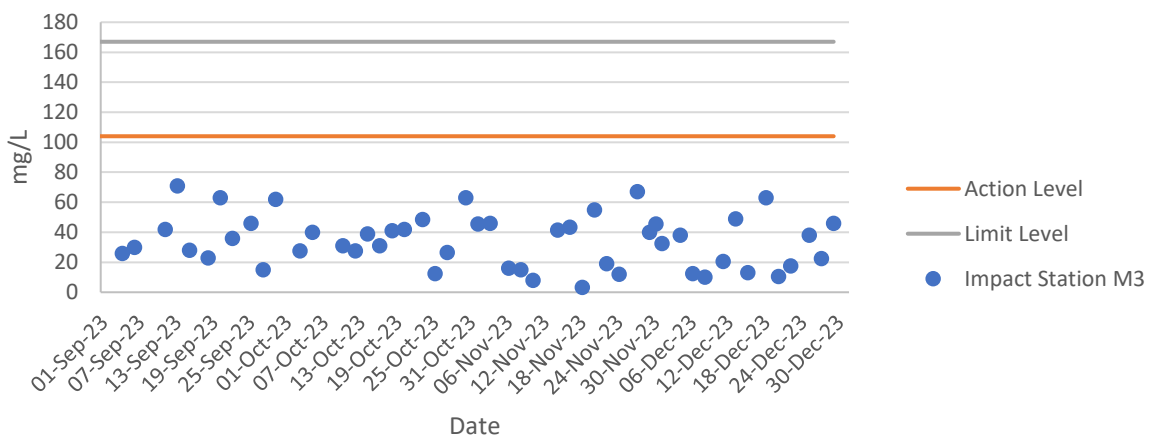
Total Suspended Solids at Mid-Flood Tide



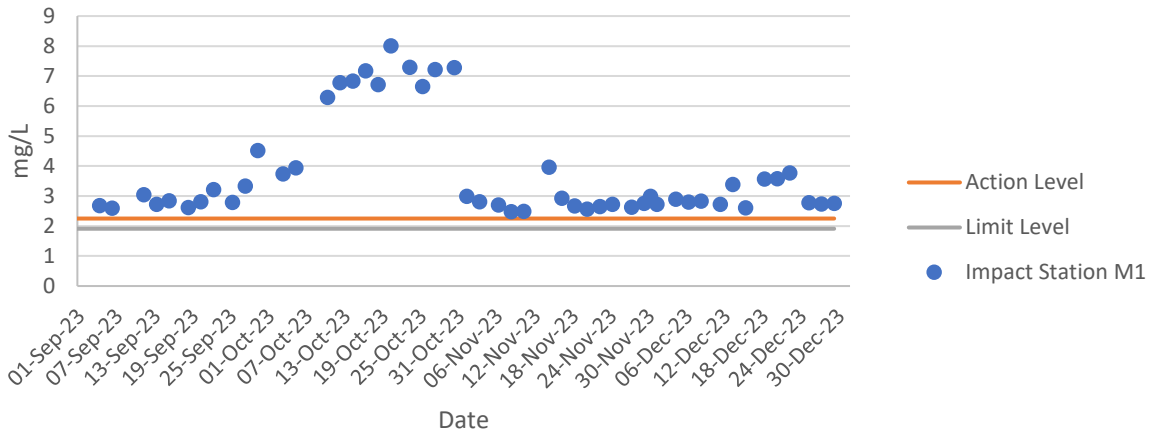
Total Suspended Solids at Mid-Flood Tide



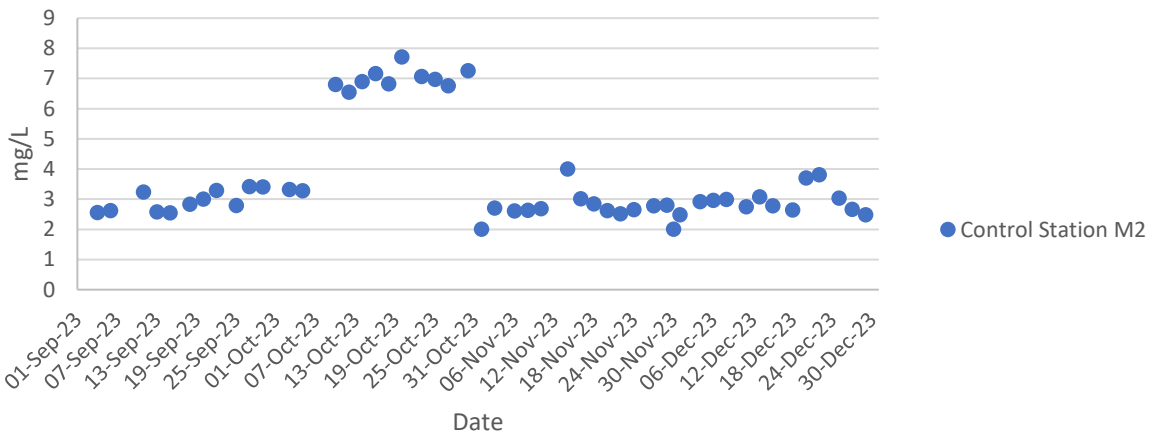
Total Suspended Solids at Mid-Flood Tide



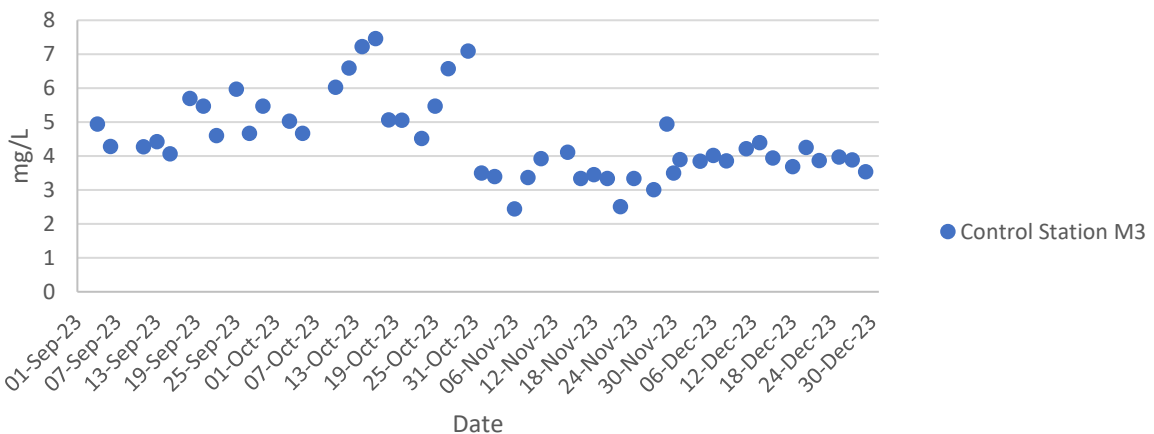
Dissolved Oxygen at Mid-Ebb Tide



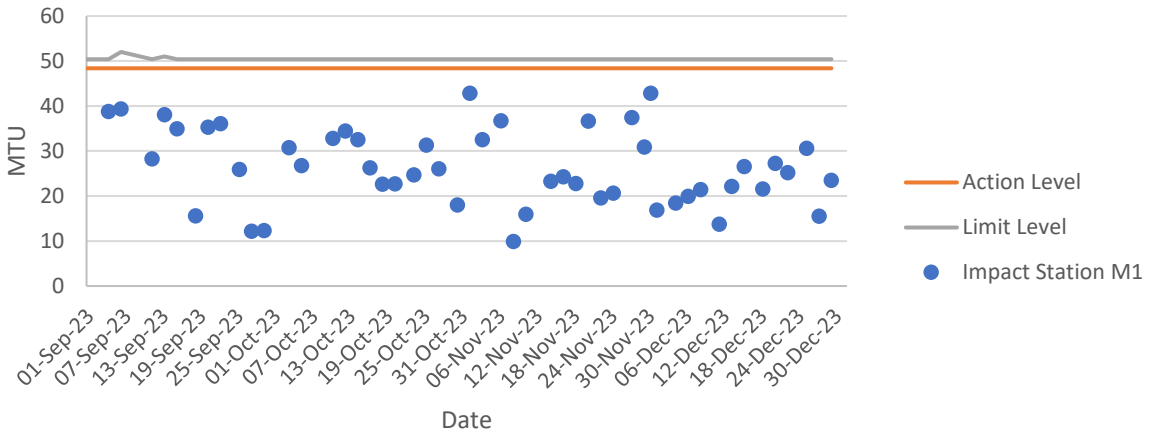
Dissolved Oxygen at Mid-Ebb Tide



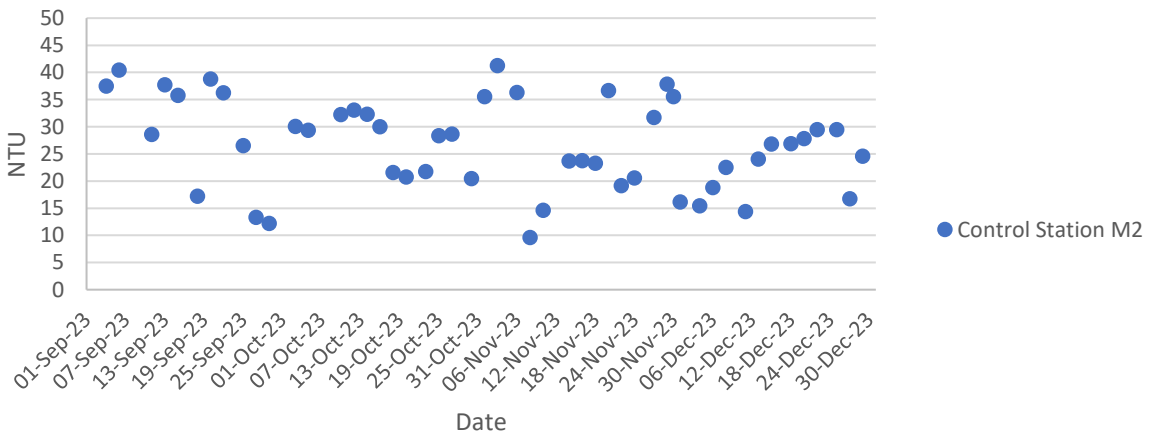
Dissolved Oxygen at Mid-Ebb Tide



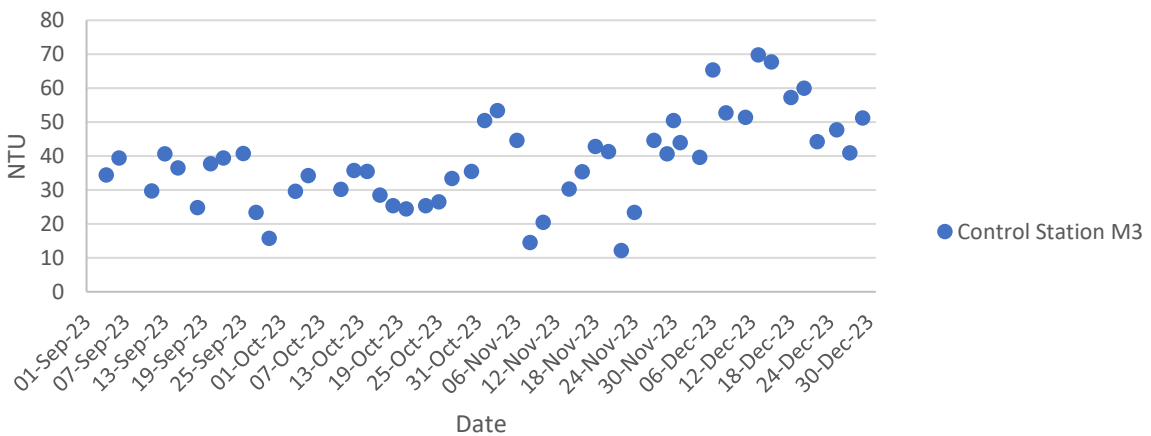
Turbidity at Mid-Ebb Tide



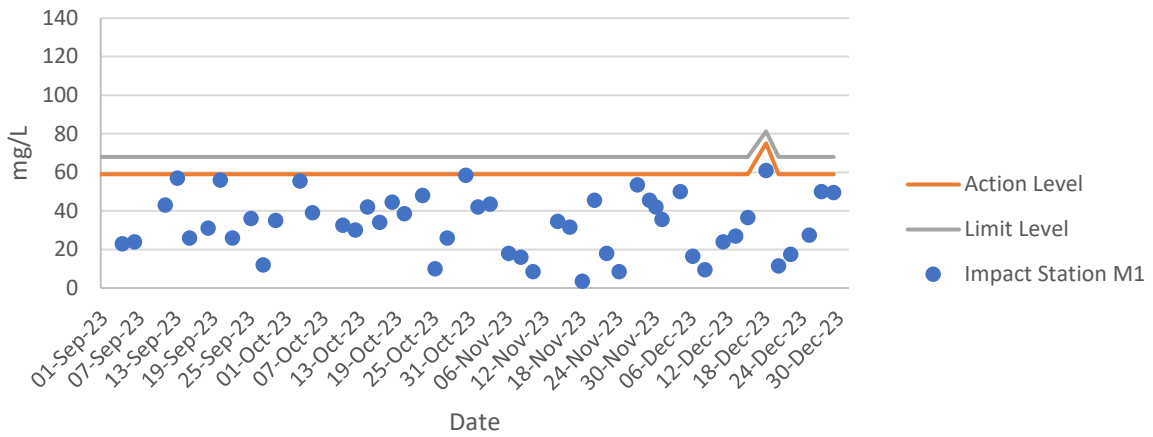
Turbidity at Mid-Ebb Tide



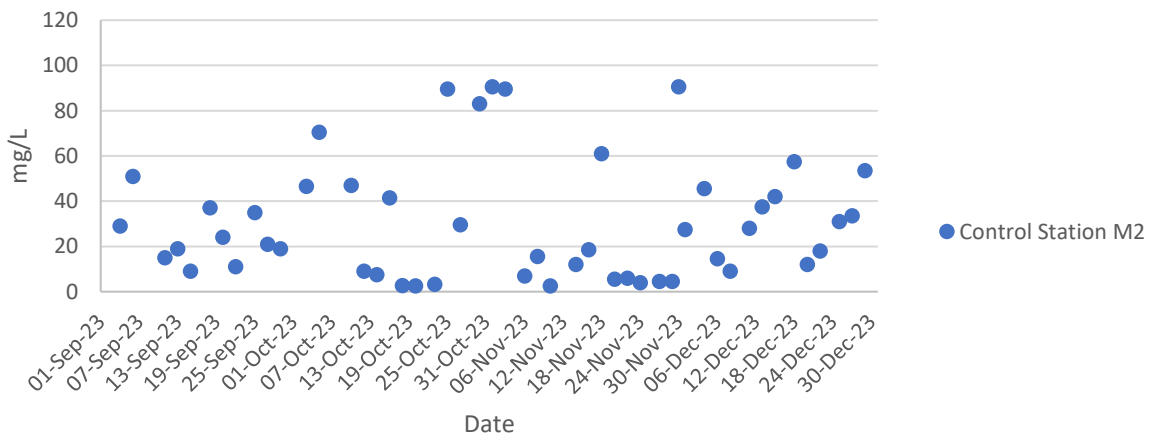
Turbidity at Mid-Ebb Tide



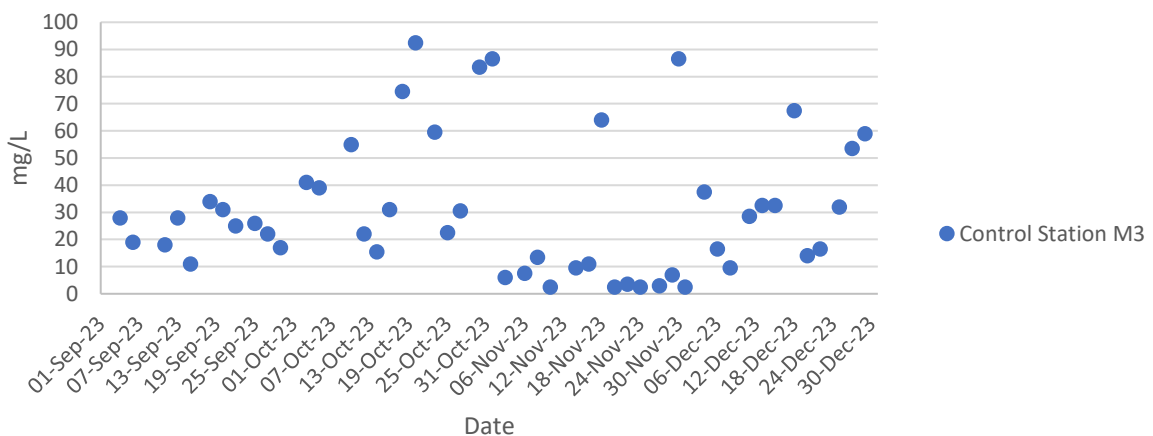
Total Suspended Solids at Mid-Ebb Tide



Total Suspended Solids at Mid-Ebb Tide



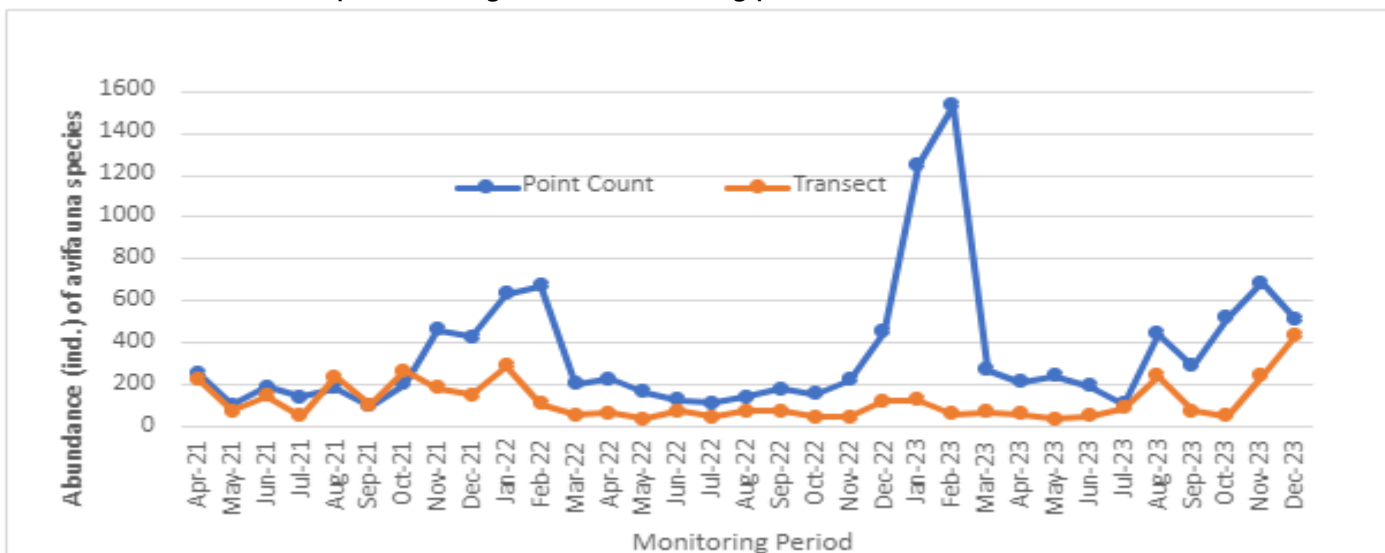
Total Suspended Solids at Mid-Ebb Tide



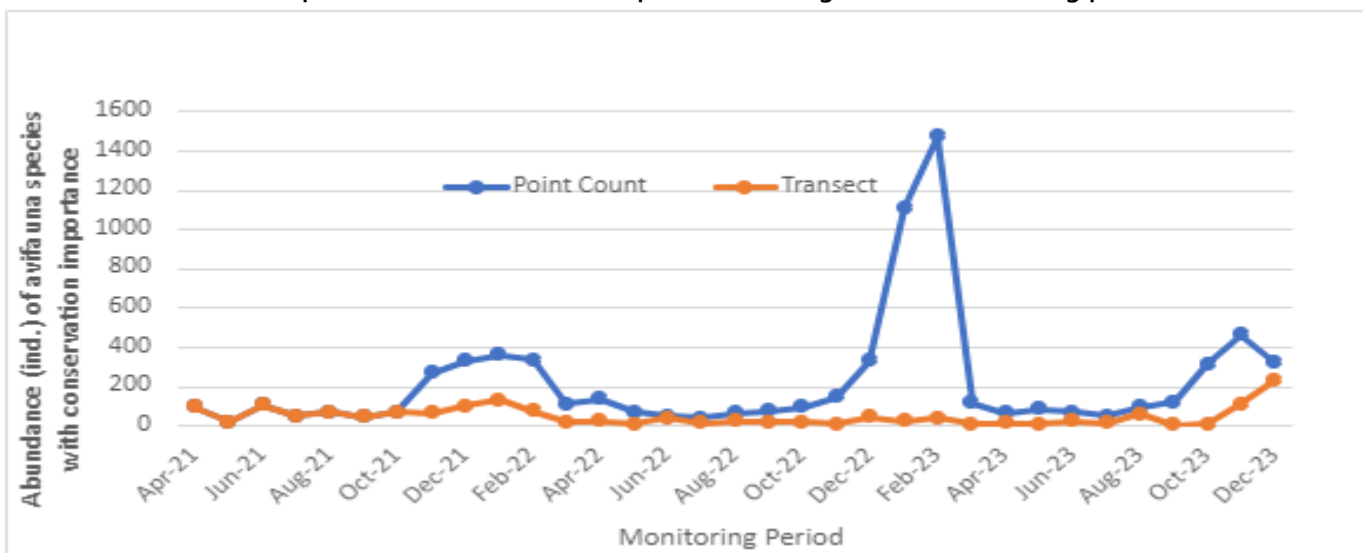
Ecology Monitoring Results for
Contract No. SPW 02/2023

Environmental Team for Construction of Yuen long
Effluent Polishing Plant Stage

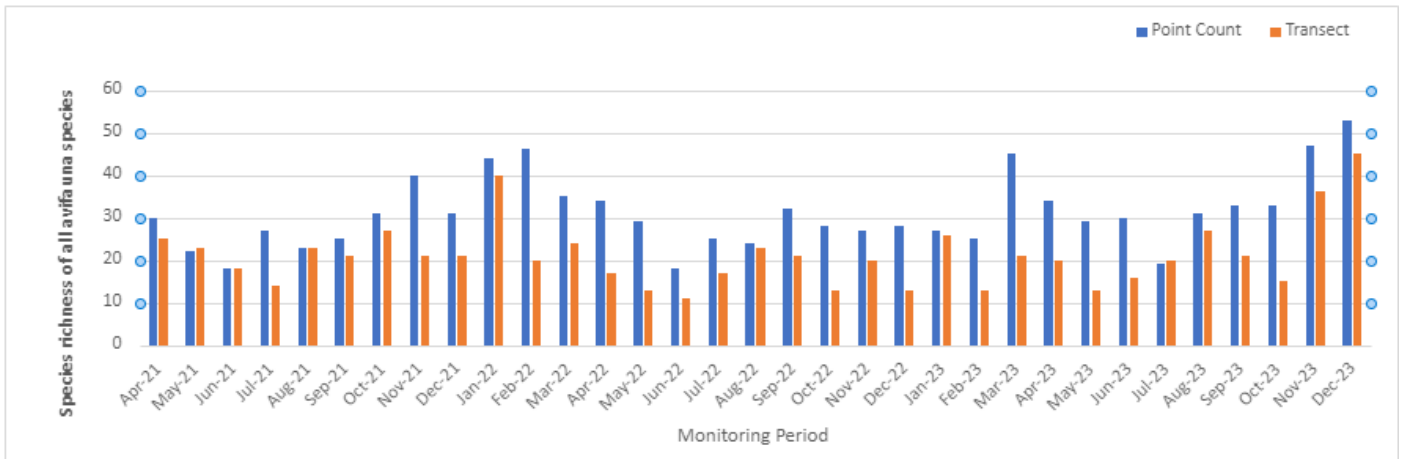
Abundance of all avifauna species throughout the monitoring period



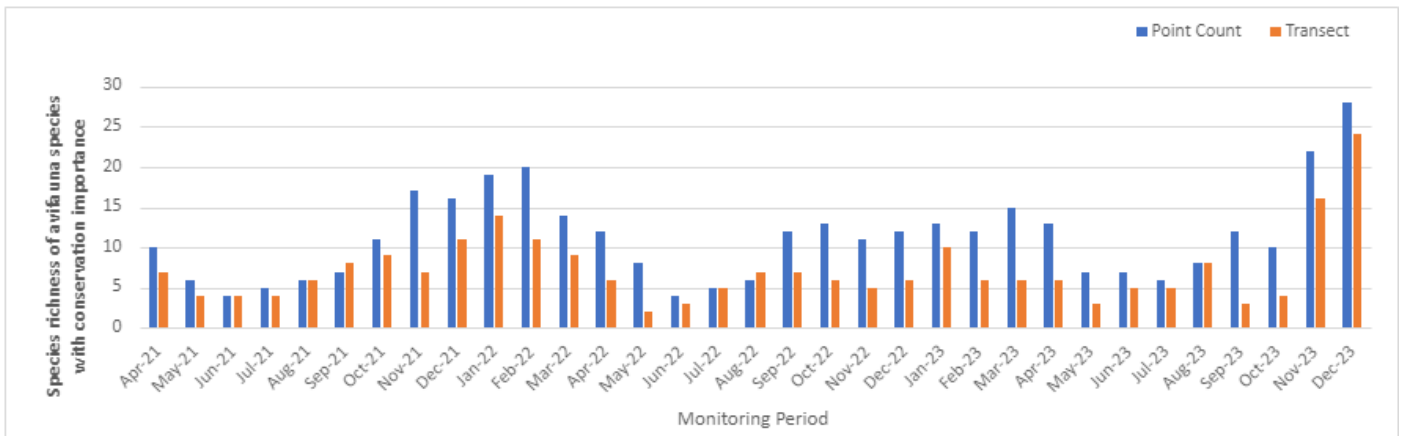
Abundance of avifauna species with conservation importance throughout the monitoring period



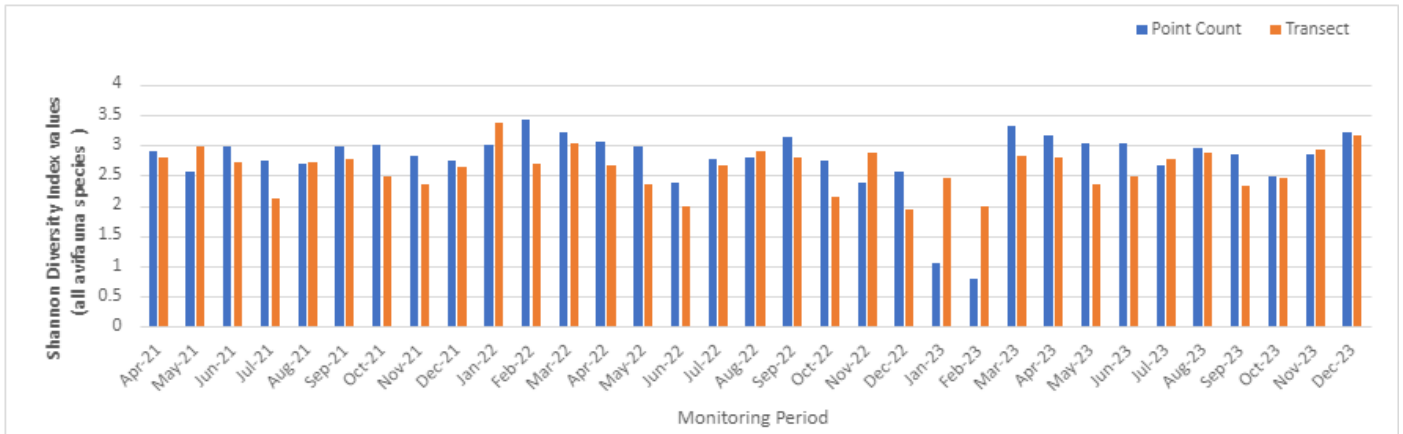
Species richness of all avifauna species throughout the monitoring period



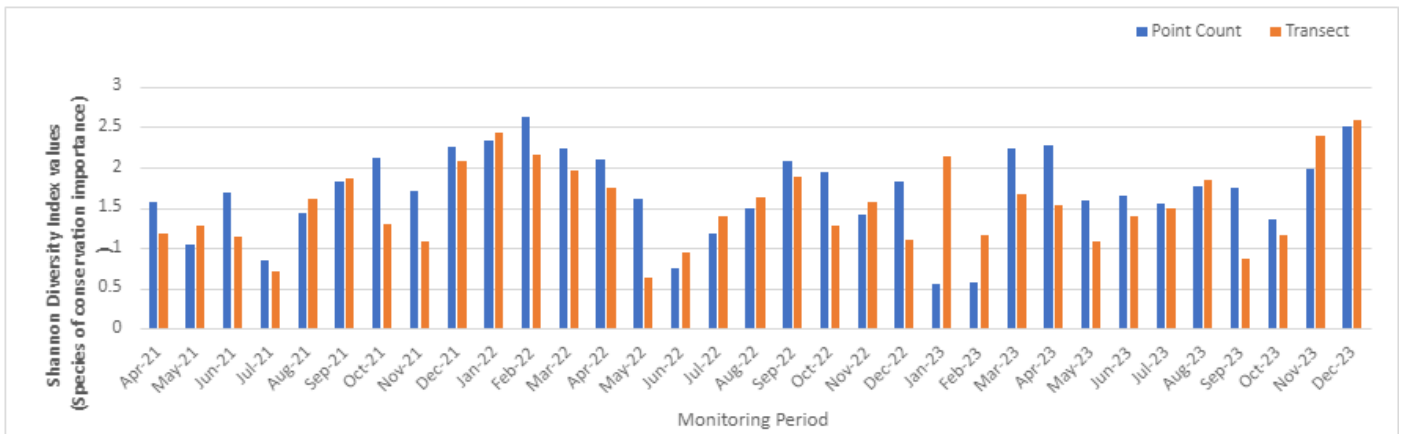
Species richness of avifauna species with conservation importance throughout the monitoring period



Shannon Diversity Index values of all avifauna species throughout the monitoring period



Shannon Diversity Index values of avifauna species with conservation importance throughout the monitoring period



Appendix E

Event and Action Plans

Event and Action Plan for Air Quality (Construction Dust)

Event	Action			
	ET	IEC	ER	Contractor
Action level being exceeded by	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform Contractor, IEC and ER; 3. Repeat measurement to confirm finding; and 4. Increase monitoring frequency to daily. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; and 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures. 	<ol style="list-style-type: none"> 1. Notify Contractor. 	<ol style="list-style-type: none"> 1. Identify source(s), investigate the causes of exceedance and propose remedial measures; 2. Implement remedial measures; and 3. Amend working methods agreed with the ER as appropriate.
Action level being exceeded by two or more consecutive sampling	<ol style="list-style-type: none"> 1. Identify source; 2. Inform Contractor, IEC and ER; 3. Advise the Contractor and ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with Contractor, IEC and ER; and 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise the ET and ER on the effectiveness of the proposed remedial measures; and 5. Supervise Implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Identify source and investigate the causes of exceedance; 2. Submit proposals for remedial measures to the ER with a copy to ET and IEC within three working days of notification; 3. Implement the agreed proposals; and 4. Amend proposal as appropriate.
Limit level being exceeded by one sampling	<ol style="list-style-type: none"> 1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; and 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; and 5. Supervise implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to ER with a copy to ET and IEC within three working days of notification; 4. Implement the agreed proposals; and 5. Amend proposal if appropriate.
Limit level being exceeded by two or more consecutive sampling	<ol style="list-style-type: none"> 1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by the ET; 2. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 3. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 4. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; and 4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with a copy to the IEC and ET within three working days of notification; 4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; and 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Noise (Construction)

Event	Action			
	ET	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; and 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analyzed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analyzed noise problem; and 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC; and 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analyzed noise problem; 4. Ensure remedial measures properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; and 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Water Quality Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action level being exceeded by one sampling	<ol style="list-style-type: none"> 1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD and AFCD. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice
Action level being exceeded by two or more consecutive sampling	<ol style="list-style-type: none"> 1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD and AFCD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Consider changes of working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures.
Limit level being exceeded by one sampling	<ol style="list-style-type: none"> 1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD and AFCD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented. 4. Request Contractor(s) to critically review the working methods. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures.
Limit level being exceeded by two or more consecutive sampling	<ol style="list-style-type: none"> 1. Repeat in situ measurement on the next day of exceedance to confirm findings; 2. Check monitoring data, plant, equipment and Contractor(s)'s working methods; 3. Identify source(s) of impact and record in notification of exceedance; 4. Inform IEC, Contractor(s) and ER; 5. Discuss with IEC and Contractor(s) on additional mitigation measures and ensure that they are implemented. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET and Contractor(s)'s working methods; 2. Inform EPD and AFCD; 3. Discuss with ET and Contractor(s) on additional mitigation measures and advise ER accordingly; 4. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Discuss with the IEC on the proposed additional mitigation measures and agree on the mitigation measures to be implemented. 3. Ensure additional mitigation measures are properly implemented. 4. Request Contractor(s) to critically review the working methods. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing; 2. Check plant and equipment and rectify unacceptable practice; 3. Critically review the need to change working methods; 4. Discuss with ET and IEC on additional mitigation measures and propose them to ER within 3 working days; 5. Implement the agreed mitigation measures.

Event and Action Plan for Ecology Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; and 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analyzed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; and 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analyzed noise problem; and 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC; and 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; and 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented; and 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; and 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix F
Waste Flow Table

Waste Flow Table for Year 2023											
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)
2023 Jan	2873.28	Nil	Nil	Nil	2831.62	Nil	28.90	0.18	Nil	Nil	12.58
2023 Feb	1469.44	Nil	Nil	Nil	1395.80	Nil	29.73	0.17	Nil	Nil	43.74
2023 Mar	1137.44	Nil	Nil	Nil	1109.76	Nil	5.86	0.16	Nil	Nil	21.66
2023 Apr	3495.26	Nil	Nil	Nil	3420.40	Nil	46.02	0.18	Nil	Nil	28.66
2023 May	2757.82	195.71	Nil	Nil	2529.95	Nil	9.84	Nil	Nil	Nil	22.32
2023 Jun	4784.60	Nil	Nil	Nil	4593.27	Nil	136.14	0.18	Nil	Nil	55.01
2023 Jul	6784.09	Nil	Nil	Nil	4981.66	1742.00	36.22	0.19	Nil	0.03	23.99
2023 Aug	8120.40	Nil	Nil	Nil	6771.53	1279.80	Nil	0.21	Nil	Nil	68.86
2023 Sep	7297.79	Nil	Nil	Nil	7153.24	Nil	93.72	Nil	Nil	Nil	50.83
2023 Oct	17742.94	Nil	Nil	Nil	17680.03	Nil	7.39	Nil	Nil	Nil	55.52
2023 Nov	14259.18	Nil	Nil	Nil	14097.72	Nil	37.84	Nil	Nil	Nil	123.62
2023 Dec	15356.18	Nil	Nil	Nil	15301.77	Nil	Nil	0.06	0.01	Nil	54.27
Total	82866.44	195.71	Nil	Nil	81866.75	3021.80	431.66	1.33	0.01	0.03	566.66

Note:

1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at theSite.

2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packagingmaterials.

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

Appendix G
Implementation Status of Environmental Mitigation
Measures

Construction of Yuen Long Effluent Polishing Plant Stage 1

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:		
	<ul style="list-style-type: none"> • Use of regular watering to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. 	Construction Sites	Implemented
	<ul style="list-style-type: none"> • Use of frequent watering for particularly dusty construction areas and areas close to ASRs. 		Implemented
	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. 		Implemented
	<ul style="list-style-type: none"> • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. 		Implemented
	<ul style="list-style-type: none"> • Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. 		Implemented
	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • Imposition of speed controls for vehicles on site haul roads. 		Implemented
	<ul style="list-style-type: none"> • Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs. 		Implemented
<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme. 		Implemented
	<ul style="list-style-type: none"> • Silencers or mufflers on construction equipment should be utilised and should be properly maintained during the construction programme. 		Implemented
	<ul style="list-style-type: none"> • Mobile plant, if any, should be sited as far away from noise sensitive receivers (NSRs) as possible. 		N/A
	<ul style="list-style-type: none"> • 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
	<ul style="list-style-type: none"> • 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 • Material stockpiles and other structures should be effectively utilised, wherever practicable, in screening noise from on-site construction activities. 		N/A
Water Quality Impact (Construction Phase)			
5.8.1.2	Water used in ground boring and drilling for site investigation or rock / soil anchoring should as far as practicable be re-circulated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities	Construction Sites / Construction Phase	Implemented
5.8.1.3	All vehicles and plant should be cleaned before they leave a construction site to minimise the deposition of earth, mud, debris on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into storm drains. The section of construction road between the wheel washing bay and the public road should be paved with backfill to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	Construction Sites / Construction Phase	Implemented
5.8.1.4	Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area. It is recommended to clean the construction sites on a regular basis.	Construction Sites / Construction Phase	Implemented
5.8.1.5 - 5.8.1.6	The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be followed where applicable to minimise surface run-off and the chance of erosion. Surface run-off from construction sites should be discharged into storm drains via adequately designed sand / silt removal facilities such as sand traps, silt traps and sedimentation basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Perimeter channels at site boundaries should be provided as necessary to intercept storm run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks.	Construction Sites / Construction Phase	Implemented

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
5.8.1.7	Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly (as well as at the onset of and after each rainstorm) to prevent overflows and localised flooding.	Construction Sites / Construction Phase	Implemented
5.8.1.8	Construction works should be programmed to minimise soil excavation in the wet season (i.e. April to September). If soil excavation cannot be avoided in these months or at any time of year when rainstorms are likely, temporarily exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest / edge of excavation) to prevent storm run-off from washing across exposed soil surfaces.	Construction Sites / Construction Phase	Implemented
5.8.1.9	Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary	Construction Sites / Construction Phase	Implemented
5.8.1.10	Measures should be taken to minimise the ingress of rainwater into trenches. If excavation of trenches in the wet season is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	Construction Sites / Construction Phase	Implemented
5.8.1.11	Construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms	Construction Sites / Construction Phase	Implemented
5.8.1.12	Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers. Discharge of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system.	Construction Sites / Construction Phase	Implemented
5.8.1.13	The practices outlined in Environment, Transport and Works Bureau (ETWB) TC (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works” should also be adopted where applicable to minimise the water quality impacts upon any natural streams or surface water systems.	Construction Sites / Construction Phase	Implemented
5.8.1.14	Sufficient chemical toilets should be provided in the works areas. A licensed waste collector should be deployed to clean the chemical toilets on a regular basis.	Construction Sites / Construction Phase	Implemented
5.8.1.15	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the surrounding environment.	Construction Sites / Construction Phase	Implemented
5.8.1.16	Contractor must register as a chemical waste producer if chemical wastes would be produced from the construction activities. The WDO (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation, should be observed and complied with for control of chemical wastes.	Construction Sites / Construction Phase	Implemented
5.8.1.17	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	Construction Sites / Construction Phase	N/A
5.8.1.18	Disposal of chemical wastes should be carried out in compliance with the WDO. The Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published under the WDO should be followed to avoid leakage or spillage of chemicals.	Construction Sites / Construction Phase	Implemented
5.8.1.19	All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS).	Construction Sites / Construction Phase	Implemented
5.8.2.11	Chemical should be stored on site at bunded area and separate drainage system as appropriate should be provided to avoid any spilled chemicals from entering the storm drain in case of accidental spillage. Also, adequate tools for cleanup of spilled chemicals should be stored on site and appropriate training shall be provided to staffs to further prevent potential adverse water quality impacts from happening.	Project site / Design and Operation Phase	Implemented

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
Waste Management Implication (Construction Phase)			
6.6.1.3	<u>Good Site Practices</u> Recommendations for good site practices during the construction phase include:	Construction Sites	
	<ul style="list-style-type: none"> 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; 		Implemented
	<ul style="list-style-type: none"> Training of site personnel in proper waste management and chemical waste handling procedures; 		Implemented
	<ul style="list-style-type: none"> Provision of sufficient waste reception/ disposal points, of a suitable vermin-proof design that minimises windblown litter; 		N/A
	<ul style="list-style-type: none"> Arrangement for regular collection of waste for transport off-site and final disposal; 		Implemented
	<ul style="list-style-type: none"> Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; 		Implemented
	<ul style="list-style-type: none"> Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; 		Implemented
	<ul style="list-style-type: none"> A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be proposed; and 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	<u>Waste Reduction Measures</u> Recommendations to achieve waste reduction include:	Construction Sites	
	<ul style="list-style-type: none"> 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; 		Implemented
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Any unused chemicals or those with remaining functional capacity shall be recycled; 		N/A
	<ul style="list-style-type: none"> Maximising the use of reusable steel formwork to reduce the amount of C&D material; 		Implemented
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Adopt proper storage and site practices to minimise the potential for damage to, or contamination of, construction materials; 		Implemented
	<ul style="list-style-type: none"> Plan the delivery and stock of construction materials carefully to minimise the amount of surplus waste generated; 		N/A
<ul style="list-style-type: none"> Adopt pre-cast construction method instead of cast-in-situ method for construction of concrete structures as much as possible; and 	N/A		
<ul style="list-style-type: none"> 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	<u>Storage of Waste</u> Recommendations to minimise the impacts include:	Construction Sites	Implemented
	<ul style="list-style-type: none"> Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimising the potential of pollution; 		Implemented
	<ul style="list-style-type: none"> Maintain and clean storage areas routinely; 		Implemented
	<ul style="list-style-type: none"> Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and 		Implemented
6.6.1.8	<u>Collection of Waste</u> 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:	Construction Sites	Implemented
	<ul style="list-style-type: none"> Remove waste in timely manner; 		Implemented
	<ul style="list-style-type: none"> Waste collectors should only collect wastes prescribed by their permits; 		Implemented
	<ul style="list-style-type: none"> Impacts during transportation, such as dust and odour, should be mitigated by the use of covered trucks or in enclosed containers; 		Implemented
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Waste should be disposed of at licensed waste disposal facilities; and Maintain records of quantities of waste generated, recycled and disposed. 		Implemented
6.6.1.10	<u>Transportation of Waste</u> 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	<u>Construction and Demolition Material</u> 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:	Construction Sites	Implemented
	<ul style="list-style-type: none"> A WMP, which becomes part of the EMP, should be prepared in accordance with ETWB TCW No.19/2005; A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be adopted for easy tracking; and 		Implemented
	<ul style="list-style-type: none"> 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:	Construction Sites	
	<ul style="list-style-type: none"> • Surface of stockpiled soil should be regularly wetted with water especially during dry season; 		Implemented
	<ul style="list-style-type: none"> • Disturbance of stockpile soil should be minimised; 		Implemented
	<ul style="list-style-type: none"> • Stockpiled soil should be properly covered with tarpaulin especially when heavy storms are predicted; and • Stockpiling areas should be enclosed where space is available. 		Implemented
6.6.1.15	The Contractor should prepare and implement an EMP in accordance with ETWB TCW No.19/2005, which describes the arrangements for avoidance, reuse, recovery, recycling, storage, collection, treatment and disposal of different categories of waste to be generated from construction activities. Such a management plan should incorporate site-specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP should be submitted to the Engineer for approval. The Contractor should implement waste management practices in the EMP throughout the construction stage of the Project. The EMP should be reviewed regularly and updated by the Contractor, preferably on a monthly basis.	Construction Sites	Implemented
6.6.1.16	The Contractor would be responsible for devising a system to work for on-site sorting of C&D materials and promptly removing all sorted and process materials arising from the construction activities to minimise temporary stockpiling on-site. The system should be included in the EMP identifying the source of generation, estimated quantity, arrangement for on-site sorting, collection, temporary storage areas and frequency of collection by recycling Contractors or frequency of removal off-site.	Construction Sites	Implemented
6.6.1.17 – 6.6.1.18	The sediment should be excavated, handled, transported and disposed of in a manner that would minimise adverse environmental impacts. To minimise sediment disposal, it is proposed to reuse the Type 1 sediment generated (e.g. as backfilling materials) as far as possible. Requirements of the Air Pollution Control (Construction Dust) Regulation, where relevant, shall be adhered to during excavation, transportation and disposal of the sediment.	Construction Sites	N/A
6.6.1.19	Workers shall, if necessary, wear appropriate personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities shall also be provided on site.	Construction Sites	Implemented
6.6.1.20	For off-site disposal, the basic requirements and procedures specified under ETWB TC(W) No. 34/2002 shall be followed.	Transportation Route of Waste / Construction Phase	Implemented
6.6.1.24	Stockpiling of contaminated sediments should be avoided as far as possible. If temporary stockpiling of contaminated sediments is necessary, the excavated sediment should be covered by tarpaulin and the area should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and surrounding water bodies. The stockpiles should be completely paved or covered by linings in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas should be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, should be collected and discharged according to the Water Pollution Control Ordinance (WPCO).	Construction Sites	Implemented
6.6.1.25	In order to minimise the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediments shall be wetted during excavation / material handling and shall be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge shall be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water.	Construction sites & transportation route of waste / Construction phase	N/A
6.6.1.26	The barge transporting the sediments to the designated disposal sites shall be equipped with tight fitting seals to prevent leakage and shall not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP.	Transportation route of waste / Construction phase	N/A

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
6.6.1.27	Suitable containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosive, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. The Contractor shall employ a licensed collector to transport and dispose of the chemical wastes, to the licensed CWTC, or other licensed facilities, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Construction and Operation Phases	Implemented
6.6.1.28	It is recommended to place clearly labelled recycling bins at designated locations with convenient access. Other general refuse should be separated from chemical and industrial waste by providing separated bins or skips for storage to maximise the recyclable volume. A reputable licensed waste collector should be employed to remove general refuse on a daily basis to minimise odour, pest and litter impacts.	Construction and Operation Phases	Implemented
6.6.1.29	Should buildings be found with potential ACM, sufficient and reasonable lead time shall be allowed for preparation, vetting and implementation of Asbestos Investigation Report and Asbestos Abatement Plan in accordance with Air Pollution Control Ordinance before commencement of any demolition or site clearance work.	Demolition	N/A
Land Contamination			
7.8.1.2 - 7.8.1.3;7.8.2.1	Prior to the commencement of the SI works, a review of the Contamination Assessment Plan (CAP) should be conducted to confirm whether the proposed SI works (e.g. sampling locations, testing parameters etc.) are still valid. Supplementary CAP(s), presenting findings of the review, the latest site conditions and updated sampling strategy and testing protocol, should be submitted to EPD for endorsement. The SI works should be carried out according to EPD's agreed supplementary CAP(s).SI works should be carried out according to the supplementary CAP endorsed by EPD. Following completion of SI works and receipt of laboratory test results, Contamination Assessment Report(s) ((CAR)(s)) should be prepared to present the findings of the SI works and to discuss the presence, nature and extent of contamination. If contamination is identified, Remedial Action Plan(s) ((RAP)(s)) which provides details of the remedial actions for the identified contaminated soil and / or groundwater should be endorsed by EPD. The possible remediation methods are detailed in Section 5.2 of the CAP provided in Appendix 7.1 of the EIA Report, Remediation action, if necessary, will be carried out according to EPD endorsed RAP(s) and Remediation Report(s) (RR(s)) will be submitted after completion of the remediation action. The RR(s) should be endorsed by EPD prior to the commencement of construction works at the respective identified contaminated areas (if any).	Existing YLSTW /Construction Phase (after decommissioning of the concerned facilities / areas but prior to the construction works at the concerned facilities / areas)	Implemented
7.8.3.1	The mitigation measures will be recommended in the RAP and would typically include the following:	Project Site / Construction Phase	
	<ul style="list-style-type: none"> Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety; 		Implemented
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Speed control for the trucks carrying contaminated materials shall be enforced; 		Implemented
	<ul style="list-style-type: none"> Vehicle wheel and body washing facilities at the site's exist points shall be established and used; and 		Implemented
<ul style="list-style-type: none"> 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	<u>Avoidance of Recognised Site of Conservation Importance</u> 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	<u>Avoidance of Demolition Works Using Breakers Mounted on Excavators and Percussive Piling during Dry Season</u> 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	<u>Restriction of Construction Hours</u> 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	<u>Minimising Construction Noise Disturbance Impacts through Consideration of Alternative Construction Methods</u> 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	<u>Minimising Construction Noise Disturbance Impacts Through Careful Phasing of Construction Activities</u> Percussive piling works and demolition using breakers mounted on excavators would typically be completed over two wet seasons and not be undertaken in the same construction zone at the same time to localise the construction disturbance and to reduce the duration of high level of disturbances on sensitive wetland habitats and associated waterbirds nearby each construction zone. Facilities in the eastern side of the Project site (i.e. Phase 1A and Phase 1B) are scheduled to be developed first that the new structures could screen the works in the middle and western parts of the site in later stage of the construction phase after the structures in Phase 1A and Phase 1B are completed, hence minimising the construction noise and human disturbance on sensitive wetland habitats adjacent to the Project site in Shan Pui River, including the confluence of Shan Pui River and Kam Tin River and ardeid night roost to the immediate east of the Project site.	Project site / Construction Phase	Implemented
8.10.3.6 – 8.10.3.8	<u>Minimising Construction Noise Disturbance Impacts through Use of Noise Barriers</u> Noise barriers with absorptive materials of about 4m high will be erected along the northern, eastern and western sides of the site, throughout the construction phase to screen the construction noise and human disturbance to the waterbirds foraging in ponds in Fung Lok Wai and Shan Pui River during construction phase. Adequate noise barriers should also be provided for demolition works using breakers mounted on excavators and percussive piling works, to further minimise the construction noise disturbance from these construction activities. Movable noise barriers should be provided to breaker mounted on excavator used for demolition works as discussed in Section 4.8 and acoustic mat should be provided to the piling plants around the rig. The contractor should provide enclosure for construction equipment, especially static plants, as appropriate to minimise the noise disturbance as far as practicable.	Construction sites / Construction Phase	Implemented
8.10.3.9	<u>Use of Quality Powered Mechanical Equipment</u> The contractor should source QPMEs for construction as far as practicable to further minimise the overall construction noise and other disturbance to the nearby wetland habitats and associated waterbirds to the maximum practical extent.	Construction sites / Construction Phase	Implemented
Ecology & Fisheries Impact			
8.12.1.4, 9.7	Groundwater observation wells and recharge wells will be provided at the northern and western side of the site. Groundwater table will be closely monitored at the observation well. In case of any unlikely events of abnormal drawdown of groundwater table near the excavation area, groundwater dewatering will stop and water will be pumped into the recharge wells to recover the normal groundwater table as necessary.	Construction Phase	N/A

EIA Ref.	Environmental Protection Measures	Location / Duration of Measures / Timing of Completion of Measures	Implementation Status
Fisheries Impact			
9.7	The implementation of good site practices during construction could minimise the potential water quality impacts from the land-based construction works. Mitigation measures recommended in the Water Quality Impact Assessment (Section 5) for controlling water quality impact would also serve to protect fisheries resources and activities from indirect impacts.	Construction and Operation Phase	N/A
Landscape and Visual Impact			
Table 10.11	<u>Preservation of Existing Vegetation (CM1)</u> All the existing Trees to be retained and not to be affected by the Project shall be carefully protected during construction accordance with DEVB TCW No. 7/2015 - Tree Preservation and the latest Guidelines on Tree Preservation during Development issued by GLTM Section of DevB. Any existing vegetation in landscaped areas and natural terrain not to be affected by the Project shall be carefully preserved.	Project site / Construction Phase	Implemented
	<u>Transplanting of Affected Trees (CM2)</u> Trees unavoidably affected by the works shall be transplanted as far as possible in accordance with DEVB TCW No. 7/2015 - Tree Preservation and the latest Guidelines on Tree Transplanting issued by GLTM Section of DevB.	Project site / Construction Phase	Implemented
	<u>Compensatory Tree Planting (CM3)</u> Any trees to be felled under the Project shall be compensated in accordance with DEVB TCW No. 7/2015 - Tree Preservation. For trees to be compensated on slopes, the guidelines for tree planting stipulated in GEO Publication No. 1/2011 will be followed.	Project site / Construction Phase	N/A
	<u>Control of Night-time Lighting Glare (CM4)</u> All the night time lighting shall be avoided except for safety purpose. No light glare shall illuminate directly outside the site.	Project site / Construction Phase	Implemented
	<u>Erection of Decorative Screen Hoarding (CM5)</u> Site hoardings, if any, shall be painted in dull green colour	Project site / Construction Phase	Implemented
	<u>Management of Construction Activities and Facilities (CM6)</u> Construction activities shall be well scheduled and avoid powered mechanical equipment's operating simultaneously. All stockpiling areas and idled area shall be covered by tarpaulin sheet or hydroseeded as far as possible.	Project site / Construction Phase	Implemented
Hazard to Life (Construction Phase)			
11.5.6.9- 11.5.6.12	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> All work procedures shall be complied with the operating plant procedures or guidelines and regulatory requirements; 		Implemented
	<ul style="list-style-type: none"> Work permit system, on-site pre-work risk assessment and emergency response procedure shall be in place before commencement of work; 		Implemented
	<ul style="list-style-type: none"> All construction workers shall equip with appropriate personal protective equipment (PPE) when working at the Project Site; 		Implemented
	<ul style="list-style-type: none"> Safety training and briefings shall be provided to all construction workers; 		Implemented
	<ul style="list-style-type: none"> Regular site safety inspections shall be conducted during the construction phase of the Project; 		Implemented
11.9.1.2	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Conduct speed checks to ensure enforcement of speed limits and to ensure adequate site access control; 		N/A
	<ul style="list-style-type: none"> A lifting plan, with detailed risk assessment, should be prepared and endorsed for heavy lifting of large equipment; 		Implemented
	<ul style="list-style-type: none"> Vehicle crash barriers should be provided between the construction site and the operating biogas facilities; 		N/A
	<ul style="list-style-type: none"> Ensure that a hazardous area 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
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> Ensure effective communication system / protocol is in place between the contractors and the operation staff; 		Implemented
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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
	<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 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 H
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

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