

Drainage Services Department

Contract No. SPW 08/2024
Shek Wu Hui Effluent Polishing
Plant – Main Works
(under FEP-02/474/2013)
Monthly EM&A Report
December 2024

(Version 1.1)

Certified By  (Environmental Team Leader: Mr. KS Lee)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

CINOTECH CONSULTANTS LTD
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong
Tel: (852) 2151 2083 Fax: (852) 3107 1388
Email: info@cinotech.com.hk

Meinhardt Infrastructure and Environment Limited

10/F Genesis
33-35 Wong Chuk Hang Road
Hong Kong

Contract No. SPW 09/2024

Shek Wu Hui Effluent Polishing Plant – Main Works

Monthly EM&A Report

(December 2024)

Verified by: Claudine Lee



Position: Independent Environmental Checker

Date: 14 January 2025

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
Introduction.....	1
Summary of Main Works Undertaken and Key Measures Implemented	1
Summary of Exceedances, Investigation and Follow-up.....	2
Complaint Handling, Prosecution and Public Engagement	2
Reporting Changes.....	2
Future Key Issues.....	2
1 INTRODUCTION.....	3
Background	3
Purpose of the Report.....	4
Project Organizations.....	4
Construction Activities undertaken during the Reporting Month	5
Summary of EM&A Requirements	7
Statuses of Environmental Licensing and Permitting	7
Summary of submission status under FEP- 02/474/2013	10
2 AIR QUALITY.....	11
Monitoring Requirement.....	11
Monitoring Locations.....	11
Monitoring Parameters and Frequency	12
Monitoring Equipment.....	12
Monitoring Methodology.....	12
Results and Observations.....	15
Comparison of EM&A Result with EIA Prediction	16
3 NOISE	17
Monitoring Requirements	17
Monitoring Locations.....	17
Monitoring Parameters, Frequency and Duration.....	17
Monitoring Equipment.....	17
Monitoring Methodology and QA/QC Procedure	18
Maintenance and Calibration	18
Results and Observations.....	18
Comparison of EM&A Result with EIA Prediction	19
4 ECOLOGY	20
Monitoring Requirements	20
Monitoring Locations.....	20
Monitoring Parameters, Frequency and Duration.....	21
Monitoring Methodology.....	21
Analytical Methodology	21
Results.....	22
Analysis.....	23
Observations	23
5 WATER QUALITY.....	25

Monitoring Requirement.....	25
6 WASTE MANAGEMENT	25
Monitoring Requirement.....	25
Waste Management Status.....	25
7 LANDSCAPE AND VISUAL	29
Audit Requirement.....	29
8 ENVIRONMENTAL AUDIT	30
Site Audits.....	30
Implementation Status of Environmental Mitigation Measures	30
Implementation Status of Event and Action Plans	32
9 ENVIRONMENTAL NON-CONFORMANCE	34
Summary of Complaint, Warning, Notification of any Summons and Successful Prosecution.....	34
Summary of Exceedance.....	34
10 FUTURE KEY ISSUES.....	35
Monitoring Schedule.....	36
11 CONCLUSIONS AND RECOMMENDATIONS.....	37
Conclusions.....	37
Recommendations.....	37

LIST OF TABLES

Table I	<u>Summary Table for Major Site Activities in the Reporting Month</u>
Table II	<u>Summary of Complaint/Summons/Prosecution in the Reporting Month</u>
Table 1.1	Summary Table for inter-relationship between various contracts of the Shek Wu Hui Effluent Polishing Plant project and submission of previous EM&A reports
Table 1.2	Key Project Contacts
Table 1.3	Summary Table for Major Site Activities in the Reporting Month
Table 1.4	Summary of key PME and working locations of works contracts
Table 1.5	Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/06
Table 1.6	Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/07
Table 1.7	Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/03
Table 1.8	Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/04
Table 1.9	Summary of submission status under FEP-02/474/2013
Table 2.1	Air Quality Monitoring Locations
Table 2.2	Frequency and Parameters of Air Quality Monitoring
Table 2.3	Air Quality Monitoring Equipment
Table 2.4	Major Dust Source during Air Quality Monitoring
Table 2.5	Comparison of 1-hr TSP Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Table 2.6	Comparison of 24-hr TSP Monitoring Data with Predictions in EIA Report (As Approved in 2013)
Table 3.1	Noise Monitoring Stations
Table 3.2	Frequency and Parameters of Noise Monitoring
Table 3.3	Noise Monitoring Equipment
Table 3.4	Other Noise Source during Noise Monitoring
Table 3.5	Baseline Noise Level and Noise Limit Level for Monitoring Stations
Table 3.6	Comparison of Noise Monitoring Data with Predictions in EIA Report (As Approved in 2013)
Table 4.1	Monitoring of Measures to Minimise Disturbance to Waterbirds on Ng Tung, Sheung Yue and Shek Sheung Rivers during Pre-Construction Phase
Table 4.2	Ecological Monitoring Stations
Table 4.3	Representative Waterbirds
Table 4.4	Total Bird Species and Abundance in the Reporting Month
Table 4.5	Abundance of Representative Waterbirds in the Reporting Month
Table 4.6	T-test Result for All Waterbirds in the Reporting Month
Table 4.7	T-test Result for Representative Waterbirds in the Reporting Month
Table 4.8	Observations during Ecological Monitoring in the Reporting Month
Table 6.1	Summary of Quantities of Inert C&D Materials and Wastes for Contract No. DC/2018/06
Table 6.2	Summary of Quantities of Inert C&D Materials and Wastes for Contract No. DC/2018/07
Table 6.3	Summary of Quantities of Inert C&D Materials and Wastes for Contract No. DE/2018/03
Table 6.4	Summary of Quantities of Inert C&D Materials and Wastes for Contract No. DE/2018/04
Table 8.1	Observations and Recommendations of Site Audit of Contract No. DC/2018/06
Table 8.2	Observations and Recommendations of Site Audit of Contract No. DC/2018/07
Table 8.3	Observations and Recommendations of Site Audit of Contract No. DE/2018/03
Table 8.4	Observations and Recommendations of Site Audit of Contract No. DE/2018/04
Table 10.1	Summary Table for Site Activities in the Next Reporting Period

LIST OF FIGURES

Figure 1.1	Layout Plan of the Project Site
Figure 1.2	Project Organisation for Environmental Monitoring and Audit
Figure 2	Locations of Air Quality Monitoring Stations
Figure 3	Locations of Construction Noise Monitoring Stations
Figure 4	Survey Location for Impact Ecological Monitoring

LIST OF APPENDICES

Appendix A	Action and Limit Levels
Appendix B	Environmental Monitoring Schedules
Appendix C	Copies of Calibration Certificates for Air Quality Monitoring
Appendix D	Weather Information
Appendix E	1-hour TSP Monitoring Results and Graphical Presentations
Appendix F	24-hour TSP Monitoring Results and Graphical Presentations
Appendix G	Copies of Calibration Certificates for Noise Monitoring

Appendix H	Noise Monitoring Results and Graphical Presentations
Appendix I	Ecological Monitoring Results and Analysis
Appendix J	Photo Records of Ecological Monitoring
Appendix K	Site Audit Summary
Appendix L	Waste Flow Table
Appendix M	Event and Action Plans
Appendix N	Environmental Mitigation Implementation Schedule (EMIS)
Appendix O	Summaries of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution
Appendix P	Summary of Exceedance
Appendix Q	Tentative Construction Programme
Appendix R	Layout Plans of Construction Activities and Site Record Photos

EXECUTIVE SUMMARY

Introduction

1. This is the 4th EM&A Report prepared by the Environmental Team, Cinotech Consultants Ltd., for Contract No. SPW 08/2024 “Shek Wu Hui Effluent Polishing Plant – Main Works”. This report summarized the monitoring results and audits findings of the EM&A programme under the issued further EP No. FEP-02/474/2013 and in accordance with the Updated EM&A Manual during the reporting month of December 2024.

Summary of Main Works Undertaken and Key Measures Implemented

2. The main works undertaken during the reporting period are as follows:

Table I Summary Table for Major Site Activities in the Reporting Month

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	• RC works • Pipe jacking • Sewage, utility and pipe works • Road works • ABWF works • ELS
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	• RC works • Pipe laying
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	• Installation of E&M Plant Equipment & Accessories (Side stream) • E&M Installation & Accessories works at SDB • Plumbing System Installation at SDB • Installation of E&M Plant Equipment & Accessories at CHP • Bio-gas Holding Tank Installation at BGHT
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	• E&M works for Leachate Pre-treatment Plant at existing compressor house. • E&M works at Inlet Works, PST No. 1-4, BR 2A & 2B, MFB2, DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room, Chemical System No.1, Street Fire Hydrant & Booster Pump Room and Temporary Chemical System.

3. Implementation of the key mitigation measures during the reporting period are as follows:

Air Quality

- The excavated or stockpile of dusty materials should be covered by impervious materials or maintained wet.
- Regular water spraying on haul road and dry surfaces should be applied to minimize dust generation.
- Perform breaking works only when water spraying is provided.

- Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty materials from its body and wheels.

Water Quality

- The exposed soil area near the Ng Tung Rivier was covered by tarpaulin before hand surface was provided.
- Sandbag bunds for flood protection were provided to surround area of earthwork.

Waste Management

- Accumulation of general refuse should be avoided.
- Drip tray with adequate capacity and well maintained should be provided for chemicals or oil container.
- Unused waste and materials were removed to maintain the tidiness of the site.

Ecology

- Green visual barriers of at least 2m high was erected and maintained between active works and ecologically important areas.

Landscape and Visual

- Existing trees to be retained within the Project Site should be carefully protected during construction.

Summary of Exceedances, Investigation and Follow-up

- No Action/Limit levels exceedance was recorded during air quality, construction noise and ecological monitoring in the reporting month (**December 2024**).

Complaint Handling, Prosecution and Public Engagement**Table II Summary of Complaint/Summons/Prosecution in the Reporting Month**

Event	Event Details		Follow-up/ Remedial Actions	Status/ Remarks
	Number	Brief Description		
Complaints Received	0	-	-	-
Notification of Summons and Prosecutions Received	0	-	-	-
Public Engagement Activities	0	-	-	-

Reporting Changes

- There were no reporting changes during the reporting month.

Future Key Issues

- The key works or activities will be anticipated in the next reporting period are as follows:
 - The works listed in **Table I** will be continued in the next reporting month.

1 INTRODUCTION

Background

- 1.1 The Further Expansion of Shek Wu Hui Effluent Polishing Plant (SWHEPP) is a designated Project (DP) under F.1 and F.2 of Part 1, Schedule 2 of Environmental Impact Assessment Ordinance (EIAO). The “North East New Territories New Development Areas” Environmental Impact Assessment (NENT NDAs EIA) Report (Registered No.: AEIAR-175/2013) covered the assessment for the Further Expansion of SWHSTW Phase 1A, 1B and 2, and the associated Environmental Monitoring and Audit (EM&A) Manual was approved on 18 October 2013.
- 1.2 The existing Shek Wu Hui Sewage Treatment Works (SWHSTW) is operated and maintained by the Drainage Services Department (DSD). It provides secondary level treatment to sewage collected from Sheung Shui, Fanling and adjacent areas, SWHSTW was completed in two stages and expanded progressively in the past year. In 2009, the expansion of SWHSTW was completed and its design capacity was 93,000m³/day at average dry weather flow (ADWF). After the Resource Allocation Exercise 2017, the existing SWHSTW is proposed to be upgraded from secondary to tertiary treatment level as the new SWHEPP at 3 stages: Main Works Stage 1, Stage 2 and Stage 3.
- 1.3 A Further Environmental Permit (EP) (Permit No. FEP-02/474/2013) was issued on 15 February 2018 to DSD as the Permit Holder to assume the responsibility for construction and operating the SWHEPP Project up to a capacity of 190,000m³/day. The updated Environmental Monitoring and Audit (EM&A) Manual was prepared in accordance with Condition 2.3 of the Further EP. The site layout plan for the Project is shown in **Figure 1.1**.
- 1.4 The Contract No. SPW 12/2021 was superseded by Contract No. SPW 08/2024 in September 2024. EM&A Works for Shek Wu Hui Effluent Polishing Plant -Main Works shall continue and reported under the new Contract. Cinotech Consultants Ltd. was designated as the Environmental Team (ET) to undertake the EM&A works for “Shek Wu Hui Effluent Polishing Plant – Main Works” (hereinafter called the “Project”).
- 1.5 The commencement date of the construction works of Shek Wu Hui Effluent Polishing Plant (FEP-02/474/2013) was on 06 Jan 2020. A total 3 of environment team contracts for Shek Wu Hui Effluent Polishing Plant have been conducted to undertake the EM&A works from the commencement of the project. The inter-relationship between various contracts of the Shek Wu Hui Effluent Polishing Plant project and submission of previous EM&A reports are shown in **Table 1.1**.

Table 1.1 Summary Table for inter-relationship between various contracts of the Shek Wu Hui Effluent Polishing Plant project and submission of previous EM&A reports

Contract No. of Environment Team for Shek Wu Hui Effluent Polishing Plant	Environment Team	Submission of previous monthly EM&A report
SPW 07/2019	Cinotech Consultants Ltd.	Jan 2020 to Aug 2021
SPW 12/2021	Lam Environmental Services Limited	Sep 2021 to Aug 2024
SPW 08/2024	Cinotech Consultants Ltd.	Sep 2024 to Nov 2024

Purpose of the Report

- 1.6 This is the 4th Monthly EM&A Report prepared by the Environmental Team, Cinotech Consultants Ltd., for Contract No. SPW 08/2024 “Shek Wu Hui Effluent Polishing Plant – Main Works”, which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period in **December 2024**.

Project Organizations

- 1.7 Different Parties with different levels of involvement in the project organization include:
- Permit Holder – Drainage Services Department (DSD)
 - Supervisor Representative – AECOM Asia Company Limited (AECOM)
 - Environmental Team (ET) – Cinotech Consultants Limited (Cinotech)
 - Independent Environmental Checker (IEC) – Meinhardt Infrastructure and Environment Ltd (Meinhardt)
 - Contractors
 - Contract No.: DC/2018/06 - Kwan Lee - Chun Wo Joint Venture (KLCWJV)
 - Contract No.: DC/2018/07 - Kwan Lee - Chun Wo Joint Venture (KLCWJV)
 - Contract No.: DE/2018/03 - Jardine Engineering Corporation Limited (JEC)
 - Contract No.: DE/2018/04 - Bestwise Envirotech Limited (Bestwise)
- 1.8 The key contacts of the Project are shown in **Table 1.2**.

Table 1.2 Key Project Contacts

Party	Role	Post	Contact Person	Phone No.
DSD	Permit Holder	Engineer	Mr. Tony Wong	2594 7463
AECOM	Supervisor Representative	Resident Engineer	Mr. Kenneth Chan	6874 1825
Cinotech	Environmental Team	Environmental Team Leader	Mr. KS Lee	2151 2091
		Audit Team Leader	Ms. Betty Choi	2151 2072
Meinhardt	Independent Environmental Checker	Independent Environmental Checker (IEC)	Ms. Claudine Lee	9612 9229
KLCWJV	Contractor (DC/2018/06)	Assistance Environmental Engineer	Mr. Timothy To	6203 7133
KLCWJV	Contractor (DC/2018/07)	Environmental Engineer	Ms. Barbara Yiu	9758 2034
JEC	Contractor (DE/2018/03)	Environmental Officer	Mr. Chris Cheung	6389 2975
Bestwise	Contractor (DE/2018/04)	Environmental Officer	Mr. Albus Cheung	9731 0831

- 1.9 The Organizational Structure for Environmental Management is shown in **Figure 1.2**.

Construction Activities undertaken during the Reporting Month

1.10 The major site activities undertaken in the reporting month included:

Table 1.3 Summary Table for Major Site Activities in the Reporting Month

Contract No.	Contract Title	Site Activities	Mitigation Measure
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	• RC works • Pipe jacking • Sewage, utility and pipe works • Road works • ABWF works • ELS	• Implement proper dust mitigation measures on dusty surface, stockpiles and related dusty works • Implement proper measures to prevent excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies • Ensure all on-site regulated machines have displayed valid NRMM labels and the application of ULSD as fuel for diesel-powered machinery. • Erect 2m high dull green site boundary fences to screen undesirable views of the works site • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system • Temporary storage of filling materials and construction materials were located well away from any water courses during carrying out of the construction works. • The doors of generator were closed during operation.
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	• RC works • Pipe laying	• The excavated or stockpile of dusty material was covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet. • Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place were sprayed with water continuously. • Implement proper measures to prevent excavated material, silt or debris being deposited or washed into existing drainage systems and waterbodies • Ensure all on-site regulated

Contract No.	Contract Title	Site Activities	Mitigation Measure
			machines have displayed valid NRMM labels and the application of ULSD as fuel for diesel-powered machinery. • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system • The breaking area was provided noise mitigation measures to screen the noisy plant.
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	• Installation of E&M Plant Equipment & Accessories (Side stream) • E&M Installation & Accessories works at SDB • Plumbing System Installation at SDB • Installation of E&M Plant Equipment & Accessories at CHP • Bio-gas Holding Tank Installation at BGHT	• Ensure all on-site regulated machines have displayed valid NRMM labels and the application of ULSD as fuel for diesel-powered machinery. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal • Mobile plants were sited as far away from NSRs as possible. • The doors of generator were closed during operation.
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	• E&M works for Leachate Pre-treatment Plant at existing compressor house. • E&M works at Inlet Works, PST No. 1-4, BR 2A & 2B, MFB2, DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room, Chemical System No.1, Street Fire Hydrant & Booster Pump Room and Temporary Chemical System.	• Ensure all on-site regulated machines have displayed valid NRMM labels and the application of ULSD as fuel for diesel-powered machinery. • Segregate and store different types of waste to enhance reuse or recycling of materials and their proper disposal • Mobile plants were sited as far away from NSRs as possible. • The doors of generator were closed during operation.

1.11 The number of key PME and their working locations are shown in **Table 1.3**. The layout plan of construction activities are presented in **Appendix R**.

Table 1.4 Summary of key PME and working locations of works contracts

Works Contract	Key PME & Equipment	Number	Working locations
DC/2018/06	Excavator	1	Section 4
	Scissor lift platform	4	SDB and CHP
	Roller	1	Section 4
DC/2018/07	Excavator	8	Area D, Inlet, PST, SAS, MFB
	Generator	3	PST, Inlet, MFB
	Mobile Crane	1	Inlet
DE/2018/03	Generator	6	Sidestream, THP and Bio-gas Tank
DE/2018/04	Generator	3	DOU3A

Summary of EM&A Requirements

1.12 The EM&A programme requires construction noise monitoring, air quality monitoring, water quality monitoring, ecological monitoring and environmental site audit, etc. The EM&A requirements for each parameter are described in the following sections, including:

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event Action Plans;
- Environmental mitigation measures, as recommended in the Project EIA Report.

1.13 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 8 of this report.

1.14 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the monitoring parameters of the required environmental monitoring works and audit works for the Project in December 2024.

Statues of Environmental Licensing and Permitting

1.15 All permits/licenses obtained for the Project are summarized in **Table 1.5 to Table 1.8**.

Table 1.5 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/06

Permits and/or Licences	Reference No.	Valid Period	Expiry Date	Status
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Notification of Works Under APCO	449210 (Portion A & C)	23 Sep 2019	N/A	Valid
	449211 (WM1)	23 Sep 2019	N/A	Valid
Wastewater Discharge Licence	WT00035431-2019 (Portion C)	27 Jul 2020	31 Jan 2025	Valid
	WT00035718-2020 (Portion A)	02 Apr 2020	30 Apr 2025	Valid
Billing account under Waste Disposal Ordinance	7035390	11 Oct 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-01	14 Nov 2019	N/A	Valid
Construction Noise Permit	GW-RN1034-24	09 Sep 2024	08 Feb 2025	Valid

Table 1.6 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DC/2018/07

Permits and/or Licences	Reference No.	Valid Period	Expiry Date	Status
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Notification of Works Under APCO	449210	23 Sep 2019	N/A	Valid
Wastewater Discharge Licence	WT00035727-2020	27 Apr 2020	30 Apr 2025	Valid
Billing account under Waste Disposal Ordinance	7035985	09 Dec 2019	N/A	Valid

Permits and/or Licences	Reference No.	Valid Period	Expiry Date	Status
Registration as a Chemical Waste Producer	5213-624-K3371-02	06 Jan 2020	N/A	Valid
Construction Noise Permit	GW-RN1034-24	09 Sep 2024	08 Feb 2025	Valid

Table 1.7 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/03

Permits and/or Licences	Reference No.	Valid Period	Expiry Date	Status
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Notification of Works Under APCO	455843 (WA3)	6 May 2020	N/A	Valid
	457212 (WA1-B)	15 Jun 2020	N/A	Valid
	460065 (Sidestream)	16 Sep 2020	N/A	Valid
Wastewater Discharge Licence	WT00037220-2020	16 Mar 2021	31 Jan 2026	Valid
Billing account under Waste Disposal Ordinance	7035700	6 Nov 2019	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-K3371-01	14 Apr 2020	N/A	Valid
Construction Noise Permit	GW-RN1256-24	23 Nov 2024	22 Feb 2025	Valid
Disposal of Special Waste at Landfills – Admission Ticket	92722	17 Sep 2024	13 Jan 2025	Valid

Table 1.8 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project under Contract No. DE/2018/04

Permits and/or Licences	Reference No.	Valid Period	Expiry Date	Status
Environmental Permit	FEP-02/474/2013	15 Feb 2018	N/A	Valid
Notification of Works Under APCO	N/A	N/A	N/A	Apply only if necessary

Permits and/or Licences	Reference No.	Valid Period	Expiry Date	Status
Wastewater Discharge Licence	N/A	N/A	N/A	Apply only if necessary
Billing account under Waste Disposal Ordinance	703621912	02 Jan 2020	N/A	Valid
Registration as a Chemical Waste Producer	5213-624-B2592-01	07 Jul 2020	N/A	Valid
Construction Noise Permit	GW-RN1236-24	09 Nov 2024	08 Mar 2025	Valid

Summary of submission status under FEP- 02/474/2013

1.16 A summary of the current status on submission under FEP-02/474/2013 is shown in **Table 1.8**.

Table 1.9 Summary of submission status under FEP-02/474/2013

EP Condition	Submission	Status
Condition 1.12	Commencement date of construction of the Project	Notified EPD on 8 Oct 2019
Condition 2.3 & 3.1	Updated EM&A Manual	The updated manual was confirmed of no further comments by EPD on 17 Jan 2020
Condition 2.4	Management Organization of Main Construction Companies for Contract No.DC/2018/06	Informed EPD on 19 Nov 2019
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DC/2018/07	Informed EPD on 20 Dec 2019
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DE/2018/03	Informed EPD on 19 Feb 2020
Condition 2.4	Management Organization of Main Construction Companies for Contract No. DE/2018/04	Informed EPD on 15 Feb 2020
Condition 2.4	Replacement of Environmental Team Leader	Informed EPD on 06 Sep 2024
Condition 2.4	Replacement of Independent Environmental Checker	Informed EPD on 13 Sep 2021
Condition 2.5	Location Plans for Contract No. DC/2018/06	Deposited to EPD on 19 Nov 2019
Condition 2.5	Location Plans for Contract No. DC/2018/07	Deposited to EPD on 20 Dec 2019

EP Condition	Submission	Status
Condition 2.5	Location Plans for Contract No. DE/2018/03	Deposited to EPD on 15 Feb 2020
Condition 2.5	Location Plans for Contract No. DE/2018/04	Deposited to EPD on 18 Sep 2020
Condition 2.6	Submission of Landscape Plan	The revised plan was certified and verified by ET & IEC on 23 August 2024
Condition 3.3	Baseline Monitoring Report (Ecology)	The Report was first submitted to EPD on 03 Dec 2019
Condition 3.3	Baseline Monitoring Report	The Report was submitted to EPD on 10 Dec 2019

2 AIR QUALITY

Monitoring Requirement

- 2.1 According to the Updated EM&A Manual of SWHEPP, 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted to monitor the air quality for this Project. For regular impact monitoring, a sampling frequency of at least once in every six days at all of the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six days shall be undertaken when the highest dust impact occurs. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

- 2.2 Four designated monitoring stations were selected for air quality monitoring programme. **Table 2.1** describes the air quality monitoring locations, which are also depicted in **Figure 2**.

Table 2.1 Air Quality Monitoring Locations

Monitoring Stations	Location	Location of Measurement	Measurement
AM1	Wai Loi Tsuen	Ground Level	1-hour TSP monitoring
AM2	Fu Tei Au	Ground Level	1-hour TSP monitoring
AM1a* ₍₁₎	Site Boundary of the Shek Wu Hui STW (East)	Roof floor (about 4/F) of the control room of SWHSTW	24-hour TSP monitoring
AM2a	Site Boundary of the Shek Wu Hui STW (North)	Ground Level	24-hour TSP monitoring

Remark: (1) Due to close proximity to construction works and heavy machines, presence of physical barrier and safety concerns, find adjustment for the location of AM1a was proposed in accordance to Section 2.2.4.6 of the EM&A Manual. It was adjusted from the ground level near the control room of SWHSTW to the roof floor of that control room. The proposal has sought approval from ER and IEC, and agreement from EPD in May 2022.

Monitoring Parameters and Frequency

- 2.3 **Table 2.2** summarizes the monitoring parameters, monitoring period and frequencies of impact air quality monitoring. The monitoring schedule is shown in **Appendix B**.

Table 2.2 Frequency and Parameters of Air Quality Monitoring

Monitoring Stations	Parameter	Period	Frequency
AM1 & AM2	1-hour TSP	0700 – 1900	3 times/day, once every 6 days
AM1a* & AM2a	24-hour TSP	24 hours	Once every 6 days

Monitoring Equipment

- 2.4 High Volume Samplers (HVS) in compliance with the specification stipulated in the EM&A Manual, Section 2.2.2, were used to carry out 24-hour TSP monitoring. Direct reading dust meter were also used to measure 1-hour average TSP levels. The 1-hour sampling was determined by HVS to check the validity and accuracy of the results measured by direct reading method.
- 2.5 Wind data monitoring equipment was set on rooftop (about 4/F) of the SWHSTW control room building for logging wind speed and wind direction such that the wind sensors were clear of obstructions or turbulence caused by building. The wind data monitoring equipment was re-calibrated at least once every six months and the wind directions were divided into 16 sectors of 22.5 degrees each.
- 2.6 **Table 2.3** summarizes the equipment to be used for air quality monitoring. Copies of calibration certificates are attached in **Appendix C**. The site photos of HVS at monitoring location AM1a* & AM2a are shown in **Appendix R**.

Table 2.3 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
1-hour TSP Dust Meter	Sibata Model No.: LD-5R	2
HVS Sampler	GMW Model: GS 2310	2
Calibrator	TISCH Model: TE-5025A	1
Wind Anemometer	Global Water Instrumentation WE800	1

Monitoring Methodology

1-hour TSP Monitoring

Measuring Procedures

- 2.7 The measuring procedures of the 1-hour dust meter are in accordance with the Manufacturer's Instruction Manual as follows:

(Sibata Model No.: LD-5R)

- The 1-hour dust meter is placed at least 1.3 meters above ground.
- Set POWER to "ON" and make sure that the battery level was not flash or in low level.

- Allow the instrument to stand for about 3 minutes and then the cap of the air sampling inlet has been released.
- Push the knob at MEASURE position.
- Set time/mode setting to [BG] by pushing the time setting switch. Then, start the background measurement by pushing the start/stop switch once. It will take 6 sec. to complete the background measurement.
- Push the time setting switch to change the time setting display to [MANUAL] at the bottom left of the liquid crystal display. Finally, push the start/stop switch to stop the measuring after 1 hour sampling.
- Information such as sampling date, time, count value and site condition were recorded during the monitoring period.

Maintenance/Calibration

2.8 The following maintenance/calibration is required for the 1-hour dust meter:

- Check and calibrate the meter by HVS to check the validity and accuracy of the results measured by direct reading method at 2-month intervals throughout all stages of the air quality monitoring.

24-hour TSP Monitoring

Instrumentation

- 2.9 High volume samplers (HVS) (TISCH Model GS 2310) complete with appropriate sampling inlets was employed for 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50). Moreover, the HVS also met all the requirements in Section 2.2 of the Annex II Specification.
- 2.10 The positioning of the HVS samplers are as follows:
- A horizontal platform with appropriate support to secure the samplers against gusty wind shall be provided;
 - No two samplers shall be placed less than 2 meter apart;
 - The distance between the sampler and an obstacle, such as buildings, must be at least twice the height that the obstacle protrudes above the sampler;
 - A minimum of 2 metres of separation from walls, parapets and penthouses is required for rooftop samplers;
 - A minimum of 2 metres of separation from any supporting structure, measured horizontally is required;
 - No furnace or incinerator flue is nearby;
 - Airflow around the sampler is unrestricted;
 - The sampler is more than 20 metres from the dripline;
 - Any wire fence and gate, to protect the sampler, shall not cause any obstruction during monitoring;
 - Permission must be obtained to set up the samplers and to obtain access to the monitoring stations; and
 - A secured supply of electricity is needed to operate the samplers.

Operating/analytical procedures for the operation of HVS

- 2.11 Operating/analytical procedures for the air quality monitoring are highlighted as follows:
- Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m³/min. and 1.4 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
 - For TSP sampling, fiberglass filters with a collection efficiency of > 99% for particles of 0.3µm diameter were used.
 - The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
 - The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.
 - The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

- The shelter lid was closed and secured with the aluminum strip.
- The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- After sampling, the filter was removed and sent to the HOKLAS laboratory (High Precision Chemical Testing Limited) for weighing. The elapsed time was also recorded.
- Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than $\pm 3^\circ\text{C}$; the relative humidity (RH) should be $< 50\%$ and not vary by more than $\pm 5\%$. A convenient working RH is 40%.

Maintenance/Calibration

2.12 The following maintenance/calibration is required for the HVS:

- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
- High volume samplers were calibrated at bi-monthly intervals using TE-5025A Calibration Kit throughout all stages of the air quality monitoring.

Results and Observations

- 2.13 All 1-hour TSP monitoring was conducted at two monitoring stations as scheduled in the reporting quarter.
- 2.14 All 24-hour TSPs impact air quality monitoring was conducted at two monitoring stations as scheduled. The monitoring schedule is shown in **Appendix B**.
- 2.15 No Action/Limit Level exceedance was recorded for all 1-hour TSP monitoring in the reporting month.
- 2.16 No Action/Limit Level exceedance was recorded for all 24-hour TSP monitoring in the reporting month.
- 2.17 The air temperature, precipitation and the relative humidity data was obtained from daily extract of Ta Kwu Ling Station in Hong Kong Observatory Climate Information Service, where the wind speed and wind direction were recorded by the installed Wind Anemometer at rooftop (about 4/F) of the SWHSTW control room building. This weather information for the reporting month is summarized in **Appendix D**.
- 2.18 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendix E** and **Appendix F** respectively.
- 2.19 According to our field observations, the major dust source identified at the designated air quality monitoring stations are as follows:

Table 2.4 Major Dust Source during Air Quality Monitoring

Monitoring Stations	Major Dust Source
AM1 - Wai Loi Tsuen	Road Traffic at Sheung Shui Tung Hing Road
AM2 - Fu Tei Au	The stockpile of construction materials near the footpath
AM1a* - Site Boundary of the Shek Wu Hui STW (East)	Vehicle Movement within SWHSTW
AM2a - Site Boundary of the Shek Wu Hui STW (North)	N/A

Comparison of EM&A Result with EIA Prediction

2.20 The air monitoring data was compared with the predictions in the EIA Report (as approved in 2013) as summarised in **Tables 2.5** and **Table 2.6**.

Table 2.5 Comparison of 1-hr TSP Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Monitoring Stations	ASR ID	Predicted 1-hr TSP Concentration in EIA Report (as Approved in 2013), dB(A), $\mu\text{g}/\text{m}^3$	Reporting Month (December 2024), $\mu\text{g}/\text{m}^3$
AM1 - Wai Loi Tsuen	N/A	N/A ⁽¹⁾	32.3 – 58.9
AM2 - Fu Tei Au	FLN-E28	255	19.0 – 72.2

Remarks:

(1) No 1-hr TSP concentration was predicted in EIA Report (As Approved in 2013).

Table 2.6 Comparison of 24-hr TSP Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Monitoring Stations	Predicted 24-hr TSP Concentration in EIA Report (as approved in 2013), dB(A), $\mu\text{g}/\text{m}^3$	Reporting Month (December 2024), $\mu\text{g}/\text{m}^3$
AM1a* - Site Boundary of the Shek Wu Hui STW (East)	N/A ⁽¹⁾	35.9 – 101.8
AM2a - Site Boundary of the Shek Wu Hui STW (North)	N/A ⁽¹⁾	13.8 – 107.6

Remarks:

(1) No 24-hr TSP concentration was predicted in EIA Report (as approved in 2013).

2.21 The 1-hour TSP concentration at AM2 in the reporting month was lower than the prediction in the EIA Report (As Approved in 2013). The 1-hour TSP concentrations at AM1 as well as 24-hour TSP concentrations at AM1a* and AM2a were not predicted in the EIA Report (As Approved in 2013).

3 NOISE

Monitoring Requirements

- 3.1 According to the Updated EM&A Manual, construction noise monitoring was conducted to monitor the construction noise arising from the construction activities. The regular monitoring frequency for each monitoring station shall be on a weekly basis and conduct one set of measurements between 0700 and 1900 hours on normal weekdays. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

- 3.2 Noise monitoring was conducted at three designated monitoring stations in the reporting period. **Table 3.1** and **Figure 3** show the locations of these stations.

Table 3.1 Noise Monitoring Stations

Monitoring Stations	Location	Location of Measurement
NM1	Wai Loi Tsuen	Ground Level
NM2	Fu Tei Au	Ground Level
NM3	Man Kok Village	Ground Level

Monitoring Parameters, Frequency and Duration

- 3.3 **Table 3.2** summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix B**.

Table 3.2 Frequency and Parameters of Noise Monitoring

Monitoring Stations	Time Period	Duration	Frequency	Parameter	Measurement
NM1	0700-1900 hrs on normal weekdays	30 minutes	Once per week	L ₁₀ (30 min.) dB(A)	Free Field
NM2				L ₉₀ (30 min.) dB(A)	Free Field
NM3				L _{eq} (30 min.) dB(A)	Free Field

Monitoring Equipment

- 3.4 Integrating Sound Level Meter was used for impact noise monitoring. The meters were Type 1 sound level meter capable of giving a continuous readout of the noise level readings including equivalent continuous sound pressure level (L_{eq}) and percentile sound pressure level (L_x) that also complied with International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications. **Table 3.3** summarizes the noise monitoring equipment being used. Copies of calibration certificates are attached in **Appendix G**.

Table 3.3 Noise Monitoring Equipment

Equipment	Model and Make	Quantity
Integrating Sound Level Meter	BSWA 308 & SVAN 957	2
Calibrator	ST-120 & B&K 4231	2

Monitoring Methodology and QA/QC Procedure

3.5 The monitoring procedures are as follows:

- The monitoring station was normally be at a point 1m from the exterior of the sensitive receivers building façade and be at a position 1.2m above the ground.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB(A).
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - Frequency weighting: A
 - Time weighting: Fast
 - Time measurement: 30 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.
- At the end of the monitoring period, the L_{eq} , L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Noise monitoring would be cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s. Supplementary monitoring would be provided to ensure sufficient data would be obtained.

Maintenance and Calibration

- 3.6 The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- 3.7 The sound level meter and calibrator were checked and calibrated at yearly intervals.
- 3.8 Immediately prior to and following each noise measurement the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements were accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

Results and Observations

- 3.9 No Action Level exceedance was recorded as no documented complaint was received in the reporting month.
- 3.10 No Limit Level exceedances for construction noise monitoring were recorded in the reporting month.

3.11 Noise monitoring results and graphical presentations are shown in **Appendix H**.

3.12 The major noise sources identified at the noise monitoring stations are shown in **Table 3.4**.

Table 3.4 Other Noise Source Identified during Noise Monitoring

Monitoring Stations	Major Noise Source
NM1	Road Traffic at Po Wan Road & Sheung Shui Tung Hing Road
NM2	N/A
NM3	Road Traffic at Po Wan Road

3.13 All the Construction Noise Levels (CNLs) reported in this report were adjusted with the corresponding baseline level (i.e. Measured Leq – Baseline Leq = CNL), in order to facilitate the interpretation of the noise exceedance. The baseline noise level and the Noise Limit Level at each designated noise monitoring station are presented in **Table 3.5**.

Table 3.5 Baseline Noise Level and Noise Limit Level for Monitoring Stations

Monitoring Stations	Baseline Noise Level, dB (A) (at 0700 – 1900 hrs on normal weekdays)	Noise Limit Level, dB (A) (at 0700 – 1900 hrs on normal weekdays)
NM1	63.4	75
NM2	58.0	
NM3	63.4	

Comparison of EM&A Result with EIA Prediction

3.14 The noise monitoring data was compared with the predictions in EIA Report (as approved in 2013) as summarised in **Table 3.6**.

Table 3.6 Comparison of Noise Monitoring Data with Predictions in EIA Report (As Approved in 2013)

Monitoring Stations	NSR ID	Predicted Mitigated Construction Noise Levels in EIA Report (as Approved in 2013), dB(A)	Reporting Month (December 2024), Leq (30min) dB(A)
NM1 - Wai Loi Tsuen	N/A	N/A ⁽¹⁾	58.4 – 60.4
NM2 - Fu Tei Au	N/A	N/A ⁽¹⁾	56.1 – 57.8
NM3 – Man Kok Village	FN-18	66-75	50.1 – 63.1

Remarks:

(1) No construction noise level was predicted in EIA Report (As Approved in 2013).

3.15 The results at NM3 were lower than the range of the predicted mitigated construction noise levels in the EIA Report (As Approved in 2013). Construction noise levels at NM1 and NM2 were not predicted in the EIA Report (As Approved in 2013).

4 ECOLOGY

Monitoring Requirements

- 4.1 According to the Updated EM&A Manual, waterbird species which use rivers near the Project Site were identified and recorded. The monitoring requirement in the EM&A Manual is shown in **Table 4.1**. **Appendix A** shows the established Action/Limit Levels for ecological monitoring works.

Table 4.1 Monitoring of Measures to Minimise Disturbance to Waterbirds on Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

Phase	Methodology
Construction	Weekly transect at both high and low tides to identify and enumerate all bird species utilising the river channels and identify any sources of actual or potential disturbance to birds due to construction activities throughout the construction period.

- 4.2 The monitoring should be conducted by the ET and supervised by a qualified ecologist who will be a member of the ET.

Monitoring Locations

- 4.3 Transect and point count surveys were proposed within the 500m boundary of Ng Tung River, Sheung Yue River and Shek Sheung River of the assessment area. Three transects and seven-point count locations during high and low tides were applied. These locations are shown in **Figure 4** and summarized in **Table 4.2**. The photo of each transect is provided in **Appendix J**.

Table 4.2 Ecological Monitoring Stations

Monitoring Stations	Descriptions	Influenced by Tidal Action
Transect T1	Along Ng Tung River	No
Point Count Location P1		
Point Count Location P2		
Transect T2		Yes
Point Count Location P3		
Point Count Location P4		
Point Count Location P5	At Shek Sheung River (Low-flow Channel)	No
Transect T3	Along Shek Sheung River & Sheung Yue River	Yes
Point Count Location P6	At Shek Sheung River	Yes
Point Count Location P7	At Intersection between Sheung Yue River and Shek Sheung River	Yes

Monitoring Parameters, Frequency and Duration

- 4.4 Monitoring surveys were conducted on a weekly basis at both high and low tides (it is considered high tide when tidal levels are above 1.5m and low tide when tidal level are below 1.5m at Tsim Bei Tsui Station). The magnitude of how much above or below 1.5m was subject to tidal conditions of that week as it varied throughout different times of the year. Nonetheless, the high and low tide relative to that week's tidal condition were taken into consideration. The ecological monitoring schedule is shown in **Appendix B**.

Monitoring Methodology

- 4.5 Transect survey was undertaken along the concerned rivers (Ng Tung River, Sheung Yue River and Shek Sheung River) adjacent to proposed construction activities. As the sensitive receivers (large waterbirds) are easily visible and the surveyor has used auxiliary equipment such as camera(s) and binoculars (magnification 7-10x). The transect route only follows one bank of these rivers.
- 4.6 At point count locations, surveyors identified and recorded bird species which were seen or heard along the river channel. For each point count, surveyors quantitatively recorded all species seen and heard for the duration of five minutes up to the distance where birds were still detectable. All avifauna along the walk transect were recorded. Noticeable behaviours (e.g. breeding behaviours such as nesting and presence of recently fledged juveniles, roosting and feeding activities, etc.) were recorded as well.
- 4.7 Ornithological nomenclature used in report should follow *The Avifauna of Hong Kong* (Carey et al. (2001)), *The Birds of Hong Kong and South China* (Viney et al. (2005)) and the most recent updated list from other sources (e.g. Hong Kong Bird Watching Society).
- 4.8 Weather conditions, tidal information at the time of the survey and other noticeable activities occurring within or in the vicinity of the survey areas (e.g. ongoing routine drainage channel maintenance works and other human activities that could create disturbances to birds) were recorded.

Analytical Methodology

- 4.9 The number and species of waterbirds utilizing the rivers fluctuate every day naturally. Therefore, the survey data were collectively analysed on a monthly basis to increase the sample size and to reduce random error on one survey day. Since occurrence of waterbirds has distinctive seasonal pattern, the construction phase data for all waterbirds and representative waterbirds were compared with the baseline data for the respective month and season. The representatives of waterbirds are listed in **Table 4.3**.

Table 4.3 Representative Waterbirds

Species Name	Common Name	Chinese Name
<i>Egretta garzetta</i>	Little Egret	小白鷺
<i>Ardea cinerea</i>	Grey Heron	蒼鷺
<i>Ardeola bacchus</i>	Chinese Pond Heron	池鷺
<i>Phalacrocorax carbo</i>	Great Cormorant	普通鸕鶿
<i>Ardea alba</i>	Great Egret	大白鷺
<i>Bubulcus coromandus</i>	Eastern Cattle Egret	牛背鷺

- 4.10 When a decline in abundance of all or representative waterbird is identified, one-tailed Student t-test was adopted to statistically analyse whether the drop is significant. If the collected data for the reporting month fails to show no significant difference from that in the baseline phase at 95% confidence level, the action level will be triggered. Likewise, the limit level is set at 99% confidence level.
- 4.11 In addition, if important behaviours such as breeding, brooding, nesting and presence of recently fledged juveniles of species of conservation importance are observed, the Resident Engineer, Contractor and IEC should be notified immediately after the survey. The Contractor should review current construction programme and minimize disturbance due to construction activities.

Results

- 4.12 For this reporting month, the numbers of species and individuals recorded were provided in **Table 4.4**. The photo record of waterbirds can be found in **Appendix J**.

Table 4.4 Total Bird Species and Abundance in the Reporting Month

	Number of Species	Abundance
All Avifauna	52	889
Waterbirds	22	468

- 4.13 **Table 4.5** presents the abundance of representative species.

Table 4.5 Abundance of Representative Waterbirds in the Reporting Month

Species Name	Common Name	Chinese Name	Abundance
<i>Egretta garzetta</i>	Little Egret	小白鷺	45
<i>Ardea cinerea</i>	Grey Heron	蒼鷺	51
<i>Ardeola bacchus</i>	Chinese Pond Heron	池鷺	24
<i>Phalacrocorax carbo</i>	Great Cormorant	普通鸕鶿	30
<i>Ardea alba</i>	Great Egret	大白鷺	15
<i>Bubulcus coromandus</i>	Eastern Cattle Egret	牛背鷺	44

Analysis

- 4.14 The result of student t-tests for all waterbirds and representative waterbirds are compiled in **Table 4.6** and **4.7** respectively. Further details are provided in **Appendix I**.

Table 4.6 T-test Result for All Waterbirds in the Reporting Month

T-values of Data in Reporting Month			Confidence Level (Critical Value)	
			95% (-2.353)	99% (-4.541)
Abundance	Monthly	3.597	✓	✓
	Seasonal	4.320	✓	✓

Remarks

✓ = T-value falls within the confidence level, the impact monitoring data shows no significant difference to the baseline data.

✗ = T-value falls outside the confidence level, the impact monitoring data shows significant difference to the baseline data.

Table 4.7 T-test Result for Representative Waterbirds in the Reporting Month

Common Name of Representative Waterbird	T-value	Confidence Level (Critical Value)		T-value	Confidence Level (Critical Value)		Overall
	Monthly	95% (-2.353)	99% (-4.541)	Seasonal	95% (-2.353)	99% (-4.541)	
Little Egret	-0.914	✓	✓	-1.617	✓	✓	✓
Grey Heron	-3.533	✗	✓	-0.282	✓	✓	✓
Chinese Pond Heron	-1.388	✓	✓	-1.583	✓	✓	✓
Great Cormorant	-4.323	✗	✓	0.357	✓	✓	✓
Great Egret	-3.025	✗	✓	-1.824	✓	✓	✓
Eastern Cattle Egret	1.516	✓	✓	2.155	✓	✓	✓

Remarks

✓ = T-value falls within the confidence level, the impact monitoring data shows no significant difference to the baseline data.

✗ = T-value falls outside the confidence level, the impact monitoring data shows significant difference to the baseline data.

* Great Cormorant (*Phalacrocorax carbo*) and Grey Heron (*Ardea cinerea*) were not recognised as representative waterbird species during Summer.

- 4.15 No Action Level and Limit Level was triggered for ecological monitoring in the reporting month.
- 4.16 The monitoring work will continue next month to evaluate any construction impact on waterbirds.

Observations

- 4.17 Waterbird behaviour observed during ecological monitoring are listed below:

- Flying
- Foraging
- Soaring
- Resting
- Fighting

4.18 The anthropogenic activities observed during ecological monitoring are listed in **Table 4.8**.

Table 4.8 Observations during Ecological Monitoring in the Reporting Month

Location	Observations	
	Project Related	Non-project Related
T1 (PC1, PC2)	Construction activity: Manlift	Construction activities: Lorry with Grabber Human activities: Playing motorboat, grazing, jay walking, fishing
T2 (PC3, PC4)	n/a	Construction activities: Excavation, craning, sheet-piling Human activities: Fishing, grazing, jaywalking
PC5	n/a	Construction activities: Lorry with Grabber
T3 (PC6, PC7)	Construction activity: Craning	Construction activities: Sheet-piling, craning, excavation Human activities: Fishing, jaywalking, grazing

5 WATER QUALITY

Monitoring Requirement

- 5.1 According to the Updated EM&A Manual, the water quality monitoring has been suspended since June 2023 due to the completion of outfall construction at Ng Tung River, and the relevant approval was obtained from EPD in May 2023.
- 5.2 Site audits were carried out on a weekly basis to monitor and audit the timely implementation of water quality mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix K**.

6 WASTE MANAGEMENT

Monitoring Requirement

- 6.1 According to the Updated EM&A Manual, waste management would be the contractor's responsibility to ensure that all wastes produced during the construction works for the Project are handled, stored and disposed of in accordance with good waste management practices, EPD's regulations and requirements. No monitoring for waste management is required for the Project. An environmental management plan (EMP) should be prepared and submitted to the Supervisor for approval. The monitoring and auditing requirements of the EMP should be followed with regard to the management of C&D material.

Waste Management Status

- 6.2 Site audits were carried out on a weekly basis to monitor and audit to ensure that proper storage, transportation and disposal practices of waste materials generated during construction activities, such as construction and demolition (C&D) materials and general refuse are being implemented. The summaries of site audits are attached in **Appendix K**.
- 6.3 The amount of wastes generated by the major site activities of this Project during the reporting month is shown in **Appendix L**. The quantities of waste for disposal in the Reporting Period are summarized in **Table 6.1** to **6.4**.

Table 6.1 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/06

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2024)
Hard Rock and Large Broken Concrete (Inert) (in '000m ³)	0.000	0.000	0.000
Reused in this Contract (Inert) (in '000m ³)	0.000	0.000	0.000

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2024)
Reused in other Projects (Inert)(in '000m ³)	0.000	0.000	0.000
Disposal as Public Fill (Inert) (in '000m ³)	0.084	0.035	0.635
Metals (in '000kg)	0.000	0.0004	0.003
Paper / Cardboard Packing (in '000kg)	0.000	0.000	0.000
Plastics (in '000kg)	0.000	0.0004	0.030
Chemical Wastes (in '000kg)	0.000	0.000	0.000
General Refuses (in '000m ³)	0.018	0.016	0.322

Table 6.2 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DC/2018/07

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2024)
Hard Rock and Large Broken Concrete (Inert) (in '000m ³)	0.000	0.000	0.000
Reused in this Contract (Inert) (in '000m ³)	0.000	0.000	0.000
Reused in other Projects (Inert)(in '000m ³)	0.000	0.000	0.581
Disposal as Public Fill (Inert) (in '000m ³)	0.582	0.885	10.784
Metals (in '000kg)	0.000	0.000	0.000
Paper / Cardboard Packing (in '000kg)	0.000	0.000	0.000
Plastics (in '000kg)	0.000	0.001	0.031

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2024)
Chemical Wastes (in '000kg)	0.000	0.000	0.000
General Refuses (in '000m ³)	0.057	0.118	1.579

Table 6.3 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/03

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2024)
Hard Rock and Large Broken Concrete (Inert) (in '000m ³)	0.000	0.000	0.000
Reused in this Contract (Inert) (in '000m³)	0.000	0.000	0.000
Reused in other Projects (Inert)(in '000m³)	0.000	0.000	0.000
Disposal as Public Fill (Inert) (in '000kg)	24.62	6.000	41.84
Metals (in '000kg)	0.000	0.000	24.285
Paper / Cardboard Packing (in '000kg)	0.218	0.089	1.372
Plastics (in '000kg)	0.008	0.008	0.058
Chemical Wastes (in '000kg)	0.000	0.000	0.000
General Refuses (in '000kg)	39.02	22.56	342.18

Table 6.4 Summary of Quantities of Inert C&D Materials and C&D Wastes for Contract No. DE/2018/04

Waste Type	Quantity (Previous month)	Quantity (Reporting month)	Annual Cumulative Quantity (2024)
Hard Rock and Large Broken Concrete (Inert) (in '000kg)	0.000	0.000	0.000
Reused in this Contract (Inert) (in '000kg)	0.000	0.000	0.000
Reused in other Projects (Inert)(in '000kg)	0.000	0.000	0.000
Disposal as Public Fill (Inert) (in '000kg)	0.000	18.78	58.65
Metals (in '000kg)	0.000	0.000	0.000
Paper / Cardboard Packing (in '000kg)	0.105	0.000	0.105
Plastics (in '000kg)	0.000	0.000	0.000
Chemical Wastes (in '000kg)	0.000	0.000	0.000
General Refuses (in '000kg)	3.49	3.66	42.38

7 LANDSCAPE AND VISUAL

Audit Requirement

- 7.1 According to the Updated EM&A Manual, site audits would be undertaken during the construction phase of the Project to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives. Particularly audits would be carried out during site clearance when proposed tree felling and transplantation may occur. Site inspections would be undertaken at least once every two weeks during the construction period.
- 7.2 Site audits were carried out on a bi-weekly basis to monitor and audit the timely implementation of landscape and visual mitigation measures within the site boundaries of this Project. The summaries of site audits are attached in **Appendix K**.

8 ENVIRONMENTAL AUDIT

Site Audits

- 8.1 Site audits were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix K**.
- 8.2 Site audits for Contract No. DC/2018/06 and DC/2018/07 were conducted on **05, 12, 17 & 24 December 2024** in the reporting month, whereas that for Contract No. DE/2018/03 and DE/2018/04 were conducted on **05, 10, 17, 24 & 31 December 2024** in the reporting month. Biweekly landscape inspections were carried out on **05 & 17 December 2024**. Joint site inspection with the representative of IEC was conducted on **17 December 2024**. No non-compliance was observed during the site audit.

Implementation Status of Environmental Mitigation Measures

- 8.3 According to Environmental Permits, the approved EIA Report (Register No.: AEIAR-175/2013), and the Updated EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix N**.
- 8.4 The ET weekly site inspections were carried out during the reporting month and the observations and recommendations are summarized in **Tables 8.1 - 8.4**. Refer to **Appendix K** for the site inspection summary reports in the reporting month.

Table 8.1 Observations and Recommendations of Site Audit of Contract No. DC/2018/06

Parameters	Date	Observations and Recommendations	Closed Out Date	Follow-up
Water Quality	N/A	There was no observation in the reporting period.	N/A	N/A
Air Quality	05 December 2024	The dust material of the stockpile should be covered properly.	17 December 2024	The dust material was covered by impervious material.
Noise	N/A	There was no observation in the reporting period.	N/A	N/A
Waste / Chemical Management	17 December 2024	General refuse near the river should be removed.	24 December 2024	General refuse near the river was removed
	24 December 2024	General refuse should be disposed of regularly and properly.	24 December 2024	General refuse was cleaned immediately.
Ecology	N/A	There was no observation in the reporting period.	N/A	N/A

Parameters	Date	Observations and Recommendations	Closed Out Date	Follow-up
<i>Visual and Landscape</i>	N/A	There was no observation in the reporting period.	N/A	N/A
<i>Permits /Licences</i>	N/A	There was no observation in the reporting period.	N/A	N/A

Table 8.2 Observations and Recommendations of Site Audit of Contract No. DC/2018/07

Parameters	Date	Observations and Recommendations	Closed Out Date	Follow-up
<i>Water Quality</i>	N/A	There was no observation in the reporting period.	N/A	N/A
<i>Air Quality</i>	05 December 2024	Water spraying should be provided to haul road	12 December 2024	Water spraying was provided to haul road.
<i>Noise</i>	N/A	There was no observation in the reporting period.	N/A	N/A
<i>Waste / Chemical Management</i>	05 December 2024	General refuse should be disposed of regular and properly.	12 December 2024	General refuse was removed.
	17 December 2024	Used cement bag should be removed or disposed properly.	24 December 2024	Used cement bag was removed.
<i>Ecology</i>	N/A	There was no observation in the reporting period.	N/A	N/A
<i>Visual and Landscape</i>	N/A	There was no observation in the reporting period.	N/A	N/A
<i>Permits /Licences</i>	N/A	There was no observation in the reporting period.	N/A	N/A

Table 8.3 Observations and Recommendations of Site Audit of Contract No. DE/2018/03

Parameters	Date	Observations and Recommendations	Closed Out Date	Follow-up
<i>Water Quality</i>	N/A	There was no observation in the reporting period.	N/A	N/A
<i>Air Quality</i>	N/A	There was no observation in the reporting period.	N/A	N/A
<i>Noise</i>	N/A	There was no observation in the reporting period.	N/A	N/A

Parameters	Date	Observations and Recommendations	Closed Out Date	Follow-up
Waste / Chemical Management	N/A	There was no observation in the reporting period.	N/A	N/A
Ecology	N/A	There was no observation in the reporting period.	N/A	N/A
Visual and Landscape	N/A	There was no observation in the reporting period.	N/A	N/A
Permits /Licences	N/A	There was no observation in the reporting period.	N/A	N/A

Table 8.4 Observations and Recommendations of Site Audit of Contract No. DE/2018/04

Parameters	Date	Observations and Recommendations	Closed Out Date	Follow-up
Water Quality	N/A	There was no observation in the reporting period.	N/A	N/A
Air Quality	N/A	There was no observation in the reporting period.	N/A	N/A
Noise	N/A	There was no observation in the reporting period.	N/A	N/A
Waste / Chemical Management	N/A	There was no observation in the reporting period.	N/A	N/A
Ecology and Fisheries	N/A	There was no observation in the reporting period.	N/A	N/A
Visual and Landscape	N/A	There was no observation in the reporting period.	N/A	N/A
Permits /Licences	N/A	There was no observation in the reporting period.	N/A	N/A

Implementation Status of Event and Action Plans

8.5 The Event and Action Plans for air quality, construction noise, ecological monitoring and landscape and visual are presented in **Appendix M**.

Air Quality Monitoring

- No Action/Limit Level exceedance for 1-hour TSP was recorded.
- No Action/Limit Level exceedance for 24-hour TSP was recorded.

Construction Noise Monitoring

- No Action Level exceedance was recorded as no documented complaint was received in the reporting month.
- No Limit Level exceedances for construction noise monitoring were recorded in the reporting month

Ecological Monitoring

- No Action and Limit Level was triggered.

Landscape and Visual Monitoring

- No non-conformity for landscape and visual was recorded.

9 ENVIRONMENTAL NON-CONFORMANCE

Summary of Complaint, Warning, Notification of any Summons and Successful Prosecution

- 9.1 No environmental complaint, warning, notifications of summons and successful prosecutions were received in the reporting month.
- 9.2 The summary of environmental complaint, warning, summon and notification of successful prosecution for the Project is presented in **Appendix O**.

Summary of Exceedance

- 9.3 The summary of exceedance record in reporting month is shown in **Appendix P**.

10 FUTURE KEY ISSUES

10.1 Tentative construction programmes for the next three months are provided in **Appendix Q**.

10.2 Major site activities undertaken for the coming months are summarized in **Table 10.1**.

Table 10.1 Summary Table for Site Activities in the Next Reporting Period

Contract No.	Contract Title	Site Activities
DC/2018/06	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sludge Treatment Facilities and 132kV Primary Substation	• RC works • Pipe jacking • Sewage, utility and pipe works • Road works • ABWF works • ELS
DC/2018/07	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Civil Works for Sewage Treatment Facilities	• RC works • Pipe laying
DE/2018/03	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities	• Installation of E&M Plant Equipment & Accessories (Side stream) • E&M Installation & Accessories works at SDB • Plumbing System Installation at SDB • Installation of E&M Plant Equipment & Accessories at CHP • Bio-gas Holding Tank Installation at BGHT
DE/2018/04	Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities	• E&M works for Leachate Pre-treatment Plant at existing compressor house. • E&M works at Inlet Works, PST No. 1-4, BR 2A & 2B, MFB2, DOU No.3A, Emergency Generator House and FS & Sprinkler Pumping Room, Chemical System No.1, Street Fire Hydrant & Booster Pump Room and Temporary Chemical System.

10.3 Key environmental issues in the coming months include:

- Stockpile accumulation on-site;
- Water spraying for dust generating activities and on haul road;
- Wastewater and runoff discharge from site;
- Coverage of open manholes to avoid dirty runoff to drainage system;
- Noise from operation of the equipment, especially for excavation works and machinery onsite;
- Accumulation of general refuse and construction waste on-site;
- Proper storage of construction materials on-site; and
- Storage of chemicals/fuel and chemical waste/waste oil on-site.

Monitoring Schedule

10.4 The tentative environmental monitoring schedule for the next month is shown in **Appendix B**.

11 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 11.1 This is the 4th Monthly EM&A Report which presents the EM&A works undertaken during the reporting month in accordance with the Updated EM&A Manual and the requirement under EP.

Air Quality Monitoring

- 11.2 No Action/Limit Level exceedance was recorded for all 1-hour and 24-hour TSP monitoring in the reporting month.

Construction Noise Monitoring

- 11.3 No Action/Limit Level exceedance was recorded for all noise monitoring in the reporting month.

Ecology

- 11.4 No Action and Limit Level exceedance was triggered for all ecological monitoring in the reporting month.

Site Audit

- 11.5 5 ET joint weekly environmental site inspections were conducted in the reporting month.

Complaint, Notification of Summons and Successful Prosecution

- 11.6 No environmental complaint was received in the reporting month.
- 11.7 No notifications of summons and successful prosecutions were received in the reporting month.

Recommendations

- 11.8 According to the environmental audit performed in the reporting month, the following recommendations were made:

Air Quality

- The excavated or stockpile of dusty materials should be covered by impervious materials or maintained wet.
- Regular water spraying on haul road and dry surfaces should be applied to minimize dust generation.
- Perform breaking works only when water spraying is provided.
- Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty materials from its body and wheels.

Water Quality

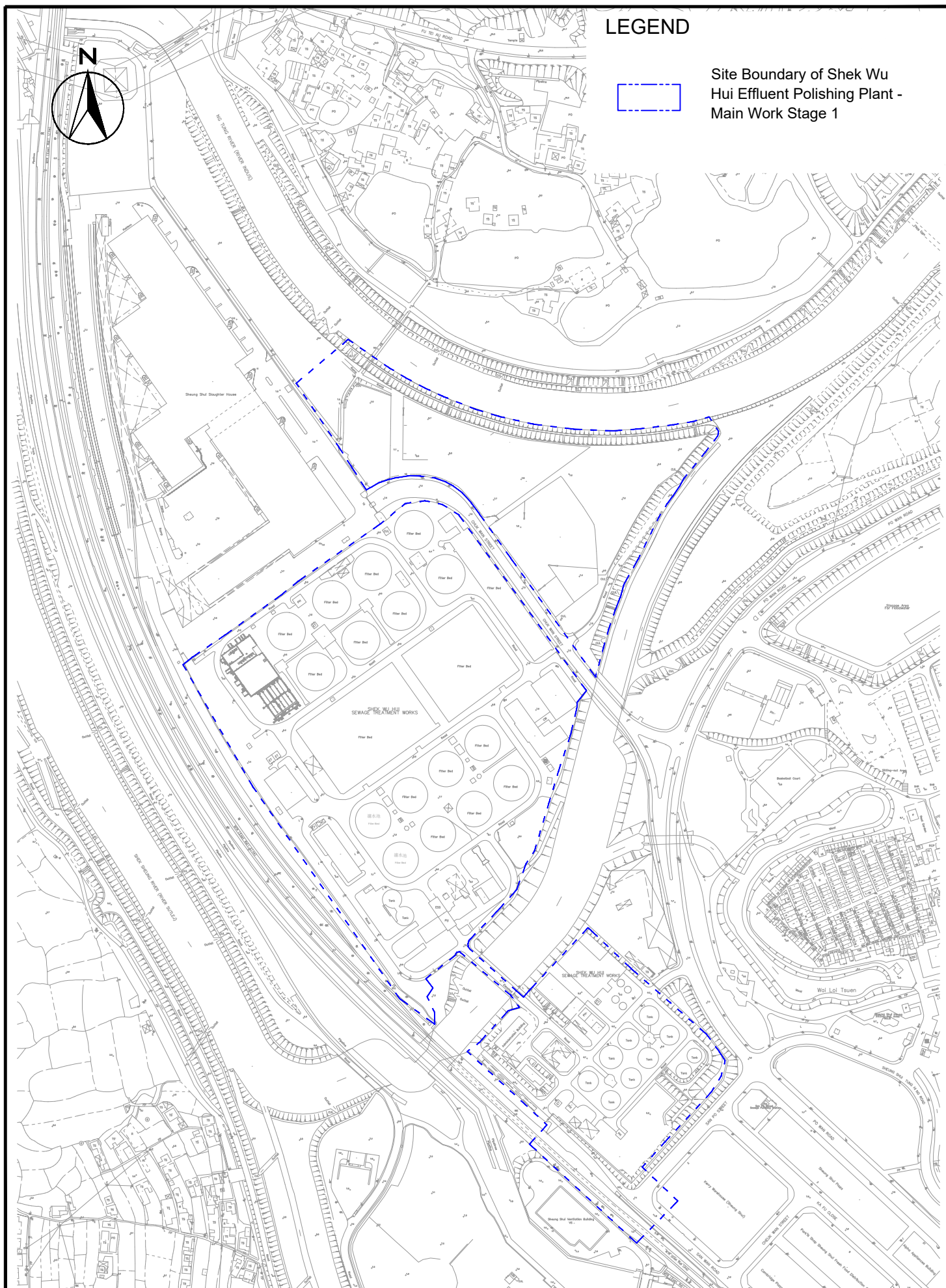
- Stagnant water on the impervious sheets was removed.
- Bunds for flood protection should be provided to surround area of earthwork.

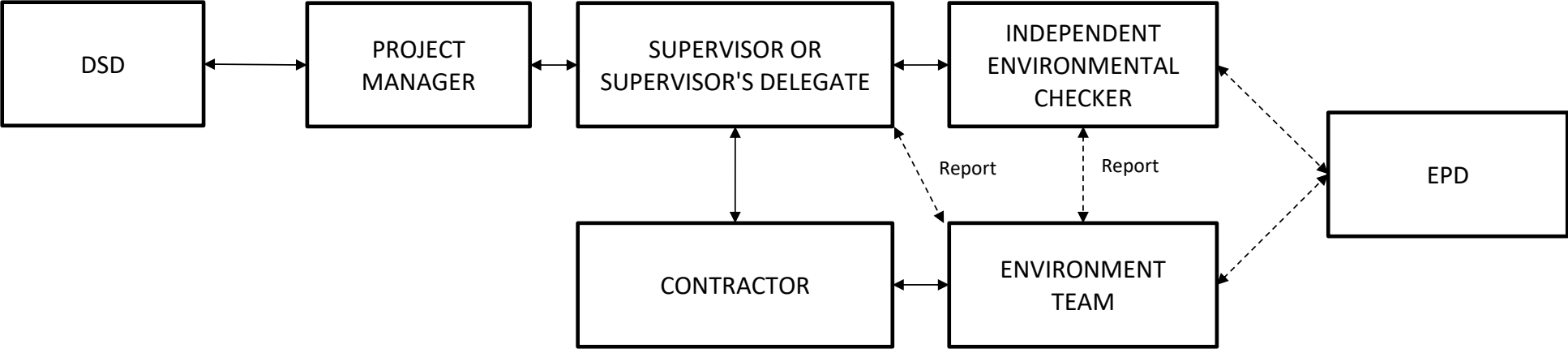
Waste Management

- Accumulation of general refuse should be avoided.

- Drip tray with adequate capacity and well maintained should be provided for chemicals or oil container.
- Unused waste and materials were removed to maintain the tidiness of the site.

FIGURES

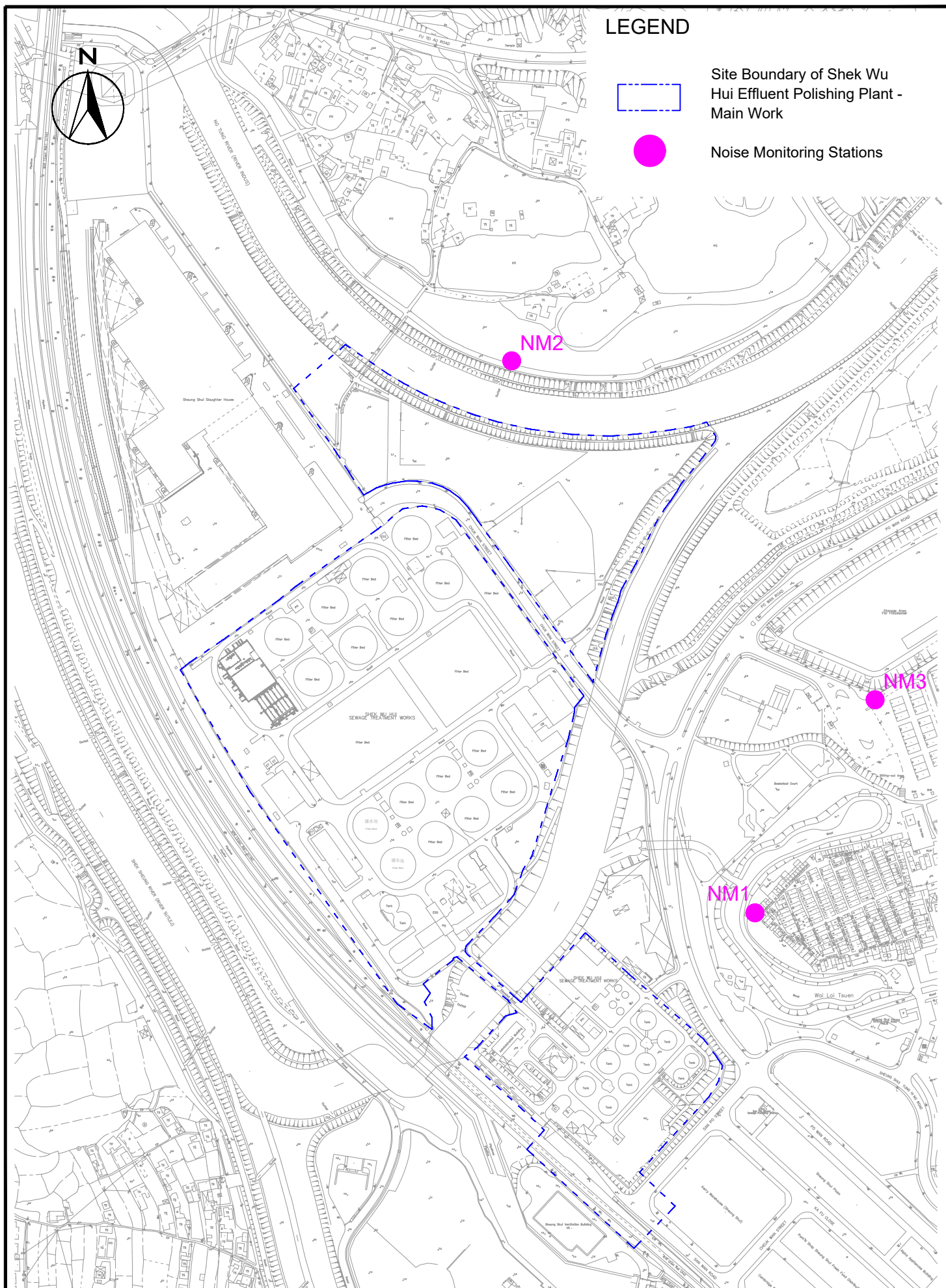




CINOTECH

Contract No. SPW 08/2024
Shek Wu Hui Effluent Polishing Plant- Main Works
Project Organisation For Environmental Monitoring and Audit

SCALE	N.T.S.	DATE	Aug 2024
CHECK	WY	DRAWN	CF
JOB NO.	MA24087	FIGURE NO.	1.2



LEGEND



Site Boundary of Shek Wu
Hui Effluent Polishing Plant -
Main Work

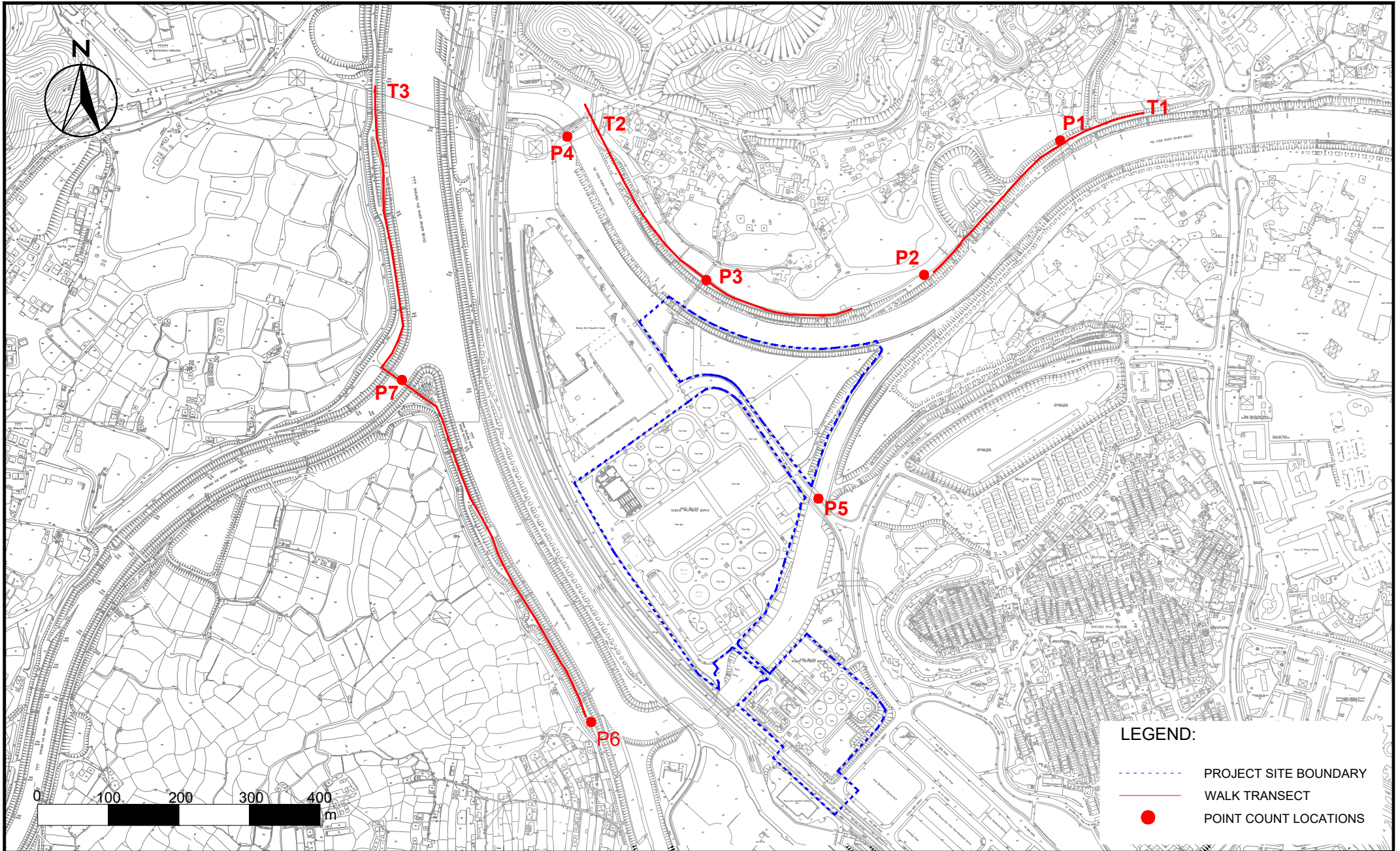


Noise Monitoring Stations

NM2

NM3

NM1



APPENDIX A
ACTION AND LIMIT LEVELS

Appendix A - Action and Limit Levels

Table A-1 Action and Limit Levels for 1-hour TSP

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM1	320	500
AM2	322	

Table A-2 Action and Limit Levels for 24-hour TSP

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM1a*	189	260
AM2a	187	

Table A-3 Action and Limit Levels for Noise during Construction Period

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

*Remarks:

- If works are to be carried out during restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) used by the Noise Control Authority have to be followed.
- Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

Table A-4 Action and Limit Levels of Disturbance to Waterbirds using Ng Tung, Sheung Yue and Shek Sheung Rivers during Construction Phase

Action Level	Limit Level
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Decline in numbers of all waterbird species relative to numbers during baseline monitoring such that the limit level response is triggered.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.

Note: Whether numbers are significant depend on species and season after collection and evaluation of baseline survey data.

**APPENDIX B
ENVIRONMENTAL MONITORING
SCHEDULES**

Contract No. SPW 08/2024
ET For Shek Wu Hui Hui Effluent Polishing Plant - Main Works
Impact Air and Noise Monitoring Schedule for Dec 2024

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	6-Dec	7-Dec
		24-hr TSP [AM1a* & AM2a]	1-hr TSP x 3 [AM1 & AM2] Noise [NM1, NM2 & NM3]	Ecology		
8-Dec	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec	14-Dec
	24-hr TSP [AM1a* & AM2a]	1-hr TSP x 3 [AM1 & AM2] Noise [NM1, NM2 & NM3]		Ecology		24-hr TSP [AM1a* & AM2a]
15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec	21-Dec
	1-hr TSP x 3 [AM1 & AM2] Noise [NM1, NM2 & NM3]			24-hr TSP [AM1a* & AM2a]	1-hr TSP x 3 [AM1 & AM2]	Ecology
22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec	28-Dec
	24-hr TSP [AM1a* & AM2a]	1-hr TSP x 3 [AM1 & AM2] Ecology Noise [NM1, NM2 & NM3]				24-hr TSP [AM1a* & AM2a]
29-Dec	30-Dec	31-Dec				
	1-hr TSP x 3 [AM1 & AM2] Noise [NM1, NM2 & NM3]					

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Air Quality Monitoring Station

1-hour TSP Monitoring

AM1 House No. 15, Wai Loi Tsuen
AM2 Fu Tei Au

24-hour TSP Monitoring

AM1a* Site boundary of the Shek Wu Hui STW (East), Roof floor of the control room of SWHSTW
AM2a Site boundary of the Shek Wu Hui STW (North)

Noise Monitoring Station

NM1 Wai Loi Tsuen
NM2 Fu Tei Au
NM3 Man Kok Village

Contract No. SPW 08/2024
ET For Shek Wu Hui Effluent Polishing Plant - Main Works
Tentative Impact Air and Noise Monitoring Schedule for Jan 2025

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Jan	2-Jan	3-Jan	4-Jan
				Ecology	24-hr TSP [AM1a* & AM2a]	1-hr TSP x 3 [AM1 & AM2]
5-Jan	6-Jan	7-Jan	8-Jan	9-Jan	10-Jan	11-Jan
		Ecology		24-hr TSP [AM1a* & AM2a]	1-hr TSP x 3 [AM1 & AM2] Noise [NM1, NM2 & NM3]	
12-Jan	13-Jan	14-Jan	15-Jan	16-Jan	17-Jan	18-Jan
			Ecology 24-hr TSP [AM1a* & AM2a]	1-hr TSP x 3 [AM1 & AM2] Noise [NM1, NM2 & NM3]		
19-Jan	20-Jan	21-Jan	22-Jan	23-Jan	24-Jan	25-Jan
		24-hr TSP [AM1a* & AM2a]	1-hr TSP x 3 [AM1 & AM2] Ecology Noise [NM1, NM2 & NM3]			
26-Jan	27-Jan	28-Jan	29-Jan	30-Jan	31-Jan	
	24-hr TSP [AM1a* & AM2a]	1-hr TSP x 3 [AM1 & AM2] Ecology Noise [NM1, NM2 & NM3]				

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Air Quality Monitoring Station

1-hour TSP Monitoring

AM1 House No. 15, Wai Loi Tsuen
AM2 Fu Tei Au

24-hour TSP Monitoring

AM1a* Site boundary of the Shek Wu Hui STW (East), Roof floor of the control room of SWHSTW
AM2a Site boundary of the Shek Wu Hui STW (North)

Noise Monitoring Station

NM1 Wai Loi Tsuen
NM2 Fu Tei Au
NM3 Man Kok Village

**APPENDIX C
COPIES OF CALIBRATION
CERTIFICATES FOR AIR QUALITY
MONITORING**

Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description:	<u>Digital Dust Indicator</u>	Date of Calibration	<u>30-Nov-24</u>
Manufacturer:	<u>Sibata Scientific Technology LTD.</u>	Validity of Calibration Record	<u>30-Jan-25</u>
Model No.:	<u>LD-5R</u>		
Serial No.:	<u>972780</u>		
Equipment No.:	<u>SA-01-09</u>	Sensitivity	<u>0.001 mg/m3</u>
High Volume Sampler No.:	<u>A-01-03</u>	Before Sensitivity Adjustment	<u>739 CPM</u>
Tisch Calibration Orifice No.:	<u>3864</u>	After Sensitivity Adjustment	<u>739 CPM</u>

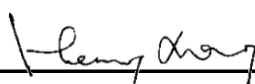
Calibration of 1 hr TSP		
Calibration Point	Laser Dust Monitor	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	74.0	138.0
2	64.0	118.0
3	54.0	100.0
Average	64.0	118.7
By Linear Regression of Y on X Slope , mw = <u>1.9000</u> Intercept, bw = <u>-2.9333</u> Correlation coefficient* = <u>0.9995</u>		
Set Correlation Factor		
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)		118.7
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)		64.0
Measureing time, (min)		60.0
Set Correlation Factor , SCF SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] <u>1.9</u>		

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Litimed)

Calibrated by: 
 Technical Officer (Wong Shing Kwai)

Approved by: 
 Project Manager (Henry Leung)

Certificate of Calibration

It is certified that the item under calibration has been calibrated by corresponding calibrated High Volume Sampler

Description: Digital Dust Indicator Date of Calibration 30-Nov-24
 Manufacturer: Sibata Scientific Technology LTD. Validity of Calibration Record 30-Jan-25
 Model No.: LD-5R
 Serial No.: 972781
 Equipment No.: SA-01-10 Sensitivity 0.001 mg/m3
 High Volume Sampler No.: A-01-03 Before Sensitivity Adjustment 734 CPM
 Tisch Calibration Orifice No.: 3864 After Sensitivity Adjustment 734 CPM

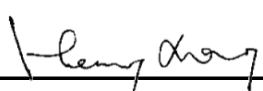
Calibration of 1 hr TSP		
Calibration Point	Laser Dust Monitor	HVS
	Mass Concentration ($\mu\text{g}/\text{m}^3$) X-axis	Mass concentration ($\mu\text{g}/\text{m}^3$) Y-axis
1	78.0	134.0
2	68.0	115.0
3	60.0	101.0
Average	68.7	116.7
By Linear Regression of Y on X Slope, mw = <u>1.8361</u> Intercept, bw = <u>-9.4098</u> Correlation coefficient* = <u>0.9997</u>		
Set Correlation Factor		
Particulate Concentration by High Volume Sampler ($\mu\text{g}/\text{m}^3$)		116.7
Particulate Concentration by Dust Meter ($\mu\text{g}/\text{m}^3$)		68.7
Measuring time, (min)		60.0
Set Correlation Factor, SCF SCF = [K=High Volume Sampler / Dust Meter, ($\mu\text{g}/\text{m}^3$)] <u>1.7</u>		

In-house method in according to the instruction manual:

The Dust Monitor was compared with a calibrated High Volume Sampler and The result was used to generate the Correlation Factor (CF) between the Dust Monitor and High Volume Sampler.

Those filter papers are weighted by HOKLAS laboratory (HPCT Limited)

Calibrated by: 
 Technical Officer (Wong Shing Kwai)

Approved by: 
 Project Manager (Henry Leung)

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET



File No. 2

Project No. AM1a* - Site boundary of the Shek Wu Hui STW (East), Roof floor of the control room of SWHSTW

Date: 9-Nov-24 Next Due Date: 9-Jan-25 Operator: SK

Equipment No.: A-01-54 Model No.: GS2310 Serial No. 1536

Ambient Condition			
Temperature, Ta (K)	<u>298.2</u>	Pressure, Pa (mmHg)	<u>760.1</u>

Orifice Transfer Standard Information					
Serial No.	<u>3864</u>	Slope, mc	<u>0.05976</u>	Intercept, bc	<u>-0.05018</u>
Last Calibration Date:	<u>15-Jan-24</u>	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	<u>14-Jan-25</u>	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	<u>13.2</u>	<u>3.63</u>	<u>61.62</u>	<u>7.4</u>	<u>2.72</u>
2	<u>10.0</u>	<u>3.16</u>	<u>53.74</u>	<u>6.4</u>	<u>2.53</u>
3	<u>7.4</u>	<u>2.72</u>	<u>46.35</u>	<u>5.6</u>	<u>2.37</u>
4	<u>4.4</u>	<u>2.10</u>	<u>35.93</u>	<u>4.4</u>	<u>2.10</u>
5	<u>2.8</u>	<u>1.67</u>	<u>28.83</u>	<u>3.8</u>	<u>1.95</u>

By Linear Regression of Y on X

Slope, mw = 0.0237 Intercept, bw : 1.2585

Correlation coefficient* = 0.9996

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation	
From the TSP Field Calibration Curve, take Qstd = 43 CFM	
From the Regression Equation, the "Y" value according to	
$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$	
Therefore, Set Point; W = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ <u>5.19</u>	

Remarks: _____

Conducted by: Wong Shing Kwai Signature: [Signature] Date: 9-Nov-24

Checked by: Henry Leung Signature: [Signature] Date: 9-Nov-24

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET



File No. 2

Project No. AM2a - Site boundary of the Shek Wu Hui STW (North)

Date: 9-Nov-24 Next Due Date: 9-Jan-25 Operator: SK

Equipment No.: A-01-06 Model No.: GS2310 Serial No. 8440

Ambient Condition			
Temperature, Ta (K)	<u>298.2</u>	Pressure, Pa (mmHg)	<u>761</u>

Orifice Transfer Standard Information					
Serial No.	<u>3864</u>	Slope, mc	<u>0.05976</u>	Intercept, bc	<u>-0.05018</u>
Last Calibration Date:	<u>15-Jan-24</u>	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	<u>14-Jan-25</u>	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of water	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	<u>14.5</u>	<u>3.81</u>	<u>64.58</u>	<u>9.7</u>	<u>3.12</u>
2	<u>11.3</u>	<u>3.36</u>	<u>57.11</u>	<u>7.7</u>	<u>2.78</u>
3	<u>8.6</u>	<u>2.93</u>	<u>49.93</u>	<u>6.5</u>	<u>2.55</u>
4	<u>5.0</u>	<u>2.24</u>	<u>38.27</u>	<u>4.3</u>	<u>2.07</u>
5	<u>3.0</u>	<u>1.73</u>	<u>29.83</u>	<u>3.0</u>	<u>1.73</u>

By Linear Regression of Y on X

Slope, mw = 0.0393 Intercept, bw : 0.5666

Correlation coefficient* = 0.9992

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation	
From the TSP Field Calibration Curve, take Qstd = 43 CFM	
From the Regression Equation, the "Y" value according to	
$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$	
Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ <u>5.08</u>	

Remarks: _____

Conducted by: Wong Shing Kwai Signature: [Signature] Date: 9-Nov-24

Checked by: Henry Leung Signature: [Signature] Date: 9-Nov-24

Certificate of Calibration - Wind Monitoring Station

Description: AM1a* - Site boundary of the Shek Wu Hui STW (East), Roof floor of the control room of SWHSTW
 Manufacturer: Global Water
 Model No.: WE800
 Serial No.: 1517001963
 Equipment No.: SA-03-01
 Date of Calibration: 9-Sep-2024
 Next Due Date: 9-Mar-2025

1. Performance check of Wind Speed

Wind Speed, m/s		Difference D (m/s)
Wind Speed Reading (V1)	Anemometer Value (V2)	$D = V1 - V2$
0.0	0.0	0.0
1.5	1.6	-0.1
2.5	2.6	-0.1
4.0	4.1	-0.1

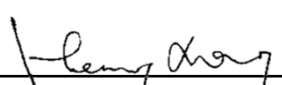
2. Performance check of Wind Direction

Wind Direction (°)		Difference D (°)
Wind Direction Reading (W1)	Marine Compass Value (W2)	$D = W1 - W2$
0	0	0.0
90	90	0.0
180	180	0.0
270	270	0.0

Test Specification:

1. Performance Wind Speed Test - The wind meter was on-site calibrated against the anemometer
2. Performance Wind Direction Test - The wind meter was on-site calibrated against the marine compass at four direction

Calibrated by: 
 Wong Shing Kwai

Approved by: 
 Henry Leung

Certificate of Calibration

Calibration Certification Information

Cal. Date: January 15, 2024 Rootsmeter S/N: 438320 Ta: 294 °K
Operator: Jim Tisch Pa: 755.4 mm Hg
Calibration Model #: TE-5025A Calibrator S/N: **3864**

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4380	3.3	2.00
2	3	4	1	1.0270	6.4	4.00
3	5	6	1	0.9180	8.0	5.00
4	7	8	1	0.8750	8.9	5.50
5	9	10	1	0.7230	12.9	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)}$ (y-axis)
1.0031	0.6975	1.4195	0.9956	0.6924	0.8823
0.9989	0.9727	2.0075	0.9915	0.9655	1.2477
0.9968	1.0858	2.2444	0.9894	1.0778	1.3950
0.9956	1.1378	2.3539	0.9882	1.1294	1.4631
0.9903	1.3697	2.8390	0.9829	1.3595	1.7645
QSTD	m=	2.11196	QA	m=	1.32248
	b=	-0.05043		b=	-0.03134
	r=	0.99998		r=	0.99998

Calculations

Vstd=	$\Delta Vol((Pa-\Delta P)/Pstd)(Tstd/Ta)$	Va=	$\Delta Vol((Pa-\Delta P)/Pa)$
Qstd=	$Vstd/\Delta Time$	Qa=	$Va/\Delta Time$
For subsequent flow rate calculations:			
Qstd=	$1/m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$	Qa=	$1/m \left(\left(\sqrt{\Delta H \left(\frac{Ta}{Pa} \right)} \right) - b \right)$

Standard Conditions

Tstd: 298.15 °K

Pstd: 760 mm Hg

Key

ΔH: calibrator manometer reading (in H2O)

ΔP: rootsmeter manometer reading (mm Hg)

Ta: actual absolute temperature (°K)

Pa: actual barometric pressure (mm Hg)

b: intercept

m: slope

RECALIBRATION

US EPA recommends annual recalibration per 1998 40 Code of Federal Regulations Part 50 to 51, Appendix B to Part 50, Reference Method for the Determination of Suspended Particulate Matter in the Atmosphere, 9.2.17, page 30

APPENDIX D
WEATHER INFORMATION

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

General Information from Hong Kong Observatory

Dec-24

Date	Mean Air Temperature (°C)	Mean Relative Humidity (%)	Precipitation (mm)
1-Dec-24	19.7	69	0.0
2-Dec-24	21.0	68	0.0
3-Dec-24	21.9	74	0.0
4-Dec-24	22.2	73	0.0
5-Dec-24	21.7	76	0.0
6-Dec-24	21.4	71	0.0
7-Dec-24	20.7	66	0.0
8-Dec-24	18.3	65	0.0
9-Dec-24	18.7	70	0.0
10-Dec-24	20.6	73	0.0
11-Dec-24	22.3	72	0.0
12-Dec-24	19.5	65	0.0
13-Dec-24	18.5	59	0.0
14-Dec-24	15.5	49	0.0
15-Dec-24	14.8	40	Trace
16-Dec-24	16.3	44	0.0
17-Dec-24	17.9	58	0.0
18-Dec-24	18.6	45	0.0
19-Dec-24	15.6	40	0.0
20-Dec-24	14.9	45	0.0
21-Dec-24	16.9	42	0.0
22-Dec-24	15.8	48	0.0
23-Dec-24	16.5	57	0.0
24-Dec-24	17.4	55	0.0
25-Dec-24	18.5	71	Trace
26-Dec-24	20.1	74	0.0
27-Dec-24	19.2	75	0.0
28-Dec-24	16.9	43	0.0
29-Dec-24	15.4	57	0.0
30-Dec-24	17.7	63	0.0
31-Dec-24	19.8	55	Trace

* The above information was extracted from the daily extract of Ta Kwu Ling Station in Hong Kong Observatory Climate Information Service.

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
1-Dec-24	0:00	ENE	0.1
1-Dec-24	1:00	ENE	0.0
1-Dec-24	2:00	SSE	0.1
1-Dec-24	3:00	SSE	0.2
1-Dec-24	4:00	SSE	0.1
1-Dec-24	5:00	ESE	0.4
1-Dec-24	6:00	S	0.2
1-Dec-24	7:00	E	0.4
1-Dec-24	8:00	E	0.6
1-Dec-24	9:00	ENE	0.6
1-Dec-24	10:00	ENE	0.7
1-Dec-24	11:00	ENE	0.8
1-Dec-24	12:00	NE	0.7
1-Dec-24	13:00	NE	0.6
1-Dec-24	14:00	NNE	0.5
1-Dec-24	15:00	NE	0.3
1-Dec-24	16:00	N	0.4
1-Dec-24	17:00	NE	0.2
1-Dec-24	18:00	NE	0.4
1-Dec-24	19:00	ENE	0.4
1-Dec-24	20:00	ENE	0.3
1-Dec-24	21:00	E	0.3
1-Dec-24	22:00	NNE	0.3
1-Dec-24	23:00	NNE	0.2
2-Dec-24	0:00	E	0.3
2-Dec-24	1:00	NNE	0.1
2-Dec-24	2:00	NNE	0.3
2-Dec-24	3:00	ESE	0.2
2-Dec-24	4:00	ENE	0.1
2-Dec-24	5:00	ENE	0.1
2-Dec-24	6:00	NNE	0.1
2-Dec-24	7:00	NE	0.3
2-Dec-24	8:00	NNE	0.3
2-Dec-24	9:00	N	0.8
2-Dec-24	10:00	E	0.9
2-Dec-24	11:00	N	0.8
2-Dec-24	12:00	NE	0.8
2-Dec-24	13:00	NE	0.5
2-Dec-24	14:00	NE	0.3
2-Dec-24	15:00	NNE	0.7
2-Dec-24	16:00	N	0.6

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
2-Dec-24	17:00	NNE	0.6
2-Dec-24	18:00	NNE	0.7
2-Dec-24	19:00	NE	0.5
2-Dec-24	20:00	ENE	0.3
2-Dec-24	21:00	NE	0.4
2-Dec-24	22:00	NE	0.4
2-Dec-24	23:00	NE	0.4
3-Dec-24	0:00	NNW	0.3
3-Dec-24	1:00	NNW	0.3
3-Dec-24	2:00	ESE	0.4
3-Dec-24	3:00	ENE	0.5
3-Dec-24	4:00	NW	0.1
3-Dec-24	5:00	NW	0.4
3-Dec-24	6:00	NW	0.5
3-Dec-24	7:00	ESE	0.3
3-Dec-24	8:00	NNE	0.3
3-Dec-24	9:00	ENE	0.3
3-Dec-24	10:00	ENE	0.3
3-Dec-24	11:00	E	0.4
3-Dec-24	12:00	N	0.4
3-Dec-24	13:00	NE	0.5
3-Dec-24	14:00	N	0.5
3-Dec-24	15:00	NE	0.6
3-Dec-24	16:00	NNE	0.5
3-Dec-24	17:00	E	0.4
3-Dec-24	18:00	NE	0.4
3-Dec-24	19:00	ENE	0.5
3-Dec-24	20:00	NE	0.5
3-Dec-24	21:00	ENE	0.5
3-Dec-24	22:00	ENE	0.6
3-Dec-24	23:00	ENE	0.6
4-Dec-24	0:00	NE	0.4
4-Dec-24	1:00	NNE	0.5
4-Dec-24	2:00	NE	0.4
4-Dec-24	3:00	ENE	0.4
4-Dec-24	4:00	NE	0.5
4-Dec-24	5:00	NE	0.9
4-Dec-24	6:00	NE	0.4
4-Dec-24	7:00	ENE	0.3
4-Dec-24	8:00	ENE	0.4
4-Dec-24	9:00	NE	1.3

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
4-Dec-24	10:00	N	1.4
4-Dec-24	11:00	SSW	1.2
4-Dec-24	12:00	NW	0.9
4-Dec-24	13:00	E	0.6
4-Dec-24	14:00	S	0.3
4-Dec-24	15:00	WNW	0.4
4-Dec-24	16:00	W	0.5
4-Dec-24	17:00	NNE	0.5
4-Dec-24	18:00	E	0.4
4-Dec-24	19:00	ESE	0.2
4-Dec-24	20:00	NE	0.4
4-Dec-24	21:00	ENE	0.4
4-Dec-24	22:00	NE	0.4
4-Dec-24	23:00	NE	0.3
5-Dec-24	0:00	ENE	0.3
5-Dec-24	1:00	NE	0.3
5-Dec-24	2:00	S	0.4
5-Dec-24	3:00	NNE	0.2
5-Dec-24	4:00	ENE	0.4
5-Dec-24	5:00	NE	0.4
5-Dec-24	6:00	NE	0.5
5-Dec-24	7:00	NE	0.4
5-Dec-24	8:00	NNE	0.3
5-Dec-24	9:00	E	0.5
5-Dec-24	10:00	NE	0.5
5-Dec-24	11:00	NW	0.5
5-Dec-24	12:00	NNE	0.3
5-Dec-24	13:00	NE	0.3
5-Dec-24	14:00	NE	0.3
5-Dec-24	15:00	NNE	0.2
5-Dec-24	16:00	ENE	0.3
5-Dec-24	17:00	NNE	0.2
5-Dec-24	18:00	ENE	0.1
5-Dec-24	19:00	E	0.0
5-Dec-24	20:00	NE	0.0
5-Dec-24	21:00	E	0.0
5-Dec-24	22:00	NE	0.0
5-Dec-24	23:00	NNE	0.0
6-Dec-24	0:00	ENE	0.0
6-Dec-24	1:00	ENE	0.0
6-Dec-24	2:00	NE	0.0

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
6-Dec-24	3:00	ENE	0.2
6-Dec-24	4:00	E	0.7
6-Dec-24	5:00	NE	0.5
6-Dec-24	6:00	NNE	0.0
6-Dec-24	7:00	NNE	0.0
6-Dec-24	8:00	NE	1.2
6-Dec-24	9:00	NE	2.1
6-Dec-24	10:00	NNE	1.8
6-Dec-24	11:00	ENE	2.1
6-Dec-24	12:00	N	1.8
6-Dec-24	13:00	W	1.8
6-Dec-24	14:00	ENE	1.5
6-Dec-24	15:00	NE	1.6
6-Dec-24	16:00	ENE	1.8
6-Dec-24	17:00	E	1.9
6-Dec-24	18:00	NE	1.8
6-Dec-24	19:00	NE	0.2
6-Dec-24	20:00	E	0.3
6-Dec-24	21:00	ENE	0.0
6-Dec-24	22:00	ENE	0.0
6-Dec-24	23:00	ENE	0.0
7-Dec-24	0:00	ENE	0.0
7-Dec-24	1:00	NE	0.0
7-Dec-24	2:00	NE	0.0
7-Dec-24	3:00	NNE	0.0
7-Dec-24	4:00	NNE	0.1
7-Dec-24	5:00	ENE	0.1
7-Dec-24	6:00	NE	0.2
7-Dec-24	7:00	ENE	0.4
7-Dec-24	8:00	ENE	1.5
7-Dec-24	9:00	NNE	2.0
7-Dec-24	10:00	NNW	2.3
7-Dec-24	11:00	NE	2.0
7-Dec-24	12:00	NE	2.3
7-Dec-24	13:00	NNE	2.2
7-Dec-24	14:00	N	2.5
7-Dec-24	15:00	NE	3.3
7-Dec-24	16:00	NE	2.6
7-Dec-24	17:00	E	2.7
7-Dec-24	18:00	NE	2.7
7-Dec-24	19:00	NNE	2.0

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
7-Dec-24	20:00	NE	2.5
7-Dec-24	21:00	NNE	2.4
7-Dec-24	22:00	NNE	2.1
7-Dec-24	23:00	NNE	2.5
8-Dec-24	0:00	NE	2.8
8-Dec-24	1:00	N	2.6
8-Dec-24	2:00	N	2.7
8-Dec-24	3:00	NE	2.5
8-Dec-24	4:00	NNE	2.2
8-Dec-24	5:00	NNE	1.9
8-Dec-24	6:00	NNE	2.1
8-Dec-24	7:00	NE	3.3
8-Dec-24	8:00	NE	3.0
8-Dec-24	9:00	NNE	2.6
8-Dec-24	10:00	ENE	2.7
8-Dec-24	11:00	NNE	2.0
8-Dec-24	12:00	ENE	1.8
8-Dec-24	13:00	E	1.8
8-Dec-24	14:00	NE	2.0
8-Dec-24	15:00	E	1.7
8-Dec-24	16:00	ENE	2.0
8-Dec-24	17:00	ENE	2.2
8-Dec-24	18:00	NE	1.9
8-Dec-24	19:00	NE	1.6
8-Dec-24	20:00	E	1.9
8-Dec-24	21:00	NE	1.8
8-Dec-24	22:00	NNE	1.9
8-Dec-24	23:00	ESE	1.8
9-Dec-24	0:00	NE	1.7
9-Dec-24	1:00	NE	2.0
9-Dec-24	2:00	N	2.1
9-Dec-24	3:00	ENE	2.4
9-Dec-24	4:00	NE	2.3
9-Dec-24	5:00	NNE	2.3
9-Dec-24	6:00	NNE	1.8
9-Dec-24	7:00	NNE	2.1
9-Dec-24	8:00	ENE	2.4
9-Dec-24	9:00	NNE	2.1
9-Dec-24	10:00	NE	1.6
9-Dec-24	11:00	ENE	1.3
9-Dec-24	12:00	E	1.1

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
9-Dec-24	13:00	N	0.7
9-Dec-24	14:00	E	0.8
9-Dec-24	15:00	SE	0.6
9-Dec-24	16:00	ENE	0.6
9-Dec-24	17:00	ENE	0.5
9-Dec-24	18:00	NE	0.0
9-Dec-24	19:00	ENE	0.0
9-Dec-24	20:00	NE	0.0
9-Dec-24	21:00	E	0.0
9-Dec-24	22:00	NE	0.0
9-Dec-24	23:00	NE	0.2
10-Dec-24	0:00	ENE	0.3
10-Dec-24	1:00	NE	0.2
10-Dec-24	2:00	NE	0.1
10-Dec-24	3:00	ENE	0.0
10-Dec-24	4:00	NE	0.0
10-Dec-24	5:00	SE	0.0
10-Dec-24	6:00	SE	0.0
10-Dec-24	7:00	S	0.0
10-Dec-24	8:00	E	0.2
10-Dec-24	9:00	NNE	0.5
10-Dec-24	10:00	NNE	0.5
10-Dec-24	11:00	NE	0.4
10-Dec-24	12:00	NNE	0.2
10-Dec-24	13:00	NNE	0.2
10-Dec-24	14:00	NE	0.5
10-Dec-24	15:00	N	0.6
10-Dec-24	16:00	ENE	0.2
10-Dec-24	17:00	NE	0.2
10-Dec-24	18:00	ENE	0.0
10-Dec-24	19:00	N	0.0
10-Dec-24	20:00	ENE	0.0
10-Dec-24	21:00	ENE	0.0
10-Dec-24	22:00	E	0.0
10-Dec-24	23:00	ESE	0.0
11-Dec-24	0:00	E	0.0
11-Dec-24	1:00	WSW	0.0
11-Dec-24	2:00	E	0.0
11-Dec-24	3:00	NNE	0.6
11-Dec-24	4:00	NE	0.9
11-Dec-24	5:00	NE	1.1

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
11-Dec-24	6:00	ENE	0.8
11-Dec-24	7:00	ENE	0.2
11-Dec-24	8:00	ENE	0.3
11-Dec-24	9:00	ESE	0.5
11-Dec-24	10:00	N	1.0
11-Dec-24	11:00	NNE	0.5
11-Dec-24	12:00	NE	1.6
11-Dec-24	13:00	SSE	2.2
11-Dec-24	14:00	SE	1.8
11-Dec-24	15:00	NE	1.3
11-Dec-24	16:00	E	2.0
11-Dec-24	17:00	ENE	2.4
11-Dec-24	18:00	NE	2.4
11-Dec-24	19:00	SW	3.0
11-Dec-24	20:00	S	3.7
11-Dec-24	21:00	ENE	3.2
11-Dec-24	22:00	NE	3.3
11-Dec-24	23:00	NNE	2.7
12-Dec-24	0:00	NE	2.2
12-Dec-24	1:00	NNE	2.4
12-Dec-24	2:00	NNE	2.8
12-Dec-24	3:00	NE	2.6
12-Dec-24	4:00	NE	2.3
12-Dec-24	5:00	NE	2.3
12-Dec-24	6:00	NE	2.3
12-Dec-24	7:00	NE	2.3
12-Dec-24	8:00	NE	2.3
12-Dec-24	9:00	NNE	2.5
12-Dec-24	10:00	N	2.5
12-Dec-24	11:00	W	2.2
12-Dec-24	12:00	NE	1.8
12-Dec-24	13:00	W	1.7
12-Dec-24	14:00	N	1.4
12-Dec-24	15:00	NW	0.9
12-Dec-24	16:00	NNW	1.6
12-Dec-24	17:00	NNE	1.6
12-Dec-24	18:00	WNW	2.1
12-Dec-24	19:00	NE	1.8
12-Dec-24	20:00	ENE	1.8
12-Dec-24	21:00	NNE	1.1
12-Dec-24	22:00	NE	0.9

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
12-Dec-24	23:00	NE	1.8
13-Dec-24	0:00	NE	2.3
13-Dec-24	1:00	NNE	2.0
13-Dec-24	2:00	NE	2.3
13-Dec-24	3:00	NE	2.4
13-Dec-24	4:00	NE	2.3
13-Dec-24	5:00	SW	2.3
13-Dec-24	6:00	SW	2.6
13-Dec-24	7:00	W	3.1
13-Dec-24	8:00	NNE	3.2
13-Dec-24	9:00	NNW	3.3
13-Dec-24	10:00	ENE	3.0
13-Dec-24	11:00	N	3.1
13-Dec-24	12:00	E	3.0
13-Dec-24	13:00	NE	3.2
13-Dec-24	14:00	NE	3.4
13-Dec-24	15:00	NE	3.2
13-Dec-24	16:00	NNE	3.2
13-Dec-24	17:00	NNE	3.6
13-Dec-24	18:00	NE	3.3
13-Dec-24	19:00	ENE	3.0
13-Dec-24	20:00	ESE	3.0
13-Dec-24	21:00	ENE	2.8
13-Dec-24	22:00	NNE	2.9
13-Dec-24	23:00	NE	3.1
14-Dec-24	0:00	NE	2.8
14-Dec-24	1:00	ENE	3.2
14-Dec-24	2:00	ESE	3.1
14-Dec-24	3:00	NE	3.4
14-Dec-24	4:00	NE	2.8
14-Dec-24	5:00	NE	3.3
14-Dec-24	6:00	NNE	3.0
14-Dec-24	7:00	ENE	3.0
14-Dec-24	8:00	ENE	3.2
14-Dec-24	9:00	NE	3.5
14-Dec-24	10:00	SE	3.4
14-Dec-24	11:00	NE	3.5
14-Dec-24	12:00	E	3.5
14-Dec-24	13:00	NE	3.5
14-Dec-24	14:00	E	3.5
14-Dec-24	15:00	SE	3.2

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
14-Dec-24	16:00	NNE	2.8
14-Dec-24	17:00	NE	3.2
14-Dec-24	18:00	ENE	3.7
14-Dec-24	19:00	E	2.7
14-Dec-24	20:00	ESE	3.2
14-Dec-24	21:00	E	2.8
14-Dec-24	22:00	NNE	3.2
14-Dec-24	23:00	E	3.1
15-Dec-24	0:00	ENE	3.7
15-Dec-24	1:00	NE	3.3
15-Dec-24	2:00	ENE	3.1
15-Dec-24	3:00	NE	2.8
15-Dec-24	4:00	NE	2.8
15-Dec-24	5:00	NNE	3.1
15-Dec-24	6:00	NNE	3.0
15-Dec-24	7:00	NNE	2.9
15-Dec-24	8:00	SE	2.9
15-Dec-24	9:00	N	2.7
15-Dec-24	10:00	E	2.7
15-Dec-24	11:00	ENE	2.2
15-Dec-24	12:00	E	2.2
15-Dec-24	13:00	NE	2.0
15-Dec-24	14:00	E	2.3
15-Dec-24	15:00	E	2.5
15-Dec-24	16:00	ENE	2.1
15-Dec-24	17:00	ENE	2.7
15-Dec-24	18:00	ENE	2.9
15-Dec-24	19:00	ENE	1.9
15-Dec-24	20:00	ENE	1.8
15-Dec-24	21:00	ENE	1.4
15-Dec-24	22:00	S	1.3
15-Dec-24	23:00	NE	1.7
16-Dec-24	0:00	NE	1.9
16-Dec-24	1:00	NE	1.4
16-Dec-24	2:00	NE	1.1
16-Dec-24	3:00	W	1.3
16-Dec-24	4:00	W	1.6
16-Dec-24	5:00	N	1.5
16-Dec-24	6:00	N	1.5
16-Dec-24	7:00	N	1.5
16-Dec-24	8:00	N	1.3

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
16-Dec-24	9:00	WNW	1.8
16-Dec-24	10:00	N	1.8
16-Dec-24	11:00	SSW	1.4
16-Dec-24	12:00	ENE	1.8
16-Dec-24	13:00	NW	1.6
16-Dec-24	14:00	WSW	1.3
16-Dec-24	15:00	NW	1.3
16-Dec-24	16:00	NE	0.5
16-Dec-24	17:00	ENE	0.3
16-Dec-24	18:00	ENE	0.4
16-Dec-24	19:00	ENE	0.3
16-Dec-24	20:00	NE	0.4
16-Dec-24	21:00	NNE	0.4
16-Dec-24	22:00	E	0.3
16-Dec-24	23:00	NE	0.3
17-Dec-24	0:00	NNE	0.2
17-Dec-24	1:00	NNE	0.3
17-Dec-24	2:00	NE	0.3
17-Dec-24	3:00	NE	0.2
17-Dec-24	4:00	NE	0.1
17-Dec-24	5:00	NNE	0.5
17-Dec-24	6:00	NE	0.5
17-Dec-24	7:00	ENE	0.3
17-Dec-24	8:00	SE	0.9
17-Dec-24	9:00	NNE	1.2
17-Dec-24	10:00	SSW	1.6
17-Dec-24	11:00	SE	2.1
17-Dec-24	12:00	E	2.1
17-Dec-24	13:00	E	1.6
17-Dec-24	14:00	WSW	2.0
17-Dec-24	15:00	SSW	1.8
17-Dec-24	16:00	NNE	1.5
17-Dec-24	17:00	NNE	0.9
17-Dec-24	18:00	NE	0.6
17-Dec-24	19:00	NNE	0.5
17-Dec-24	20:00	ESE	0.2
17-Dec-24	21:00	ESE	0.2
17-Dec-24	22:00	NNE	0.1
17-Dec-24	23:00	ESE	0.6
18-Dec-24	0:00	E	0.5
18-Dec-24	1:00	SW	0.5

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
18-Dec-24	2:00	NNE	0.7
18-Dec-24	3:00	ENE	0.6
18-Dec-24	4:00	NE	0.9
18-Dec-24	5:00	ENE	1.0
18-Dec-24	6:00	ENE	0.8
18-Dec-24	7:00	NE	1.3
18-Dec-24	8:00	ENE	1.4
18-Dec-24	9:00	SSE	2.1
18-Dec-24	10:00	SSE	2.6
18-Dec-24	11:00	E	2.5
18-Dec-24	12:00	NNE	1.7
18-Dec-24	13:00	ENE	1.6
18-Dec-24	14:00	NE	1.3
18-Dec-24	15:00	NE	1.4
18-Dec-24	16:00	NE	1.4
18-Dec-24	17:00	NE	0.8
18-Dec-24	18:00	ENE	1.0
18-Dec-24	19:00	NNE	0.1
18-Dec-24	20:00	ENE	0.9
18-Dec-24	21:00	N	1.6
18-Dec-24	22:00	ENE	1.5
18-Dec-24	23:00	NE	1.2
19-Dec-24	0:00	NE	0.9
19-Dec-24	1:00	NE	1.2
19-Dec-24	2:00	NNE	1.0
19-Dec-24	3:00	ENE	0.5
19-Dec-24	4:00	NNE	0.9
19-Dec-24	5:00	ENE	1.6
19-Dec-24	6:00	ENE	1.8
19-Dec-24	7:00	ESE	2.1
19-Dec-24	8:00	S	2.8
19-Dec-24	9:00	ENE	2.6
19-Dec-24	10:00	ENE	2.6
19-Dec-24	11:00	E	2.0
19-Dec-24	12:00	NNE	1.9
19-Dec-24	13:00	NNE	1.9
19-Dec-24	14:00	NE	2.3
19-Dec-24	15:00	N	2.3
19-Dec-24	16:00	ENE	2.0
19-Dec-24	17:00	N	2.0
19-Dec-24	18:00	NE	1.8

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
19-Dec-24	19:00	NE	1.5
19-Dec-24	20:00	N	1.3
19-Dec-24	21:00	NNE	1.0
19-Dec-24	22:00	NE	0.9
19-Dec-24	23:00	NE	1.4
20-Dec-24	0:00	NNE	1.1
20-Dec-24	1:00	NE	1.2
20-Dec-24	2:00	NNE	1.1
20-Dec-24	3:00	NE	1.9
20-Dec-24	4:00	ENE	1.5
20-Dec-24	5:00	E	1.0
20-Dec-24	6:00	ENE	0.9
20-Dec-24	7:00	NNE	1.0
20-Dec-24	8:00	NNE	1.6
20-Dec-24	9:00	N	1.9
20-Dec-24	10:00	NNE	2.4
20-Dec-24	11:00	N	1.8
20-Dec-24	12:00	ENE	1.5
20-Dec-24	13:00	E	1.7
20-Dec-24	14:00	NNE	1.5
20-Dec-24	15:00	NE	1.2
20-Dec-24	16:00	NE	1.1
20-Dec-24	17:00	ENE	0.6
20-Dec-24	18:00	NE	0.2
20-Dec-24	19:00	ENE	0.0
20-Dec-24	20:00	ENE	0.5
20-Dec-24	21:00	NNE	0.3
20-Dec-24	22:00	NE	0.4
20-Dec-24	23:00	ENE	0.4
21-Dec-24	0:00	NE	0.3
21-Dec-24	1:00	N	0.8
21-Dec-24	2:00	NE	0.7
21-Dec-24	3:00	ENE	0.6
21-Dec-24	4:00	NNE	0.7
21-Dec-24	5:00	ENE	0.4
21-Dec-24	6:00	E	0.4
21-Dec-24	7:00	NNE	0.7
21-Dec-24	8:00	E	1.7
21-Dec-24	9:00	N	2.3
21-Dec-24	10:00	NW	2.4
21-Dec-24	11:00	NNE	2.3

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
21-Dec-24	12:00	NNW	2.8
21-Dec-24	13:00	NE	2.7
21-Dec-24	14:00	NE	2.7
21-Dec-24	15:00	NNE	3.3
21-Dec-24	16:00	NE	2.4
21-Dec-24	17:00	NNE	2.6
21-Dec-24	18:00	NE	2.0
21-Dec-24	19:00	NE	1.2
21-Dec-24	20:00	ENE	1.4
21-Dec-24	21:00	NNE	2.2
21-Dec-24	22:00	E	0.9
21-Dec-24	23:00	NNE	1.6
22-Dec-24	0:00	ENE	0.8
22-Dec-24	1:00	NNE	0.9
22-Dec-24	2:00	NNE	1.0
22-Dec-24	3:00	N	1.0
22-Dec-24	4:00	NNE	1.5
22-Dec-24	5:00	N	1.9
22-Dec-24	6:00	NNE	1.4
22-Dec-24	7:00	NNE	1.6
22-Dec-24	8:00	ENE	2.6
22-Dec-24	9:00	NE	3.2
22-Dec-24	10:00	N	2.5
22-Dec-24	11:00	NNW	2.1
22-Dec-24	12:00	NNE	2.2
22-Dec-24	13:00	NNE	2.3
22-Dec-24	14:00	N	1.6
22-Dec-24	15:00	N	1.7
22-Dec-24	16:00	NNE	1.4
22-Dec-24	17:00	E	1.0
22-Dec-24	18:00	ENE	0.7
22-Dec-24	19:00	N	0.7
22-Dec-24	20:00	ENE	0.6
22-Dec-24	21:00	ENE	0.7
22-Dec-24	22:00	NNE	1.0
22-Dec-24	23:00	NE	1.4
23-Dec-24	0:00	ENE	0.9
23-Dec-24	1:00	E	1.4
23-Dec-24	2:00	NE	1.2
23-Dec-24	3:00	NE	1.1
23-Dec-24	4:00	N	1.3

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
23-Dec-24	5:00	ENE	1.9
23-Dec-24	6:00	NNE	2.0
23-Dec-24	7:00	NE	1.9
23-Dec-24	8:00	NE	2.4
23-Dec-24	9:00	NE	2.6
23-Dec-24	10:00	NNE	2.5
23-Dec-24	11:00	N	2.5
23-Dec-24	12:00	N	1.9
23-Dec-24	13:00	ENE	2.2
23-Dec-24	14:00	NE	2.0
23-Dec-24	15:00	E	1.9
23-Dec-24	16:00	NE	2.1
23-Dec-24	17:00	NE	2.0
23-Dec-24	18:00	ESE	2.4
23-Dec-24	19:00	ENE	2.4
23-Dec-24	20:00	NNE	1.9
23-Dec-24	21:00	ENE	1.6
23-Dec-24	22:00	ENE	1.4
23-Dec-24	23:00	NNE	2.0
24-Dec-24	0:00	S	1.6
24-Dec-24	1:00	E	1.7
24-Dec-24	2:00	SSE	1.9
24-Dec-24	3:00	ENE	1.7
24-Dec-24	4:00	ENE	1.6
24-Dec-24	5:00	ENE	1.7
24-Dec-24	6:00	NNE	1.7
24-Dec-24	7:00	ENE	1.2
24-Dec-24	8:00	NE	2.0
24-Dec-24	9:00	NNE	2.1
24-Dec-24	10:00	NE	1.8
24-Dec-24	11:00	NNE	1.6
24-Dec-24	12:00	NE	1.6
24-Dec-24	13:00	N	2.0
24-Dec-24	14:00	N	2.1
24-Dec-24	15:00	NNE	1.5
24-Dec-24	16:00	NE	0.8

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
24-Dec-24	17:00	NE	1.0
24-Dec-24	18:00	NE	0.9
24-Dec-24	19:00	ESE	0.8
24-Dec-24	20:00	ESE	1.4
24-Dec-24	21:00	NE	1.2
24-Dec-24	22:00	ENE	1.0
24-Dec-24	23:00	NNE	0.7
25-Dec-24	0:00	NNE	0.3
25-Dec-24	1:00	E	0.4
25-Dec-24	2:00	NE	0.3
25-Dec-24	3:00	NNE	0.4
25-Dec-24	4:00	NNE	1.3
25-Dec-24	5:00	NE	2.4
25-Dec-24	6:00	NNE	2.1
25-Dec-24	7:00	N	1.6
25-Dec-24	8:00	NE	2.1
25-Dec-24	9:00	NE	2.3
25-Dec-24	10:00	N	1.8
25-Dec-24	11:00	ENE	2.0
25-Dec-24	12:00	NNW	1.9
25-Dec-24	13:00	NE	2.2
25-Dec-24	14:00	SE	2.3
25-Dec-24	15:00	NNE	2.7
25-Dec-24	16:00	ENE	2.7
25-Dec-24	17:00	NNE	2.2
25-Dec-24	18:00	NNE	1.8
25-Dec-24	19:00	ENE	1.4
25-Dec-24	20:00	W	1.9
25-Dec-24	21:00	W	1.4
25-Dec-24	22:00	NNE	1.3
25-Dec-24	23:00	NW	0.9
26-Dec-24	0:00	NNE	1.1
26-Dec-24	1:00	NE	1.1
26-Dec-24	2:00	ENE	1.2
26-Dec-24	3:00	ENE	1.1
26-Dec-24	4:00	ENE	1.0
26-Dec-24	5:00	NE	1.8
26-Dec-24	6:00	NE	1.2
26-Dec-24	7:00	E	1.3
26-Dec-24	8:00	NNE	1.2
26-Dec-24	9:00	NNE	1.6

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
26-Dec-24	10:00	NE	2.4
26-Dec-24	11:00	NNE	2.2
26-Dec-24	12:00	NNE	1.9

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
26-Dec-24	13:00	NNE	1.9
26-Dec-24	14:00	NE	1.6
26-Dec-24	15:00	N	1.3
26-Dec-24	16:00	NNE	1.7
26-Dec-24	17:00	NE	1.7
26-Dec-24	18:00	ENE	1.7
26-Dec-24	19:00	ENE	2.0
26-Dec-24	20:00	E	1.3
26-Dec-24	21:00	NE	1.3
26-Dec-24	22:00	NNE	0.9
26-Dec-24	23:00	NNE	0.9
27-Dec-24	0:00	E	0.8
27-Dec-24	1:00	NE	0.7
27-Dec-24	2:00	ENE	0.7
27-Dec-24	3:00	N	0.7
27-Dec-24	4:00	NE	1.1
27-Dec-24	5:00	N	1.2
27-Dec-24	6:00	NW	1.2
27-Dec-24	7:00	NE	1.5
27-Dec-24	8:00	ENE	1.5
27-Dec-24	9:00	NW	1.7
27-Dec-24	10:00	WNW	1.7
27-Dec-24	11:00	NNE	2.1
27-Dec-24	12:00	NNW	1.8
27-Dec-24	13:00	NE	1.5
27-Dec-24	14:00	ENE	1.4
27-Dec-24	15:00	NE	1.1
27-Dec-24	16:00	NW	1.0
27-Dec-24	17:00	ENE	0.6
27-Dec-24	18:00	ENE	0.3
27-Dec-24	19:00	NE	0.5
27-Dec-24	20:00	NNE	0.6
27-Dec-24	21:00	NNE	1.1
27-Dec-24	22:00	SSW	1.4
27-Dec-24	23:00	SE	1.3
28-Dec-24	0:00	NNE	1.6
28-Dec-24	1:00	NE	2.3
28-Dec-24	2:00	NE	2.4
28-Dec-24	3:00	NE	2.6
28-Dec-24	4:00	N	3.0
28-Dec-24	5:00	N	2.6

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
28-Dec-24	6:00	NNE	3.0
28-Dec-24	7:00	NE	2.5
28-Dec-24	8:00	WNW	2.9

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
28-Dec-24	9:00	ESE	3.1
28-Dec-24	10:00	ESE	3.1
28-Dec-24	11:00	ENE	2.9
28-Dec-24	12:00	NNE	2.5
28-Dec-24	13:00	NNE	2.3
28-Dec-24	14:00	ENE	2.5
28-Dec-24	15:00	E	2.7
28-Dec-24	16:00	NE	2.5
28-Dec-24	17:00	ENE	2.0
28-Dec-24	18:00	ENE	1.4
28-Dec-24	19:00	NE	1.4
28-Dec-24	20:00	NE	1.1
28-Dec-24	21:00	ENE	1.6
28-Dec-24	22:00	NE	1.9
28-Dec-24	23:00	ENE	1.6
29-Dec-24	0:00	NE	1.6
29-Dec-24	1:00	ENE	1.4
29-Dec-24	2:00	NE	1.2
29-Dec-24	3:00	NE	1.6
29-Dec-24	4:00	NE	2.0
29-Dec-24	5:00	E	1.8
29-Dec-24	6:00	NNE	1.7
29-Dec-24	7:00	NE	1.7
29-Dec-24	8:00	NE	1.0
29-Dec-24	9:00	NW	1.5
29-Dec-24	10:00	NE	1.3
29-Dec-24	11:00	NE	1.5
29-Dec-24	12:00	NE	1.1
29-Dec-24	13:00	NE	1.1
29-Dec-24	14:00	E	1.0
29-Dec-24	15:00	NNE	1.0
29-Dec-24	16:00	NNE	0.8
29-Dec-24	17:00	NNE	0.8
29-Dec-24	18:00	NNE	0.4
29-Dec-24	19:00	NNE	0.6
29-Dec-24	20:00	ENE	0.4
29-Dec-24	21:00	NE	0.2
29-Dec-24	22:00	NE	0.2
29-Dec-24	23:00	NNE	0.0
30-Dec-24	0:00	NW	0.5
30-Dec-24	1:00	ENE	0.3

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
30-Dec-24	2:00	ENE	0.5
30-Dec-24	3:00	ENE	0.2
30-Dec-24	4:00	NE	0.2

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
30-Dec-24	5:00	NE	0.2
30-Dec-24	6:00	SSE	0.1
30-Dec-24	7:00	SSW	0.1
30-Dec-24	8:00	NNE	0.5
30-Dec-24	9:00	ESE	1.1
30-Dec-24	10:00	NNE	1.6
30-Dec-24	11:00	ENE	1.9
30-Dec-24	12:00	NE	2.1
30-Dec-24	13:00	ENE	1.6
30-Dec-24	14:00	W	1.4
30-Dec-24	15:00	ENE	0.9
30-Dec-24	16:00	NW	0.6
30-Dec-24	17:00	NW	0.4
30-Dec-24	18:00	SSE	0.6
30-Dec-24	19:00	ENE	0.4
30-Dec-24	20:00	ENE	0.5
30-Dec-24	21:00	NE	0.6
30-Dec-24	22:00	NE	0.5
30-Dec-24	23:00	NE	0.6
31-Dec-24	0:00	NNE	0.6
31-Dec-24	1:00	NNE	0.5
31-Dec-24	2:00	S	0.3
31-Dec-24	3:00	SSW	0.8
31-Dec-24	4:00	SSE	1.2
31-Dec-24	5:00	SSE	1.8
31-Dec-24	6:00	SSE	1.3
31-Dec-24	7:00	SSE	1.5
31-Dec-24	8:00	SSW	1.6
31-Dec-24	9:00	SSW	2.1
31-Dec-24	10:00	S	2.9
31-Dec-24	11:00	SSE	2.6
31-Dec-24	12:00	S	2.0
31-Dec-24	13:00	S	1.8
31-Dec-24	14:00	S	1.5
31-Dec-24	15:00	S	2.0
31-Dec-24	16:00	SSE	1.5
31-Dec-24	17:00	SSE	1.7
31-Dec-24	18:00	S	2.3
31-Dec-24	19:00	SSE	1.1
31-Dec-24	20:00	SSE	1.1
31-Dec-24	21:00	S	0.8

APPENDIX D – WEATHER CONDITIONS DURING THE MONITORING PERIOD

II. Mean Wind Speed and Wind Direction

Date	Time	Wind Direction (°)	Wind Speed (m/s)
31-Dec-24	22:00	SSW	0.9
31-Dec-24	23:00	SSW	0.7

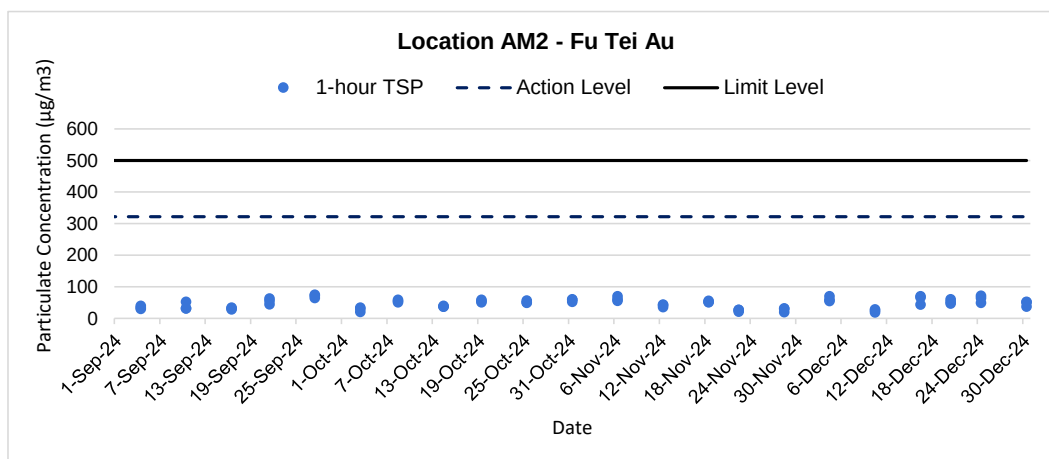
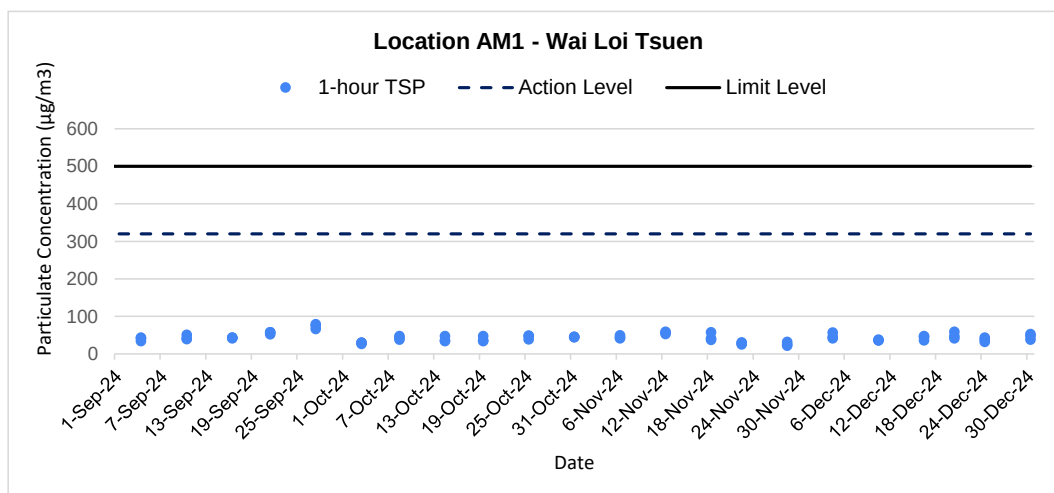
APPENDIX E
1-HOUR TSP MONITORING RESULTS
AND GRAPHICAL PRESENTATIONS

Appendix E - 1-hour TSP Monitoring Results

Location AM1 - House No. 15, Wai Loi Tsuen			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
4-Dec-24	10:40	Fine	41.8
4-Dec-24	11:40	Fine	45.6
4-Dec-24	12:40	Fine	57.0
10-Dec-24	11:05	Fine	38.0
10-Dec-24	12:05	Fine	36.1
10-Dec-24	13:05	Fine	36.1
16-Dec-24	10:30	Fine	36.1
16-Dec-24	11:30	Fine	47.5
16-Dec-24	12:30	Fine	45.6
20-Dec-24	10:35	Sunny	41.8
20-Dec-24	11:35	Sunny	47.5
20-Dec-24	12:35	Sunny	58.9
24-Dec-24	10:30	Fine	32.3
24-Dec-24	11:30	Fine	43.7
24-Dec-24	12:30	Fine	38.0
30-Dec-24	10:25	Fine	38.0
30-Dec-24	11:25	Fine	53.2
30-Dec-24	12:25	Fine	47.5
Average			43.6
Maximum			58.9
Minimum			32.3

Location AM2 - Fu Tei Au			
Date	Time	Weather	Particulate Concentration ($\mu\text{g}/\text{m}^3$)
4-Dec-24	13:50	Fine	55.1
4-Dec-24	14:50	Fine	58.9
4-Dec-24	15:50	Fine	70.3
10-Dec-24	14:20	Fine	19.0
10-Dec-24	15:20	Fine	28.5
10-Dec-24	16:20	Fine	24.7
16-Dec-24	13:40	Fine	70.3
16-Dec-24	14:40	Fine	66.5
16-Dec-24	15:40	Fine	43.7
20-Dec-24	13:45	Sunny	60.8
20-Dec-24	14:45	Sunny	53.2
20-Dec-24	15:45	Sunny	47.5
24-Dec-24	13:40	Fine	49.4
24-Dec-24	14:40	Fine	72.2
24-Dec-24	15:40	Fine	64.6
30-Dec-24	13:35	Fine	53.2
30-Dec-24	14:35	Fine	51.3
30-Dec-24	15:35	Fine	38.0
Average			51.5
Maximum			72.2
Minimum			19.0

1-hr TSP Concentration Levels



Title	Shek Wu Hui Effluent Polishing Plant - Main Works	Date	Dec 2024	Project No.	MA24087	CINOTECH
	Graphical Presentation of 1-hour TSP Monitoring Results			Appendix	E	

APPENDIX F
24-HOUR TSP MONITORING RESULTS
AND GRAPHICAL PRESENTATIONS

Appendix F - 24-hour TSP Impact Monitoring Results

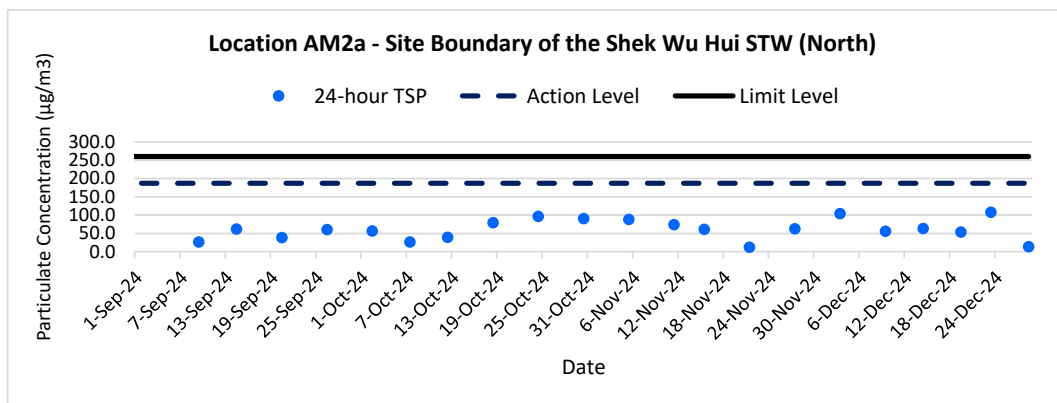
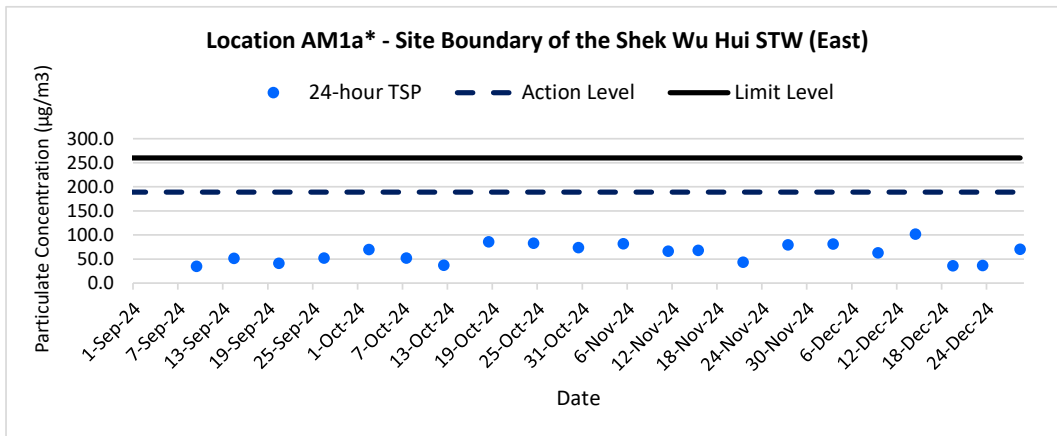
Location AM1a* - Site Boundary of the Shek Wu Hui STW (East)

Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time (hrs.)	Flow Rate (m³/min.)		Av. Flow (m³/min)	Total vol. (m³)	Conc. (µg/m³)
				Initial	Final		Initial	Final		Initial	Final			
3-Dec-24	Fine	295.1	763.0	3.2918	3.4366	0.1448	15968.2	15992.2	24.0	1.24	1.24	1.24	1780.6	81.3
9-Dec-24	Fine	292.7	764.5	2.6581	2.7712	0.1130	15992.2	16016.2	24.0	1.26	1.24	1.25	1800.8	62.8
14-Dec-24	Fine	288.2	769.7	2.6520	2.8399	0.1879	16016.2	16040.2	24.0	1.28	1.28	1.28	1845.1	101.8
19-Dec-24	Fine	288.3	767.2	2.6623	2.7282	0.0659	16040.2	16064.2	24.0	1.28	1.28	1.28	1837.9	35.9
23-Dec-24	Sunny	290.0	766.7	2.6877	2.7548	0.0671	16064.2	16088.2	24.0	1.27	1.27	1.27	1824.7	36.8
28-Dec-24	Sunny	289.2	769.1	2.6880	2.8176	0.1296	16088.2	16112.2	24.0	1.27	1.28	1.28	1836.6	70.5
Note: <i>Bold Italic</i> means Action Level exceedance <i><u>Bold Italic with underline</u></i> means Limit Level exceedance													Min	35.9
													Max	101.8
													Average	64.9

Location AM2a - Site Boundary of the Shek Wu Hui STW (North)

Start Date	Weather Condition	Air Temp. (K)	Atmospheric Pressure, Pa (mmHg)	Filter Weight (g)		Particulate weight (g)	Elapse Time		Sampling Time (hrs.)	Flow Rate (m³/min.)		Av. Flow (m³/min)	Total vol. (m³)	Conc. (µg/m³)
				Initial	Final		Initial	Final		Initial	Final			
3-Dec-24	Fine	295.1	763.0	2.9558	3.1387	0.1829	13358.3	13382.3	24.0	1.23	1.23	1.23	1765.9	103.6
9-Dec-24	Fine	292.7	764.5	2.6638	2.7626	0.0987	13382.3	13406.3	24.0	1.24	1.23	1.23	1777.9	55.5
14-Dec-24	Fine	288.2	769.7	2.6588	2.7730	0.1142	13406.3	13430.3	24.0	1.25	1.25	1.25	1804.4	63.3
19-Dec-24	Fine	288.3	767.2	2.6762	2.7723	0.0961	13430.3	13454.3	24.0	1.25	1.25	1.25	1800.1	53.4
23-Dec-24	Sunny	290.0	766.7	2.8507	3.0436	0.1929	13454.3	13478.3	24.0	1.25	1.24	1.24	1792.2	107.6
28-Dec-24	Sunny	289.2	769.1	2.6902	2.7150	0.0249	13478.3	13502.3	24.0	1.25	1.25	1.25	1799.3	13.8
Note: <i>Bold Italic</i> means Action Level exceedance <i><u>Bold Italic with underline</u></i> means Limit Level exceedance													Min	13.8
													Max	107.6
													Average	66.2

24-hr TSP Concentration Levels



Title	Shek Wu Hui Effluent Polishing Plant - Main Works	Date	Dec 2024	Project No.	MA24087	CINOTECH
	Graphical Presentation of 24-hour TSP Monitoring Results			Appendix	F	

**APPENDIX G
COPIES OF CALIBRATION
CERTIFICATES FOR NOISE
MONITORING**

High Precision Chemical Testing Ltd.

Rm 1904, Technology Park

18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: <https://www.hpct.com.hk>

Report No. : 00581

Issue Date : 14 Feb 2024

Application No. : HP00450

Certificate of Calibration

Applicant : Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-08-12

Manufacturer: : SVANTEK

Other information :

Model No.	SVAN 957
Serial No.	23851
Microphone No.	22391

Date Received : 14 Feb 2024

Test Period : 15 Feb 2024 to 15 Feb 2024

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard and instrument which are recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius
Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.
2. The result(s) relate only to the items tested or calibrated.

For and on behalf of
HIGH PRECISION CHEMICAL TESTING LIMITED

Lee Wai Kit
Laboratory Manager

High Precision Chemical Testing Ltd.

Rm 1904, Technology Park

18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: <https://www.hpct.com.hk>



Report No. : 00581

Issue Date : 14 Feb 2024

Application No. : HP00450

Certificate of Calibration

Measuring
equipment

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Test Result :

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.0	± 0.0	± 1.5
114.0	114.1	+ 0.1	± 1.5

Note : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
2. The indication value was obtained from the average of ten replicated measurement.

- End of report -

High Precision Chemical Testing Ltd.

Rm 1904, Technology Park

18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: <https://www.hpct.com.hk>

Report No. : 00618

Issue Date : 18 Mar 2024

Application No. : HP00473

Certificate of Calibration

Applicant : Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Integrating Sound Level Meter.

Equipment No.: : N-12-06

Manufacturer: : BSWA Technology

Other information :

Model No.	BSWA 308
Serial No.	580156
Microphone No.	580804

Date Received : 06 Mar 2024

Test Period : 14 Mar 2024 to 14 Mar 2024

Test Requested : Performance checking for Sound Level Meter

Test Method : The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard and instrument which are recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius
Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.
2. The result(s) relate only to the items tested or calibrated.

For and on behalf of
HIGH PRECISION CHEMICAL TESTING LIMITED

Lee Wai Kit
Laboratory Manager

High Precision Chemical Testing Ltd.

Rm 1904, Technology Park

18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: <https://www.hpct.com.hk>



Report No. : 00618

Issue Date : 18 Mar 2024

Application No. : HP00473

Certificate of Calibration

Measuring
equipment

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Test Result :

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.0	± 0.0	± 1.5
114.0	114.1	+ 0.1	± 1.5

Note : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
2. The indication value was obtained from the average of ten replicated measurement.

- End of report -



輝創工程有限公司

Sun Creation Engineering Limited

Calibration & Testing Laboratory

Certificate of Calibration

校正證書

Certificate No. : C241168

證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC24-0305)

Date of Receipt / 收件日期 : 21 February 2024

Description / 儀器名稱 : Acoustical Calibrator

Manufacturer / 製造商 : Brüel & Kjær

Model No. / 型號 : 4231

Serial No. / 編號 : 2326353

Supplied By / 委託者 : Cinotech Consultants Limited

Room 1710, Technology Park, 18 On Lai Street,
Shatin, N.T. Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : $(23 \pm 2)^{\circ}\text{C}$

Relative Humidity / 相對濕度 : $(50 \pm 25)\%$

Line Voltage / 電壓 : ---

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 3 March 2024

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.

The results do not exceed specified limits.

These limits refer to manufacturer's published tolerances as requested by the customer.

The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Hottinger Brüel & Kjær Calibration Laboratory, Denmark
- Agilent Technologies / Keysight Technologies
- Fluke Everett Service Center, USA

Tested By

測試

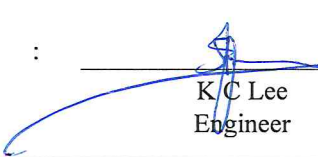
:


H T Wong
Assistant Engineer

Certified By

核證

:


K C Lee
Engineer

Date of Issue

簽發日期

:

4 March 2024

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

Certificate of Calibration

校正證書

Certificate No. : C241168
證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement of the test.
- The results presented are the mean of 3 measurements at each calibration point.
- Test equipment :

Equipment ID	Description	Certificate No.
CL130	Universal Counter	C233799
CL281	Multifunction Acoustic Calibrator	CDK2302738
TST150A	Measuring Amplifier	C221750

- Test procedure : MA100N.

- Results :

5.1 Sound Level Accuracy

UUT Nominal Value	Measured Value (dB)	Mfr's Limit (dB)	Uncertainty of Measured Value (dB)
94 dB, 1 kHz	93.90	± 0.2	± 0.20
114 dB, 1 kHz	114.00		

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Limit	Uncertainty of Measured Value (Hz)
1	1.000 0	1 kHz ± 0.1 %	± 0.1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :

Only the original copy or the laboratory's certified true copy is valid.

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration is traceable to the National Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗室書面批准。

Sun Creation Engineering Limited – Calibration & Testing Laboratory

c/o 4/F, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 - 校正及檢測實驗室

c/o 香港新界屯門興安里一號四樓

Tel/電話: (852) 2927 2606

Fax/傳真: (852) 2744 8986

E-mail/電郵: callab@suncreation.com

Website/網址: www.suncreation.com

High Precision Chemical Testing Ltd.

Rm 1904, Technology Park

18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: <https://www.hpct.com.hk>

Report No. : 00802

Issue Date : 20 Aug 2024

Application No. : HP00653

Certificate of Calibration

Applicant : Cinotech Consultants Limited
RM 1710, Technology Park,
18 On Lai Street,
Shatin, N.T., Hong Kong

Sample Description : Submitted equipment stated to be Sound Level Calibrator.

Equipment No.: : N-13-02

Manufacturer: : SOUNDTEK

Other information :

Model No.	ST-120
Serial No.	181001636

Date Received : 09 Aug 2024

Test Period : 16 Aug 2024 to 16 Aug 2024

Test Requested : Performance checking for Sound Level Calibrator

Test Method : The Sound Level Meter and Calibrator has been calibrated in accordance with the documented procedures and using standard and instrument which are recommended by the manufacturer, or equivalent.

Test conditions : Room Temperature: 22-25 degree Celsius
Relative Humidity: 35-70%

Test Result : Refer to the test result(s) on page 2.

Remark : 1. Information of the sample description provided by the Applicant.
2. The result(s) relate only to the items tested or calibrated.

For and on behalf of
HIGH PRECISION CHEMICAL TESTING LIMITED

Lee Wai Kit
Laboratory Manager

High Precision Chemical Testing Ltd.

Rm 1904, Technology Park

18 On Lai Street, Shatin

NT, Hong Kong

Tel: +852 3841 4388 Website: <https://www.hpct.com.hk>

Report No. : 00802

Issue Date : 20 Aug 2024

Application No. : HP00653

Certificate of CalibrationMeasuring
equipment

Description	Sound Calibrator
Manufacturer	Brüel & Kjær
Model No.	TYPE 4231
Serial No.	2326353
Equipment No.	N-02-01

Description	Sound Meter
Manufacturer	SVANTEK
Model No.	SVAN 977
Serial No.	92677
Microphone No.	10352
Equipment No.	N-14-01

Test Result :

Reference value, dB	Indication value, dB	Deviation, dB	Allowed deviation, dB
94.0	94.3	+ 0.3	± 0.3
114.0	114.4	+ 0.4	± 0.5

- Note** : 1. "Instrument Readings" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.
2. The indication value was obtained from the average of ten replicated measurement.

- End of report -

APPENDIX H
NOISE MONITORING RESULTS AND
GRAPHICAL PRESENTATIONS

Appendix H - Noise Monitoring Results

(0700-1900 hrs on Normal Weekdays)

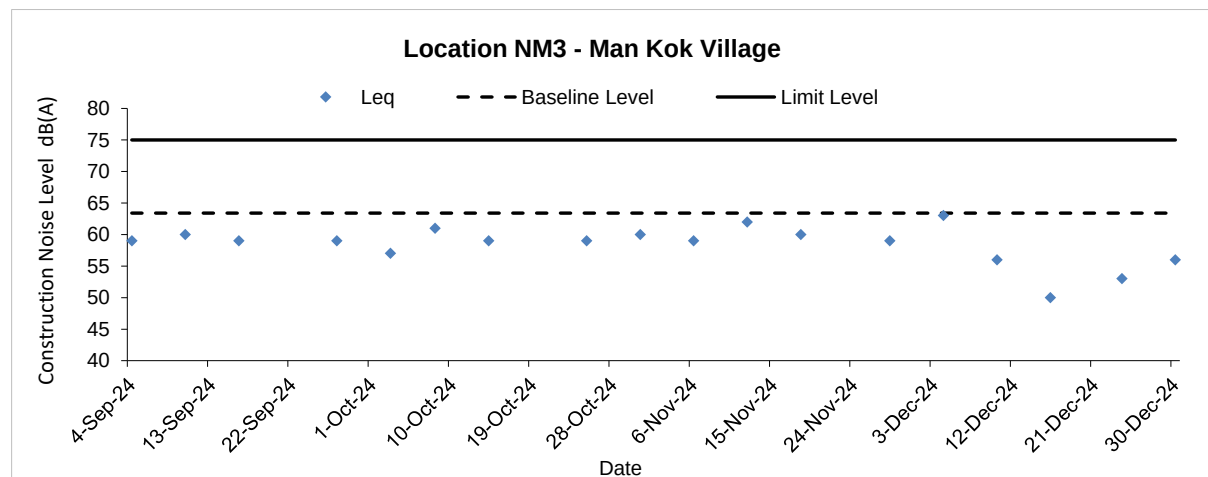
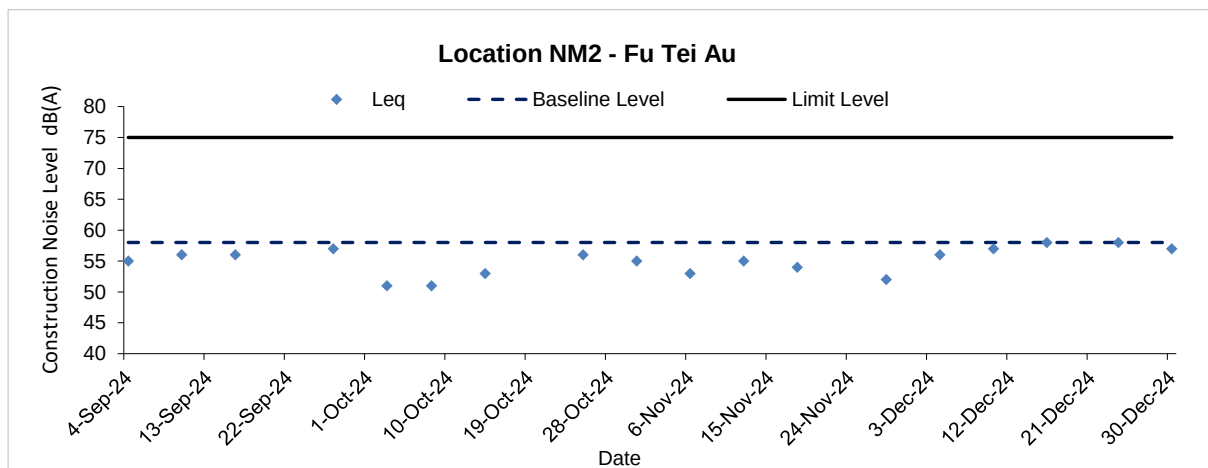
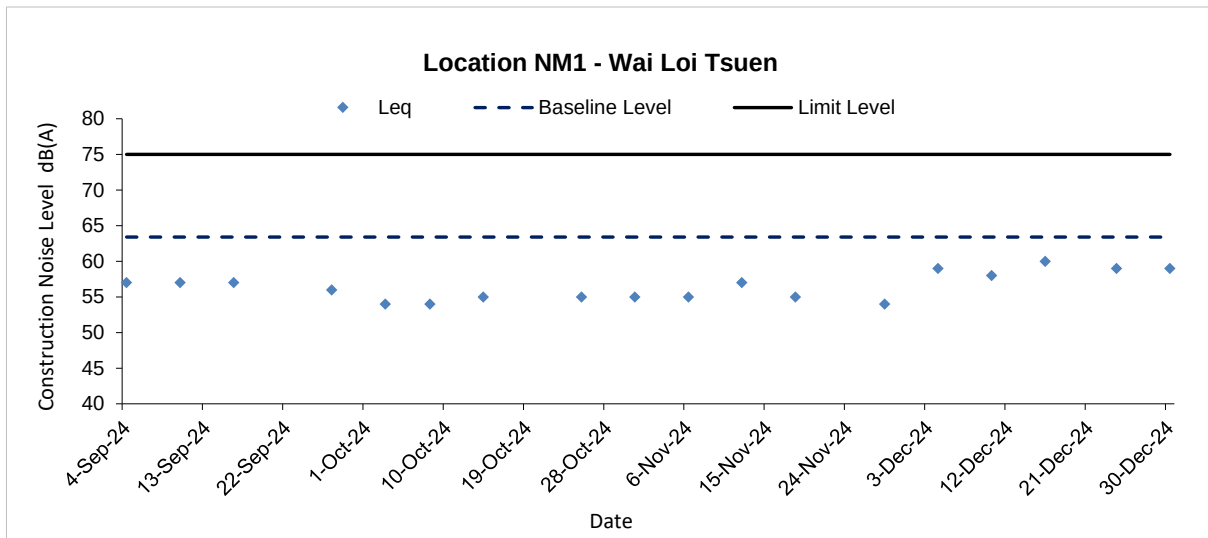
Location NM1 - Wai Loi Tsuen							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
4-Dec-24	10:40	Fine	59.3	61.6	54.8	63.4	59.3 Measured $\leq$ Baseline
10-Dec-24	11:05	Fine	58.4	60.3	55.1	63.4	58.4 Measured $\leq$ Baseline
16-Dec-24	10:30	Fine	60.4	62.8	55.2	63.4	60.4 Measured $\leq$ Baseline
24-Dec-24	10:30	Fine	59.3	61.5	55.1	63.4	59.3 Measured $\leq$ Baseline
30-Dec-24	10:40	Fine	59.3	61.9	55.2	63.4	59.3 Measured $\leq$ Baseline

Location NM2 - Fu Tei Au							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
4-Dec-24	12:10	Fine	56.1	59.3	52.0	58.0	56.1 Measured $\leq$ Baseline
10-Dec-24	12:40	Fine	56.8	59.4	50.8	58.0	56.8 Measured $\leq$ Baseline
16-Dec-24	11:55	Fine	57.5	60.1	51.9	58.0	57.5 Measured $\leq$ Baseline
24-Dec-24	12:15	Fine	57.8	60.3	53.6	58.0	57.8 Measured $\leq$ Baseline
30-Dec-24	12:10	Fine	57.0	59.7	55.1	58.0	57 Measured $\leq$ Baseline

Location NM3 - Man Kok Village							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}	L _{eq}
4-Dec-24	11:20	Fine	63.1	67.0	55.8	63.4	63.1 Measured $\leq$ Baseline
10-Dec-24	11:55	Fine	64.2	66.6	55.7	63.4	56.5
16-Dec-24	11:10	Fine	63.6	67.1	56.3	63.4	50.1
24-Dec-24	11:25	Fine	63.8	67.6	57.9	63.4	53.2
30-Dec-24	11:30	Fine	64.2	68.2	59.7	63.4	56.5

*Remark: Free field noise levels were adjusted with a correlation of +3 dB(A)

Noise Levels



Title	Shek Wu Hui Effluent Polishing Plant - Main Works	Date	Dec 2024	Project No.	MA24087	CINOTECH
	Graphical Presentation of Construction Noise Monitoring Results			Appendix	H	

**APPENDIX I
ECOLOGICAL MONITORING RESULTS
AND ANALYSIS**

MA24087 - Ecological Monitoring Result and Analysis
Table I: Recorded Bird Species and their Abundance in the Reporting Month

Scientific Name	Common Name	Chinese Name	Waterbird	Point Count Abundance	Transect Abundance
<i>Acridotheres cristatellus</i>	Crested Myna	八哥		41	+++++
<i>Actitis hypoleucos</i>	Common Sandpiper	磯鶯	*	10	+
<i>Alcedo atthis</i>	Common Kingfisher	普通翠鳥	*	0	+
<i>Amaurornis phoenicurus</i>	White-breasted Waterhen	白胸苦惡鳥	*	1	
<i>Anthus hodgsoni</i>	Olive Backed Pipit	樹鵲		0	+
<i>Apus nipalensis</i>	House Swift	小白腰雨燕		0	+
<i>Ardea alba</i>	Great Egret	大白鷺	*	15	+
<i>Ardea cinerea</i>	Grey Heron	蒼鷺	*	51	+
<i>Ardeola bacchus</i>	Chinese Pond Heron	池鷺	*	24	+
<i>Bubulcus coromandus</i>	Eastern Cattle Egret	牛背鷺	*	44	
<i>Ceryle rudis</i>	Pied Kingfisher	斑魚狗	*	2	
<i>Charadrius dubius</i>	Little Ringed Plover	金眶鸕	*	0	+
<i>Columba livia</i>	Domestic Pigeon	原鴿		0	++
<i>Copsychus saularis</i>	Magpie Robin	鵲鴝		7	++
<i>Corvus macrorhynchos</i>	Jungle Crow	大嘴烏鴉		6	+
<i>Corvus torquatus</i>	Collared Crow	白頸鴉	*	2	
<i>Egretta garzetta</i>	Little Egret	小白鷺	*	45	++
<i>Gallinago gallinago</i>	Common Snipe	扇尾沙錐	*	0	++++
<i>Garrulax perspicillatus</i>	Masked Laughing Thrush	黑臉噪鵲		1	+++++
<i>Halcyon smyrnensis</i>	White-throated Kingfisher	白胸翡翠	*	6	+
<i>Himantopus himantopus</i>	Black-winged Stilt	黑翅長腳鵲	*	48	+++++
<i>Lanius schach</i>	Rufous-backed Shrike	棕背伯勞		0	+
<i>Lonchura punctulata</i>	Spotted Munia	斑文鳥		23	
<i>Milvus migrans</i>	Black Kite	黑鳶	*	2	+
<i>Motacilla alba</i>	White Wagtail	白鵲鴿		25	++++
<i>Motacilla cinerea</i>	Grey Wagtail	灰鵲鴿		1	+
<i>Motacilla tschutschensis</i>	Eastern Yellow Wagtail	東黃鵲鴿		0	+
<i>Orthotomus sutorius</i>	Common Tailorbird	長尾縫葉鶯		2	++
<i>Parus minor</i>	Japanese Tit	遠東山雀		3	++
<i>Passer montanus</i>	Eurasian Tree Sparrow	樹麻雀		57	+++++
<i>Phalacrocorax carbo</i>	Great Cormorant	普通鸕鶿	*	30	+++
<i>Phoenicurus aureoreus</i>	Daurian Redstart	北紅尾鸲		0	+
<i>Phylloscopus fuscatus</i>	Dusky Warbler	褐柳鶯		6	+
<i>Phylloscopus inornatus</i>	Yellow-browed Warbler	黃眉柳鶯		7	++
<i>Phylloscopus proregulus</i>	Pallas's Leaf Warbler	黃腰柳鶯		2	
<i>Pica serica</i>	Magpie	喜鵲		2	++
<i>Platalea leucorodia</i>	Eurasian Spoonbill	白琵鷺	*	0	+
<i>Platalea minor</i>	Black-faced Spoonbill	黑臉琵鷺	*	0	+
<i>Psittacula eupatria</i>	Alexandrine Parakeet	亞歷山大鸚鵡		2	+
<i>Pycnonotus jocosus</i>	Crested bulbul	紅耳鸲		155	+++++
<i>Pycnonotus sinensis</i>	Chinese Bulbul	白頭鸲		6	++
<i>Recurvirostra avosetta</i>	Pied Avocet	反嘴鹮	*	183	
<i>Saxicola stejnegeri</i>	Stejneger's Stonechat	黑喉石鸲		1	+
<i>Streptopelia chinensis</i>	Spotted Dove	珠頸斑鳩		15	+++
<i>Sturnus nigricollis</i>	Black-necked Starling	黑領椋鳥		48	+++++
<i>Tringa glareola</i>	Wood Sandpiper	林鸲	*	1	+
<i>Tringa ochropus</i>	Green Sandpiper	白腰草鸲	*	3	
<i>Tringa stagnatilis</i>	Marsh Sandpiper	澤鸲	*	1	
<i>Turdus cardis</i>	Japanese Thrush	烏灰鸲		0	+
<i>Turdus hortulorum</i>	Grey-backed Thrush	灰背鸲		0	+
<i>Urocissa erythrorhyncha</i>	Red-billed Blue Magpie	紅咀藍鸲		0	+
<i>Zosterops simplex</i>	Swinhoe's White-eye	暗綠繡眼鳥		11	++
Total Point Count Abundance				889	
Total Waterbirds				468	

*For waterbird

For transect abundance, +: <10, ++: 11-20, +++: 21-30, ++++: 31-40, +++++: >40

Remarks: (1) According to S4.7 of the approved Baseline Monitoring Report (Ecology), "waterbirds" was defined as "waterbirds and wetland-dependent species", which was referenced to Monthly Waterbird Monitoring Biannual Reports prepared by the Hong Kong Bird Watching Society (Anon, 2018). Also, S.13.11.3.2 of NENT NDA EIA Study requires "Monitoring of Measures to Mitigate for Impacts of the Project on Wetland-dependent Fauna using the Ng Tung, Sheung Yue and Shek Sheung Rivers". Therefore, "wetland-dependent birds" should be considered as "waterbirds". As raptors and Collared Crow are "wetland-dependent species", they should be taken into consideration in data analysis and impact assessment on waterbirds.

Contract No. SPW 08/2024 Shek Wu Hui Effluent Polishing Plant - Main Works		Project No. MA24087	CINOTECH
Monthly Data Analysis for Ecological Monitoring	Date December 2024	Appendix I	

MA24087 - Waterbird Ecological Monitoring Result

Monitoring Month Dec
Season Winter

Table II : Total Bird Abundance from Point Count						
Survey Information				Total Bird Abundance from Point Count		
No.	Date	Time	Tide Level	Individuals Recorded	Total	Species Recorded
#1	5 Dec 2024	14:30	High	103	265	18
		11:30	Low	162		21
#2	12 Dec 2024	16:00	High	71	177	18
		14:00	Low	106		19
#3	21 Dec 2024	15:00	High	92	222	20
		12:00	Low	130		15
#4	24 Dec 2024	15:00	High	85	225	20
		12:25	Low	140		17
				Overall Total	889	

Table III: Total Waterbird Abundance from Point Count					
Survey Information				Numbers of Waterbirds	
No.	Date	Time	Tide Level	Individuals Recorded	Total
#1	5 Dec 2024	14:30	High	60	149
		11:30	Low	89	
#2	12 Dec 2024	16:00	High	25	87
		14:00	Low	62	
#3	21 Dec 2024	15:00	High	31	114
		12:00	Low	83	
#4	24 Dec 2024	15:00	High	22	118
		12:25	Low	96	
				Overall Total	468
				Average	117

Table IV: T-Test Analysis for All Waterbirds

Baseline Data
Monthly Average Abundance (Dec) 71.33
Seasonal Average Abundance (Winter) 62.15

T-test
The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:
 H_0 The data collected in the reporting month falls within the normal distrubution when compared to the baseline monitoring data.
 H_1 The data collected does not falls within the normal distrubution when compared to the baseline monitoring data.

If t-test value is smaller than the critical value, then rejects H_0 .
For the data in the reporting month, the critical values are:
Crit. Value = -2.353 (95% Confidence Level)
Crit. Value = -4.541 (99% Confidence Level)

Confidence Level				
T-values of Data in Reporting Month			95%	99%
Abundance	Monthly	3.597	✓	✓
	Season	4.320	✓	✓

Overall: ✓ ✓

Remarks:
✓ = T-value falls within the confidence level, the impact monitoring data shows no significant difference to the baseline data.
✗ = T-value falls outside the confidence level, the impact monitoring data shows significant difference to the baseline data.

Contract No. SPW 08/2024 Shek Wu Hui Effluent Polishing Plant - Main Works		Project No. MA24087	CINOTECH
Monthly Data Analysis for Ecological Monitoring	Date December 2024	Appendix I	

MA24087 - Waterbird Ecological Monitoring Result

Monitoring Month Dec
Season Winter

Table V: Abundance of Representative Waterbirds from Point Count											
Representative Species			Recorded Abundance					Baseline Data			
Species Name	Common Name	Chinese Name	5 Dec 2024	12 Dec 2024	21 Dec 2024	24 Dec 2024		Total	Average	Avg (Dec)	Avg (Winter)
<i>Egretta garzetta</i>	Little Egret	小白鷺	17	7	11	10		45	11	13	15
<i>Ardea cinerea</i>	Grey Heron	蒼鷺	13	12	10	16		51	13	17	13
<i>Ardeola bacchus</i>	Chinese Pond Heron	池鷺	5	4	12	3		24	6	9	9
<i>Phalacrocorax carbo</i>	Great Cormorant	普通鸕鶿	10	8	7	5		30	8	12	7
<i>Ardea alba</i>	Great Egret	大白鷺	6	2	4	3		15	4	6	5
<i>Bubulcus coromandus</i>	Eastern Cattle Egret	牛背鷺	5	20	10	9		44	11	6	4

Table VI: T-test Analysis for Representative Waterbirds from Point Count

The following hypothesis was made and a one-tail t-test will be used to test the data collected from the monitoring:

H₀ The data collected in the reporting month falls within the normal distrubution when compare to the baseline monitoring data.

H₁ The data collected does not falls within the normal distrubution when compare to the baseline monitoring data.

If t-test value for a specific representative is smaller than the critical value, then rejects H₀.

For the data in the reporting month, the critical values are:

Crit. Value = -2.353 (95% Confidence Level)

Crit. Value = -4.541 (99% Confidence Level)

Representative Species			T-value	Confidence Level		T-value	Confidence Level		Overall
Species Name	Common Name	Chinese Name	Monthly	95%	99%	Seasonal	95%	99%	
<i>Egretta garzetta</i>	Little Egret	小白鷺	-0.914	✓	✓	-1.617	✓	✓	✓
<i>Ardea cinerea</i>	Grey Heron	蒼鷺	-3.533	✗	✓	-0.282	✓	✓	✓
<i>Ardeola bacchus</i>	Chinese Pond Heron	池鷺	-1.388	✓	✓	-1.583	✓	✓	✓
<i>Phalacrocorax carbo</i>	Great Cormorant	普通鸕鶿	-4.323	✗	✓	0.357	✓	✓	✓
<i>Ardea alba</i>	Great Egret	大白鷺	-3.025	✗	✓	-1.824	✓	✓	✓
<i>Bubulcus coromandus</i>	Eastern Cattle Egret	牛背鷺	1.516	✓	✓	2.155	✓	✓	✓

Remarks

* Great Cormorant (*Phalacrocorax carbo*) and Grey Heron (*Ardea cinerea*) were not recognised as representative waterbird species during Summer.

✓ = T-value falls within the confidence level, the impact monitoring data shows no significant difference to the baseline data.

✗ = T-value falls outside the confidence level, the impact monitoring data shows significant difference to the baseline data.

Contract No. SPW 08/2024		Project No.	CINOTECH
Shek Wu Hui Effluent Polishing Plant - Main Works		MA24087	
Monthly Data Analysis for Ecological Monitoring	Date December 2024	Appendix I	

APPENDIX J
PHOTO RECORDS OF ECOLOGICAL
MONITORING

Appendix J - Photo Records of Ecological Monitoring

Part A - Conditions of Rivers



Sheung Yue River (Taken on 05 December 2024)



Ng Tung River (Taken on 12 December 2024)



Shek Sheung River (Taken on 21 December 2024)

Part B – Waterbird Species

	
<i>Bubulcus coromandus</i> (Taken on 05 December 2024)	<i>Phalacrocorax carbo</i> (Taken on 12 December 2024)
	
<i>Halcyon smyrnensis</i> (Taken on 24 December 2024)	<i>Ardea cinerea</i> (Taken on 21 December 2024)
	
<i>Ardea alba</i> (Taken on 24 December 2024)	<i>Himantopus himantopus</i> (Taken on 05 December 2024)

Part C – Human Activities & Site Conditions



Manlift (Project-related, taken on 21 November 2024)



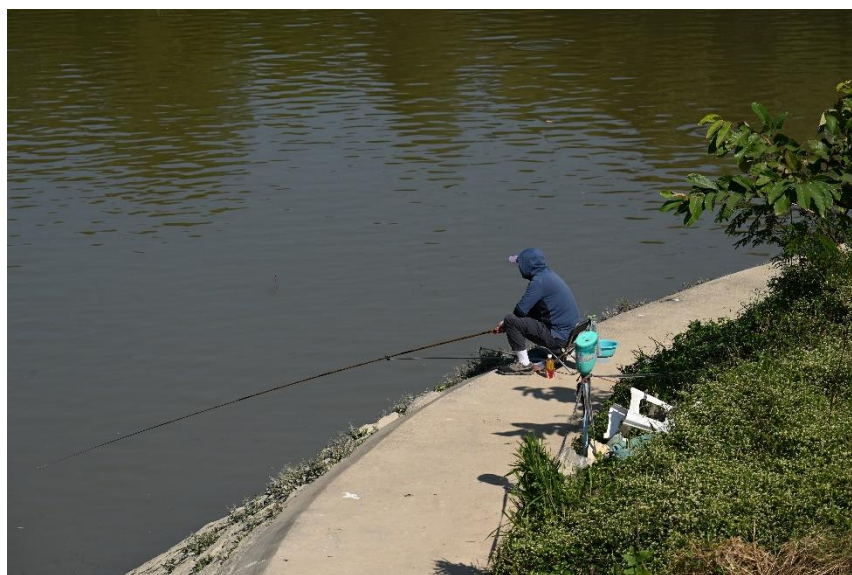
Craning (Project-related, taken on 05 December 2024)



Craning (Non-project-related, taken on 21 December 2024)



Excavation (Non-project-related, taken on 24 December 2024)



Fishing (Non-project-related, taken on 21 December 2024)



Grazing (Non-project-related, taken on 24 December 2024)



Sheet-piling (Non-project-related, taken on 12 December 2024)

APPENDIX K
SITE AUDIT SUMMARY

Agreement No. SPW08/2024
Contract No. DC/2018/06
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	241205
Date	05 December 2024 (Thursday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None Identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
241205-R1	• The dust material of the stockpile should be covered property.	C01
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology	
	• No environmental deficiency was identified during the site inspection.	
	G. Others	
	• Following up on the previous site inspection (ref no.: 241126): Items 241121-R1 & R2 were rectified/improved by the Contractor	

	Name	Signature	Date
Recorded by	Charles Fung		05 December 2024
Checked by	Senara Ng		09 December 2024

Agreement No. SPW08/2024
Contract No. DC/2018/06
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	241212
Date	12 December 2024 (Thursday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None Identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Ecology	
	• No environmental deficiency was identified during the site inspection.	
	G. Others	
	• Following up on the previous site inspection (ref no.: 241205): Items 241205-R1 was rectified/improved by the Contractor	

	Name	Signature	Date
Recorded by	Charles Fung		12 December 2024
Checked by	Senara Ng		16 December 2024

Agreement No. SPW08/2024
Contract No. DC/2018/06
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	241217
Date	17 December 2024 (Tuesday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None Identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
241217-R1	• General refuse near the river should be removed.	E02ii
	F. Ecology	
	• No environmental deficiency was identified during the site inspection.	
	G. Others	
	• Following up on the previous site inspection (ref no.: 241205): Items 241205-R1 was rectified/improved by the Contractor	

	Name	Signature	Date
Recorded by	Charles Fung		17 December 2024
Checked by	Senara Ng		19 December 2024

Agreement No. SPW08/2024
Contract No. DC/2018/06
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	241224
Date	24 December 2024 (Tuesday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None Identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
241224-R1	• General refuse should be disposed of regularly and properly.	E04ii
	F. Ecology	
	• No environmental deficiency was identified during the site inspection.	
	G. Others	
	• Following up on the previous site inspection (ref no.: 241217): Items 241217-R1 was rectified/improved by the Contractor	

	Name	Signature	Date
Recorded by	Charles Fung		24 December 2024
Checked by	Senara Ng		17 December 2024

Agreement No. SPW08/2024
Contract No. DC/2018/07
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241205
Date	05 December 2024 (Thursday)
Time	10:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None Identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
241205-R2	• Water spraying should be provided to haul road.	C05
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
241205-R1	• General refuse should be disposed of regular and properly.	E04ii
	F. Permits / Licences	
	• No environmental deficiency was identified during the site inspection.	
	G. Others	
	• Following up on the previous site inspection (ref no.: 241126): Items 2411216-R1 was rectified/improved by the Contractor.	

	Name	Signature	Date
Recorded by	Charles Fung		05 December 2024
Checked by	Senara Ng		09 December 2024

Agreement No. SPW08/2024
Contract No. DC/2018/07
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241212
Date	12 December 2024 (Thursday)
Time	10:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None Identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Permits / Licences	
	• No environmental deficiency was identified during the site inspection.	
	G. Others	
	• Following up on the previous site inspection (ref no.: 241205); Items 241205-R1&R2 were rectified/improved by the Contractor.	

	Name	Signature	Date
Recorded by	Charles Fung		12 December 2024
Checked by	Senara Ng		16 December 2024

Agreement No. SPW08/2024
Contract No. DC/2018/07
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241217
Date	17 December 2024 (Tuesday)
Time	10:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None Identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
241217-R1	• Used cement bag should be removed or disposed properly.	E04ii
	F. Permits / Licences	
	• No environmental deficiency was identified during the site inspection.	
	G. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241212).	

	Name	Signature	Date
Recorded by	Charles Fung		17 December 2024
Checked by	Senara Ng		19 December 2024

Agreement No. SPW08/2024
Contract No. DC/2018/07
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241224
Date	24 December 2024 (Tuesday)
Time	10:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None Identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	D. Noise	
	• No environmental deficiency was identified during the site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	F. Permits / Licences	
	• No environmental deficiency was identified during the site inspection.	
	G. Others	
	• Following up on the previous site inspection (ref no.: 241217): Item 241217- R1 was rectified/improved by the Contractor.	

	Name	Signature	Date
Recorded by	Charles Fung		24 December 2024
Checked by	Senara Ng		27 December 2024

Agreement No. SPW08/2024
Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241205
Date	05 December 2024 (Thursday)
Time	12:00 – 12:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241126).	

	Name	Signature	Date
Recorded by	Charles Fung		05 December 2024
Checked by	Serena Ng		09 December 2024

Agreement No. SPW08/2024
Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241210
Date	10 December 2024 (Tuesday)
Time	15:00 – 16:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241205).	

	Name	Signature	Date
Recorded by	Charles Fung		10 December 2024
Checked by	Serena Ng		12 December 2024

Agreement No. SPW08/2024
Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241217
Date	17 December 2024 (Tuesday)
Time	11:30 – 12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241210).	

	Name	Signature	Date
Recorded by	Charles Fung		17 December 2024
Checked by	Serena Ng		19 December 2024

Agreement No. SPW08/2024
Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241224
Date	24 December 2024 (Tuesday)
Time	11:30 – 12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241217).	

	Name	Signature	Date
Recorded by	Charles Fung		24 December 2024
Checked by	Serena Ng		27 December 2024

Agreement No. SPW08/2024
Contract No. DE/2018/03
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241231
Date	31 December 2024 (Tuesday)
Time	10:30 – 11:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241224).	

	Name	Signature	Date
Recorded by	Charles Fung		31 December 2024
Checked by	Serena Ng		02 January 2025

Agreement No. SPW08/2024
Contract No. DE/2018/04
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241205
Date	05 December 2024 (Thursday)
Time	11:30 – 12:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241126).	

	Name	Signature	Date
Recorded by	Charles Fung		05 December 2024
Checked by	Serena Ng		09 December 2024

Agreement No. SPW08/2024
Contract No. DE/2018/04
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241210
Date	10 December 2024 (Tuesday)
Time	14:00 – 15:00

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241205).	

	Name	Signature	Date
Recorded by	Charles Fung		10 December 2024
Checked by	Serena Ng		12 December 2024

Agreement No. SPW08/2024
Contract No. DE/2018/04
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241217
Date	17 December 2024 (Tuesday)
Time	12:00 – 12:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241210).	

	Name	Signature	Date
Recorded by	Charles Fung		17 December 2024
Checked by	Serena Ng		19 December 2024

Agreement No. SPW08/2024
Contract No. DE/2018/04
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241224
Date	24 December 2024 (Tuesday)
Time	12:00 – 12:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241217).	

	Name	Signature	Date
Recorded by	Charles Fung		24 December 2024
Checked by	Serena Ng		27 December 2024

Agreement No. SPW08/2024
Contract No. DE/2018/04
Shek Wu Hui Effluent Polishing Plant – Main Works

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	241231
Date	31 December 2024 (Tuesday)
Time	09:30 – 10:30

Ref. No.	Non-Compliance	Related Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	• No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	• No environmental deficiency was identified during site inspection.	
	D. Noise	
	• No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	• No environmental deficiency was identified during site inspection.	
	F. Visual and Landscape	
	• No environmental deficiency was identified during site inspection	
	G. Permits /Licences	
	• No environmental deficiency was identified during site inspection.	
	H. Others	
	• No environmental deficiency was identified during the previous site inspection (ref. 241224).	

	Name	Signature	Date
Recorded by	Charles Fung		31 December 2024
Checked by	Serena Ng		02 January 2025

APPENDIX L
WASTE FLOW TABLE

Monthly Summary Waste Flow Table for 2024

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill		Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000m3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m3)
Jan	0.089	0.000	0.000	0.000	0.089	0.072	0.000	0.000	0.000	0.000	0.011
Feb	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.030
Mar	0.144	0.000	0.000	0.000	0.144	0.012	0.000	0.000	0.008	0.000	0.021
Apr	0.060	0.000	0.000	0.000	0.060	0.000	0.000	0.000	0.014	0.000	0.032
May	0.000	0.000	0.000	0.000	0.000	0.072	0.000	0.000	0.000	0.000	0.046
Jun	0.005	0.000	0.000	0.000	0.005	0.083	0.000	0.000	0.001	0.000	0.035
Sub-total	0.299	0.000	0.000	0.000	0.299	0.239	0.000	0.000	0.023	0.000	0.176
Jul	0.000	0.000	0.000	0.000	0.000	0.223	0.000	0.000	0.002	0.000	0.015
Aug	0.062	0.000	0.000	0.000	0.062	0.168	0.002	0.000	0.003	0.000	0.025
Sep	0.076	0.000	0.000	0.000	0.076	0.036	0.000	0.000	0.000	0.000	0.017
Oct	0.080	0.000	0.000	0.000	0.080	0.000	0.0006	0.000	0.001	0.000	0.055
Nov	0.084	0.000	0.000	0.000	0.084	0.007	0.000	0.000	0.000	0.000	0.018
Dec	0.035	0.000	0.000	0.000	0.035	0.030	0.0004	0.000	0.0004	0.000	0.016
Total	0.635	0.000	0.000	0.000	0.635	0.703	0.003	0.000	0.030	0.000	0.322

- Notes:
1. Assume the density of soil fill is 2 ton/m3.
 2. Assume the density of rock and broken concrete is 2.5 ton/m3.
 3. Assume the density of general refuse is 0.9 ton/m3.
 4. Assume density of waste oil is assumed to be 0.8 kg/L.
 5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38.
 6. The non-inert C&D wastes are disposed at NENT.
 7. The quantities of C&D material disposed at Public Fill Facilities and Landfill was until 19/10/2023.

Monthly Summary Waste Flow Table for 2024

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill		Paper/ cardboard packaging		Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0.489	0.000	0.000	0.000	0.489	0.012	0.00	0.000	0.000	0.000	0.122
Feb	0.425	0.000	0.000	0.000	0.425	0.120	0.00	0.000	0.004	0.000	0.141
Mar	1.793	0.000	0.000	0.000	1.793	0.739	0.00	0.000	0.007	0.000	0.165
Apr	1.367	0.000	0.000	0.000	1.367	0.550	0.00	0.000	0.014	0.000	0.149
May	0.847	0.000	0.000	0.072	0.775	0.470	0.00	0.000	0.000	0.000	0.207
Jun	0.699	0.000	0.000	0.083	0.617	0.571	0.00	0.000	0.000	0.000	0.220
Sub-total	5.620	0.000	0.000	0.155	5.465	2.462	0.000	0.000	0.026	0.000	1.004
Jul	1.097	0.000	0.000	0.245	0.852	0.753	0.00	0.000	0.000	0.000	0.182
Aug	1.515	0.000	0.000	0.145	1.369	0.212	0.00	0.000	0.003	0.000	0.087
Sep	0.936	0.000	0.000	0.036	0.899	0.354	0.00	0.000	0.000	0.000	0.069
Oct	0.731	0.000	0.000	0.000	0.731	0.042	0.00	0.000	0.001	0.000	0.062
Nov	0.582	0.000	0.000	0.000	0.582	0.526	0.00	0.000	0.000	0.000	0.057
Dec	0.885	0.000	0.000	0.000	0.885	0.391	0.00	0.000	0.001	0.000	0.118
Total	11.365	0.000	0.000	0.581	10.784	4.739	0.000	0.000	0.031	0.000	1.579

- Notes:
1. Assume the density of soil fill and special waste (i.e. sediment from DSD sedimentation tank) is 2 ton/m³.
 2. Assume the density of rock and broken concrete is 2.5 ton/m³
 3. Assume the density of general refuse is 0.9 ton/m³
 4. Density of waste oil is assumed to be 0.8 kg/L. Chemical waste includes waste oil.
 5. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38
 6. The slurry and bentonite are disposed at Tseung Kwun O 137
 7. The non-inert C&D wastes, including general refuse & special waste (i.e. sediment from DSD sedimentation tank) are disposed at NENT

EM&A Monthly Reporting Template (cut-off at the end of each month)

Name of Department: ArchSD/CEDD/DSD/EMSD/HyD/WSD

Contract No.: DE/2018/03

Monthly Summary Waste Flow Table for **2024** (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	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 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000m³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m³)
Jan	0	0	0	0	0	0	0.003	0.02	0.006	0	41.05T
Feb	0	0	0	0	0	0	0	0	0	0	21.68T
Mar	0	0	0	0	0	0	24.27	0.108	0	0	16.04T
Apr	0	0	0	0	0	0	0	0.199	0	0	20.22T
May	0	0	0	0	0	0	0	0.109	0	0	18.53T
June	0	0	0	0	0	0	0	0.105	0	0	19.84T
Sub-total	0	0	0	0	0	0	24.27	0.541	0.006	0	137.36T
July	0	0	0	0	0	0	0.007	0.175	0.017	0	18.89T
Aug	0	0	0	0	0	0	0	0.108	0	0	66.37T
Sept	0	0	0	0	0	0	0.005	0.108	0.014	0	39.98T
Oct	11.22 T	0	0	0	11.22 T	0	0	0.133	0.005	0	18T
Nov	24.62 T	0	0	0	24.62 T	0	0	0.218	0.008	0	39.02T
Dec	6T	0	0	0	6T	0	0	0.089	0.008	0	22.56T
Total	41.84TT	0	0	0	41.84T	0	24.285	1.372	0.058	0	342.18T

Name of Department: DSD

Contract No.: DE/2018/04**Monthly Summary Waste Flow Table for 2024** (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	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 '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000 kg)
Jan	0	0	0	0	0	0	0	0	0	0	1.69
Feb	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	4.57
May	0	0	0	0	0	0	0	0	0	0	0.54
June	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	6.8
July	0	0	0	0	0	0	0	0	0	0	0.92
Aug	0	0	0	0	0	0	0	0	0	0	18.19
Sept	39.87	0	0	0	39.87	0	0	0	0	0	6.97
Oct	0	0	0	0	0	0	0	0	0	0	2.35
Nov	0	0	0	0	0	0	0	0.105	0	0	3.49
Dec	18.78	0	0	0	18.78	0	0	0	0	0	3.66
Total	58.65	0	0	0	58.65	0	0	0.105	0	0	42.38

APPENDIX M
EVENT AND ACTION PLANS

Appendix M - Event Action Plans

Table M-1 Event/Action Plan for Air Quality

Event	Action			
	ET	IEC	ER	Contractor
Action level being exceeded by one sampling	1. Identify source, investigate the causes of complaint and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
Action level being exceeded by two or more consecutive sampling	1. Identify source; 2. Inform IEC and ER; 3. Advise the 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,	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 ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within three working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

Appendix M - Event Action Plans

Event	Action			
	ET	IEC	ER	Contractor
	arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring.			
Limit level being exceeded by one sampling	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Contractor, IEC, ER, and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
Limit level being exceeded by two or more consecutive sampling	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings;	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consolidation with the	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within three working days of notification;

Appendix M - Event Action Plans

Event	Action			
	ET	IEC	ER	Contractor
	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; 8. If exceedance stops, cease additional monitoring.	necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 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.	3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix M - Event Action Plans

Table M-2 Event/Action Plan for Construction Noise

Event	Action			
	ET	IEC	ER	Contractor
Action Level	1. Notify IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.
Limit Level	1. Identify source; 2. Inform IEC, ER, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem;	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;

Appendix M - Event Action Plans

Event	Action			
	ET	IEC	ER	Contractor
	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; 8. If exceedance stops, cease additional monitoring.	3. Supervise the implementation of remedial measures.	4. Ensure remedial measures properly implemented; 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.	4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Appendix M - Event Action Plans

Table M-3 Event/Action Plan for Ecology

Action Level	Response	Limit Level	Response
Construction Phase			
Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to the Project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of all waterbird species relative to numbers during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to the Project instigate remedial action.
Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Action Level response is triggered.	Investigate cause and if cause identified as related to the Project instigate remedial action to remove or reduce source of disturbance.	Decline in numbers of any one waterbird species occurring in significant numbers* during Baseline Monitoring such that the Limit Level response is triggered.	Investigate cause and if caused identified as related to the Project instigate remedial action.

Appendix M - Event Action Plans

Table M-4 Event/Action Plan for Landscape and Visual

Event	Action			
	ET	IEC	ER	Contractor
Non-conformity on one occasion	1. Inform the Contractor, IEC and ER; 2. Discuss remedial actions with IEC, ER and Contractor 3. Monitor remedial actions until rectification has been completed.	1. Check inspection report; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise ER on effectiveness of proposed remedial measures.	1. Confirm receipt of notification of non-conformity in writing; 2. Review and agree on the remedial measures proposed by the Contractor; 3. Supervise implementation of remedial measures.	1. Identify source and investigate the non-conformity; 2. Implement remedial measures; 3. Amend working methods agreed with ER as appropriate; 4. Rectify damage and undertake any necessary replacement.

Appendix M - Event Action Plans

Event	Action			
	ET	IEC	ER	Contractor
Repeated Non-conformity	1. Identify source; 2. Inform the Contractor, IEC and ER; 3. Discuss inspection frequency; 4. Discuss remedial actions with IEC, ER and Contractor; 5. Monitor remedial actions until rectification has been completed; 6. If non-conformity stops, cease additional monitoring.	1. Check inspection report; 2. Check Contractor's working method; 3. Discuss with ET, ER and Contractor on possible remedial measures; 4. Advise ER on effectiveness of proposed remedial measures.	1. Notify the Contractor; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise implementation of remedial measures.	1. Identify source and investigate the non-conformity; 2. Implement remedial measures; 3. Amend working methods agreed with ER as appropriate; 4. Rectify damage and undertake any necessary replacement. Stop relevant portion of works as determined by ER until the non-conformity is abated.

APPENDIX N
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Air Quality Impact							
S2.3.1.3	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices:	To minimize the dust impact	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Air Pollution Control Ordinance (APCO) and Air Pollution Control (Construction Dust) Regulation	^
	Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading;						^
	Any dusty material remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads;						*
	A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones;						^
	The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle;						^
	Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores;						^
	When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period.						^
	The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials;						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S2.3.1.3	Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously;	To minimize the dust impact	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Air Pollution Control Ordinance (APCO) and Air Pollution Control (Construction Dust) Regulation	^
	Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet;						^
	Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding;						^
	Any skip hoist for material transport should be totally enclosed by impervious sheeting;						^
	Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;						^
	Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed;						^
	Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and						^
	Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Noise Impact							
S3.2.1.1	Use of movable barrier, enclosure, acoustic mat and quiet plant. Use of wooden frames barrier with a small-cantilevered upper portion of superficial density not less than 14kg/m ² on a skid footing with 25mm thick internal sound absorptive lining.	To minimize construction noise impact arising from the Project at the affected noise sensitive receivers (NSRs)	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, Noise Control Ordinance (NCO)	^
S3.2.1.2	Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program.	To minimize construction noise impact arising from the Project at the affected NSRs	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, NCO	^
	Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program.						^
	Mobile plant, if any, should be sited as far away from NSRs as possible.						^
	Machines and plant (such as trucks) that may be in intermittent use should be shut down between works periods or should be throttled down to a minimum.						^
	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 utilized, wherever practicable, in screening noise from on-site construction activities.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Ecological Impact							
S4.2.1.1	Solid dull green noise/visual barriers of at least 2m high shall be erected and maintained between active works area and all areas of ecological importance.	Minimize noise and human disturbances during construction phase.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.2	Avoid unnecessary lighting.	Minimize mortality impacts on birds.	Design / Contractor/ Plant Operator	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.3	Good construction site practice to minimise dust generation should be followed on all construction sites. Measures to avoid, minimise and mitigate impacts on air quality are detailed in this schedule	Minimize dust generation from construction sites.	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
S4.2.1.4	Temporary sewerage and drainage to be designed and installed to collect wastewater and prevent it from entering water bodies;	Avoid, minimise and mitigate impact on water quality	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
	Proper locations well away from nearby water bodies should be used for temporary storage of materials (i.e. equipment, filling materials, chemicals and fuel) and temporary stockpiles of construction debris and spoil, and these should be identified before commencement of works;						^
	To prevent muddy water entering nearby water bodies, work sites close to nearby water bodies should be isolated, using such items as sandbags or silt curtains with lead edge at bottom and properly supported props. Other protective measures should also be taken to ensure that no pollution or siltation occurs to the water gathering grounds of the work sites;						^
	Construction debris and spoil should be covered and/or properly disposed of as soon as possible to avoid these being washed into nearby water bodies;						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S4.2.1.4	Proper locations for discharge outlets of temporary wastewater treatment facilities well away from sensitive receivers should be identified;	Avoid, minimise and mitigate impact on water quality	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM	^
	Adequate lateral support should be erected where necessary in order to prevent soil/mud from slipping into water bodies;						^
	Site boundaries should be clearly marked and any works beyond the boundary strictly prohibited;						^
	Regular water monitoring and site audit should be carried out at adequate points along any watercourses where construction works are underway upstream within their catchments and also on the Ng Tung, Sheung Yue and Shek Sheung Rivers. If the monitoring and audit results show that pollution occurs, adequate measures including temporarily cessation of works should be considered;						^
	Excavation profiles should be properly designed and executed with attention to the relevant requirements for environment, health and safety;						^
	Where soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means;						^
	Stockpiling sites should be lined with impermeable sheeting and bunded. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during dry season or contaminated run-off during rainy season. Watering should be avoided on stockpiles of contaminated soil to minimize contaminated runoff and construction materials should be properly covered and located away from nearby water bodies; and						^
	Supply of suitable clean backfill material after excavation, if required.						^
	Vehicles containing any excavated materials should be suitably covered to limit potential dust emissions or contaminated run-off, and truck bodies and tailgates should be sealed to prevent discharge during transport or during wet season;						^
	Speed control for the trucks carrying contaminated materials should be enforced;						^
	Vehicle wheel washing facilities at construction sites' exit points should be established and used, where necessary						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Water Quality Impact							
S5.2.2.1	Construction Site Runoff Practices and measures provided in the Practice Note for Professional Persons on Construction Site Drainage, (PROPECC PN2/23) should be followed where applicable.	Control construction runoff	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
S5.2.2.2 – S5.2.2.3	Portable chemical toilets and sewage holding tanks should be provided for handling the construction sewage generated by the workforce. A licensed Contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	Handling of site sewage	Contractors	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	EIAO-TM, WPCO, EIAO	^
	Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment during the construction phase of the Project. Regular environmental audit on construction site should be conducted in order to provide an effective control of any malpractices and achieve continual improvement of environmental performance on site. It is anticipated that sewage generation during the construction phase of the Project would not cause water quality impact after undertaking all required measures						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Waste Management							
S6.2.2.1	Nomination of an approved person, such as a site manager, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;	Minimize waste generation during construction	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal Ordinance (WDO)	^
	Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;						^
	Provision of sufficient waste disposal points and regular collection for disposal;						*
	Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;						^
	Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;						^
	An Environmental Management Plan (EMP) should be prepared by the contractor and submitted to the Supervisor for approval.						^
S6.2.3.1	Segregate and store different types of waste in different containers, skip or stockpiles to enhance reuse or recycling of materials and their proper disposal;	Reduce waste generation	Contractor	Work Sites	Prior to the commencement of construction of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	Proper storage and site practices to minimize the potential for damage and contamination of construction materials;						^
	Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;						^
	Sort out demolition debris and excavated materials from demolition works to recover reusable/recyclable portions (i.e. soil, broken concrete, metal etc.); and						^
	Provide training to workers on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
6.2.4.1	Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and						^
	Different locations should be designated to stockpile each material to enhance reuse.						^
S6.2.4.2	Remove waste in timely manner;	Minimize waste impacts arising from waste storage	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	WDO	^
	Employ the trucks with cover or enclosed containers for waste transportation						^
	Obtain relevant waste disposal permits from the appropriate authorities						^
	Disposal of waste should be done at licensed waste disposal facilities.						^
S6.2.5.2	Maintain temporary stockpiles and reuse excavated fill material for backfilling;	Minimize waste impacts from excavated and C&D materials	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	Carry out on-site sorting;						^
	Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate;						^
	Adopt “selective demolition” technique to demolish the existing structure and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; and						^
	Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified.						^
S6.2.5.3	The Contractor should recycle as much as possible of the C&DM on-site. Public fill and C&DM waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. For example, concrete and masonry can be crushed and used as fill, and steel reinforcing bar can be used by scrap steel mills. Different areas of the work sites should be designated for such segregation and storage.	Minimize waste impacts from building demolition and new building construction	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S6.2.5.3	The use of wooden hoardings shall not be allowed. An alternative material, such as metal, aluminium or alloy etc, could be used.	Minimize waste impacts from building demolition and new building construction	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Land (Miscellaneous Provisions) Ordinance, WDO, ETWB TCW No. 19/2005	^
	Government has developed a charging policy for the disposal of waste to landfill at present. It will provide additional incentive to reduce the volume of generated waste and ensure proper segregation to allow reuse of the inert material on site when implemented.						^
	In order to minimize the impacts of the demolition works, the generated wastes must be cleared as quickly as possible after demolition. Therefore, the demolition and clearance works should be undertaken simultaneously. To facilitate proper segregation of inert and non-inert C&D material arising from demolition works, selective demolition method should be adopted.						^
S6.2.5.4	If chemical wastes are produced at the construction site, the Contractors should register with EPD as chemical waste producers.	Control the chemical waste and ensure proper storage, handling and disposal	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation, Code of Practice on the Packaging, Labelling and Storage of Chemical Waste	^
	Chemical wastes should be stored in appropriate containers and collected by a licensed chemical waste contractor. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the Chemical Waste Treatment Centre, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.						^
S6.2.5.5	General refuse should be stored in enclosed bins separately from construction and chemical wastes.	Minimize production of the general refuse and avoid odour, pest and litter impacts	Contractor	Work Sites	Construction phase of Main Works Stage 1, Stage 2 and Stage 3	Waste Disposal (Chemical Waste General) Regulation	*
	Recycling bins should also be placed to encourage recycling.						^
	Preferably enclosed and covered areas should be provided for general refuse collection and routine cleaning for these areas should also be implemented to keep areas clean.						^
	A reputable waste collector should be employed to remove general refuse on a daily basis.						^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
Landscape and Visual							
S7.3.1.1	For areas unavoidably disturbed by the Project on a short term basis e.g. works areas, the general principle to try and restore these to their former state to suit future land use, should be adhered to.	Minimize the impact to the landscape and visual	Contractor	Work Sites	Prior to construction and construction phase		^
	With regard to topsoil, where identified, it should be stripped, treated appropriately, and where suitable and practical stored for re-use in the construction of the soft landscape works such as roadside amenity strips, and open space sites.						^
S7.3.2.1	MM4 – Tree Protection & Preservation Existing trees to be retained within the Project Site should be carefully protected during construction. In particular Old and Valuable Trees (OVTs) will be preserved according to ETWB TC (Works) No. 29/2004. Detailed Tree Protection Specification shall be provided in the Contract Specification. Under this specification, the Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including trees in Contractor's works areas. A detailed tree survey will be carried out for the Tree Removal Application (TRA) process which will be carried out at the later detailed design stage of the Project. The detailed tree survey will propose which trees should be retained, transplanted or felled and will include details of tree protection measures for those trees to be retained.	Protect and Preserve Trees	Designer / Contractor	Work Sites	Prior to construction and construction phase	ETWB TCW No. 29/2004 and DEVB TC(W) No.7/2015	^

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S7.3.2.1	MM5 - Tree Transplantation Trees unavoidably affected by the Project works should be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery as far as possible. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, where applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. A detailed transplanting proposal will be submitted to relevant government departments for approval in accordance with ETWBTC No. 2/2004 and DEVB TC(W) No. 7/2015 and final locations of transplanted trees should be agreed prior to commencement of the work. For trees associated with highways e.g. roadside planting along highways, that are unavoidably affected and should be transplanted, HyD HQ/GN/13 'Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit' should be referred to.	Transplant Trees where suitable for transplantation	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No.2/2004 HyD HQ/GN/13 Interim Guidelines for Tree Transplanting Works under Highways Department's Vegetation Maintenance Ambit	Completed on 23 Sep 2020
S7.3.2.1	MM6 - Slope Landscaping Site formation should be reduced as far as possible. Hydroseeding of modified slopes should be done as soon as grading works are completed to prevent erosion and subsequent loss of landscape resources and character. Woodland tree seedings and/or shrubs should be planted where slope gradient and site conditions allow. In addition, landscape planting should be provided for the retaining structures associated with modified slopes where conditions allow. All slope landscaping works should comply with GWO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes.	To avoid substantial slope cutting and fill slopes. To prevent erosion and subsequent loss of landscape resources and character. To ensure man-made slopes are as visually amenable as possible.	Designer / Contractor	Work Sites	Prior to construction, construction phase and operation phase	GEO Publication (1999) - Use of Vegetation as Surface Protection on Slope; GEO Publication No. 1/2011-Technical Guidelines on Landscape Treatment for Slopes	Completed on 28 Feb 2023 Completed on 28 Feb 2023

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S7.3.2.1	MM7 - Compensatory Planting Compensatory tree planting for felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Removal Application process under DEVB TC(W) No. 7/2015.	Compensate for trees and shrubs lost due to the Project	Designer / Contractor	Work Sites where possible. Otherwise consider offsite locations	Prior to construction, construction phase and operation phase	DEVB TC(W) No. 7/2015 and ETWB TCW No. 2/2004	Latest amendment approved on 23 August 2023
	Compensatory planting is proposed at the potential open areas such as open spaces, amenity areas, open areas of the streetscapes, as well as the open areas within development lots.						Commenced in Sep 2024
	Compensatory planting for shrubs should be considered in suitable locations. Native species such as <i>Melastoma malabathricum</i> , <i>Diospyros vaccinioides</i> , <i>Gardenia jasminoides</i> , <i>Ixora chinensis</i> , <i>Ligustrum sinense</i> , <i>Litsea rotundifolia</i> , <i>Melastoma dodecandrum</i> , <i>Atalantia buxifolia</i> , <i>Rhodomyrtus tomentosa</i> , <i>Rhaphiolepis indica</i> , and <i>Rhododendron simsii</i> are suggested.						Commenced in Oct 2024
S7.3.2.1	MM9 - Vertical Greening Planting of climbers to grow up vertical surfaces were appropriate.	Soften hard surfaces and facilities	Designer / Contractor	On appropriate structures	Prior to construction, construction phase and operation phase	ETWB TCW No.11/2004 – Cyber Manual for Greening	To be commenced in Jan 2025 tentatively
S7.3.2.1	MM10 - Green Roof Roof greening where appropriate should be established on proposed buildings as per the guidelines stated. These guidelines provide further details including information regarding structural loading, design, maintenance, etc. considerations as well as providing information on what types of plants might be suitable.	Reduce exposure to untreated concrete surfaces and particularly mitigate visual impact to visually sensitive receivers (VSRs) at high levels. Provide greening.	Designer / Contractor	On appropriate buildings	Prior to construction, construction phase and operation phase	CIBSE HK Branch, Technical Guidelines for Green Roof Systems in Hong Kong (2011); ArchSD/Urbis Study on Green Roof Application in HK (2007)	Completed in Dec 2024

EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve	Status
S7.3.2.1	MM11 - Screen Planting Tall screen/buffer trees and shrubs should be planted. This measure may additionally form part of the compensatory planting.	To screen proposed structures such as roads and buildings. Improve compatibility with the surrounding environment and create a pleasant pedestrian environment	Designer / Contractor	Along roads, around suitable built structures, or around VSRs to contain their view out to the structures.	Prior to construction, construction phase and operation phase	ETWB TCW No. 10/2013 and 3/2006	Commenced in Sep 2024
S7.3.2.1	MM16 - Screen Hoarding Screen hoarding shall be erected along areas of the construction works site boundary where the works site borders publically accessible routes and/or is close to visually sensitive receivers (VSRs). It is proposed that the screening be compatible with the surrounding environment and where possible, non-reflective, recessive colours be used. Any works areas near the ecological sensitive areas should erect 2m high dull green site boundary fence.	To screen undesirable views of the works site.	Designer	Work Sites	Construction phase		^
S7.3.2.1	MM17 - Light Control Construction day and night time lighting should be controlled to minimize glare impact to adjacent VSRs during the Construction phase. Street and night time lighting shall also be controlled to minimize glare impact to adjacent VSRs during the operation phase.	To minimize glare impact to adjacent VSRs.	Designer / Contractor	Work Sites and/or the Plant	Construction phase and operation phase		^

Remarks: EM&A Programme under FEP-02/474/2013	
^	Compliance of mitigation measure;
N/A	Not applicable at this stage;
N/A(1)	Not observed;
*	Recommendation was made during site audit but improved/retified by the contractor;
#	Recommendation was made during site audit but not yet improved/retified by the contractor;
X	Non-compliance of mitigation measure;
●	Non-compliance but rectified by the contractor.

APPENDIX O
SUMMARIES OF ENVIRONMENTAL
COMPLAINT, WARNING, SUMMON
AND NOTIFICATION OF SUCCESSFUL
PROSECUTION

Contract No. SPW 08/2024
Shek Wu Hui Effluent Polishing Plant – Main Works

Appendix O – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution

Reporting Month: December 2024

Log Ref.	Location	Received From and Received By	Received Date	Details of Complaint/Warning/Summon and Prosecution	Investigation/Mitigation Action	Status
1	Expansion Site of SWHSTP (Portion C)	EPD	18 March 2020	Muddy water was suspected to be discharged from the expansion site of SWHSTP to Shek Sheung River, manholes and foul drains nearby	• Employed suction truck and dump truck to clear the silt and mud at Shek Sheung River • Arranged to repair the wastewater treatment system • Installed additional sedimentation tanks and wastewater treatment system to increase the on-site treatment capacity • Clean the slurry sediment released from the outlet regularly by suction trucks • Avoid damage of underground drains and pipes caused by existing construction works • Avoid illegal discharge from the Site into foul drains and manholes	Closed
2	SWHEPP	EPD	19 February 2021	Significant odour nuisance was suspected to be emitted from the construction activities of SWHEPP	• Ensured only PMEs with valid NRMM label were used on-site • Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart • Used ULSD for diesel-powered equipment • Provided water spraying and water sprinklers system	Closed

Contract No. SPW 08/2024

Shek Wu Hui Effluent Polishing Plant – Main Works

Appendix O – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution

Log Ref.	Location	Received From and Received By	Received Date	Details of Complaint/Warning/Summon and Prosecution	Investigation/Mitigation Action	Status
					for haul road access and demolition works • Used battery powered solution to provide power to the tower crane • Provided cover for all rubbish bins on-site • Separated general refuse from construction waste	
3	SWHEPP	EPD	9 August 2021	Air nuisance was suspected to be originated from the construction activities of SWHEPP	• Ensured only PMEs with valid NRMM label were used on-site • Conducted regular visual checking against emission quality of exhaust pipe of equipment by using the Ringlemann Chart • Used ULSD for diesel-powered equipment • Used battery powered solution to provide power to the tower crane • Carried out plant maintenance in a timely manner	Closed

Contract No. SPW 08/2024

Shek Wu Hui Effluent Polishing Plant – Main Works

Appendix O – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution

Log Ref.	Location	Received From and Received By	Received Date	Details of Complaint/Warning/Summon and Prosecution	Investigation/Mitigation Action	Status
220304	SWHEPP	EPD	4 March 2022	The complainant alleged the odour nuisance was sourced from the construction site of Shek Wu Hui Effluent Polishing Plant on 4 March 2022. Thus, all four contracts (Contract Nos. DC/2018/06, DC/2018/07, DE/2018/03 and DE/2018/04) were involved in the complaint investigation.	After investigation, no construction activities undertaken by all four contracts was associated with the odour nuisance received on 4 March 2022. Nevertheless, the contractors were reminded and recommended to: • Ensure only equipment with valid NRMM label is allowed to be used at site and regular maintenance of equipment • Provide regular visual checking against emission quality of exhaust pipe of equipment by using the Ringelmann Chart • Use ULSD as fuel for diesel-powered equipment • Maintain proper segregation and storage of general refuse	Closed
231204	BR2 of SWHEPP; SWHSTW Administration Building	EPD	14 December 2023	EPD received a complaint on 19 December 2023, mentioned that dust netting was not provided to a building known as BR2 under the construction by Contract DC/2018/07; also polluting effluent was being discharged by a construction site near the SWHSTW Administration Building.	Upon the receipt of the complaint, BR2 has just finishing forming the first layer of building structure and dust netting is about to be provided, major works included formwork erection and removal. No significant air quality impact has been made by the works as no action nor limit level exceedance of air quality monitoring was recorded at AM1 and AM1a* which are the closest impact air quality monitoring stations to BR2. For the illegal discharge issue, ET did not observed the	Closed

Contract No. SPW 08/2024

Shek Wu Hui Effluent Polishing Plant – Main Works

Appendix O – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution

Log Ref.	Location	Received From and Received By	Received Date	Details of Complaint/Warning/Summon and Prosecution	Investigation/Mitigation Action	Status
					discharge of wastewater at the concerned location after the receipt of the complaint. Works carried out and water quality mitigation measures implemented by each Contractor were also investigated, no non-compliance was observed. Yet one observation related to water quality has been made during the weekly environmental site inspection on 14 December 2023 to Contact DC/2018/07 and Contactor of DC/2018/07 has immediately rectified the situation. After the receipt of the complaint, Contractor of DC/2018/07 has taken the following actions: • Provision of effective dust screening or netting to enclose the scaffolding of building under construction . • All wastewater generated on site should be properly treated before discharge. ET also reminded all Contractors to implement the following measures: • Regular maintenance of sedimentation tanks and Wetsep to ensure their effectiveness for treating wastewater generated on site. • Provision of sandbags, bunds or other effective measures to U-channels, manholes and gully to	

Contract No. SPW 08/2024

Shek Wu Hui Effluent Polishing Plant – Main Works

Appendix O – Summary of Environmental Complaint, Warning, Summon and Notification of Successful Prosecution

Log Ref.	Location	Received From and Received By	Received Date	Details of Complaint/Warning/Summon and Prosecution	Investigation/Mitigation Action	Status
					prevent direct discharge of site runoff • Provide water spraying on haul road to suppress dust emission, frequency of water spraying should also be reviewed to keep the road surface wet at all time.	

Remarks : No environmental complaint/warning/summon and prosecution was received in the reporting period.

APPENDIX P
SUMMARY OF EXCEEDANCE

Contract No. SPW 08/2024
Shek Wu Hui Effluent Polishing Plant – Main Works

Appendix P – Summary of Exceedance

Reporting Month: December 2024

(A) Exceedance Report for Air Quality
(NIL in the reporting month)

(B) Exceedance Report for Construction Noise
(NIL in the reporting month)

(C) Exceedance Report for Ecology
(NIL in the reporting month)

APPENDIX Q
TENTATIVE CONSTRUCTION
PROGRAMME

	Critical Split	Task	Milestone	Summary	Critical
Status Date: 31 Mar 23	Page 1				Rev Date: 31 Mar 2023

Status Date: 31/08/2024 Page 1 Revision: 0

Status Date: 31/08/2024 Page 2 Revision: 0

識別碼	Activity ID	Key Date	NCE/(EW/PMI)/(CE)	Task Name	工期	開始時間	完成時間	實際開始時間	實際完成時間	前置任務	後續任務	總寬限時間	Risk Allowan	完成百分比	9年	2020年		2021年				2022年				2023年				2024年				2025年				2026年				2027
															Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2				
2125	CS2-26100	SW2		Process Pipe CHSS1, CHSS2 CH181-254	178 days	4月1日星期五	11月7日星期一	月1日星期五4	月7日星期一11	2040SS+21 days		0 days		100%																												
2136	CS2-27000	SW2		Sewerage and utilities in Workfront I1	370 days	7月8日星期三	10月2日星期六	月8日星期三7	月2日星期六10			0 days		100%																												
2137	CS2-27100	SW2		Process Pipe CHS CH0-72 , CHR CH 57-132	370 days	7月8日星期三	10月2日星期六	月8日星期三7	月2日星期六10			0 days		100%																												
2148	CS2-28000	SW2		Sewerage and utilities in Workfront I2	1312 days	7月8日星期三	12月5日星期四	月8日星期三7	NA			-66 days		35%																												
2149	CS2-28100	SW2		Process Pipe CHR CH0-26	1312 days	7月8日星期三	12月5日星期四	月8日星期三7	NA			-71 days		57%																												
2166	CS2-29000	SW2		Sewerage and utilities in Workfront I3	581 days	7月21日星期三	7月7日星期五	月21日星期三7	月7日星期五7			0 days		100%																												
2167	CS2-29100	SW2	294,286,25	Construction of manhole MHFB51A, MHFB51, MHFB52, PSW3	509 days	7月21日星期三	4月6日星期四	月21日星期三7	月6日星期四4			0 days		100%																												
2202	CS2-30000	SW2		Sewerage and utilities in Workfront I4	701 days	6月5日星期六	10月14日星期六	月5日星期六6	月14日星期六10	2560,2561		0 days		100%																												
2205	CS2-30100	SW2	230,238,26	Construction of Process Pipes CHPSW3; CHDO1, chemical trench	665 days	6月5日星期六	8月31日星期四	月5日星期六6	月31日星期四8			0 days		100%																												
2292	CS3-0000	*		Remaining drainage and utilities (Section 3)	1686 days?	12月12日星期四	8月8日星期五	月12日星期四12	NA	2573,58FF		-223 days?		55%																												
2571	CS3CK-PMI-496g	SW3		ABWF works + BS works	90 days	6月17日星期一	10月2日星期三	月17日星期一6	NA 2567	58FF,2570SS		32 days		0%																												
2572	CRW-0000	*		Road Works (Section 3)	130 days	8月9日星期六	1月7日星期三		NA	NA	58FF	-361 days		0%																												
2583	CRW-2000	SW3		Footpath Road Pavement	60 days	10月30日星期四	1月7日星期三		NA	NA 2582SS+5 days	58FF	-361 days		0%																												
2584	CRW-2100	SW3		Signages	20 days	10月18日星期六	11月10日星期一		NA	NA 2581SS	58FF	-311 days		0%																												
2587	CLW-0000	*		Landscaping Works (Section 3)	873 days	12月15日星期四	11月9日星期日	月15日星期四12	NA 16			0 days		37%																												
2588	CLW-1000	SW3		Irrigation System	120 days	12月15日星期四	5月16日星期二	月15日星期四12	月16日星期二5	2589,58FF		0 days		100%																												
2589	CLW-2000	SW3		Hard Landscaping Works	214 days	5月23日星期二	2月6日星期二	月23日星期二5	月6日星期二2 2588	58FF,2590FS+10 days	0 days	5	100%																													
2590	CLW-3000	SW3		Soft Landscaping Works	214 days	2月22日星期四	11月9日星期六	月22日星期四2	NA 2589FS+10 days	2591,58FF		0 days	5	0%																												
2591	CLW-4000	DLP		Establishment Works (365 days)	365 days	11月10日星期日	11月9日星期日		NA	NA 2590,226	60FF	0 days	5	0%																												

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 RP R39)	BL Finish (DE/2018/03 RP R39)	Start	Finish	Total Float	Activity % Complete	2024		2025			
									Dec		Jan	Feb	Mar	
									63		64	65	66	
SWH - Main Works Stage 1 Sidestream Treatment Facilities & E&M Works for Sludge Treatment Facilities														
Contract Data														
Starting Date & Completion Date														
CD1030	Extension of Time Granted (Total 274 days)	14	05-Apr-24	07-Dec-24	05-Apr-24 A	03-Jan-25*	0	94.89%						
Key Dates														
Contractual Completion (Include Implemented CE)														
KD1050	Revised Completion Date for KD3A	0		06-Jan-24		20-Dec-24*	-141	0%						
Expected Completion (Include Non-implemented CE)														
KD1050-1	Expected Completion Date for KD3A	0		02-Aug-24		20-Dec-24*	-66	0%						
Completion Date														
Section 3 - Complete Design, Construction & T&C for Sidestream Facilities														
Contractual Completion (Include Implemented CE)														
SC31045	NICE-CNE-0523 Inclement Weather (March 2024) - 5.5days (Implemented)	0			18-Nov-24 A	23-Nov-24 A		100%						
SC31046	NICE-CNE-0533 Inclement Weather (April 2024) - 14days (Implemented)	0			24-Nov-24 A	07-Dec-24 A		100%						
SC31047	NICE-CNE-0535 Inclement Weather (May 2024) - 10.5days (Implemented)	0			08-Dec-24 A	18-Dec-24 A		100%						
SC31048	NICE-CNE-0541 Inclement Weather (June 2024) - 16.5days (Implemented)	14			18-Dec-24 A	03-Jan-25	0	15.15%						
SC31100	Revised Completion for Section 3	0		21-Aug-24		03-Jan-25*	0	0%						
Expected Completion (Include Non-implemented CE)														
SC31037-1	EWN-0314 Extension of Time for change of access date	173			27-Oct-24 A	11-Jun-25	0	24.12%						
Section 5 - Complete all remaining Works (incl. T&C)														
Contractual Completion (Include Implemented CE)														
SC51035	NICE-CNE-0535 Inclement Weather (May 2024) - 9.5days (Implemented)	0			19-Nov-24 A	28-Nov-24 A		100%						
SC51036	NICE-CNE-0541 Inclement Weather (June 2024) - 13.5days (Implemented)	0			29-Nov-24 A	12-Dec-24 A		100%						
SC51100	Revised Completion for Section 5	0		02-Aug-24		20-Dec-24*	-9	0%						
Expected Completion (Include Non-implemented CE)														
SC51034-1	EWN-0314 Extension of Time for change of access date	173			04-Oct-24 A	11-Jun-25	0	31%						
Preliminaries														
Mobilisation														
PL1000	Provison of Equipment / Facilities for the PM's Office	14	23-Oct-19	07-Dec-24	23-Oct-19 A	03-Jan-25	377	99.25%						
PL1040	Maintain Contractor's Site Office	1	28-Nov-20	07-Nov-24	28-Nov-20 A	21-Dec-24	360	99.93%						
PL1050	Maintain Contractor's Storage Area	1	06-Apr-21	07-Nov-24	06-Apr-21 A	21-Dec-24	360	99.92%						
PL1060	Removal of Site Office, Storage & Relevant Facilities	30	08-Nov-24	07-Dec-24	22-Dec-24	20-Jan-25	360	0%						
Site Preliminaries														
PL1070	Provision of Insurance, Third Party Insurances & PII	14	23-Oct-19	07-Dec-24	23-Oct-19 A	03-Jan-25	377	99.25%						
PL1080	Provision of 2 Contract Car for the Use of the PM & Supervisor	14	23-Oct-19	07-Dec-24	23-Oct-19 A	03-Jan-25	377	99.25%						
PL1090	Provision of 1 Electric Car for the Use of the PM & Supervisor	14	22-Jan-20	07-Dec-24	22-Jan-20 A	03-Jan-25	377	99.21%						
PL1100	Provision of Photographs	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1110	Provision of Environmental Mitigation Measures	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1120	Provision of Air Pollution Abatment	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1130	Provision of Noise Pollution Abatment	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1140	Provision of Wastewater Pollu tion Abatement	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1150	Provision of Wastement Management	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1160	Provision of Monitoring the Use of Ultra Low Sulphur Diesel	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1170	Provision of Environmental Management	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1180	Provision of Site Management Plan for Trip TicketSystem	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1190	Provision of As-constructed Drawings for Section 3	121	23-Oct-24	20-Feb-25	21-Dec-24	20-Apr-25	-134	0%						
PL1220	Provision of Systematic Risk Management	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1230	Provision of Site Liaison Group & Community Liaison Group	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1240	Provision of 24-Hour Telephone Line	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
PL1380	Revise & Re-submit O&M Manual for Section 4	1	04-May-22	21-Sep-24	04-May-22 A	21-Dec-24	369	99.85%						
PL1390	PM Reivew & Approval of O&M Manual for Section 4	21	22-Sep-24	12-Oct-24	22-Dec-24	11-Jan-25	369	0%						
PL1440	Provision of ICE for Certification of the Design, Cal, Dwgs, Plans and all releva	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
Site Upkeeping														
PL1450	General Site Upkeeping of the Site	14	20-Nov-19	07-Dec-24	20-Nov-19 A	03-Jan-25	377	99.24%						
Safety and Environmental Management														
PL1460	Construction Health and Safety Plan	14	10-Nov-19	07-Dec-24	10-Nov-19 A	03-Jan-25	377	99.25%						
PL1470	Site Traffic Safety Management Plan	14	25-Apr-21	07-Dec-24	25-Apr-21 A	03-Jan-25	377	98.94%						
	File Name: DE/2018/03 3M 241220 Layout: DE1803 (Progress -3M) Page 1 of 8		Remaining Work Critical Activity Milestone Actual Progress RP Rev39 RP Rev39 MS Actual Milestone		Contract No. DE/2018/03 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis 3 Months Rolling Programme (Based on RP Rev.50) as at 20 Dec 2024						Based on DE/2018/03 Revised Programme Rev.39			
											Date	Revision	Checked	Approved
											20-Dec-24	Rev. 0	IM/LT	SY

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 RP R39)	BL Finish (DE/2018/03 RP R39)	Start	Finish	Total Float	Activity % Complete	2024		2025			
										Dec 63	Jan 64	Feb 65	Mar 66	
Compliance with BEAM Requirements														
Sludge Dewatering Building														
PL1510	Monthly Review & Submission	14	09-Sep-22	07-Dec-24	09-Sep-22 A	03-Jan-25	-106	98.29%						
PL1520	Submission & Approval of Test Record	60	19-Dec-24	16-Feb-25	01-Mar-25	29-Apr-25	-162	0%						
CHP Building														
PL1550	Monthly Review & Submission	14	07-Dec-22	07-Dec-24	07-Dec-22 A	03-Jan-25	-106	98.09%						
BIM														
PL1630	Review & Update BIM Execution Plan & BIM Model	14	24-Mar-20	07-Dec-24	24-Mar-20 A	03-Jan-25	321	99.19%						
PL1640	Prepare & Submit the Fully Coordinated BIM	60	09-Oct-24	07-Dec-24	21-Dec-24	18-Feb-25	275	0%						
PL1650	PM Reivew & Comment Fully Coordinated BIM	21	08-Dec-24	28-Dec-24	19-Feb-25	11-Mar-25	275	0%						
PL1660	Revise & Re-submit Fully Coordinated BIM	14	29-Dec-24	11-Jan-25	12-Mar-25	25-Mar-25	275	0%						
Section 2 - Complete All Designs (exclude Sec. 1 & 3)														
Outstanding Works														
S2D2030	Provide ICE Certificate for all design, calculations, drawings, plans & relevant c	1	02-Jul-21	31-May-22	02-Jul-21 A	21-Dec-24*	-935	99.92%						
S2D2050	Submit finalized design calculations, drawings & material submissions for BS s	1	02-Jul-21	30-Apr-22	02-Jul-21 A	21-Dec-24*	-966	99.92%						
S2D2070	Submit finalized cable schedules & sizing calculation (LV System)	1	02-Jul-21	31-Dec-21	02-Jul-21 A	21-Dec-24*	-1086	99.92%						
S2D2080	Submit finalized pumps and associated motor and VSD calculations	1	02-Jul-21	31-Dec-21	02-Jul-21 A	21-Dec-24*	-1086	99.92%						
S2D2090	Submit finalized electrical loads to verify the rating of the switchgears, transforr	1	02-Jul-21	31-Dec-21	02-Jul-21 A	21-Dec-24*	-1086	99.92%						
S2D2110	Submit finalized cable route drawings	1	02-Jul-21	31-Dec-21	02-Jul-21 A	21-Dec-24*	-1086	99.92%						
S2D2120	Submit finalized layout and control wiring diagrams for switchboard, MCC, cor	1	02-Jul-21	31-Jan-22	02-Jul-21 A	21-Dec-24*	-1055	99.92%						
S2D2140	Submit finalized interlock devices for electrical equipment and system	1	02-Jul-21	30-Apr-22	02-Jul-21 A	21-Dec-24*	-966	99.92%						
S2D2150	Submit finalized calculations for total harmonic distortion, electrical faults and tr	1	02-Jul-21	30-Apr-22	02-Jul-21 A	21-Dec-24*	-966	99.92%						
S2D2160	Submit finalized design calculations, drawings & material submissions for ELV	1	02-Jul-21	31-Dec-21	02-Jul-21 A	21-Dec-24*	-1086	99.92%						
S2D2170	Submit finalized design submissions of SCADA, PMS, CMMS, IDMS, UPS for	1	02-Jul-21	31-Dec-21	02-Jul-21 A	21-Dec-24*	-1086	99.92%						
S2D2180	Submit finalized configuration of SCADA/ PLC system, CMMS & PMS	1	02-Jul-21	31-Dec-21	02-Jul-21 A	21-Dec-24*	-1086	99.92%						
S2D2190	Submit finalized PLC and MCC panel design	1	02-Jul-21	28-Feb-22	02-Jul-21 A	21-Dec-24*	-1027	99.92%						
S2D2200	Submit finalized design & philosophy of the process instrument	1	02-Jul-21	31-Dec-21	02-Jul-21 A	21-Dec-24*	-1086	99.92%						
S2D2210	Submit finalized Process Design Submission	1	02-Jul-21	30-Nov-21	02-Jul-21 A	21-Dec-24*	-1117	99.92%						
S2D2220	Submit finalized acoustic and noise calculations for all equipment	1	02-Jul-21	30-Apr-22	02-Jul-21 A	21-Dec-24*	-966	99.92%						
S2D2230	Submit finalized design of THP feeding system	1	02-Jul-21	31-Oct-21	02-Jul-21 A	21-Dec-24*	-1147	99.92%						
S2D2240	Submit finalized design of the centrifuge discharge system	1	02-Jul-21	30-Nov-21	02-Jul-21 A	21-Dec-24*	-1117	99.92%						
Section 3 - Complete Design, Construction & T&C for Sidestream Facilities														
Civil Works Construction														
S3C1150	External & Internal Finishes - 2nd Fix (Ceiling / Wall / Floor Finishing, Door)	0	22-Apr-24	22-Oct-24	22-Apr-24 A	22-Nov-24 A		100%						
E&M Installation														
Mechanical Installations														
Basement														
S3C2120	Installation of Mixer for Thickened Sludge Tank, Sludge Mixing Tank, Anammo	15	10-Oct-24	24-Oct-24	04-Jan-25*	18-Jan-25	-404	0%						
S3C2150	Installation of Pipeworks, Associate Valves and Fittings	16	30-Jan-24	31-Oct-24	30-Jan-24 A	05-Jan-25	-385	95.58%						
S3C2220	Installation of Instruments	16	07-Oct-24	31-Oct-24	01-Nov-24 A	05-Jan-25	-384	81.4%						
S3C2230	Installation of Actuator	16	11-Oct-24	31-Oct-24	10-Dec-24 A	05-Jan-25	-384	23.81%						
G/F														
S3C2160	E&M installation of DG Plant Room (NaOH tank and FRP platform)	32	11-Apr-24	09-Jun-24	11-Apr-24 A	21-Jan-25	-217	90.12%						
S3C2240	Installation of Drum Sludge Thickener System (Including mixing valves, floccul	30	21-Sep-24	30-Oct-24	21-Dec-24*	19-Jan-25	-397	0%						
S3C2280	Installation of Primary Clarifiers No.1 and 2	20	21-Oct-24	19-Nov-24	11-Nov-24 A	09-Jan-25	-93	44.44%						
S3C2540	Installation of Instruments	24	07-Oct-24	31-Oct-24	28-Oct-24 A	13-Jan-25	-392	72.09%						
S3C2550	Installation of Actuator	21	21-Sep-24	11-Oct-24	29-Dec-24*	18-Jan-25	-397	0%						
1/F														
S3C2300	Installation of Deodorisation System (DOU) No.4	27	30-Sep-24	13-Nov-24	30-Sep-24 A	16-Jan-25	-395	65.38%						
S3C2350	Installation of Pipeworks, Associate Valves and Fittings	25	02-Sep-24	31-Oct-24	02-Sep-24 A	14-Jan-25	-393	82.88%						
S3C2560	Installation of Instruments	25	17-Sep-24	31-Oct-24	17-Sep-24 A	14-Jan-25	-393	80.92%						
S3C2570	Installation of Actuator	21	21-Sep-24	11-Oct-24	29-Dec-24*	18-Jan-25	-397	0%						
Electrical Installations														
S3C2370	Installation of Electrical system - Cable Containment	20	04-Mar-24	05-Nov-24	04-Mar-24 A	09-Jan-25	-387	93.49%						
S3C2390	Installation of Electrical system - Wall Mount Equipment, Conduit & Wiring	20	24-Jun-24	31-Oct-24	24-Jun-24 A	09-Jan-25	-151	90.1%						
S3C2410	Power Cable laying and Termination	24	05-Sep-24	19-Oct-24	05-Sep-24 A	13-Jan-25	-387	83.1%						
S3C2420	Installation of Gas Detection System	25	02-Oct-24	26-Oct-24	21-Dec-24*	14-Jan-25	-393	0%						

	File Name: DE/2018/03 3M 241220 Layout: DE1803 (Progress -3M) Page 2 of 8	Remaining Work Critical Activity Milestone Actual Progress RP Rev/39 RP Rev/39 MS Actual Milestone	Contract No. DE/2018/03 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis 3 Months Rolling Programme (Based on RP Rev.50) as at 20 Dec 2024	Based on DE/2018/03 Revised Programme Rev.39			
				Date	Revision	Checked	Approved
				20-Dec-24	Rev. 0	IM/LT	SY

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 RP R39)	BL Finish (DE/2018/03 RP R39)	Start	Finish	Total Float	Activity % Complete	2024		2025			
									Dec	Jan	Feb	Mar		
									63	64	65	66		
S3C2430	Installation of Online Monitoring instrument / Level Control Equipment	24	02-Oct-24	31-Oct-24	21-Oct-24 A	13-Jan-25	-393	20%						
S3C2440	Installation of Electrical system - Lighting and Small Power Accessories	20	10-Sep-24	31-Oct-24	10-Sep-24 A	09-Jan-25	-151	82.3%						
S3C2580	Installation of UPS	7	21-Nov-24	27-Nov-24	10-Jan-25*	16-Jan-25	-77	0%						
BS Equipment Installation														
S3C2460	Installation of FS system - Main Pipework	16	18-May-24	31-Oct-24	18-May-24 A	05-Jan-25	-212	92.98%						
S3C2480	Installation of FS system - Branch Pipework, Conduit & Wiring	16	28-Jun-24	31-Oct-24	28-Jun-24 A	05-Jan-25	-212	91.44%						
S3C2490	Installation of MVAC system - Ceiling Mount Equipment, Main Ductwork & Pipe	16	10-Jun-24	31-Oct-24	10-Jun-24 A	05-Jan-25	-147	92.2%						
S3C2500	Installation of MVAC system - Wall Mount Equipment, Branch Duct & pipework	16	30-Jul-24	31-Oct-24	30-Jul-24 A	05-Jan-25	-147	89.68%						
S3C2520	Installation of FS system - Dropper, Sprinkler Head, Detector & Devices	16	02-Oct-24	31-Oct-24	11-Nov-24 A	05-Jan-25	-212	46.67%						
S3C2530	Installation of MVAC system - Air Grills & Diffuser	16	02-Oct-24	31-Oct-24	11-Nov-24 A	05-Jan-25	-147	46.67%						
Testing & Commissioning														
For KD3A- Completion of Phase 1 Commissioning - 15 Jan 2024														
SAT of Sidestream Facilities														
S3T1000	Pipe Pressure Test	30	02-Sep-24	05-Nov-24	02-Sep-24 A	19-Jan-25	-388	79.45%						
S3T1020	SAT for Chemical Dosing system (i.e.NaOH, Micro-Nutrient and Defoamer)	30	13-Nov-24	12-Dec-24	22-Jan-25	20-Feb-25	-340	0%						
S3T1030	Dry Test for Pumps	14	18-Oct-24	31-Oct-24	21-Dec-24*	03-Jan-25	-382	0%						
S3T1040	SAT for Drum Sludge Thickener System	12	31-Oct-24	11-Nov-24	19-Jan-25	30-Jan-25	-397	0%						
S3T1050	SAT for SCADA System (STF)	20	21-Oct-24	12-Nov-24	18-Jan-25	06-Feb-25	-404	0%						
S3T1060	SAT for Air blowers and Ancillary Air Blower	9	03-Nov-24	09-Nov-24	21-Dec-24*	29-Dec-24	-372	0%						
S3T1070	Wet Test for Pumps	10	01-Nov-24	10-Nov-24	10-Jan-25	19-Jan-25	-388	0%						
S3T1080	SAT for DOU no.4	12	01-Nov-24	12-Nov-24	17-Jan-25	28-Jan-25	-395	0%						
S3T1090	SAT for mixer	13	31-Oct-24	12-Nov-24	18-Jan-25	30-Jan-25	-404	0%						
S3T1100	SAT for Primary clarifier	30	04-Nov-24	03-Dec-24	10-Jan-25	08-Feb-25	-93	0%						
S3T1110	SAT for Secondary clarifier	30	01-Oct-24	30-Oct-24	21-Dec-24	19-Jan-25	-386	0%						
S3T1130	Functional Test for Pumps	7	06-Nov-24	12-Nov-24	15-Jan-25	21-Jan-25	-388	0%						
S3T1140	SAT for Phospaq Reactor	7	06-Nov-24	12-Nov-24	14-Jan-25	20-Jan-25	-387	0%						
S3T1150	SAT for Anammox Reactor	7	06-Nov-24	12-Nov-24	14-Jan-25	20-Jan-25	-387	0%						
S3T1152	SAT for Gas Detection System	12	31-Oct-24	11-Nov-24	15-Jan-25	26-Jan-25	-393	0%						
S3T1154	SAT for Instrumentation	12	01-Nov-24	12-Nov-24	15-Jan-25	26-Jan-25	-393	0%						
S3T1164	SAT for Actuators	12	01-Nov-24	12-Nov-24	19-Jan-25	30-Jan-25	-397	0%						
S3T1174	SAT for UPS	7	28-Nov-24	04-Dec-24	17-Jan-25	23-Jan-25	-77	0%						
Process Start Up & Phase 1 Commissioning Test														
S3T1158	Temporary Power Supply for STF	180	13-Nov-24	11-May-25	07-Feb-25	05-Aug-25	163	0%						
S3T1160	Power Energization (Power Provision from DE/2018/04 Contract)	0	01-Jan-25	01-Jan-25	14-Jan-25	14-Jan-25*	-13	0%						
S3T1170	Process Start Up	78	13-Nov-24	21-Jan-25	07-Feb-25*	25-Apr-25	-404	0%						
S3T1180	Existing sludge dewatering facilities Ready (by DE/2018/04 Contract)	0		12-Nov-24		06-Feb-25	-404	0%						
S3T1190	Plant service water from zone B/C Ready (Zone B by DE/2018/04 Contract)	0		12-Nov-24		06-Feb-25	-404	0%						
For Section 3 Completion - Remaining Commissioning Works - 05 Jun 2024														
S3T1240	SAT for FS system	30	01-Nov-24	30-Nov-24	06-Jan-25	04-Feb-25	-212	0%						
S3T1250	SAT for P&D system	30	01-Nov-24	30-Nov-24	21-Dec-24	19-Jan-25	-131	0%						
S3T1260	SAT for MVAC System	30	01-Nov-24	30-Nov-24	06-Jan-25	04-Feb-25	-147	0%						
S3T1270	Essential T&C for FSD Inspection	30	01-Dec-24	30-Dec-24	05-Feb-25	06-Mar-25	-212	0%						
S3T1280	SAT for Electrical System (BS)	30	06-Nov-24	05-Dec-24	10-Jan-25	08-Feb-25	-151	0%						
Statutory Submission / Inspection (FSD)														
S3S1030	Submit WWO46 Part IV to WSD (FS / PD)	0	29-May-24		06-Jan-25		-187	0%						
S3S1040	WSD Inspection	7	12-Jun-24	18-Jun-24	20-Jan-25	26-Jan-25	-187	0%						
S3S1050	Issuance of FS Water Certificate	0		02-Jul-24		09-Feb-25	-187	0%						
S3S1060	Issuance of Form WWO46 Part Va	0		02-Jul-24		09-Feb-25	-123	0%						
S3S1070	System Flushing / Sampling	45	03-Jul-24	16-Aug-24	10-Feb-25	26-Mar-25	-123	0%						
S3S1110	Submit Application to FSD for DG Licence	0	19-Apr-24		22-Jan-25		-217	0%						
S3S1120	D.G. Inspection, Defects Rectification & Re-inspection (Ventilation Division)	14	10-May-24	30-May-24	05-Feb-25	18-Feb-25	-217	0%						
S3S1130	D.G. Inspection, Defects Rectification & Re-inspection (DG Division)	14	31-May-24	20-Jun-24	19-Feb-25	04-Mar-25	-217	0%						
S3S1140	DG Licence issued	0		04-Jul-24		11-Mar-25	-217	0%						
S3S1150	Prepare & Submit FS/314, FS/501 & FS/501a	14	31-Dec-24	13-Jan-25	12-Mar-25	25-Mar-25	-217	0%						
Section 5 - Complete all remaining Works (incl. T&C)														
Fabrication, FAT & Delivery of Major Plant & Materials														
S5P1090	Fabrication and Delivery of UPS	20	15-Dec-23	20-May-24	15-Dec-23 A	09-Jan-25	-385	93.13%						
Sludge Dewatering Building														



File Name: DE/2018/03 3M 241220
Layout: DE1803 (Progress -3M)
Page 3 of 8

Remaining Work

Critical Activity

Milestone

Actual Progress

RP Rev39

◆

◆

◆

◆

◆

◆

◆

◆

◆

◆

RP Rev39 MS
Actual Milestone

Contract No. DE/2018/03

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis

3 Months Rolling Programme (Based on RP Rev.50) as at 20 Dec 2024

Based on DE/2018/03 Revised Programme Rev.39			
Date	Revision	Checked	Approved
20-Dec-24	Rev. 0	IM/LT	SY

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 RP R39)	BL Finish (DE/2018/03 RP R39)	Start	Finish	Total Float	Activity % Complete	2024		2025				
										Dec 63		Jan 64	Feb 65	Mar 66	
Procurement, Fabrication, FAT & Delivery of Major Plant & Materials															
Mechanical															
Fabrication and FAT															
S5SDBP1230	Fabrication and FAT of Sludge Skip (PS Screen & Dewatering Screen)	30	31-Jan-24	30-Mar-24	31-Jan-24 A	19-Jan-25	-409	87.7%							
Delivery															
S5SDBP1530	Delivery of Sludge Skip (PS Screen & Dewatering Screen)	14	31-Jul-23	29-Aug-23	20-Jan-25	02-Feb-25	-409	0%							
Installation															
NCE-PMI-0325 - Provision of 2 nos of 3 Tons Mobile A-frame with Electrical Hoist in SDB															
E&M Installation															
Basement															
Mechanical															
S5SDBC1080	Installation of Instruments	10	01-Mar-24	30-Oct-24	01-Mar-24 A	30-Dec-24	-398	96.06%							
Electrical															
S5SDBC1185	Installation of Control Cable Laying	30	21-Sep-24	31-Oct-24	21-Sep-24 A	19-Jan-25	-423	26.83%							
Ground Floor															
Mechanical															
S5SDBC1210	Installation of DOU Ductworks	10	18-Sep-24	20-Nov-24	18-Sep-24 A	30-Dec-24	-381	77.78%							
S5SDBC1220	Installation of Instruments	19	01-Feb-24	30-Oct-24	01-Feb-24 A	08-Jan-25	-407	92.4%							
S5SDBC1240	Installation of Process Pipe	10	11-Dec-23	30-Oct-24	11-Dec-23 A	30-Dec-24	-398	96.9%							
S5SDBC1300	Position of Sludge Skips and Installation of Hydraulic System	7	01-Dec-24	07-Dec-24	03-Feb-25	09-Feb-25	-409	0%							
Electrical															
S5SDBC1320	Installation of Electrical System - Wall Mount Equipment, Conduit & Wiring	10	03-Jan-24	03-Nov-24	03-Jan-24 A	30-Dec-24	-406	96.52%							
S5SDBC1330	Installation of Electrical System - Lighting and Small Power Accessories	10	13-May-24	03-Nov-24	13-May-24 A	30-Dec-24	-406	93.79%							
S5SDBC1340	Installation of Control Cable Laying	11	01-Oct-24	30-Oct-24	21-Sep-24 A	31-Dec-24	-404	63.33%							
S5SDBC1900	Installation of UPS	7	21-May-24	27-May-24	10-Jan-25	16-Jan-25	-385	0%							
First Floor															
Mechanical															
S5SDBC1410	Installation of Instruments	20	21-Sep-24	20-Oct-24	01-Nov-24 A	09-Jan-25	-408	33.33%							
S5SDBC1460	Installation of Process Pipe	20	03-Jan-24	01-Oct-24	03-Jan-24 A	09-Jan-25	-408	93.36%							
Electrical															
S5SDBC1530	Installation of Control Cable Laying	20	22-Dec-23	31-Oct-24	22-Dec-23 A	09-Jan-25	-413	92.96%							
S5SDBC1550	Installation of Electrical System - Wall Mount Equipment, Conduit & Wiring	20	15-Jul-24	31-Oct-24	15-Jul-24 A	09-Jan-25	-416	55.56%							
S5SDBC1560	Installation of Electrical System - Lighting and Small Power Accessories	11	15-Jul-24	14-Apr-25	15-Jul-24 A	09-Jan-25	-416	63.33%							
S5SDBC1910	Installation of UPS	7	21-Nov-24	27-Nov-24	10-Jan-25	16-Jan-25	-385	0%							
BS Installation															
Ground Floor															
S5SDBC1880	Installation of Gas Detection System	30	01-Nov-24	30-Nov-24	20-Jan-25	18-Feb-25	301	0%							
First Floor															
S5SDBC1800	Installation of FS System - Branch pipework, Conduit & Wiring	20	16-Jan-23	30-Sep-24	16-Jan-23 A	09-Jan-25	-401	96.79%							
S5SDBC1810	Installation of FS System - Dropper, Sprinkler Head, Detector & Devices	9	21-Sep-24	10-Oct-24	11-Nov-24 A	09-Jan-25	-401	55%							
S5SDBC1890	Installation of Gas Detection System	30	01-Nov-24	30-Nov-24	20-Jan-25	18-Feb-25	301	0%							
Testing and Commissioning															
S5SDBT1000	Dry Test for Pumps	14	18-Oct-24	31-Oct-24	22-Dec-24	04-Jan-25	-394	0%							
S5SDBT1010	Functional Check for Pumps (excluded FS Water Pumps and Process Water	14	15-Nov-24	28-Nov-24	24-Jan-25	06-Feb-25	-406	0%							
S5SDBT1020	Functional Check for Pumps (FS Water Pumps and Process Water Pumps)	14	15-Nov-24	28-Nov-24	24-Jan-25	06-Feb-25	-406	0%							
S5SDBT1030	Permanent Power ready for T&C	0	18-Oct-24		22-Dec-24		-388	0%							
S5SDBT1040	Pipe Pressure Test	27	02-Sep-24	31-Oct-24	02-Sep-24 A	16-Jan-25	-406	55%							
S5SDBT1050	Ready for Power Energisation - LV	1	17-Oct-24	17-Oct-24	21-Dec-24*	21-Dec-24	-397	0%							
S5SDBT1060	SAT for Sludge Conveying and Discharge System	29	18-Oct-24	15-Nov-24	22-Dec-24	19-Jan-25	-388	0%							
S5SDBT1070	SAT for Lift	29	18-Oct-24	15-Nov-24	22-Dec-24	19-Jan-25	-381	0%							
S5SDBT1080	SAT for Polymer Preparation, Storage and Dosing system for Thickening and	29	18-Oct-24	15-Nov-24	22-Dec-24	19-Jan-25	-388	0%							
S5SDBT1090	SAT for Sludge Dewatering Centrifuges	29	18-Oct-24	15-Nov-24	22-Dec-24*	19-Jan-25	-388	0%							
S5SDBT1100	SAT for Sludge Thickening Cnetrifuge	29	18-Oct-24	15-Nov-24	22-Dec-24	19-Jan-25	-388	0%							
S5SDBT1130	SAT of Electrical System (BS)	45	04-Nov-24	18-Dec-24	10-Jan-25	23-Feb-25	-416	0%							
S5SDBT1140	SAT of Emergency Generator System	15	21-Sep-24	05-Oct-24	21-Dec-24	04-Jan-25	-366	0%							
S5SDBT1150	SAT of FS System	30	18-Oct-24	16-Nov-24	10-Jan-25	08-Feb-25	-401	0%							
S5SDBT1160	SAT of Instrumentation	30	31-Oct-24	29-Nov-24	10-Jan-25	08-Feb-25	-408	0%							
S5SDBT1170	SAT of Mixer (Excluded Mixer for PS holding tank)	30	28-Sep-24	27-Oct-24	21-Dec-24	19-Jan-25	-388	0%							
S5SDBT1175	SAT of Primary Sludge Holding Tanks and Mixer	45	09-Oct-24	22-Nov-24	21-Dec-24	03-Feb-25	-403	0%							
S5SDBT1178	SAT of Digested Sludge Holding Tanks and Mixer	31	30-Oct-24	29-Nov-24	21-Dec-24	20-Jan-25	-389	0%							



File Name: DE/2018/03 3M 241220

Layout: DE1803 (Progress -3M)

Page 4 of 8

Remaining Work
 Critical Activity
 Actual Progress
 RP Rev39

◆

 Milestone

◆

 Milestone

◆

 RP Rev39 MS

◆

 Actual Milestone

Contract No. DE/2018/03

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Sidestream Treatment Facilities and E&M Works for Sludge Treatment Facilities

3 Months Rolling Programme (Based on RP Rev.50) as at 20 Dec 2024

Based on DE/2018/03 Revised Programme Rev.39

Date	Revision	Checked	Approved
20-Dec-24	Rev. 0	IM/LT	SY

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 RP R39)	BL Finish (DE/2018/03 RP R39)	Start	Finish	Total Float	Activity % Complete	2024				2025			
									Dec		Jan		Feb		Mar	
									63		64		65		66	
S5SDBT1180	SAT of MVAC System	29	18-Oct-24	15-Nov-24	22-Dec-24	19-Jan-25	-381	0%								
S5SDBT1190	SAT of Plumbing System	30	18-Oct-24	16-Nov-24	22-Dec-24	20-Jan-25	-382	0%								
S5SDBT1210	SAT of Sludge Blending System (included PS Screen Feed Pumps, Sludge S	45	21-Sep-24	04-Nov-24	21-Dec-24	03-Feb-25	-403	0%								
S5SDBT1220	Wet Test for Pumps (excluded FS Water Pumps and Process Water Pumps)	14	01-Nov-24	14-Nov-24	17-Jan-25	30-Jan-25	-406	0%								
S5SDBT1230	Wet Test for Pumps (FS Water Pumps and Process Water Pumps)	14	01-Nov-24	14-Nov-24	17-Jan-25	30-Jan-25	-406	0%								
S5SDBT1240	SAT of Gas Detection System	30	01-Dec-24	30-Dec-24	19-Feb-25	20-Mar-25	301	0%								
S5SDBT1245	SAT of UPS	7	28-Nov-24	04-Dec-24	17-Jan-25	23-Jan-25	-385	0%								
Combined Heat & Power Building																
Fabrication, FAT & Delivery of Major Plant & Materials																
S5CHPP1040	Fabrication & Delivery of Gas Detection System	30	15-May-23	02-Feb-24	28-Jul-23 A	19-Jan-25	-302	93.9%								
Installation																
E&M Installation																
Ground Floor																
S5CHPC1050	Installation of CHP System - Mechanical Work	30	26-Apr-23	20-Nov-24	26-Apr-23 A	19-Jan-25	-380	94.78%								
S5CHPC1070	Installation of pipework	10	02-Jan-24	31-Oct-24	02-Jan-24 A	30-Dec-24	-412	96.71%								
S5CHPC1100	Installation of Electrical System	20	04-Dec-23	30-Oct-24	04-Dec-23 A	09-Jan-25	-421	93.99%								
S5CHPC1120	Installation of SCADA System	20	05-Jan-24	31-Oct-24	05-Jan-24 A	09-Jan-25	-352	81.98%								
S5CHPC1150	Diesel Storage & Pump Room Installation	22	15-Mar-24	22-Nov-24	15-Apr-24 A	11-Jan-25	-236	89%								
S5CHPC1410	Installation of Gas Detection System	30	01-Nov-24	30-Nov-24	20-Jan-25	18-Feb-25	-302	0%								
S5CHPC1430	Installation of UPS	7	21-Nov-24	27-Nov-24	10-Jan-25	16-Jan-25	-246	0%								
First Floor																
S5CHPC1200	Installation of pipework	10	08-Jan-24	28-Oct-24	08-Jan-24 A	30-Dec-24	-412	96.62%								
S5CHPC1230	Installation of Electrical System	10	06-Nov-23	28-Oct-24	06-Nov-23 A	30-Dec-24	-390	97.21%								
S5CHPC1250	Installation of SCADA System (Digester, H2S removal system, Biogas Holding	34	11-Oct-24	08-Jan-25	21-Dec-24*	23-Jan-25	-272	0%								
S5CHPC1255	Installation of SCADA System (THP, Dou12)	51	18-Nov-24	07-Jan-25	24-Jan-25	15-Mar-25	-272	0%								
S5CHPC1400	Installation of Gas Detection System	30	01-Nov-24	30-Nov-24	20-Jan-25	18-Feb-25	-302	0%								
S5CHPC1420	Cable Laying and termination	20	10-Jul-24	19-Nov-24	10-Jul-24 A	09-Jan-25	-400	82.46%								
S5CHPC1440	Installation of UPS	7	21-Nov-24	27-Nov-24	10-Jan-25	16-Jan-25	-246	0%								
Roof																
S5CHPC1290	Installation of Electrical System	20	18-Mar-24	24-Apr-24	18-Mar-24 A	09-Jan-25	-400	91.23%								
BS Installation																
Ground Floor																
S5CHPC1080	Installation of FS System	10	27-Feb-23	30-Nov-24	27-Feb-23 A	30-Dec-24	-210	98.37%								
Testing and Commissioning																
S5CHPT1000	Pipe Pressure Test	90	01-Nov-24	29-Jan-25	31-Dec-24	30-Mar-25	-412	0%								
S5CHPT1022	SAT of Instrumentation (Excluded Biogas Circuit)	30	21-Nov-24	20-Dec-24	10-Jan-25	08-Feb-25	-352	0%								
S5CHPT1024	SAT for CHP System (Test without Biogas)	90	21-Dec-24	20-Mar-25	09-Feb-25	09-May-25	-352	0%								
S5CHPT1040	SAT for Biogas Pre-treatment System	60	01-Dec-24	29-Jan-25	30-Jan-25	30-Mar-25	-312	0%								
S5CHPT1050	SAT for Steam Boiler System	60	13-Feb-25	13-Apr-25	08-Feb-25	08-Apr-25	-421	0%								
S5CHPT1060	SAT for Ventailation System (CHP System)	45	21-Nov-24	04-Jan-25	20-Jan-25	05-Mar-25	-287	0%								
S5CHPT1070	SAT for Gas Detection System	30	01-Dec-24	29-Jan-25	19-Feb-25	20-Mar-25	-302	0%								
S5CHPT1080	SAT for UPS	7	28-Nov-24	04-Dec-24	17-Jan-25	23-Jan-25	-246	0%								
Tx Rm & LV Switchroom (for UV)																
Testing and Commissioning																
S5TXRT1010	Ready for Power Energisation	1	26-Nov-24	26-Nov-24	21-Dec-24	21-Dec-24	-374	0%								
Sludge Digesters & Distribution Chamber																
Installation																
E&M Installation																
Distribution Chamber																
S5DIGC1270	Installation of Gas Detection System	30	01-Nov-24	30-Nov-24	20-Jan-25	18-Feb-25	-182	0%								
BS Installation																
Distribution Chamber																
S5DIGC1280	Installation of FS System	10	25-Aug-23	20-Nov-24	25-Aug-23 A	30-Dec-24	-210	96%								
Testing and Commissioning																
S5DIGT1000	Pipe Pressure Test	17	01-Aug-24	07-Nov-24	01-Aug-24 A	06-Jan-25	-375	83.96%								
S5DIGT1015	SAT of Instrumentation	21	21-Nov-24	11-Dec-24	24-Jan-25	13-Feb-25	-413	0%								
S5DIGT1018	SAT for Digested Sludge Recirculation Pumps	21	21-Nov-24	11-Dec-24	24-Jan-25	13-Feb-25	-413	0%								
S5DIGT1030	SAT for Gas detection System	30	01-Dec-24	30-Dec-24	19-Feb-25	20-Mar-25	-182	0%								
S5DIGT1040	Purging for Digester Tank	7	12-Dec-24	18-Dec-24	14-Feb-25	20-Feb-25	-413	0%								
JEC			File Name: DE/2018/03 3M 241220 Layout: DE1803 (Progress -3M) Page 5 of 8			Remaining Work Critical Activity Milestone Actual Progress RP Rev.39 RP Rev.39 MS Actual Milestone			Contract No. DE/2018/03 Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis 3 Months Rolling Programme (Based on RP Rev.50) as at 20 Dec 2024			Based on DE/2018/03 Revised Programme Rev.39				
												Date	Revision	Checked	Approved	
												20-Dec-24	Rev. 0	IM/LT	SY	

Activity Name		Remaining Duration	BL Start (DE/2018/03 RP R39)	BL Finish (DE/2018/03 RP R39)	Start	Finish	Total Float	Activity % Complete	2024				2025			
									Dec 63	Jan 64	Feb 65	Mar 66				
Workshop No. 2																
Installation																
HV Switchroom / Transformer Room / LV Switchroom																
S5WS2C1085	Cable Laying and Termination	2	02-Mar-24	20-Oct-24	02-Mar-24 A	22-Dec-24	-166	99.18%								
S5WS2C1200	Installation of UPS	7	21-Nov-24	27-Nov-24	10-Jan-25	16-Jan-25	-126	0%								
Electrical and Building Services																
S5WS2C1160	Installation of Electrical System	41	03-Oct-22	30-Nov-24	03-Oct-22 A	30-Jan-25	-223	94.61%								
Testing and Commissioning																
S5WS2T1010	Ready for Power Energisation	1	25-Oct-24	25-Oct-24	24-Jan-25	24-Jan-25	-194	0%								
S5WS2T1020	SAT for Lift	60	26-Oct-24	24-Dec-24	25-Jan-25	25-Mar-25	-194	0%								
S5WS2T1030	SAT for UPS	7	28-Nov-24	04-Dec-24	17-Jan-25	23-Jan-25	-126	0%								
Biogas Storage																
E&M Installation																
Mechanical Installation																
S5BIOC1040	Mechanical Installation of Biogas Storage Tank 1	8	01-Jun-23	18-Nov-24	01-Jun-23 A	28-Dec-24	-374	98.51%								
Electrical Installation																
S5BIOC1060	Electrical Installation for Biogas Holding Tanks	52	17-Jun-24	20-Nov-24	17-Jun-24 A	10-Feb-25	-385	31.58%								
S5BIOC1070	Installation for Gas Detection System	30	01-Nov-24	30-Nov-24	20-Jan-25	18-Feb-25	-182	0%								
Testing and Commissioning																
S5BIOT1000	Ready for Power Energisation	1	20-Nov-24	20-Nov-24	20-Jan-25	20-Jan-25	-397	0%								
S5BIOT1020	SAT for Biogas Storage Tank 2	3	09-Nov-24	22-Nov-24	08-Nov-24 A	23-Dec-24	-354	78.57%								
S5BIOT1030	SAT for Biogas Storage Tank 1 (Include Purging of Tanks and associate pipeli	14	19-Nov-24	02-Dec-24	21-Jan-25	03-Feb-25	-397	0%								
S5BIOT1040	SAT for Gas Detection System	30	03-May-24	01-Jun-24	19-Feb-25	20-Mar-25	-182	0%								
S5BIOT1050	SAT for Biogas Tansfer and Booster Pumps	25	21-Nov-24	15-Dec-24	21-Jan-25	14-Feb-25	-148	0%								
THP Area																
E&M Installation																
Electrical Installation																
S5THPC1050	Electrical Installation for THP Facilities	19	15-Aug-24	08-Nov-24	15-Aug-24 A	08-Jan-25	-384	78.89%								
S5THPC1060	Installation of Control panel for THP	7	09-Nov-24	15-Nov-24	21-Dec-24*	27-Dec-24	-373	0%								
S5THPC1070	Cable Laying and Termination	42	25-Nov-24	05-Jan-25	21-Dec-24*	31-Jan-25	-385	0%								
Testing and Commissioning																
S5THPT0005	SAT of LV switchboard	8	17-Nov-24	24-Nov-24	29-Dec-24	05-Jan-25	-373	0%								
S5THPT1000	Ready for Power Energisation	1	06-Jan-25	06-Jan-25	01-Feb-25	01-Feb-25	-385	0%								
S5THPT1005	SAT of Instrumentation	30	07-Jan-25	05-Feb-25	02-Feb-25	03-Mar-25	-385	0%								
H2S Removal Area																
Installation																
S5H2SC1020	E&M Installation of H2S Removal System	40	03-Jan-24	30-Nov-24	03-Jan-24 A	29-Jan-25	-404	87.95%								
Testing and Commissioning																
S5H2ST1000	Ready for Power Energisation	1	20-Nov-24	20-Nov-24	20-Jan-25	20-Jan-25	-410	0%								
S5H2ST1010	SAT of H2S Removal System	21	21-Nov-24	11-Dec-24	21-Jan-25	10-Feb-25	-410	0%								
Waste Gas Burning Area																
Installation																
S5WGBC1020	E&M Installation of Waste Gas Burning System	31	22-Feb-24	20-Nov-24	22-Feb-24 A	20-Jan-25	-326	86.04%								
Testing and Commissioning																
S5WGBT1000	Ready for Power Energisation	1	20-Nov-24	20-Nov-24	18-Jan-25	18-Jan-25	-324	0%								
S5WGBT1010	SAT for Flare (Waste Gas Burning System)	28	21-Nov-24	18-Dec-24	21-Jan-25	17-Feb-25	-326	0%								
Plant Service Water Area																
Installation																
S5PSWC1000	E&M Installation of Plant Service Water System	23	18-Mar-24	25-Nov-24	18-Mar-24 A	12-Jan-25	-397	90.46%								
Testing and Commissioning																
S5PSWT1000	Ready for Power Energisation	1	26-Nov-24	26-Nov-24	18-Jan-25	18-Jan-25	-402	0%								
S5PSWT1005	SAT of Instrumentation	7	27-Nov-24	03-Dec-24	19-Jan-25	25-Jan-25	-402	0%								
S5PSWT1010	SAT & System Commissioning Tests for Plant Services Water System	8	04-Dec-24	11-Dec-24	26-Jan-25	02-Feb-25	-402	0%								
DO Area																
Installation																
S5DOUC1030	E&M Installation of DO System No.11	31	02-Feb-24	20-Nov-24	02-Feb-24 A	20-Jan-25	-402	89.16%								
S5DOUC1040	E&M Installation of DO System No.12	31	22-Feb-24	20-Nov-24	22-Feb-24 A	20-Jan-25	-407	88.35%								

JEC

File Name: DE/2018/03 3M 241220

Layout: DE1803 (Progress -3M)

Page 6 of 8

Remaining Work

Critical Activity

Milestone

Actual Progress

RP Rev39

RP Rev39 MS

Actual Milestone

Contract No. DE/2018/03

Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1

Sidestream Treatment Facilities and E&M Works for Sluge Treatment Faciliteis

3 Months Rolling Programme (Based on RP Rev.50) as at 20 Dec 2024

Based on DE/2018/03 Revised Programme Rev.39

Date	Revision	Checked	Approved
20-Dec-24	Rev. 0	IM/LT	SY

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 RP R39)	BL Finish (DE/2018/03 RP R39)	Start	Finish	Total Float	Activity % Complete	2024		2025			
										Dec	Jan	Feb	Mar	
										63	64	65	66	
Testing and Commissioning														
S5DOUT1000	Ready for Power Energisation of DO No.11	1	27-Nov-24	27-Nov-24	18-Jan-25	18-Jan-25	-400	0%						
S5DOUT1010	Ready for Power Energisation of DO No.12	1	21-Nov-24	21-Nov-24	20-Jan-25	20-Jan-25	-407	0%						
S5DOUT1020	SAT & System Commissioning Tests for DO System No.11	13	28-Nov-24	27-Dec-24	21-Jan-25	02-Feb-25	-402	0%						
S5DOUT1030	SAT & System Commissioning Tests for DO System No.12	25	22-Nov-24	21-Dec-24	21-Jan-25	14-Feb-25	-407	0%						
Sewage Pump Station														
Fabrication, FAT & Delivery of Major Plant & Materials														
S5SPSP1010	Fabrication & Delivery of LV Switchboard	13	28-Mar-23	02-Oct-24	28-Mar-23 A	02-Jan-25	-416	97.71%						
Installation														
E&M Installation														
S5SPSC1000	E&M Installation of Sewage Pump	28	18-Oct-23	17-Nov-24	17-Jul-23 A	17-Jan-25	-410	94.07%						
S5SPSC1001	LV Switchboard Installation	6	03-Oct-24	08-Oct-24	03-Jan-25	08-Jan-25	-416	0%						
S5SPSC1002	Cable Laying and Termination	28	21-Jun-24	17-Nov-24	21-Jun-24 A	17-Jan-25	-410	78.79%						
S5SPSC1012	SCADA System Installation	30			21-Jun-24 A	19-Jan-25	-415	77.44%						
BS Installation														
S5SPSC1020	BS Installation for Sewage Pumping Station	23	18-Jul-24	15-Sep-24	18-Jul-24 A	30-Jan-25	-241	78.3%						
Testing and Commissioning														
S5SPST0990	SAT of Switchboard	8	09-Oct-24	16-Oct-24	09-Jan-25	16-Jan-25	-416	0%						
S5SPST1000	Ready for Power Energisation	1	18-Nov-24	18-Nov-24	24-Jan-25*	24-Jan-25	-416	0%						
S5SPST1010	SAT & System Commissioning Tests for Sewage Pumping Station	23	19-Nov-24	11-Dec-24	25-Jan-25	16-Feb-25	-416	0%						
THP Cooling Water Transfer Pumping Station														
Installation														
S5TCWC1020	E&M Installation of THP Cooling Pump	25	18-Dec-23	14-Nov-24	18-Dec-23 A	14-Jan-25	-356	92.14%						
Testing and Commissioning														
S5TCWT1000	Ready for Power Energisation	4	27-Jan-25	30-Jan-25	27-Jan-25*	30-Jan-25	-368	0%						
S5TCWT1010	SAT for THP Cooling Water Pumping System	60	31-Jan-25	31-Mar-25	31-Jan-25	31-Mar-25	-368	0%						
Ferric Chloride Dosing Facility														
Fabrication, FAT & Delivery of Major Plant & Materials														
S5FCDP1020	Fabrication & Delivery of LV Switchboard	13	28-Mar-23	02-Jun-24	28-Mar-23 A	02-Jan-25	-415	97.71%						
Installation														
S5FCDC1030	E&M Installation of Ferric Chloride Dosing Pump	26	29-Jan-24	15-Nov-24	29-Jan-24 A	15-Jan-25	-399	91.36%						
S5FCDC1035	LV Switchboard Installation	8	23-Oct-24	30-Oct-24	10-Jan-25	17-Jan-25	-415	0%						
Testing and Commissioning														
S5FCDT0990	SAT of Switchboard	8	31-Oct-24	07-Nov-24	18-Jan-25	25-Jan-25	-415	0%						
S5FCDT1000	Ready for Power Energisation	1	27-Nov-24	27-Nov-24	01-Feb-25*	01-Feb-25	-415	0%						
S5FCDT1010	SAT & System Commissioning Tests for FeCl3 Dosing Facility	14	28-Nov-24	11-Dec-24	02-Feb-25	15-Feb-25	-415	0%						
Fire Hydrant and Booster Pump Room														
Installation														
S5SHPC1020	Fire Hydrant and Booster Pump Room Installation	71	10-Jun-24	30-Dec-24	10-Jun-24 A	01-Mar-25	-341	50.35%						
Testing and Commissioning														
S5SHPT1000	Ready for Power Energisation	3	31-Dec-24	02-Jan-25	02-Mar-25	04-Mar-25	-304	0%						
S5SHPT1010	SAT for Fire Hydrant and Booster Pump	30	03-Jan-25	01-Feb-25	05-Mar-25	03-Apr-25	-304	0%						
External Area														
Installation														
S5EXAC1030	LV Cable Laying from CHP to Sludge Digestor, Workshop no.2 and THP CW	34	18-Jul-24	24-Oct-24	18-Jul-24 A	23-Jan-25	-413	71.67%						
S5EXAC1045	E&M Installation of Pipe Trench No.1, No.2 (Duration assumed no interface w	72	01-Aug-24	31-Dec-24	01-Aug-24 A	02-Mar-25	-384	52.94%						
S5EXAC1050	LV Cable Laying from CHP to BHT, THP, DOU No.12, H2S removal & Guard I	30	01-Aug-24	14-Nov-24	01-Aug-24 A	19-Jan-25	-410	80%						
S5EXAC1070	LV Cable Laying from SDB to SPS (10 days) & Termination (20 days)	4	24-Sep-24	20-Oct-24	15-Nov-24 A	24-Dec-24	-386	89.74%						
S5EXAC1080	LV Cable Laying from TX & SW Room to DOU no. 11, Street Hydrant Pump r	28	24-Sep-24	19-Nov-24	18-Nov-24 A	17-Jan-25	-402	53.33%						
S5EXAC1090	LV Cable Laying from CHP to FeCl3 Dosing Facility and Waste Gas Burning S	28	24-Sep-24	19-Nov-24	18-Nov-24 A	17-Jan-25	-324	53.33%						
S5EXAC1100	Road Lighting Installation	180	21-Nov-24	19-May-25	21-Dec-24*	18-Jun-25	-380	0%						
S5EXAC1110	Landscape Lighting Installation	120	21-Nov-24	20-Mar-25	21-Dec-24*	19-Apr-25	-320	0%						
SAS Pumping Station														
Installation														
S5SASC1010	E&M Installation of SAS Pumping System	37	23-Mar-22	27-Oct-24	23-Mar-22 A	26-Jan-25	-349	95.38%						
S5SASC1040	Installation of UPS	7	21-Nov-24	27-Nov-24	10-Jan-25	16-Jan-25	-258	0%						
Testing and Commissioning														

Activity ID	Activity Name	Remaining Duration	BL Start (DE/2018/03 RP R39)	BL Finish (DE/2018/03 RP R39)	Start	Finish	Total Float	Activity % Complete	2024		2025		
										Dec 63	Jan 64	Feb 65	Mar 66
S5SAST1000	SAT & System Commissioning Tests for SAS Pumping Station	45	28-Oct-24	11-Dec-24	27-Jan-25	12-Mar-25	-349	0%					
S5SAST1020	Ready for Power Energisation	1	21-Sep-24	21-Sep-24	21-Dec-24	21-Dec-24	-313	0%					
S5SAST1030	SAT for UPS	7	28-Nov-24	04-Dec-24	17-Jan-25	23-Jan-25	-258	0%					
Existing Consolidation House													
Installation													
S5EHC1000	E&M Installation of Existing Consolidation House	31	02-Oct-24	20-Nov-24	12-Oct-24 A	20-Jan-25	-410	38%					
Testing and Commissioning													
S5ECHT1000	SAT for Temporary Primary Sludge Pump	28	21-Nov-24	18-Dec-24	21-Jan-25	17-Feb-25	-410	0%					
Miscellaneous													
S5MISC1010	E&M Installation - Guard House	90	07-Oct-24	04-Jan-25	21-Dec-24*	20-Mar-25	-290	0%					
S5UVPC1000	E&M Installation of Lift-up Pumps & Associated Pipeworks / Valves	16	19-Jun-23	06-Oct-24	19-Jun-23 A	05-Jan-25	-382	96.84%					
Testing & Commissioning													
T&C of Control Monitoring System													
S5T1000	SAT of SCADA System (SPS and FeCl3)	34	27-Oct-24	10-Dec-24	20-Jan-25	22-Feb-25	-415	0%					
S5T1001	SAT of SCADA System (SAS PS)	60	13-Oct-24	11-Dec-24	12-Jan-25	12-Mar-25	-306	0%					
S5T1002	SAT of SCADA (SDB)	42	01-Nov-24	18-Dec-24	20-Jan-25	02-Mar-25	-423	0%					
S5T1003	SAT of SCADA (CHP System at CHP building) (Excluded Biogas Circuit)	120	01-Nov-24	28-Feb-25	10-Jan-25	09-May-25	-352	0%					
S5T1004	SAT of SCADA (WS2)	132	12-Dec-24	22-Apr-25	13-Mar-25	22-Jul-25	-306	0%					
S5T1006	SAT of SCADA (Transformer and Switchroom)	60	18-Oct-24	18-Dec-24	21-Dec-24	18-Feb-25	-411	0%					
S5T1220	SAT of SCADA (Sludge Anaerobic Digestion System at CHP Building)	60	18-Nov-24	16-Jan-25	24-Jan-25	24-Mar-25	-186	0%					
S5T1230	SAT of SCADA (THP system at CHP Building)	95	08-Jan-25	12-Apr-25	16-Mar-25	18-Jun-25	-272	0%					
S5T1240	SAT of SCADA (DO System at CHP building)	30	08-Jan-25	06-Feb-25	16-Mar-25	14-Apr-25	-207	0%					
S5T1250	SAT of SCADA (H2S Removal System at CHP building)	30	19-Nov-24	18-Dec-24	24-Jan-25	22-Feb-25	-156	0%					
S5T1260	SAT of SCADA (Biogas Holding Tank at CHP building)	31	30-Nov-24	30-Dec-24	18-Feb-25	20-Mar-25	-182	0%					
S5T1270	SAT of SCADA (for Sludge Thickening System at SDB Building)	40	01-Nov-24	10-Dec-24	20-Jan-25	28-Feb-25	-421	0%					
S5T1280	SAT of SCADA (for Sludge Dewatering System at SDB Building)	26	01-Nov-24	18-Dec-24	20-Jan-25	14-Feb-25	-407	0%					
T&C of E&M Process													
S5T1055	SAT of Sludge Thickening System including Sludge Thickening Centrifuge	7	12-Dec-24	18-Dec-24	22-Feb-25	28-Feb-25	-421	0%					
S5T1060	SAT of Sludge Dewatering System including Sludge Dewatering Centrifuge	7	12-Dec-24	18-Dec-24	16-Feb-25	22-Feb-25	-415	0%					
S5T1102	Sewage Pumping Station to inlet work pipework ready (by other)	0		18-Dec-24		02-Mar-25	-423	0%					
S5T1104	Sludge pipe from existing consolidation house to sludge transfer to SDB ready	0		15-Oct-24		02-Mar-25	-423	0%					
S5T1106	Sludge ready from Zone B	0		15-Oct-24		02-Mar-25	-423	0%					
S5T1110	Seeding Digester Tank no.4 (MAD) + SRT (3 Cycle)	84	19-Dec-24	24-Feb-25	03-Mar-25*	25-May-25	-423	0%					
S5T1122	Underground biogas pipe from SD to holding tank ready (by other)	0		04-Dec-24		16-Feb-25	-423	0%					
S5T1124	Sludge pipe from distribution chamber back to SDB (by other)	0		18-Dec-24		02-Mar-25	-423	0%					
Statutory Submission / Inspection													
HKT Submission													
S5S0990	Application of Telemetry Lines for Workshop No. 2.	180	01-Nov-24	29-Apr-25	01-Jan-25	29-Jun-25	-223	0%					
EMSD Submission / Inspection													
S5S1070	Application for Approval of Use of Notifiable Gas Installation (Form 105) & EMS	15	01-Sep-24	15-Oct-24	21-Jan-25	04-Feb-25	-397	0%					
WSD Submission / Inspection													
S5S1130	Submit WWO46 Part IV to WSD (FS)	0	31-Dec-24		02-Mar-25		-341	0%					
S5S1140	WSD Inspection (FS)	28	14-Jan-25	10-Feb-25	16-Mar-25	12-Apr-25	-341	0%					
S5S1160	Submit WWO46 Part IV to WSD (PD)	0	23-Sep-24		21-Dec-24*		-416	0%					
S5S1170	WSD Inspection	7	07-Oct-24	13-Oct-24	04-Jan-25	10-Jan-25	-416	0%					
S5S1180	Issuance of Form WWO46 Part Va	0		27-Oct-24		10-Jan-25	-416	0%					
S5S1190	System Flushing / Sampling	30	14-Oct-24	27-Nov-24	11-Jan-25	09-Feb-25	-416	0%					
S5S1200	Issuance of Form WWO46 Part Vb	0		27-Nov-24		09-Feb-25	-416	0%					
S5S1210	Issuance of Water Certificate	0		11-Dec-24		23-Feb-25	-416	0%					
FSD Submission / Inspection													
S5S1290	D.G. Inspection, Defects Rectification & Re-inspection (Ventilation Division)	0	07-Dec-24	27-Dec-24	03-Dec-24 A	18-Dec-24 A		100%					
S5S1300	D.G. Inspection, Defects Rectification & Re-inspection (DG Division)	0	28-Dec-24	17-Jan-25	03-Dec-24 A	18-Dec-24 A		100%					
S5S1310	Issue D.G. Licence	14	18-Jan-25	31-Jan-25	12-Jan-25	25-Jan-25	-236	0%					

Updated on:												20-Nov-24
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencem ent Date	Anticipated / Actual Commencem ent Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
Drawing Submission for Key Dates												
KD1A: Submission of civil and dimensional requirement drawing, electrical schematic drawings, etc. from formation level up to +8mPD in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1A: Submission of Civil Requirement Drawing (Final)	28/8/2020	18/9/2020	5/11/2020	5/11/2020	Task Completed	no.	26	26	100%		
	KD1A: Submission of Electrical Schematic Drawing (Final)	15/7/2020	15/7/2020	5/11/2020	5/11/2020	Task Completed	no.	11	11	100%		
	KD1A: 6 November 2020											
KD1B: Submission of remaining civil and dimensionnal requirement drawings, electrical schematic drawing, etc. in accordance with the contract requirement of Contract No. DC/2018/07 to carry out civil works construction	KD1B: Submission of Civil Requirement Drawing (First Draft)	30/9/2020	28/9/2020	30/12/2020	31/3/2021	Task Completed	no.	47	47	100%		
	KD1B: Submission of Civil Requirement Drawing (Final)	6/11/2020	5/11/2020	4/6/2021	4/6/2021	Task Completed	no.	47	47	100%		All the CWR Drawings were submitted.
	KD1B: 4 June 2021											
KD3A: 04SC010 - Dismantle & Removal of Emergency Generators in existing Power House	Submission of subletting package for acceptance (C9)	1/3/2020	24/2/2020	14/3/2020	22/4/2020	Task Completed				100%	-	Bestwise resubmitted on 22 April 2020
	Acceptance of subletting package (C9)	14/3/2020	6/5/2020	1/4/2020	5/5/2020	Task Completed				100%	-	AECOM accepted subletting package on 5 May 2020
	Tender invitation (C9)	1/4/2020	15/5/2020	15/4/2020	22/5/2020	Task Completed				100%	-	Invitation to tender was commenced on 12 May 2020 and tender returned on 22 May 2020
	Tender award (C9)	15/4/2020	22/5/2020	29/4/2020	26/5/2020	Task Completed				100%	-	Bestwise submitted tender report on 26 May 2020
	Acceptance of tender award (C9)	-	-	-	6/6/2020	Task Completed				100%	-	AECOM accepted tender report on 2 June 2020, Letter of Acceptance was issued on 6 June
	Dismantle of existing BS equipment		15/6/2020		25/7/2020	Task Completed				100%		
	Removal of emergency generators	1/6/2020	15/6/2020	30/6/2020	25/7/2020	Task Completed				100%		
KD3A: 04SC010 - Dismantle & Removal of Emergency Generators in existing Power House	KD3A: Testing and Comissioning	1/7/2020	3/7/2020	29/7/2020	29/7/2020	Task Completed				100%		First test was conducted on 3 July 2020. Remaining test would be subjected to completion of civil works. KD3A - 29 July 2020. Joint Site Inspection was conducted on 24 July 2020 and Notice of completion of work was submitted on 28 July 2020
	KD3A: 29 July 2020											
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	Submission of onsite survey plan on E&M aspects for	1/3/2020	25/3/2020	30/3/2020	27/4/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 27 April 2020
	Acceptance of submission of onsite survey plan	1/3/2020	25/3/2020	30/3/2020	22/5/2020	Task Completed				100%	-	AECOM accepted the onsite survey plan on 22 May 2020. Onsite coordination with ST1
	KD3B: Submission of onsite survey report	11/7/2020	20/7/2020	16/7/2020	30/7/2021	Task Completed				100%	Bestwise	- Onsite survey conducted from 20 July 2020 to 22 July 2020. Bestwise submitted survey report on 5 August 2020. AECOM commented on 19 Aug 2020. Bestwise to resubmit upon conducting the remaining onsite survey. (Done) - Bestwise revised survey plan for remaining onsite checking of PST No. 6 on 1 Sep 2020. After discussion with plant operator, the remaining survey would be conducted after the dismantling work of PSTs. Formal survey record for PST No.4 was submitted on 24 May 2021. - Remaining survey (level of bridge & scraper) for PST 6 completed. - Formal survey report shall be submitted on 30 Jul 2021.
	KD3B: Acceptancce of onsite survey report	17/7/2020	6/8/2020	23/7/2020	6/8/2021	Task Completed				-		Acceptance for the center point, vertical and horizontal alignment of ductfoot installation of PST No.4 shall subject to joint site meeting conducted on 2 June 2021. Refer to E-RISC no. 000014A & 000016 result for details.
	KD3B: Preparation of procurement package (C11)	2/12/2019	1/8/2020	13/4/2020	7/8/2020	Task Completed				100%		
	KD3B: Tender invitation - Clarifier (C11)	2/12/2019	14/8/2020	13/4/2020	26/8/2020	Task Completed				100%		
	KD3B: Tender Award - Clarifier (C11)	2/12/2019	26/8/2020	13/4/2020	25/9/2020	Task Completed				100%		
	KD3B: Acceptance of tender award (C11)	2/12/2019	11/9/2020	13/4/2020	18/9/2020	Task Completed				-		
	KD3B: Tender invitation - DI Pipe (C11)	2/12/2019	13/1/2021	13/4/2020	19/1/2021	Task Completed				100%		
	KD3B: Tender Award - DI Pipe (C11)	2/12/2019	21/1/2021	13/4/2020	23/1/2021	Task Completed				100%		
	KD3B: Tender invitation - LCP (C11)	2/12/2019	3/2/2021	13/4/2020	5/2/2021	Task Completed						
	KD3B: Tender Award - LCP (C11)	2/12/2019	6/2/2021	13/4/2020	8/2/2021	Task Completed				100%		
	KD3B: Preparation of subletting package for dismantling work (C9)	2/12/2019	21/9/2020	13/4/2020	21/10/2020	Task Completed				100%		
	KD3B: Tender invitation for dismantling work (C9)	2/12/2019	12/11/2020	13/4/2020	19/11/2020	Task Completed				100%		
	KD3B: Tender Award for dismantling work (C9)	2/12/2019	20/11/2020	13/4/2020	22/11/2020	Task Completed				100%		
	KD3B: Acceptance of tender award for dismantling	2/12/2019	23/11/2020	13/4/2020	1/12/2020	Task Completed				100%		

Updated on:											20-Nov-24	
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencem ent Date	Anticipated / Actual Commencem ent Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
	KD3B: Preparation and Acceptance of subletting package for installation work (C9)	2/12/2019	15/12/2020	13/4/2020	1/3/2021	Task Completed				100%		
	KD3B: Tender invitation for installation work (C9)	2/12/2019	3/3/2021	13/4/2020	10/3/2021	Task Completed				100%		
	KD3B: Tender Award for installation work (C9)	2/12/2019	12/3/2021	13/4/2020	15/3/2021	Task Completed				100%		
	KD3B: Acceptance of tender award for installation work	2/12/2019	15/3/2021	13/4/2020	19/3/2021	Task Completed				100%		
	Submission and Acceptance of Drawing Submission	14/4/2020	5/8/2020	10/9/2020	11/1/2021	Task Completed				100%		
	Submission and Acceptance of P&M Submission	14/4/2020	5/8/2020	10/9/2020	30/6/2021	Task Completed						Formal resubmission of P&M for Rotating Bridge Scraper P&M-0024 (Rev.1) was submitted to AECOM on 24 June 2021 and is accepted by AECOM. P&M submission for Local Control Panel Rev.3 was submitted on 20 Mar 2021 and AECOM accepted on 26 Mar 2021.
	Submission and Acceptance of FAT Plan	1/12/2020	27/1/2021	15/12/2020	16/2/2021	Task Completed				100%		
	Submission and Acceptance of SAT Plan	1/3/2021	1/3/2021	1/4/2021	5/5/2021	Task Completed				100%		Bestwise submitted on 13 Apr 2021. AECOM accepted with comments on 5 May 2021.
	Submission and Acceptance of Design Submission (Support to DN700 Feed Pipe)	N/A	22/2/2021	N/A	13/5/2021	Task Completed						Advanced Calculation was provided on 17 Mar 2021 and revised on 18 Mar 2021. Bestwise proposed to use the existing support. Calculation was provided on 1 Apr 2021 via email. Dimension of support column was checked again on 14 Apr 2021. Proposal submitted on 30 Apr 2021. AECOM accepted with comments on 13 May 2021.
	Submission and Acceptance of Design Submission (Stainless steel support to FRP Cover of Effluent	N/A	24/2/2021	N/A	19/4/2021	Task Completed				100%		Advanced Calculation was provided on 17 Mar 2021 and revised on 18 Mar 2021. Bestwise formal submitted on 26 Mar 2021. AECOM accepted with comment on 19 Apr 2021.
	KD3B: Dismantle and Removal of E&M Equipment at PST No. 6	9/2/2021	21/12/2020	19/2/2021	15/1/2021	Task Completed				100%		
	Flow Diversion and drain out PST No.4	N/A	25/1/2021	N/A	26/3/2021	Task Completed				100%		
	KD3B: Dismantle and Removal of E&M Equipment at PST No. 4	9/2/2021	5/3/2021	19/2/2021	1/4/2021	Task Completed				100%		
	KD3B: Material Manufacturing (Clarifier)	12/9/2020	16/12/2020	12/12/2020	20/2/2021	Task Completed				100%		The clarifier would be manufactured in 2 batches (rotating bridge related and FRP launder cover). Manufaturing instruction was issued on 16 Dec 2020. Jash suggested 1st batch of material (clarifier) would be ready for shipping on 20 Feb 2021 and 2nd batch of material (FRP Launder Cover) would be ready for shipping on 13 Mar 2021. (To be confirmed by Jash by providing shipment booking, but supplier cannot provide updated information at thie moment due to second surge of COVID-19 in india)
	KD3B: FAT of the Clarifier	N/A	24/2/2021	N/A	1/3/2021	Task Completed				100%		FAT Report submitted on 24 Feb 2021 and AECOM accepted subject to comment on 1 Mar 2021
	KD3B: Material Delivery (Clarifier)	13/12/2020	27/2/2021	18/1/2021	6/4/2021	Task Completed				100%		
	KD3B: Material Deliver to Site (Clarifier)	N/A	6/4/2021	N/A	8/4/2021	Task Completed				100%		
	KD3B: Material Manufacturing (DI pipes and fittings)	11/9/2020	26/1/2021	18/1/2021	15/3/2021	Task Completed				100%		Extracted from C9 package to C11 package to suit the installation programme
	KD3B: Material Delivery (DI pipes and fittings)	11/9/2020	16/3/2021	18/1/2021	24/3/2021	Task Completed				100%		
	KD3B: Material Delivery (FRP Cover)	N/A	26/3/2021	N/A	21/6/2021	Task Completed				100%		All the FRP covers were delivered to site.
	KD3B: Material Manufacturing (LCP)	11/9/2020	4/3/2021	18/1/2021	16/4/2021	Task Completed				100%		
	KD3B: Material Delivery (LCP)	11/9/2020	17/4/2021	18/1/2021	30/4/2021	Task Completed				100%		
	KD3B: Retrofitting Concrete Structure of PST No. 4	N/A	2/4/2021	N/A	22/4/2021	Task Completed				100%		
	KD3B: Installation of E&M Equipment at PST No. 4	27/2/2021	5/4/2021	10/5/2021	17/5/2021	Task Completed						
	KD3B: Testing and Comissioning for PST No. 4	11/5/2021	19/4/2021	9/6/2021	26/7/2021	Task Completed						Wet test for PST 4 completed on 26 July 2021.
	Flow Diversion from PST No.6 to Temporary Filtrate Equalization Tank	N/A	19/5/2021	N/A	20/5/2021	Task Completed				100%		Filtrate feeding to TFES was resumed on 19/5/2021 with fine-tuned control.
	Removal of Accumulated Sludge Inside PST No. 6	N/A	19/5/2021	N/A	30/5/2021	Task Completed				100%		NCE-0229, this includes removal of floating scum/ sludge and clearance of blockage of drain pipe
	KD3B: Retrofitting Concrete Structure of PST No. 6	N/A	28/5/2021	N/A	24/6/2021	Task Completed				100%		
	KD3B: Mechanical Installation of E&M Equipment at PST No. 6	27/2/2021	31/5/2021	10/5/2021	21/7/2021	Task Completed				100%		This includes PST Influent feed pipe, center bearing & slip ring assembly, motor & gearbox assembly, rotating bridge sludge & scum scraper assembly, circular baffle diffuser box, v-notched weir plate, scum baffle plate, scum collection box and FRP cover.
	KD3B: Electrical Installation of E&M Equipment at PST No. 6	27/2/2021	9/6/2021	10/5/2021	21/7/2021	Task Completed				100%		This includes installation of LCP, cable laying & terminations.

Updated on:												20-Nov-24
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
	KD3B: Testing and Comissioning for PST No. 6	11/5/2021	22/6/2021	9/6/2021	20/8/2021	Task Completed				100%		Wet test (1st) completed on 20 Aug 2021 and wet test (2nd) completed on 3 Sep 2021.
KD3B: 6B.2.15 Operation Restoration of Existing Primary Sedimentation Tank (PST) No. 4 and 6	KD3B: System Commissioning for PST No. 4 & 6	N/A	22/6/2021	N/A	3/9/2021	Task Completed				100%		Wet test (2nd) for PST#6 completed on 3 Sep 2021 and pre-handover inspection arranged on 30 Aug 2021. Defect list (final) received on 17 Sep 2021 and defect rectification was completed. Site training/ demonstration shall be conducted by end Feb and PMI modification work shall be completed by end March.
	KD3B: 9 June 2021											
Section 1 of Works (outstanding works list)												
6B.2.12 Provision of New Replacement Filter Plates	Submission of onsite survey plan for acceptance	1/3/2020	25/3/2020	30/3/2020	21/4/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 21 April 2020
	Acceptance of submission of onsite survey plan	1/3/2020	25/3/2020	30/3/2020	12/5/2020	Task Completed				100%	-	Survey plan acceptance received on 12 May 2020. Onsite discussion with ST1 was
	Submission of onsite survey report	21/5/2020	21/5/2020	29/5/2020	29/5/2020	Task Completed				100%		
	Acceptance of onsite survey report	30/5/2020	30/5/2020	15/6/2020	15/6/2020	Task Completed				-		
	Preparation of procurement package (C11)	22/6/2020	22/6/2020	6/7/2020	14/7/2020	Task Completed				100%		
	Tender invitation (C11)	15/7/2020	15/7/2020	22/7/2020	24/7/2020	Task Completed				100%		
	Tender Award (C11)	23/7/2020	25/7/2020	29/7/2020	31/7/2020	Task Completed				100%		Revised survey report (second draft) was sent to AECOM on 21 Oct 2020. Technical
	Material Submission	21/8/2020	21/8/2020	28/8/2020	7/12/2020	Task Completed				100%		Material submission (Rev.1) resubmitted on 7 Dec 2020. AECOM accepted subject to comments on 24 Dec 2020. Material submission (Rev. 2) resubmitted on 12 Jan 2021. AECOM accepted subject to comment on 22 Jan 2021.
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	1/12/2020	1/12/2020	8/8/2021	8/8/2021	Task Completed				-		"Filter Press Plates and Cloths" were handed over to DSD.
6B.2.12 Provision of Membrane Filter Press System at Existing Sludge Press House	Submission of onsite survey plan for acceptance	1/3/2020	25/3/2020	30/3/2020	Task to be deleted	Task to be deleted				-	-	PPMI No.5 was issued by PM on 24 April 2020. Bestwise is requested to submit quotation on delete the provision of one (1) no. of membrane filter press system in pursuant to Particular Specification Clause 6B.2.12.
6B.2.16 Temporary Filtrate Equalisation System (Sub-programme was provided by Bestwise)	Submission of onsite survey plan on E&M aspects for acceptance	1/3/2020	1/4/2020	30/3/2020	7/5/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 7 May 2020
	Acceptance of submission of onsite survey plan	1/3/2020	1/4/2020	30/3/2020	23/5/2020	Task Completed				100%	-	AECOM accepted the onsite survey plan on 23 May 2020
6B.2.16 Temporary Filtrate Equalisation System (Sub-programme was provided by Bestwise)	Submission and Acceptance of ELS Design for Lifting Well	15/06/2020 -> 17/08/2020*	2/9/2020	30/07/2020 -> 30/11/2020*	9/2/2021	Task Completed				100%	Bestwise	- * = PMIO14 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. Bestwise submitted Rev.0 on 21 Oct 2020 and resubmitted Rev.2 on 23 Jan 2021. - AECOM provide consent for the ELS temporary works on 9 Feb 2021. AECOM accepted on 9 Feb 2021.
	Submission and Acceptance of Design for Filtrate Lifting Well Construction	15/06/2020 -> 17/08/2020*	2/9/2020	30/07/2020 -> 30/11/2020*	15/1/2021	Task Completed				100%		* = PMIO14 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020. AECOM commented on 21 Dec 2020. Bestwise submitted Rev.0 on 2 Nov 2020 and Rev.1 on 8 Jan 2021.
	Submission and Acceptance of Design of FRP Filtrate Equalization Tank	15/06/2020 -> 07/09/2020**	2/9/2020	30/07/2020 -> 22/10/2020*	15/1/2021	Task Completed				100%		** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020.
	Submission and Acceptance of Design of footing for FRP Filtrate Equalization Tank	15/06/2020 -> 07/09/2020**	2/9/2020	30/07/2020 -> 22/10/2020*	19/2/2021	Task Completed				100%		** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - Re-design work was proceeded and the planned start date was revised to 17 Aug 2020.
	Submission and Acceptance of Design of Formwork & Flasework Design for Construction of Lifting Well	15/06/2020 -> 17/08/2020*	2/9/2020	30/07/2020 -> 30/11/2020*	15/1/2021	Task Completed				100%		- * = PMIO14 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. - Bestwise submitted Rev.0 on 12 Jan 2020.

Updated on:											20-Nov-24	
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencem ent Date	Anticipated / Actual Commencem ent Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
	Submission and Acceptance of Contractor's Design for Temporary Filtrate Equalisation System (E&M Works) (CDS010-2)	01/06/2020 -> 7/9/2020**	5/7/2020	30/07/2020 - > 30/11/2020*	30/7/2021	Task Completed				-	Bestwise	** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - Bestwise submitted (CDS 0010 Rev.0) on 6 August 2020, AECOM commented on 27 Aug 2020. Bestwise to resubmit (Separate submissions P&M0049, DWG0038, CDS0026, P&M0008, P&M0004, CDS0037, CDS0027, DWG0040 were submitted) - Control philosophy (CDS0027 Rev.0) was submitted on 22 Dec 2020. AECOM commented on 13 Jan 2021, Bestwise resubmitted on 27 May 2021 formally, AECOM accepted with comments on 4 Jun 2021.
	Drawing Submission	01/06/2020 -> 17/08/2020*	29/9/2020	30/07/2020 - > 30/11/2020*	5/3/2021	Task Completed				100%	Bestwise	- * = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. - Bestwise submitted (rev.0) on 29 Oct 2020 and resubmitted (rev.2) on 25 Jan 2021, AECOM accepted on 5 Feb 2021.
	Material Submission	01/06/2020 -> 17/08/2020*	29/11/2020	30/07/2020 - > 30/11/2020*	25/2/2021	Task Completed				100%	Bestwise	** = Change of material of temporary filtrate equalization tank from concrete to FRP on 07 Sep 2020. - P&M submission of temporary filtrate equalization tank (P&M 0030 Rev.1) on 29 Jan 2021. AECOM accepted subject to comments on 25 Feb 2021.
Subletting Package for Temporary Filtrate Equalization System	Tender invitation (C11) (EQT-002 & EQT-004)	17/4/2020	17/4/2020	7/5/2020	7/5/2020	Task Completed				100%		
	Tender award (C11) (EQT-002 & EQT-004)	14/4/2020	24/4/2020	13/5/2020	13/5/2020	Task Completed				100%	Bestwise	Bestwise submitted tender report on 29 April 2020 for filtrate pumps, AECOM commented on 29 May 2020, Bestwise to resubmit. Bestwise submitted tender report of instrument on 13 May 2020, AECOM noted on 26 May
	Acceptance of tender award (C11) (EQT-002 & EQT-	25/4/2020	25/4/2020	21/5/2020	21/5/2020	Task Completed				100%	Bestwise	
	Material Submission	20/07/2020 ->	16/10/2020	20/08/2020 -	5/2/2021	Task Completed				-	Bestwise	** = Change of material of temporary filtrate equalization tank from concrete to FRP on 18
	Submission of subletting package for acceptance (C9)	1/3/2020	13/7/2020	14/3/2020	13/7/2020	Task Completed				100%		
	Acceptance of subletting package (C9)	15/3/2020	14/7/2020	28/3/2020	14/7/2020	Task Completed				100%		
	Tender invitation (C9)	29/3/2020	15/7/2020	11/4/2020	22/7/2020	Task Completed				100%		
	Tender award (C9)	12/4/2020	23/7/2020	25/4/2020	13/8/2020	Task Completed				100%		
	Acceptance of tender award for civil construction work (C9)	26/04/2020	14/8/2020	5/5/2020	2/9/2020	Task Completed				100%		
	Preparation of subletting package for mech work (C9)	01/08/2020 -> 01/12/2020*	25/1/2021	08/08/20 -> 08/12/2020*	1/3/2021	Task Completed				100%		* = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. Subletting package would was submitted on 25 Feb 2021 and AECOM accepted on 1 Mar
	Tender invitation for mech work (C9)	08/08/20 ->	2/3/2021	15/08/2020 -	9/3/2021	Task Completed				100%		Tender invitation was conducted on 2 Mar 2021 and returned on 9 Mar 2021
	Tender Award for mech work (C9)	15/08/2020 ->	10/3/2021	22/08/2020 -	15/3/2021	Task Completed				100%		Tender report was submitted on 15 Mar 2021
	Acceptance of tender award for mech work (C9)	22/08/2020 ->	15/3/2021	29/08/2020 -	19/3/2021	Task Completed				100%		Tender award on 19 Mar 2021.
	Preparation of subletting package for elect work (C9)	01/08/2020 -> 01/12/2020*	2/2/2021	08/08/20 -> 08/12/2020*	1/3/2021	Task Completed				100%		* = PMI014 - Revised Location for Construction of Temporary Filtrate Equalization System reveiced on 17 Aug 2020. Subletting package resubmitted on 26 Feb 2021 and AECOM accepted on 1 Mar 2021..
	Tender invitation for elect work (C9)	01/08/2020 ->	2/3/2021	15/08/2020 -	9/3/2021	Task Completed				100%		Tender invitation was conducted on 2 Mar 2021 and returned on 9 Mar 2021
Tender Award for elect work (C9)	08/08/20 ->	10/3/2021	22/08/2020 -	15/3/2021	Task Completed				100%		Tender report was submitted on 15 Mar 2021	
Acceptance of tender award for elect work (C9)	15/08/2020 -> 15/12/2020*	15/3/2021	29/08/2020 - >	19/3/2021	Task Completed				100%		Tender award on 19 Mar 2021.	
Construction of Temporary Filtrate Equalisation System	Construction of minor civil works under PMI 014	22/08/2020 -> 22/12/2020*	5/10/2020	15/10/2020	31/3/2021	Task Completed				100%	Bestwise	Utilities survey report of lifting well and EQ tank were submitted on 23 Sept 2020 and 29 Sept 2020. AECOM commented lifting well on 29 Sept 2020.
	RC Structure Works of lifting well	7/11/2020	12/1/2021	30/12/2020	25/2/2021	Task Completed				100%		
	Construction of concrete plinth for filtrate EQ tank	23/1/2021	8/2/2021	1/2/2021	26/2/2021	Task Completed				100%		
	Offsite fabrication and delivery of filtrate EQ tank	31/10/2020	16/1/2021	2/2/2021	4/3/2021	Task Completed				100%		First batch of filtrate EQ tank panel was delivered on 4 Mar 2021.
	Onsite assembly of filtrate EQ tank	2/2/2021	1/3/2021	12/3/2021	16/4/2021	Task Completed				100%		
6B.2.16 Temporary Filtrate Equalisation System	Mechanical Installation	17/3/2021	30/3/2021	12/4/2021	14/5/2021	Task Completed				-		
	Electrical Installation	13/3/2021	29/3/2021	15/4/2021	10/12/2021	Task Completed				-		PLC programme for water spray system (stage 1) is on-going, motorized gate valve for stage 2 under PMI is being fabricated and the delivery lead time is by end November.
	Testing and Comissioning	15/4/2021	22/4/2021	1/5/2021	30/11/2022	Completed				-		Defect rectification for BCM comments was partially completed and Site Acceptance Test (72 hours) was completed.
6B.1.17 Overall plant treatment process review by the Treatment Process Specialist	Submission of Treatment Process Specialist's review report	1/6/2020	1/6/2020	30/6/2020	2/7/2020	Task Completed				-	Bestwise	Preliminary Draft submitted, meeting completed on 15 May 2020 with SRE and TPS. Initial process design evaluation was submitted on 20 May 2020. Design calculation submitted on
	Acceptance of submission for further design	14/6/2020	3/7/2020	30/6/2020	17/7/2020	Task Completed				-		

Updated on:												20-Nov-24
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
6B Overall plant process equipment sizing review	Submission of Contractor's Design Calculation for	1/6/2020	1/6/2020	30/6/2020	2/7/2020	Task Completed				-	Bestwise	Preliminary Draft submitted, meeting completed on 15 May 2020 with SRE and TPS. Initial
	Acceptance of submission for further detail design	14/6/2020	3/7/2020	30/6/2020	17/7/2020	Task Completed				-		
6B.2.1 Inlet Works	Submission of Contractor's Design for Inlet Works No. 1	6/9/2020	16/11/2020	14/5/2021	31/8/2024	106%				-	Bestwise	All finalized design calculations for Inlet Works no.1 shall be submitted by 20 Jan 2023.
	Submission of P&M Submission	6/9/2020	7/9/2020	14/5/2021	31/8/2024	106%						P&M0022 - Inlet Pumps (status: B) P&M0003 - Coarse Screens & Fine Screens (status: B) P&M0085 - Grit Traps (status: B) P&M0084 - Screw Compactor (status: B) P&M0042 - Screw Conveyors for Coarse Screens and Fine Screens (status: B) All P&M for Inlet Works no.1 shall be submitted by 20 Jan 2023.
	Submission of P&ID Drawing	6/9/2020	6/9/2020	14/5/2021	29/12/2020	Task Completed						PID (rev.B) submitted on 13 Nov 2020. AECOM accepted subject to comments on 29 Dec 2020.
	Submission of GA Drawing	6/9/2020	5/1/2021	14/5/2021	31/8/2024	106%						E&M GA submission DWG0082 resubmitted on 9 July 2021. AECOM commented on 19 Feb 2021. Bestwise reviewed GA in BIM with AECOM on 12 Jan 2022. Electrical GA DWG0095 resubmitted on 3 July 2021. AECOM commented on 21 Apr 2021. Bestwise reviewed GA in BIM with AECOM on 12 Jan 2022. All finalized drawings for Inlet Works no.1 shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 5, 12, 19/5/2022.
	Submission of Electrical Drawing	6/9/2020	15/1/2021	14/5/2021	31/8/2024	106%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. All finalized drawings for Inlet Works no.1 shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	31/8/2024	107%				-		
	Submission of detailed design for electrical installation for Inlet Works No. 1 (CDS021)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for LV Switchboards for Inlet Works No. 1 (CDS025-1)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation BS for Inlet Works No. 1 (CDS034-1)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of civil work requirements for Inlet Works No. 1 up to +8.0 mPD (CDS080-1)	1/9/2020	1/9/2020	30/10/2020	30/10/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for Inlet Works No. 1 up to +8.0 mPD (First Draft))	15/7/2020	15/7/2020	15/8/2020	17/9/2020	Task Completed	no.	3	3	100%		1st draft of drawing submitted on 17 September 2020
	KD1A: Submission of civil requirement drawing for Inlet Works No. 1 up to +8.0 mPD (Final)	28/8/2020	18/9/2020	5/11/2020	5/11/2020	Task Completed	no.	3	3	100%	Bestwise	Bestwise resubmitted (rev.A) on 27 Oct 2020.
	KD1A: Submission of electrical schematic drawings for Inlet Works No. 1 (First Draft)	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	2	2	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of electrical schematic drawings for Inlet Works No. 1 (Final)	7/9/2020	1/10/2020	5/11/2020	20/10/2020	Task Completed	no.	2	2	100%	Bestwise	Bestwise submitted on 20 Oct 2020
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.2 Primary Sedimentation Tank No. 1-4	Submission of Contractor's Design for Primary Sedimentation Tanks No. 1-4	6/9/2020	28/12/2020	14/5/2021	31/8/2024	106%				-	Bestwise	PFD (rev.B) under DWG0004 submitted on 22 June 2021. Finalized design calculations for PST shall be submitted by 20 Jan 2023.
	Submission of P&M Submission	6/9/2020	26/11/2020	14/5/2021	31/8/2024	106%						P&M0058 - Lamella Plate Settler (status: B) P&M0097 - Scum Skimmer and Scum Collection Pipe (status: B) P&M0086 - Sludge Bottom Scraper (status: B) P&M0051 - Drain Pump (status: B) P&M0044 - Primary Sludge Pump (status: B) Finalized material submissions for PST shall be submitted by 20 Jan 2023.
	Submission of P&ID Drawing	6/9/2020	2/10/2020	14/5/2021	24/6/2021	Task Completed						PID under DWG0037 (rev.1) submitted on 24 June 2021 and is accepted by AECOM.

Updated on:												20-Nov-24
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
	Submission of GA Drawing	6/9/2020	3/2/2021	14/5/2021	31/8/2024	106%						Mechanical GA was submitted on 19 Jun 2021. Electrical GA under DWG0103 (rev.1) was submitted on 6 Jul 2021 and is accepted by AECOM. Finalized drawings for PST shall be submitted by 30 Aug 2022.
	Submission of Electrical Drawing	6/9/2020	15/1/2021	14/5/2021	31/8/2024	106%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawings for PST shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	2/4/2021	29/5/2021	31/8/2024	106%				-		Refer to outstanding list under "Certificate of completion no.1 - section 1 of the works".
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for LV Switchboards for Primary Sedimentation Tanks (CDS025-2)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of civil work requirements for Primary Sedimentation Tanks up to +8.0 mPD (CDS080-2)	1/9/2020	1/9/2020	30/10/2020	30/10/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for Primary Sedimentation Tanks No. 1-4 up to +8.0 mPD	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	4	4	100%		1st part of drafted drawing (2 nos.) was submitted on 23 Sept 2020. Remaining drawings (2 nos.) were submitted on 30 Sept 2020.
	KD1A: Submission of civil requirement drawing for Primary Sedimentation Tanks No. 1-4 up to +8.0 mPD	28/8/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed	no.	4	4	100%	Bestwise	Bestwise resubmitted (Rev.A) on 27 Oct & 13 Nov 2020.
	KD1A: Submission of electrical schematic drawings for Primary Sedimentation Tanks No. 1-4 (First Draft)	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	1	1	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of electrical schematic drawings for Primary Sedimentation Tanks No. 1-4 (Final)	7/9/2020	1/10/2020	5/11/2020	20/10/2020	Task Completed	no.	1	1	100%	Bestwise	Bestwise submitted on 20 Oct 2020
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.3 Chemical Storage and Dosing System	Submission of Contractor's Design for Chemical Dosing System (CDS006)	6/9/2020	7/1/2021	14/5/2021	29/10/2021	Task Completed				-	Bestwise	Design calculation (rev.0) of CHS1 and TCHS submitted on 2 Sep 2020 and 28 Aug 2020, AECOM commented on 24 Sep and 6 Oct 2020, Bestwise submitted CDS0060 on 15 Jul 2021 and CDS0044 on 19 Jul 2021. Finalized design calculation for chemical systems was submitted on 29 Oct 2021.
	Submission of P&M Submission	6/9/2020	6/9/2020	14/5/2021	30/10/2021	Task Completed						Finalized material submissions for chemical system was submitted on 30 Oct 2021.
	Submission of P&ID Drawing	6/9/2020	11/12/2020	14/5/2021	29/6/2021	Task Completed						PID resubmitted under DWG0053 (rev.1) on 28 Jun 2021, DWG0057 (rev.1) on 29 Jun 2021 and DWG0058 (rev.1) on 29 Jun 2021.
	Submission of GA Drawing	6/9/2020	8/2/2021	14/5/2021	31/8/2024	106%						Electrical GA drawings for CS1 under DWG0096 submitted on 10 April 2021. AECOM accepted subject to comments on 17 Apr 2021. Mechanical GA drawings for CS1 submitted on 1 April 2021. AECOM commented on 24 April 2021. Bestwise resubmitted DWG0093 (rev.1) on 30 Jun 2021 and is accepted by AECOM. Mechanical GA for Temp CS submitted on 12 Jun 2021. All finalized drawings for chemical systems shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 17. 21. 28/4/2022.
	Submission of Electrical Drawing	6/9/2020	15/1/2021	14/5/2021	31/8/2024	106%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. All finalized drawings for chemical system shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	31/8/2024	107%				-		
	Submission of detailed design for electrical installations	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installations	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installations	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	KD1A: Submission of civil requirement drawing for	15/7/2020	15/7/2020	15/8/2020	16/9/2020	Task Completed	no.	2	2	100%		1st draft of drawing submitted on 15 September for CHS1 and 16 September 2020 for
	KD1A: Submission of civil requirement drawing for	7/9/2020	17/9/2020	5/11/2020	5/11/2020	Task Completed	no.	2	2	100%		Bestwise resubmitted (Rev.A) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for	15/7/2020	15/7/2020	15/8/2020	15/9/2020	Task Completed				-		1st draft of drawing to be submitted by 16 September 2020
	KD1A: Submission of electrical schematic drawings for Chemical System No. 1 and No. 2 (Final)	7/9/2020	16/9/2020	5/11/2020	5/11/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for Temporary Chemical System up to +8.0 mPD (First	15/7/2020	15/7/2020	15/8/2020	15/9/2020	Task Completed	no.	1	1	100%		1st draft of drawing submitted on 15 September 2020

Updated on:												20-Nov-24
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
	KD1A: Submission of civil requirement drawing for Temporary Chemical System up to +8.0 mPD (Final)	7/9/2020	16/9/2020	5/11/2020	5/11/2020	Task Completed	no.	1	1	100%		Bestwise resubmitted (Rev.A) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for Temporary Chemical System (First Draft)	15/7/2020	15/7/2020	15/8/2020	15/9/2020	Task Completed				-		1st draft of drawing to be submitted by 16 September 2020
	KD1A: Submission of electrical schematic drawings for	7/9/2020	16/9/2020	5/11/2020	5/11/2020	Task Completed						
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.4 Membrane Bioreactor (MBR) System - Bio Reactor 2A and 2B	Submission of Contractor's Design for Bioreactor 2A and 2B (CDS004)	6/9/2020	12/1/2021	14/5/2021	31/8/2024	106%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 7 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Electrical CDS submitted on 23 Jun 2021. Finalized design calculations shall be submitted by 20 Jan 2023.
	Submission of P&M Submission	6/9/2020	26/11/2020	14/5/2021	31/8/2024	106%						P&M0060 - Pre-treatment Fine Screen (status: B) P&M0053 - MLR Pump (status: B) P&M0118 - Scum Skimmer & Scum Pump (status: C) P&M0088 - Fine Bubble Air Diffuser (status: B) P&M0xxx - Wash Compactor (status: B) P&M0041 - Submersible Mixer (status: B) Finalized material submission shall be submitted by 20 Jan 2023.
	Submission of P&ID Drawing	6/9/2020	2/11/2020	14/5/2021	2/7/2021	Task Completed						PID (Rev.1) under DWG0042 resubmitted on 6 July 2021.
	Submission of GA Drawing	6/9/2020	17/2/2021	14/5/2021	31/8/2024	106%						Mechanical GA under DWG0132 submitted on 26 Jun 2021 and is accepted by AECOM. Electrical GA submitted on 23 Jun 2021. Finalized drawing shall be submitted by 30 June 2022. BIM GA review meeting is scheduled on 1, 8, 15/6/2022.
	Submission of Electrical Drawing	6/9/2020	15/1/2021	14/5/2021	31/8/2024	106%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	31/8/2024	107%				-		Refer to outstanding list under "Certificate of completion no.1 - section 1 of the works".
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for LV Switchboards for BR 2A and 2B (CDS025-3)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of civil work requirements for BR 2A and 2B up to +8.0 mPD (CDS080-3)	1/9/2020	1/9/2020	30/10/2020	30/10/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for BR 2A and 2B up to +8.0 mPD (First Draft)	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	2	2	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of civil requirement drawing for BR 2A and 2B up to +8.0 mPD (Final)	28/8/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed	no.	2	2	100%	Bestwise	AECOM commented on 23 Oct 2020, Bestwise resubmitted on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for BR 2A and 2B (First Draft)	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed				-		1st draft of drawing was sent to AECOM via email on 15 September 2020
	KD1A: Submission of electrical schematic drawings for	7/9/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed						
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.4 Membrane Bioreactor (MBR) System - Membrane Filtration System No. 2 (MFB No. 2)	Submission of Contractor's Design for Membrane Filtration System (CDS005)	6/9/2020	11/1/2021	14/5/2021	31/8/2024	106%				-	Bestwise	PFD (rev.1) submitted on 3 Nov 2020. AECOM accepted on 10 Dec 2020 subject to comment. MBR system process and design calculation (rev.2) submitted on 6 Nov 2020. AECOM accepted on 17 Nov 2020 subject to comments. Finalized design calculations shall be submitted by 30 Aug 2022.
	Submission of P&M Submission	6/9/2020	19/11/2020	14/5/2021	31/8/2024	106%						P&M0072 - Membrane Module (status: B) P&M0069 - Permeate Pump (status: B) P&M0047 - RAS Pump (status: B) P&M0050 - Drain Pump (status: B) P&M0074 - Air Scour Blower (status: C) P&M0073 - Aeration Blower (status: C) P&M0093 - Air Compressor (status: B) P&M0091 - Chemical Pump (status: B) P&M0xxx - Chemical Tank (to be submitted) Finalized material submission shall be submitted by 20 Jan 2023.
	Submission of P&ID Drawing	6/9/2020	30/10/2020	14/5/2021	2/7/2021	Task Completed						DWG0049 (Rev.1) was resubmitted on 2 Jul 2021.
	Submission of GA Drawing	31/3/2021	18/2/2021	14/5/2021	31/8/2024	106%						DWG0121 (rev.1) was resubmitted to AECOM on 17 Jul 2021 Finalized drawings shall be submitted by 30 June 2022. BIM GA review meeting is scheduled on 19, 26/5/2022 and 2/6/2022 (Lower part) BIM GA review meeting is scheduled on 16, 23, 30/6/2022 (Upper part)

Updated on:											20-Nov-24	
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
	Submission of Electrical Drawing	15/4/2021	15/1/2021	14/5/2021	31/8/2024	106%						Electrical SLD submitted on 5 Feb 2021. AECOM commented on 20 Feb 2021. Bestwise to resubmit. Electrical GA under DWG0079 (rev.1) was resubmitted on 8 Jul 2021. Finalized drawings shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	31/8/2024	107%				-		
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for LV Switchboards for	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation BS for MFB (CDS034-4)	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of civil work requirements for MFB up to	1/9/2020	1/9/2020	30/9/2020	30/9/2020	Task Completed						
	KD1A: Submission of civil requirement drawing for	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	7	7	100%		1st draft of drawing submitted on 30 September
	KD1A: Submission of civil requirement drawing for MFB No. 2 up to +8.0 mPD (Final)	28/8/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed	no.	7	7	100%	Bestwise	Bestwise resubmitted (Rev.1) on 5 Nov 2020.
	KD1A: Submission of electrical schematic drawings for	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed	no.	3	3	100%		1st draft of drawing submitted on 30 September 2020
	KD1A: Submission of electrical schematic drawings for MFB No. 2 (Final)	7/9/2020	1/10/2020	5/11/2020	20/10/2020	Task Completed	no.	3	3	100%	Bestwise	Bestwise submitted (Rev.1) on 20 Oct 2020
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)	Tender invitation (C11)	17/4/2020	17/4/2020	24/4/2020	24/4/2020	Task Completed				100%		
6B.2.6 Deodorisation System (EQT-001 - Deodorization Unit)	Tender award (C11)	25/4/2020	25/4/2020	12/5/2020	12/5/2020	Task Completed				100%	Bestwise	Bestwise submitted tender report on 13 May 2020. AECOM commented on 23 July 2020, Bestwise to resubmit.
	Acceptance of tender award (C11)	13/5/2020	13/5/2020	21/5/2020	21/5/2020	Task Completed				100%		
	Submission of Contractor's Design for Deodorisation System , DOU No. 1 (CDS0019 & CDS0045)	6/9/2020	6/9/2020	14/5/2021	31/12/2021	Task Completed				-		Design Calculation (Rev.0) was submitted on 24 Nov 2020. AECOM commented on 6 Jan 2021, Bestwise to resubmit. Bestwise submitted CDS0045 on 3 June 2021. Finalized design was completed.
	Submission of P&ID Drawing of DOU No. 1	6/9/2020	5/8/2020	14/5/2021	2/7/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 1	6/9/2020	6/9/2020	14/5/2021	31/8/2024	106%						GA submitted on 21 Jun 2021 Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 11, 18, 25/5/2022.
	Submission of Electrical Drawing of DOU No. 1	21/3/2021	30/1/2021	14/5/2021	31/8/2024	106%						Control wiring diagrams was resubmitted on 1 April 2021. AECOM commented on 23 Apr 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	31/8/2024	107%				-		
	KD1A: Submission of civil requirement drawing for Deodorisation System , DOU No. 1 up to +8.0 mPD (First Draft)	15/7/2020	15/7/2020	15/8/2020	28/9/2020	Task Completed	no.	1	1	100%		1st draft of drawing was submitted on 28 September 2020
	KD1A: Submission of civil requirement drawing for Deodorisation System , DOU No. 1 up to +8.0 mPD (Final)	28/8/2020	29/9/2020	2/11/2020	5/11/2020	Task Completed	no.	1	1	100%	Bestwise	Bestwise resubmitted (rev.1) on 5 Nov 2020.
	Submission of Contractor's Design for Deodorisation System , DOU No. 2A (CDS0019 & CDS0048)	6/9/2020	6/9/2020	14/5/2021	10/12/2021	Task Completed				-		CDS0019: Design Calculation for Deodorisation System (status: B) CDS0048: Design Calculation on DOU2A - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 2A	6/9/2020	5/8/2020	14/5/2021	2/7/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 2A	6/9/2020	3/8/2020	14/5/2021	31/8/2024	105%				-	Bestwise	Bestwise submitted (rev.1) on 30 Nov 2020. AECOM commented on 16 Dec 2020. Bestwise to resubmit. Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 1, 8, 15/6/2022.
	Submission of Electrical Drawing of DOU No. 2A	21/3/2021	26/1/2021	14/5/2021	31/8/2024	106%						Bestwise submitted (rev.0) on 26 Jan 2021, AECOM commented on 4 Feb 2021. Bestwise to resubmit. Finalized drawing shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	31/8/2024	107%				-		
	Submission of Contractor's Design for Deodorisation System , DOU No. 3A (CDS0019 & CDS0055)	6/9/2020	6/9/2020	14/5/2021	10/12/2021	Task Completed				-		CDS0019: Design Calculation for Deodorisation System (status: B) CDS0055: Design Calculation on DOU3A - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 3A	6/9/2020	5/8/2020	14/5/2021	2/7/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.

Updated on:												20-Nov-24
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencem ent Date	Anticipated / Actual Commencem ent Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
	Submission of GA Drawing of DOU No. 3A	6/9/2020	8/7/2020	14/5/2021	31/8/2024	105%				-	Bestwise	Bestwise submitted (rev.1) on 28 Oct 2020. AECOM commeneted on 16 Dec 2020. Bestwise resubmitted on 24 June 2021. Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 27/4/2022, 4, 11/5/2022.
	Submission of Electrical Drawing of DOU No. 3A	21/3/2021	26/2/2021	14/5/2021	31/8/2024	106%						Bestwise submitted on 17 Apr 2021. AECOM commented on 27 Apr 2021. Bestwise to resubmit. GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	31/8/2024	107%						
	KD1A: Submission of civil requirement drawing for Deodorisation System , DOU No. 3A up to +8.0 mPD	15/7/2020	15/7/2020	15/8/2020	28/9/2020	Task Completed	no.	1	1	100%		1st draft of drawing was submitted on 28 September 2020
	KD1A: Submission of civil requirement drawing for Submission of Contractor's Design for Deodorisation System , DOU No. 3B (CDS0019 & CDS0049)	28/8/2020	29/9/2020	2/11/2020	5/11/2020	Task Completed	no.	1	1	100%	Bestwise	Bestwise resubmitted (rev.1) on 5 Nov 2020.
		6/9/2020	6/9/2020	14/5/2021	10/12/2021	Task Completed						CDS0019: Design Calculation for Deodorisation System (status: B) CDS0049: Design Calculation on DOU3B - air extraction fan (status: B)
	Submission of P&ID Drawing of DOU No. 3B	6/9/2020	5/8/2020	14/5/2021	2/7/2021	Task Completed				-	Bestwise	Bestwise resubmitted rev.3 on 29 Mar 2021. AECOM accepted subject to comments on 13 Apr 2021.
	Submission of GA Drawing of DOU No. 3B	6/9/2020	6/9/2020	14/5/2021	31/8/2024	106%						Bestwise submitted DWG0081 (rev.0) on 5 Feb 2021. AECOM commeneted on 12 Mar 2021. Bestwise to resubmit. Finalized drawings shall be submitted by 30 June 2022 and BIM GA review meeting is scheduled on 16, 23, 30/6/2022.
	Submission of Electrical Drawing of DOU No. 3B	21/3/2021	22/2/2021	14/5/2021	31/8/2024	106%						GA submitted on 24 Jun 2021 Finalized drawing shall be submitted by 20 Jan 2023.
	Acceptance of submission	15/5/2021	15/5/2021	29/5/2021	31/8/2024	107%				-		
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for LV Switchboards for	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of detailed design for electrical installation	6/9/2020	6/9/2020	14/5/2021	14/5/2021	Task Completed						
	Submission of civil work requirements for MFB up to	1/9/2020	1/9/2020	30/9/2020	30/9/2020	Task Completed						
	Submission of civil requirement drawing for MFB up to	28/8/2020	28/8/2020	2/11/2020	2/11/2020	Task Completed						
	KD1A: Submission of electrical schematic drawings for	15/7/2020	15/7/2020	15/8/2020	30/9/2020	Task Completed				-		1st draft of drawing to be submitted by 30 September 2020
	KD1A: Submission of electrical schematic drawings for	7/9/2020	1/10/2020	5/11/2020	5/11/2020	Task Completed						
	KD1A: 6 November 2020											Notice of completion works was submitted on 17 Nov 2020
04SC008 - Design, Supply and Installation of detailed design for lifting appliances	Acceptance of tender award (C9)	-	-	-	6/7/2020	Task Completed				100%	-	AECOM accepted tender report on 6 July 2020.
	Submission of detailed design for lifting appliances for Inlet Works No. 1 (CDS050-1)	6/9/2020	5/12/2020	6/9/2020	31/8/2024	106%						DWG 0055 (Rev.0) was submitted on 13 Mar 2021. AECOM commented on 20 Apr 2021. Bestwise to resubmit. Bestwise submitted P&M0025 on 15 June 2021. Finalized design shall be submitted by 20 Jan 2023.
	Submission of detailed design for lifting appliances for Primary Sedimentation Tanks (CDS050-2)	6/9/2020	5/12/2020	6/9/2020	31/8/2024	106%						DWG 0054 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. Finalized design shall be submitted by 20 Jan 2023.
	Submission of detailed design for lifting appliances for BR 2A and 2B (CDS050-3)	6/9/2020	5/12/2020	6/9/2020	31/8/2024	106%						DWG 0065 (Rev.0) was submitted on 18 Jan 2021. AECOM commented on 9 Mar 2021. Bestwise to resubmit. P&M-0026 (Rev.1) received status B. Finalized design calculation shall be submitted by 20 Jan 2023.
	Submission of detailed design for lifting appliances for MFB (CDS050-4)	6/9/2020	5/12/2020	6/9/2020	31/8/2024	106%						DWG 0066 (Rev.1) was submitted on 1 Mar 2021. AECOM commented on 5 Mar 2021. Bestwise to resubmit. P&M-0027 (Rev.1) received status B. Finalized design calculation shall be submitted by 20 Jan 2023.
	Submission of detailed design for lifting appliances for Temporary Filtration Tank (CDS050-5)	6/9/2020	5/12/2020	6/9/2020	21/5/2021	Task Completed						DWG 0051 (Rev.2) was resubmitted on 7 May 2021 and acceptance by AECOM subject to condition on 21 May 2021. Bestwise submitted P&M0021 on 21 June 2021.
Building Services System	Submission for MVAC system	N/A	10/12/2020	N/A	31/8/2024	106%						Design calculations and drawings for inlet works was submitted on 16 Dec 2020. AECOM commented on 15 Jan 2021 and 20 Jan 2021. Design calculations and drawings for PST was submitted on 30 Dec 2020. AECOM commented on 22 Jan 2021 and 26 Jan 2021. Design calculations and drawings for MFB2 was submitted on 29 Jan 2021. AECOM commented on 26 Mar 2021. Subletting package resubmitted by 18 Mar 2021. AECOM accepted on 19 Mar 2021. Finalized design shall be submitted by 20 Jan 2023.

Contract No. DE/2018/04
Shek Wu Hui Effluent Polishing Plant - Main Works Stage 1 - E&M Works for Sewage Treatment Facilities
3 Month Rolling Programme (From 01/12/2024 to 01/03/2025)

[illegible]

Updated on:												20-Nov-24
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
Lightning Protection System for DOU3A (underground)	Submission and Acceptance for Lightning Protection System Design	6/12/2021	6/12/2021	31/1/2022	31/1/2022	Task Completed						
	Material Delivery	7/2/2022	7/2/2022	28/2/2022	28/2/2022	Task Completed						
	Installation Work	31/3/2022	26/4/2022	5/5/2022	5/5/2022	Task Completed						
	Testing & Commissioning	7/1/2023	7/1/2023	31/1/2023								
Lightning Protection System for Inlet Works (underground)	Submission and Acceptance for Lightning Protection System Design	20/12/2021	20/12/2021	31/1/2022	31/1/2022	Task Completed						
	Material Delivery	15/12/2022	1/10/2022	31/3/2022	31/10/2022	Task Completed						
	Installation Work	15/3/2022	1/11/2022	30/10/2022	14/12/2022	Task Completed						
	Testing & Commissioning	1/11/2022	15/12/2022	15/11/2022	31/12/2022							
MFB No.2	Lifting Appliance Installation at Basement 2	12/5/2023	22/5/2023	11/7/2023	6/6/2024	Task Completed						
	MVAC Installation at Basement 2	8/5/2023	8/5/2023	7/7/2023								
	Fire Services Installation at Basement 2	8/5/2023	8/5/2023	7/7/2023								
	Plumbing Services Installation at Basement 2	8/5/2023	8/5/2023	7/7/2023								
	Mechanical Installation	7/3/2024		6/5/2024								
	Electrical Installation											
	Lifting Appliance Installation at G/F	18/11/2023	22/11/2023	18/12/2023	6/6/2024							
	Lifting Appliance Installation at 1/F	22/3/2024		21/4/2024		Task Completed						
	Mechanical Installation	21/3/2024		20/5/2024								
BR2A/2B	Lifting Appliance Installation	30/3/2024		29/4/2024								
	Mechanical Installation	14/7/2024										
	Electrical Installation											
Inlet Works	Lifting Appliance Installation	30/3/2024		29/4/2024								
	Mechanical Installation	14/9/2024										
	Electrical Installation	1/9/2024										
PST 1~4	Lifting Appliance Installation	30/4/2024		30/4/2024								
Section 3 of Works												
6B.2.12 Provision of New Replacement Filter Plates	Submission of onsite survey plan for acceptance	1/3/2020	25/3/2020	30/3/2020	21/4/2020	Task Completed				100%	-	Bestwise resubmitted onsite survey plan on 21 April 2020
	Acceptance of submission of onsite survey plan	1/3/2020	25/3/2020	30/3/2020	12/5/2020	Task Completed				100%	-	Survey plan acceptance received on 12 May 2020. Onsite discussion with ST1 was
	Submission of onsite survey report	21/5/2020	21/5/2020	29/5/2020	29/5/2020	Task Completed				100%		
	Acceptance of onsite survey report	30/5/2020	30/5/2020	15/6/2020	15/6/2020	Task Completed				-		
	Preparation of procurement package (C11)	22/6/2020	22/6/2020	6/7/2020	14/7/2020	Task Completed				100%		
	Tender invitation (C11)	15/7/2020	15/7/2020	22/7/2020	24/7/2020	Task Completed				100%		
	Tender Award (C11)	23/7/2020	25/7/2020	29/7/2020	31/7/2020	Task Completed				100%		Revised survey report (second draft) was sent to AECOM on 21 Oct 2020. Technical
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Submission	21/8/2020	21/8/2020	28/8/2020	7/12/2020	Task Completed				100%		Material submission (Rev.1) resubmitted on 7 Dec 2020. AECOM accepted subject to comments on 24 Dec 2020. Material submission (Rev. 2) resubmitted on 12 Jan 2021. AECOM accepted subject to comment on 22 Jan 2021.

Updated on:												20-Nov-24
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
6B.2.12 Provision of New Replacement Filter Plates for Existing Membrane Filter Presses at Existing Sludge Press House	Material Delivery	1/12/2020	1/12/2020	8/8/2021	13/7/2021	Task Completed				-		Handed over to DSD.
	Completion Date of Section 3: 22 September 2021											
Subcontracting												
	Submission of subletting package for acceptance	1/1/2020	6/3/2020	30/3/2020	6/3/2020	Task Completed				100%	-	
	Acceptance of subletting package	1/3/2020	21/3/2020	30/3/2020	21/3/2020	Task Completed				100%	-	
	Tender invitation	1/3/2020	24/3/2020	1/4/2020	30/3/2020	Task Completed				100%	-	
	Tender award	22/3/2020		14/4/2020	6/4/2020	Task Completed				100%	-	Bestwise submitted tender report on 6 April 2020
	Acceptance of tender award	-	-	-	15/4/2020	Task Completed				100%		AECOM accepted tender report on 15 April 2020
Construction of Contractor's site accommodation in WA1-C	Design of MiC	15/4/2020	16/4/2020	1/6/2020	15/8/2020	Task Completed				100%		Revised layout drawings received from AluHouse on 28 May 2020. Comments provided to AluHouse on 2 June 2020.
	Submission of detailed design including foundation works, septic tank	1/7/2020	1/7/2020	14/7/2020	4/9/2020	Task Completed				100%		Design calculation of foundation work was submitted on 7 July 2020, comment received on 27 July 2020. Bestwise to resubmit.
	Site Clearance Work	15/7/2020	20/7/2020	31/7/2020	15/8/2020	Task Completed				100%		Tender invitation commenced on 29 May 2020 and tenders received on 4 June 2020. Tender
	Off-site fabrication of Septic tank	15/7/2020	20/7/2020	31/7/2020	31/7/2020	Task Completed				100%		Site clearance work started on 20 July 2020
	Submission of method statement with ICE certificate	1/8/2020	1/8/2020	7/8/2020	8/10/2020	Task Completed				100%		CV of ICE was submitted on 4 August 2020 and accepted on 25 August 2020
	Submission of design calculation with ICE certificate	1/8/2020	1/8/2020	7/8/2020	8/10/2020	Task Completed				100%		Design calculation of foundation work was submitted on 7 July 2020, comment received on
	Acceptance of method statement and design calculation	8/8/2020	9/10/2020	14/8/2020	16/10/2020	Task Completed				100%		Method Statement and Design Calculation was submitted on 8 Oct 2020.
	Submission of method statement with ICE certificate	1/8/2020	1/8/2020	7/8/2020	23/11/2020	Task Completed				100%		
	Submission of design calculation with ICE certificate	1/8/2020	1/8/2020	7/8/2020	23/11/2020	Task Completed				100%		
	Acceptance of method statement and design calculation	8/8/2020	24/11/2020	14/8/2020	27/11/2020	Task Completed				100%		
	Excavation work	17/8/2020	21/10/2020	18/8/2020	21/10/2020	Task Completed				100%		
	Installation of septic tank	19/8/2020	21/10/2020	20/8/2020	22/10/2020	Task Completed				100%		
	Construction of RC foundation	21/8/2020	23/10/2020	31/8/2020	12/11/2020	Task Completed				100%		
	Off-site fabrication and delivery of MiC Office	1/6/2020	30/9/2020	31/7/2020	4/12/2020	Task Completed				100%		
	On-site installation of MiC Office	1/8/2020	4/12/2020	30/8/2020	5/1/2021	Task Completed				100%		
	Installation of car park shelter	4/1/2021	7/1/2021	11/1/2021	9/1/2021	Task Completed				100%		Subject to the completion of car park shelter of PM office and JEC office.
04SC003 - Building Information Modeling (BIM)	Submission of subletting package for acceptance (C9)	1/3/2020	25/3/2020	14/3/2020	25/3/2020	Task Completed				100%	-	
	Acceptance of subletting package (C9)	14/3/2020	2/4/2020	30/3/2020	2/4/2020	Task Completed				100%	-	
	Tender invitation (C9)	1/4/2020	1/4/2020	8/4/2020	9/4/2020	Task Completed				100%	-	
	Tender award (C9)	-	-	-	15/4/2020	Task Completed				100%	-	Bestwise submitted tender report on 15 April 2020
	Submission of subletting package for acceptance	14/3/2020	16/3/2020	30/3/2020	20/4/2020	Task Completed				100%	-	Bestwise resubmitted on 20 April 2020
	Acceptance of subletting package	28/3/2020	4/5/2020	13/4/2020	13/5/2020	Task Completed				100%	-	AECOM accepted subletting package on 13 May 2020
	Tender invitation	11/4/2020	19/6/2020	27/4/2020	26/6/2020	Task Completed				-		Invitation to tender was commenced on 19 June 2020 and tender returned on 26 June 2020
	Tender award	25/4/2020	27/6/2020	11/5/2020	4/7/2020	Task Completed				-		Bestwise submitted tender report on 30 June 2020
	Acceptance of tender award	-	-	-	18/7/2020					-		
04SC007 - Independent Beam Plus Consultant	Submission of subletting package for acceptance	1/3/2020	30/3/2020	14/3/2020	30/3/2020	Task Completed				100%	-	
	Acceptance of subletting package	14/3/2020	3/4/2020	30/3/2020	3/4/2020	Task Completed				100%	-	
	Tender invitation	30/3/2020	30/3/2020	9/4/2020	9/4/2020	Task Completed				100%	-	
	Tender award	-	-	-	15/4/2020	Task Completed				100%	-	Bestwise submitted tender report on 15 April 2020
	Acceptance of tender award	-	-	-	17/4/2020	Task Completed				100%	-	AECOM accepted tender report on 17 April 2020
	Introduction meeting with IBPC, Cinotech	-	-	-	28/4/2020	Task Completed				100%	-	Meeting completed on 28 April 2020 followed by planning work progress
04SC008 - Design, Supply and Installation of detailed	Submission of subletting package for acceptance (C9)	1/4/2020	17/3/2020	14/4/2020	17/3/2020	Task Completed				100%	-	Bestwise submitted subletting package on 3 April 2020
	Acceptance of subletting package (C9)	14/4/2020	17/4/2020	30/4/2020	28/4/2020	Task Completed				100%	-	AECOM accepted subletting package on 28 April 2020
	Tender invitation (C9)	30/4/2020	6/5/2020	14/5/2020	28/5/2020	Task Completed				100%	-	Invitation to tender was commenced on 6 May 2020 and tender returned on 28 May 2020
	Tender award (C9)	14/5/2020	29/5/2020	30/5/2020	9/6/2020	Task Completed				100%	-	Bestwise submitted tender report on 9 June 2020.
Temporary Primary Sludge Thickener and its	Submission of subletting package (C9) for acceptance	15/05/2020 ->	14/8/2020	15/05/2020 -	27/8/2020	Task Completed				100%	Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020.

Updated on:												20-Nov-24
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencement Date	Anticipated / Actual Commencement Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
	Acceptance of subletting package (C9) (Mech)	30/05/2020 -> 30/7/2020*	15/8/2020	15/06/2020-> 15/8/2020*	16/9/2020	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020.
	Tender invitation (C9) (Mech)	15/06/2020-> 15/8/2020*	9/9/2020	22/06/2020-> 22/8/2020*	14/10/2020	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender invitation for FRP Tank was conducted on 9 Sep 2020, tender returned on 16 Sep 2020. - Tender invitation for mechanical installation was conducted on 29 Sept 2020, tender returned on 14 Oct 2020,
	Tender award (C9) (Mech)	22/06/2020-> 22/8/2020*	17/9/2020	29/06/2020-> 29/8/2020*	22/10/2020	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender report for FRP Tank was submitted on 24 Sep 2020 and accepted on 9 Oct 2020. - Tender report for mechanical installation submitted on 22 Oct 2020 and accepted on 16
	Acceptance of tender award (C9) (Mech)	-	-	-	16/11/2020	Task Completed				100%		
	Submission of subletting package (C9) for acceptance (Elect)	15/05/2020 -> 15/7/2020*	9/12/2020	15/05/2020 -> 30/11/2020*	28/1/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Bestwise resubmitted subcontracting package of electrical installation on 28 Jan 2021
	Acceptance of subletting package (C9) (Elect)	30/05/2020 -> 30/7/2020*	29/1/2021	15/06/2020-> 15/8/2020*	1/2/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020.
	Tender invitation (C9) (Elect)	15/06/2020-> 15/8/2020*	1/2/2021	22/06/2020-> 22/8/2020*	11/2/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender invitation commenced on 1 Feb 2021 and returned on 11 Feb 2021
	Tender award (C9) (Elect)	22/06/2020-> 22/8/2020*	11/2/2021	29/06/2020-> 29/8/2020*	23/2/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Tender report target submitted on 23 Feb 2021 and accepted on 24 Feb 2021
	Acceptance of tender award (C9) (Elect)	-	-	-	26/2/2021	Task Completed				100%		
	Tender invitation (C11)	30/04/2020-> 15/07/2020*	30/4/2020	30/06/2020-> 15/09/2020*	18/11/2020	Task Completed				100%	Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. -Tender invitation of Primary Sludge Thickener commenced on 22 April 2020 and tender was received on 29 April 2020. Tender queries was requested on 5 May 2020 and received on 7 May 2020. Tender report was commented by PM and resubmitted on 22 May 2020. Accepted by AECOM on 12 Jun 2020. - Tender Invitation of process pumps for the thickening system was commenced on 5 Jun 2020 and tenders were received on 10 June 2020. Tender report submitted to PM on 2 July 2020. - Tender Invitation of activated carbon filter was commenced on 22 Oct 2020 and to be returned on 2 Nov 2020. Tender report submitted on 5 Nov 2020 and accepted on 16 Nov 2020 - Tender Invitation of FRP platform was commenced on 13 Nov 2020 and to be returned on 20 Nov 2020. Tender report submitted on 30 Nov 2020 and accepted on 11 Jan 2020 - Tender Invitation of instrument was commenced on 18 Nov 2020 and to be returned on 25 Nov 2020. Tender report submitted on 30 Nov 2020 - Based on the control philosophy agreed on 23 Dec 2020, motorized and solenoid valves were selected.
	Tender award (C11)	15/05/2020-> 29/07/2020*	30/5/2020	15/07/2020-> 15/09/2020*	30/11/2020	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020.
	Acceptance of tender award (C11)	-	-	-	18/9/2020					-		
	Design Submission	03/07/2020 -> 15/07/2020*	5/8/2020	21/09/2020-> 02/10/2020*	10/5/2021	Task Completed				100%	Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. -Design submission of Process Pumps (Rev.3) resubmitted on14 Apr 2021, AECOM accepted with comments on 7 May 2021. -Design submission of electrical calculation (rev.2) was resubmitted on 29 Apr 2021. AECOM accepted with comments on 10 May 2021. -Control Philosophy (Rev.2) resubmitted on 5 Mar 2021. AECOM accepted subject to comments on 26 Mar 2021.

Updated on:											20-Nov-24	
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status
		Contract Planned Commencem ent Date	Anticipated / Actual Commencem ent Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %		
	Plant and Material Submission	21/07/2020 -> 30/07/2020*	21/7/2020	31/08/2020 - > 31/10/2020*	30/6/2021	Task Completed					Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Plant and Material submission of primary sludge thickener was resubmitted on 1 Sep 2020 (Rev. 3) and AECOM accepted on 8 Sep 2020. - Plant and Material submission P&M0002 (Rev.2) of process pumps was submitted on 5 August 2020 and AECOM commented on 26 Aug 2020, Bestwise to re-submitted to AECOM. - Plant and Material submission (Rev.0) for valves was submitted on 16 Nov 2020. AECOM accepted on 14 Dec 2020 subject to comments - Plant and Material submission (Rev.1) for DI pipes and fittings was resubmitted on 3 Dec 2020. AECOM accepted on 14 Dec 2020 - Plant and Material submission (Rev.0) for primary sludge equalization tank was submitted on 5 Feb 2021. AECOM accepted subject to comments on 25 Feb 2021. - Plant and Material submission (Rev.0) for activated carbon filter was submitted on 28 Jan 2021. AECOM accepted subject to comments on 5 Feb 2021. - Plant and Material submission (Rev. 1) for instruments was resubmitted on 13 Mar 2021. AECOM accepted subject to comments on 7 Apr 2021.
	Drawing Submission	03/07/2020 -> 30/07/2020*	3/8/2020	21/09/2020 - > 21/11/2020*	10/2/2021	Task Completed				100%	Bestwise	- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - PFD, P&ID, Schematic GA (Rev.3) resubmitted on 22 Jan 2021 according to the finallized control philosophy. AECOM accepted subject to comment on 29 Jan 2021. - Electrical drawing - Bestwise resubmitted electrical drawing (Rev.5) on 22 Mar 2021. AECOM accepted on 16 Apr 2021.
	Material Manufacturing	31/07/2020 -> 30/09/2020*	4/8/2020	21/10/2020 - > 21/12/2020*	20/4/2021	Task Completed				100%		- *=Corresponding PMI No.009 and CE No.009 were issued by AECOM on 14 July 2020. CE was implemented on 15 July 2020. - Manufacturing instruction of PS thickener was issued on 3 August 2020. - Manufacturing instruction of process pumps was issued on 24 September 2020 - Electrical sub-contractor is awarded and manufacturing LCP
	Material Delivery	05/09/2020 ->	4/11/2020	16/11/2020 -	21/6/2021	Task Completed						
	Mechanical Installation	01/10/2020 -> 01/12/2020*	2/2/2021	15/11/2020 - > 15/01/2021*	17/5/2021	Task Completed				-		
	Offsite Fabrication and Delivery of FRP Tank		16/1/2021		7/4/2021	Task Completed				100%		First batch to be delivered on 23 Mar 2021
	Onsite Installation of FRP Tank		7/4/2021		30/7/2021	Task Completed						Water filling to tank completed; Tank hydraulic test completed.
	Electrical Installation	01/10/2020 -> 01/12/2020*	19/3/2021	15/11/2020 - > 15/01/2021*	19/7/2021	Task Completed				-		Energize of all LCPs on 24 May 2021 and isolated prior to system commissioning.
Temporary Primary Sludge Thickener and its accessories (Sub-programme was provided by Bestwise)	Testing and Comissioning	15/11/2020 -> 15/01/2021*	8/5/2021	22/11/2020 - > 22/01/2021*	30/9/2022	Completed				-		Improvement works under PMI are on-going and defect rectification for BCM comments was partially completed. - Testing and Commissioning (3 x 24hrs) completed by End September.
Modification of Existing Emergency Generator Electrical Works												
	Submission of subletting package (C9) for acceptance	15/10/2020	15/10/2020	31/10/2020	11/12/2020	Task Completed				100%		
	Acceptance of subletting package (C9)	1/11/2020	5/11/2020	15/11/2020	2/1/2021	Task Completed				100%		
	Tender invitation (C9)	16/11/2020	26/1/2021	30/11/2020	5/2/2021	Task Completed				100%		Tender invitation commenced on 26 Jan 2021, and returned on 5 Feb 2021
	Tender award (C9)	30/11/2020	18/2/2021	7/12/2020	18/2/2021	Task Completed				100%		Tender report was submitted on 18 Feb 2021 and accepted on 26 Feb 2021
	Acceptance of tender award (C9)	8/12/2020	18/2/2021	15/12/2020	26/2/2021	Task Completed				100%		
	Design Submission	15/12/2020	15/3/2021	15/1/2021	23/4/2021	Task Completed				100%		DWG-0100 was submitted on 23 Apr 2021. AECOM accepted with comments on 30 Apr
	Transportation of existing dismantled genset no. 2 (Genset No.2) to subcontractor (Click Ltd.)’s workshop	9/3/2021	9/3/2021	9/3/2021	9/3/2021	Task Completed				100%		
Drawing submission (Drawing of General Layout for Existing 600kVA Genset Container)	23/4/2021	23/4/2021	30/4/2021	30/4/2021	Task Completed				100%			
Drawing submission (Cable route ,general arrangement, etc)	14/5/2021	28/5/2021	21/5/2021	5 July 2021	Task Completed				100%			

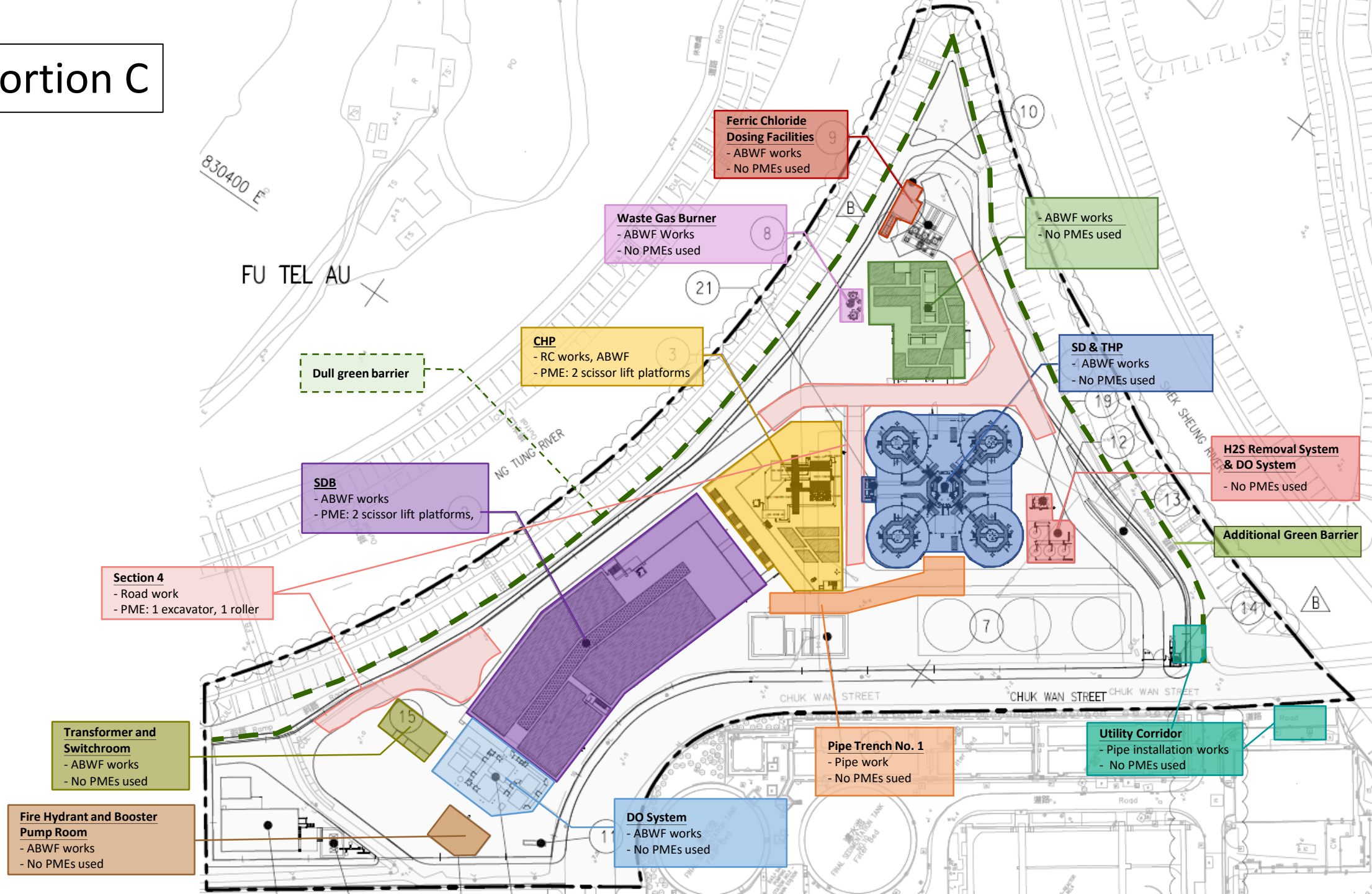
Updated on:												20-Nov-24	
Item	Major Activities & Submission in coming 3 months	Time					Progress (E&M contract)				Action	Remarks / Status	
		Contract Planned Commencem ent Date	Anticipated / Actual Commencem ent Date	Contract Planned Finish Date	Anticipated / Actual Finish Date	% of time elapsed based on "updated date")	Unit	Total Quantity	Completed Quantity	Actual Progress %			
	Material submission P431 P&M-0087	21 May 2021	19 June 2021	28 May 2021	12 July 2021	Task Completed				100%			
	Fabrication of container at PRC	21 June 2021	21 June 2021	TBC	12/8/2021	Task Completed				100%			
	Container deliver to HK	TBC	12/8/2021	10/8/2021	12/8/2021	Task Completed				100%			
	Off site modification work at HK factory	TBC	16/8/2021	24/8/2021	24/8/2021	Task Completed				100%			
	FAT plan of modified Genset No.2 P431 MS-036	12/7/2021	12/7/2021	20/8/2021	20/8/2021	Task Completed				100%			
	FAT of Genset No.2 after modification works	25/8/2021	25/8/2021	25/8/2021	25/8/2021	Task Completed				100%			
	Installation Work of I-beam Support	26/8/2021	26/8/2021	26/8/2021	26/8/2021	Task Completed				100%			
	Transportation of Genset No. 2 to existing power house in SWHSTW and completion of the Genset No.2 installation on I-beam supporting frame	27/8/2021	27/8/2021	27/8/2021	27/8/2021	Task Completed				100%			
	Provision of one (1) can of 160L diesel and a diesel hand pump placed at diesel daily tank of Genset No.1 for standby top up (PPMI-012 item L) Location to be coordinated and advised by SWHSTW operator DSD/ST1	27/7/2021	27/7/2021	31/8/2021								Location to be further coordinated with DSD.	
	Modification works of existing switchboard	1/9/2021	1/9/2021	8/9/2021	8/9/2021	Task Completed				100%			
	Cables (including control cable and power cables) laying and installation of cable containment, busbar chamber	21/7/2021	30/7/2021	8/9/2021	8/9/2021	Task Completed				100%			
	Supply of busbar chamber/ connection box	10/8/2021	10/8/2021	3/9/2021	3/9/2021	Task Completed				100%			
	Completion of all Genset cables and cable termination work to existing power house in SWHSTW after the completion of Genset No. 2 installation work	1/9/2021	1/9/2021	8/9/2021	8/9/2021	Task Completed				100%			
	Delivery of dummy load and self-test	9/9/2021	9/9/2021	14/9/2021	15/9/2021	Task Completed				100%			
	SAT and T&C (witness by AECOM and DSD/ST1) Please allow 1 week advance notice for coordination with DSD/ST1, e.g. genset signal start, etc.)	15/9/2021	15/9/2021	15/9/2021	16/9/2021	Task Completed				100%			
04SC009 - Design, Supply and Installation of HVSB	Submission of subletting package for acceptance	21/4/2020		1/5/2020		-							
	Acceptance of subletting package	21/5/2020		30/5/2020		-							
	Tender invitation	1/6/2020		14/6/2020		-							
	Tender award	1/7/2020		14/7/2020		-							
04SC010 - Design, Supply and Installation of LVSB	Submission of subletting package for acceptance	1/5/2020		14/5/2020		-							
	Acceptance of subletting package	1/6/2020		14/6/2020		-							
	Tender invitation	14/6/2020		30/6/2020		-							
	Tender award	1/7/2020		14/7/2020		-							
04SC011 - Design and Installation of Building	Submission of subletting package for acceptance	14/4/2020		30/4/2020		-							
	Acceptance of subletting package	14/5/2020		30/5/2020		-							
	Tender invitation	30/5/2020		14/6/2020		-							
	Tender award	21/6/2020		30/6/2020		-							
04SC012 - Facility Computerized Systems	Submission of subletting package for acceptance	14/5/2020		30/5/2020		-							
	Acceptance of subletting package	14/6/2020		30/6/2020		-							
	Tender invitation	1/7/2020		14/7/2020		-							
	Tender award	21/7/2020		14/8/2020		-							
Plant and Materials (Marking Scheme)													
PS Clause no. 6B.2.1 Inlet Pump	Submission of marking scheme for PM's acceptance (fourth draft)	1/5/2020	1/5/2020	1/9/2020	19/8/2020	Task Completed				100%		AECOM commented on 14 August 2020, Bestwise resubmitted on 19 Aug 2020.	
	Submission of marking scheme for PM's acceptance	1/5/2020	1/5/2020	1/9/2020	19/8/2020	Task Completed				100%		Bestwise resubmitted on 19 Aug 2020.	
	Acceptance of marking scheme by the PM	15/5/2020	20/8/2020	15/9/2020	1/9/2020	Task Completed				100%		AECOM accepted on 1 Sep 2020	
	Tender invitation	29/5/2020	9/9/2020	29/9/2020	18/9/2020	Task Completed				100%		Tender invitation was conducted on 9 Sept 2020 and returned on 18 Sept 2020.	
PS Clause no. 6B.2.1 Inlet Pump	Tender award	5/6/2020	19/9/2020	5/10/2020	7/10/2020	Task Completed				100%		Technical Submission Evaluation Report was submitted on 5 Oct 2020, Tender report was submitted on 7 Oct 2020. AECOM noted on 8 Oct 2020.	
	Acceptance of tender award	19/6/2020	17/10/2020	19/10/2020	15/11/2020	Task Completed				-			

3 Month Rolling Programme (From 01/12/2024 to 01/03/2025)

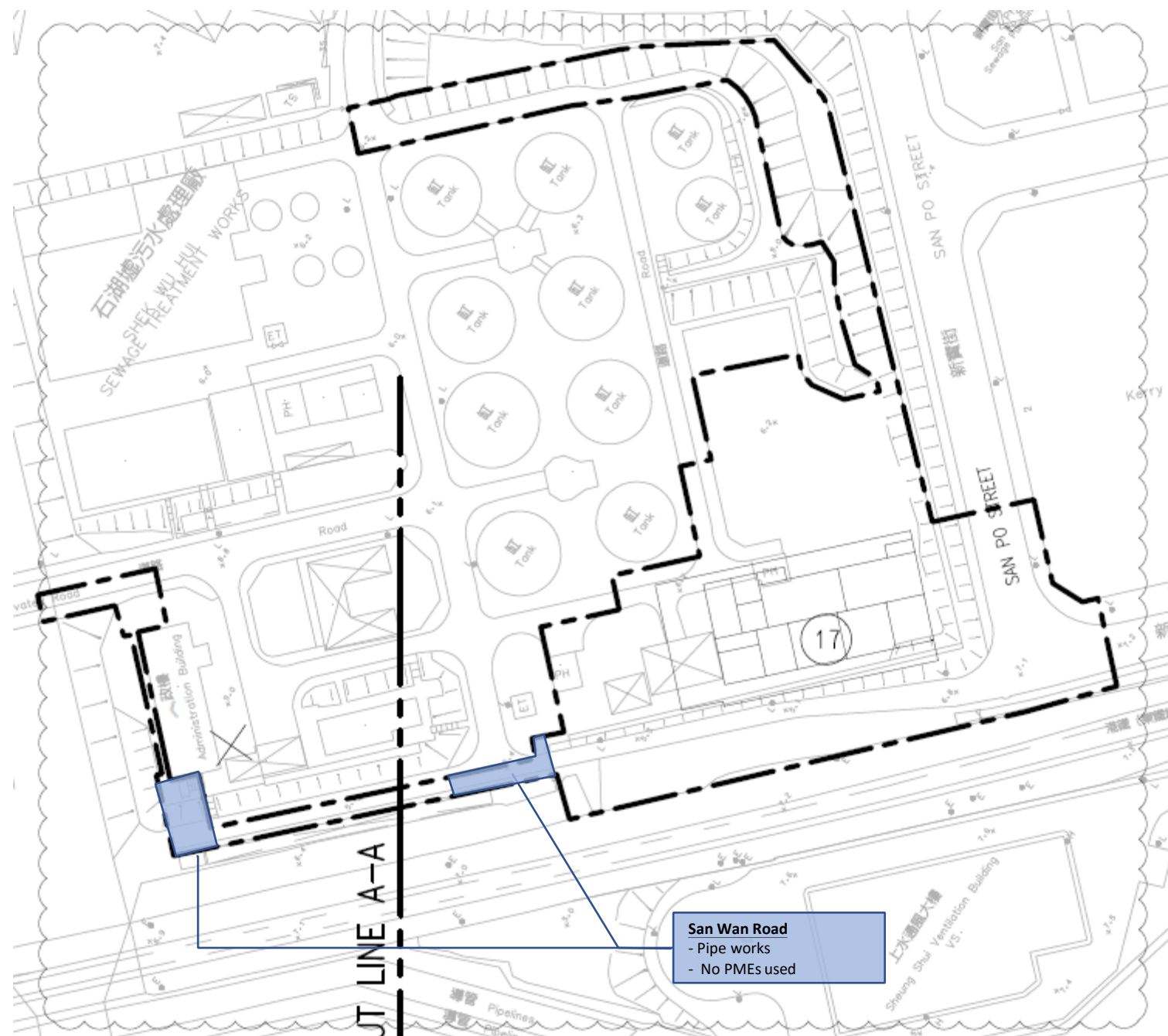
Updated on: 20-Nov-24

APPENDIX R
LAYOUT PLANS OF CONSTRUCTION
ACTIVITIES AND SITE RECORD
PHOTOS

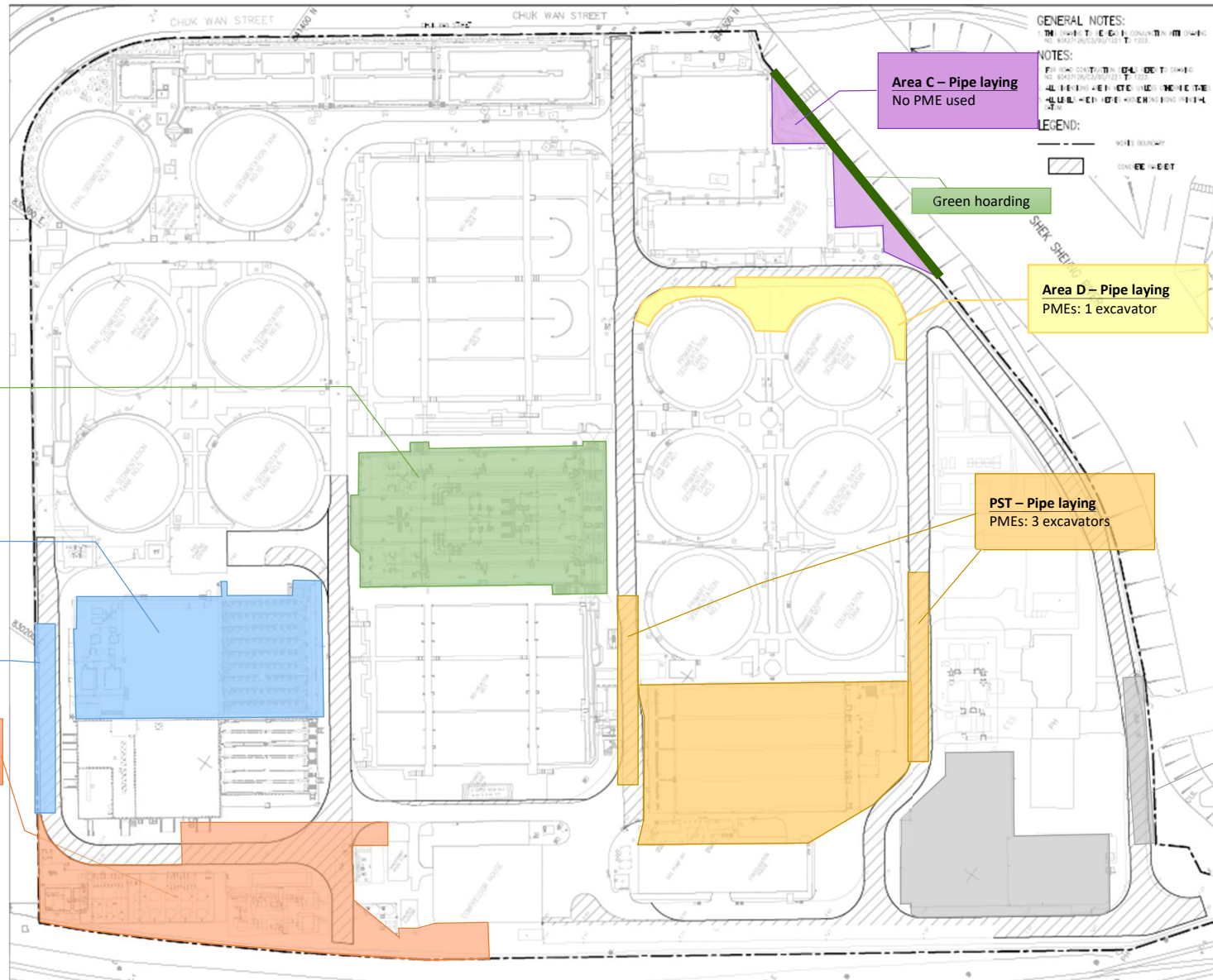
Portion C



Portion A



Portion B



**BR2 – RC works,
cement paint finish**
No PME used

**MFB – RC works, cement
paint finish**
No PME used

MFB - Pipe laying
PMEs: 2 excavators

SAS Pipe laying
PMEs: 2 excavators

Area C – Pipe laying
No PME used

Green hoarding

Area D – Pipe laying
PMEs: 1 excavator

PST – Pipe laying
PMEs: 3 excavators

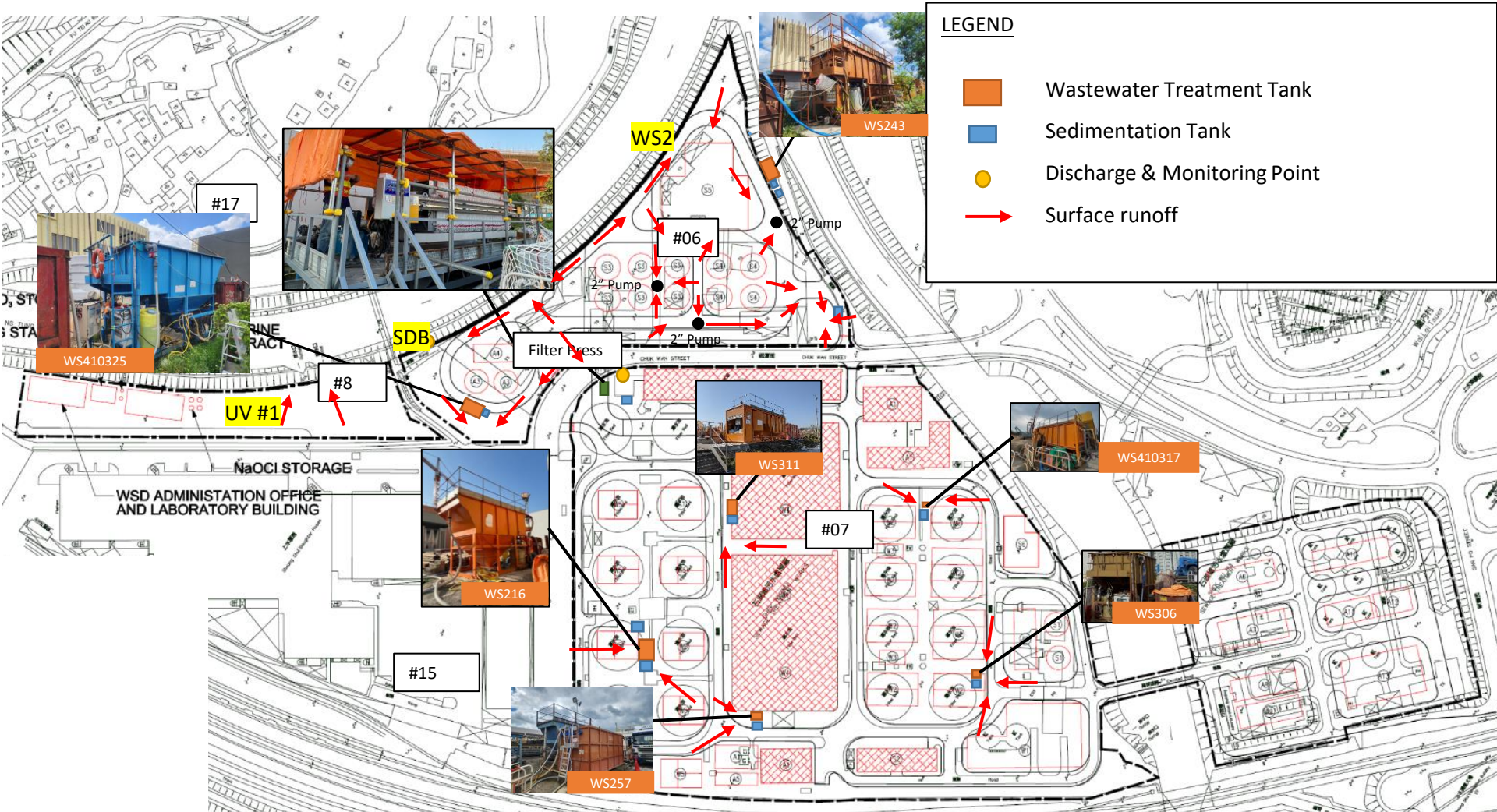
Inlet – Pipe laying
PMEs: 1 excavator

GENERAL NOTES:
THE DRAWING IS FOR INFORMATION ONLY.
ALL WORKS ARE TO BE COMPLETED BY THE 15th FEBRUARY 2023.
NOTES:
1. ALL WORKS ARE TO BE COMPLETED BY THE 15th FEBRUARY 2023.
2. ALL WORKS ARE TO BE COMPLETED BY THE 15th FEBRUARY 2023.
LEGEND:
NOTES
LEGEND

Project: DC/2018/06 & 07

Location of Wastewater Treatment Facilities (Updated in Jul 24)

地盤廢水處理設施流程圖



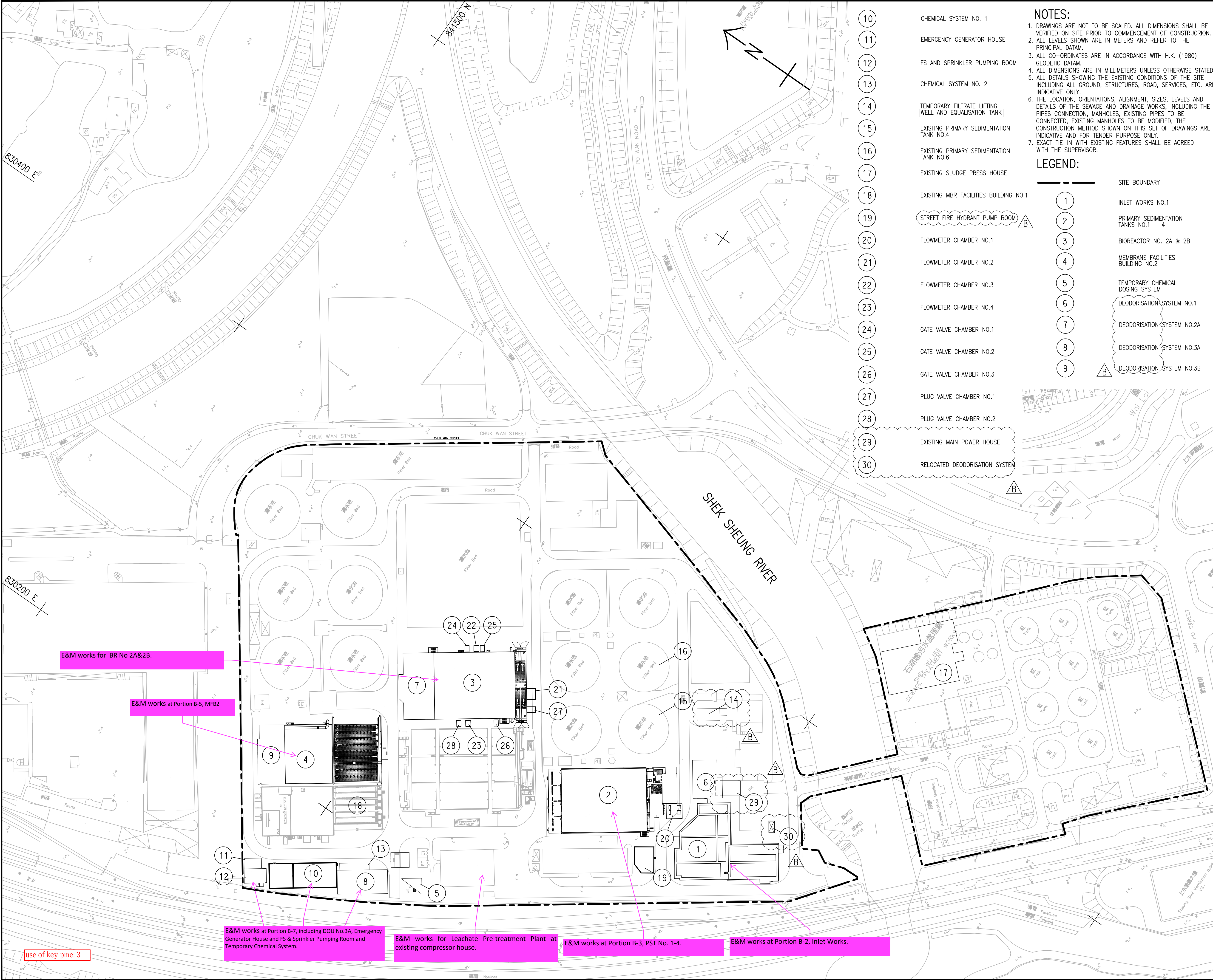


1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. ALL LEVELS SHOWN ARE IN METERS AND REFER TO THE PRINCIPAL DATUM.
3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATUM.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
5. ALL DETAILS SHOWING THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL GROUND, STRUCTURES, ROAD, SERVICES, ETC. ARE INDICATIVE ONLY.
6. THE LOCATION, ORIENTATIONS, ALIGNMENT, SIZES, LEVELS AND DETAILS OF THE SEWAGE AND DRAINAGE WORKS, INCLUDING THE PIPES CONNECTION, MAN-HOLES, EXISTING PIPES TO BE CONNECTED, EXISTING MANHOLES TO BE MODIFIED, THE CONSTRUCTION METHOD SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE AND FOR TENDER PURPOSE ONLY.
7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

- | | |
|----|--|
| 1 | UV SYSTEM NO. 1 & EFFLUENT PUMPING STATION NO. 1 |
| 2 | SLUDGE DEWATERING BUILDING |
| 3 | COMBINED HEAT & POWER BUILDING |
| 4 | SLUDGE DICESTER |
| 5 | WORKSHOP NO. 2 |
| 6 | THERMAL HYDROLYSIS PRETREATMENT FACILITIES |
| 7 | BIOGAS HOLDING TANKS |
| 8 | WASTE GAS BURNER |
| 9 | SEWAGE PUMPING STATION |
| 10 | FERRIC CHLORIDE DOSING FACILITIES |
| 11 | WATER METER CABINET |
| 12 | H2S REMOVAL SYSTEM |
| 13 | UNDERPASS (PART) |
| 14 | GUARD HOUSE |
| 15 | TRANSFORMER AND SWITCHROOM |
| 16 | FIRE HYDRANT AND BOOSTER PUMP ROOM |
| 18 | DEODORIZATION SYSTEM NO. 11 |
| 19 | DEODORIZATION SYSTEM NO. 12 |
| 20 | PLANT SERVICES WATER SYSTEM |
| 21 | THP COOLERS PUMPING STATION |
| 22 | SIDESTREAM TREATMENT FACILITIES |
| 23 | SURPLUS ACTIVATED SLUDGE PUMPING STATION |
| 24 | EXISTING CONSOLIDATION HOUSE |

60427128/C2/00/1001

PdL File by: GueYX 15/08/2019
PATH: P:\PROJECTS\60427128\Drawing\Contract\CA1000\C4_00_1001.dwg
Project Management Initials: Designer: KYTM Checked: TLST Approved: ELIM ISO A1 594mm x 841mm



- CHEMICAL SYSTEM NO. 1
- EMERGENCY GENERATOR HOUSE
- FS AND SPRINKLER PUMPING ROOM
- CHEMICAL SYSTEM NO. 2
- TEMPORARY FILTRATE LIFTING WELL AND EQUALISATION TANK
- EXISTING PRIMARY SEDIMENTATION TANK NO.4
- EXISTING PRIMARY SEDIMENTATION TANK NO.6
- EXISTING SLUDGE PRESS HOUSE
- EXISTING MBR FACILITIES BUILDING NO.1
- STREET FIRE HYDRANT PUMP ROOM
- FLOWMETER CHAMBER NO.1
- FLOWMETER CHAMBER NO.2
- FLOWMETER CHAMBER NO.3
- FLOWMETER CHAMBER NO.4
- GATE VALVE CHAMBER NO.1
- GATE VALVE CHAMBER NO.2
- GATE VALVE CHAMBER NO.3
- PLUG VALVE CHAMBER NO.1
- PLUG VALVE CHAMBER NO.2
- EXISTING MAIN POWER HOUSE
- RELOCATED DEODORISATION SYSTEM

NOTES:

1. DRAWINGS ARE NOT TO BE SCALED. ALL DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. ALL LEVELS SHOWN ARE IN METERS AND REFER TO THE PRINCIPAL DATUM.
3. ALL CO-ORDINATES ARE IN ACCORDANCE WITH H.K. (1980) GEODETIC DATUM.
4. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
5. ALL DETAILS SHOWING THE EXISTING CONDITIONS OF THE SITE INCLUDING ALL GROUND, STRUCTURES, ROAD, SERVICES, ETC. ARE INDICATIVE ONLY.
6. THE LOCATION, ORIENTATIONS, ALIGNMENT, SIZES, LEVELS AND DETAILS OF THE SEWAGE AND DRAINAGE WORKS, INCLUDING THE PIPES CONNECTION, MANHOLES, EXISTING PIPES TO BE CONNECTED, EXISTING MANHOLES TO BE MODIFIED, THE CONSTRUCTION METHOD SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE AND FOR TENDER PURPOSE ONLY.
7. EXACT TIE-IN WITH EXISTING FEATURES SHALL BE AGREED WITH THE SUPERVISOR.

- LEGEND:**
- SITE BOUNDARY
- INLET WORKS NO.1
- PRIMARY SEDIMENTATION TANKS NO.1 - 4
- BIOREACTOR NO. 2A & 2B
- MEMBRANE FACILITIES BUILDING NO.2
- TEMPORARY CHEMICAL DOSING SYSTEM
- DEODORISATION SYSTEM NO.1
- DEODORISATION SYSTEM NO.2A
- DEODORISATION SYSTEM NO.3A
- DEODORISATION SYSTEM NO.3B

AECOM

PROJECT
項目

SHEK WU HUI EFFLUENT POLISHING PLANT

CONTRACT TITLE
SHEK WU HUI EFFLUENT POLISHING PLANT - MAIN WORKS STAGE 1 - E&M WORKS FOR SEWAGE TREATMENT FACILITIES

CLIENT
業主

渠務署
Drainage Services Department

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

B	AUG. 19	TENDER ADDENDUM NO. 3	TLST
A	JUL. 19	TENDER ADDENDUM NO. 2	TLST
-	APR. 19	TENDER DRAWING	TLST
I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 校核

STATUS
階段

SCALE
比例

A1 1: 1000

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號

60427128

CONTRACT NO.
合約編號

DE/2018/04

SHEET TITLE
圖紙名稱

GENERAL LAYOUT PLAN

SHEET NUMBER
圖紙編號

60427128/C4/00/1001B

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

Site Record Photos and the Photographs of Monitoring Stations

DC/2018/06 - SD&THP	DC/2018/06 - SDB
	
DC/2018/06 - Workshop	DC/2018/06 - H ₂ O Removal System & DO System
	

Site Record Photos and the Photographs of Monitoring Stations

DC/2018/07 – BR2	DC/2018/07 - PST
 A photograph of a construction site. In the foreground, a yellow excavator is working on a dirt area. To the left, there's a curved concrete structure. A banner with a cartoon character wearing a hard hat and a safety vest is visible on the right. The background shows more construction activity and a cloudy sky.	 A photograph of a construction site. A large, grey concrete wall is the central focus. Scaffolding is visible on the right side of the wall. In the foreground, there are stacks of materials, including what looks like rebar or steel reinforcement, covered with plastic. The sky is clear and blue.
DC/2018/07 - Inlet	
 A photograph of a construction site. A large, grey concrete wall is the central focus. A red truck is parked in front of the wall. A worker in a blue hard hat and safety vest is standing in the foreground. The sky is clear and blue.	

Site Record Photos and the Photographs of Monitoring Stations

DE/2018/03 –Bio Gas Tank	DE/2018/03 - SDB
	
DE/2018/03 - Side stream	
	

Site Record Photos and the Photographs of Monitoring Stations

DE/2018/04 –Compressor House



DE/2018/04 - MFB2



DE/2018/04 - PST



DE/2018/04 - BR



Site Record Photos and the Photographs of Monitoring Stations

Location AM1a* Site boundary of the Shek Wu Hui STW (East), Roof floor of the control room of SWHSTW	Location AM2a Site boundary of the Shek Wu Hui STW (North)
 A photograph showing a rooftop area. In the foreground, there is a paved path made of light-colored bricks leading towards a white electrical box mounted on a green base. To the left of the path is a small white gate. A brick wall runs across the middle ground, and beyond it, there are trees and a clear sky.	 A photograph showing a grey electrical box situated near a riverbank. The box is partially enclosed by a black metal fence and surrounded by green vegetation. In the background, a river flows, and a concrete embankment with some trees is visible under a clear sky.