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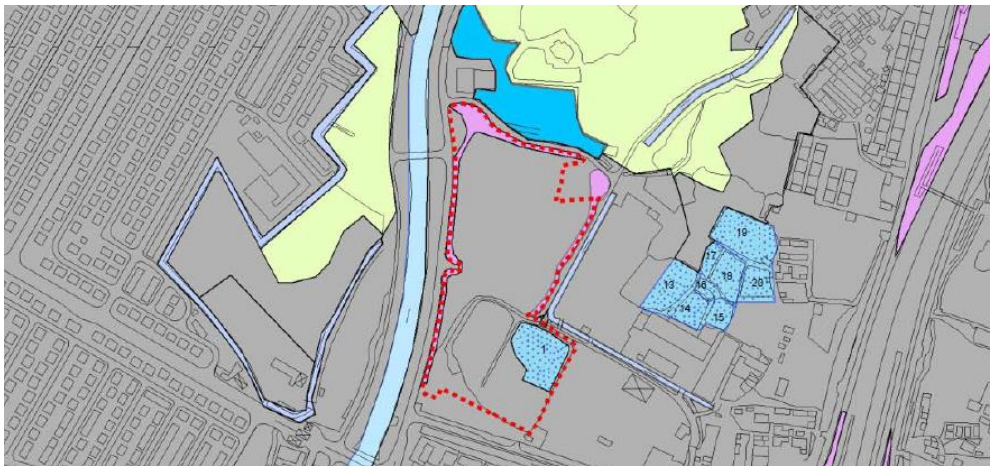
PROPOSED LOW-RISE AND LOW-DENSITY RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS AND THEIR ADJOINING GOVERNMENT LAND IN D.D. 104, EAST OF KAM POK ROAD, MAI PO, YUEN LONG, N.T.

MONTHLY EM&A REPORT

FOR MARCH 2022



RAMBOLL

PROPOSED LOW-RISE AND LOW DENSITY RESIDENTIAL DEVELOPMENT AT VARIOUS LOTS AND THEIR ADJOINING GOVERNMENT LAND IN D.D.104, EAST OF KAM POK ROAD, MAI PO, YUEN LONG, N.T.

MONTHLY EM&A REPORT FOR MARCH 2022

Revision **1a**
Date **19/04/2022**

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EXECUTIVE SUMMARY

i. This Monthly Environmental Monitoring and Audit (EM&A) Report is prepared for the project "Proposed Low-Rise and Low-Density Residential Development at Various Lots and Their Adjoining Government Land in D.D. 104, East of Kam Pok Road, Mai Po, Yuen Long, N.T.". Ramboll Hong Kong Limited has been appointed by the Permit Holder to undertake the Environmental Team (ET) services for the project and implement the EM&A programmes.

ii. This Monthly EM&A Report is for the project which summaries findings of the EM&A programme during the reporting period from 1 March 2022 to 31 March 2022. As informed by the Contractor, major activities in the reporting period were:

- Predrilling work for mini piles (i.e., ground investigation)
- Sand trap construction (i.e., formwork of manhole, backfilling, rebar fixing & concreting)

Breaches of Action and Limit Levels

iii. No works related air quality exceedances were recorded in the reporting period.

iv. No works related noise exceedances were recorded in the reporting period.

v. No works related water quality exceedances were recorded in the reporting period.

Complaint Log

vi. No works related environmental complaints were received in the reporting period.

Notifications of any Summons and Successful Prosecutions

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

Reporting Change

viii. As all construction works under this Project was suspended since 25 March, the proposal for temporary suspension of EM&A programme was prepared and subsequently submitted to EPD on 29 March 2022. Such submission has been approved by EPD on 1 April 2022.

Future Key Issues

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

- No construction works were scheduled in this period

1.0 INTRODUCTION

1.1 Background

1.1.1 The project site comprises various lots in D.D. 104, East of Kam Pok Road, Yuen Long. It covers an area of about 3.8ha. The site is located between Kam Pok Road, Ha Chuk Yuen Road and Fung Chuk Road, and bounded by a number of existing and planned residential developments adjacent to Castle Peak Road and Fairview Park Boulevard.

1.1.2 The project is a designated project under Item P of Part 1, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499) for which Environmental Impact Assessment (EIA) report and Environmental Monitoring and Audit (EM&A) Manual was approved by EPD (Register No.: AEIAR-205/2017) on 10 January 2017. The Environmental Permit (EP) (EP No. EP-515/2017) was issued by EPD on 11 January 2017.

1.1.3 Ramboll Hong Kong Limited has been appointed as the Environmental Team (ET) by the Permit Holder (Glory Queen Limited) to undertake the Environmental Team services for implementing the EM&A programmes for the project.

1.1.4 This Monthly EM&A report is to document the findings of the EM&A programme from 1 March 2022 to 31 March 2022 (reporting period) and is submitted to fulfil the Condition 5.4 of the EP and Section 12.3 of the EM&A Manual.

1.2 Project Organisation

1.2.1 The project organisation structure is shown in **Figure 2**. The key personnel contact names and numbers are summarized in **Table 1**.

Table 1 Contact Information of Key Personnel

Party	Role	Post	Name	Telephone
Glory Queen Ltd.	Permit Holder	Project Manager	Ms. Tina Chan	2908 8934
Stephen Cheng Consulting Engineers Ltd.	Engineer's Representative	Project Engineer	Mr. Jeff Lee	9866 7906
Ove Arup & Partners Hong Kong Ltd	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. Ricky Chui	2268 3437
Ramboll Hong Kong Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Y H Hui	3465 2850
Heng Shung Construction Co. LTD.	Contractor	Site Agent	Mr. Leung Tuk Shing	9171 7369
		Project Coordinator	Ms. Lynn Xu	2908 2179
		Environmental Officer (EO)	Mr. Terence Cheung	9869 4146

1.3 Construction Programme and Works Undertaken

1.3.1 The construction programme and general site photo records were shown in **Appendix A** and **Appendix M** respectively. As informed by the Contractor, major activities and the mitigation measure in the reporting period are presented in **Table 2**.

Table 2 Mitigation Measures for the Related Construction Work

Major Activities	Mitigation Measure
Predrilling work for mini piles (i.e., ground investigation)	• Wastewater treatment System is set up and well-maintained • Kerb to stop surface runoff from running off • Use generator with valid NRMM labels • Shut down the plants when not in used
Sand trap construction (i.e., formwork of manhole, backfilling, rebar fixing & concreting)	• Wastewater treatment System is set up and well-maintained • Manual water spray • Shut down the plants when not in used

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

- No construction works were scheduled in this period

1.4 Status of Environmental Licences, Notification and Permits

1.4.1 A status of EP submission, and summary of the relevant permits, licenses and/or notifications on environmental protection for this Contract is presented in **Table 3** and **Table 4**.

Table 3 Status of Submission under Environmental Permit

EP Condition	Description	Status
1.12	Notify the Director in writing the commencement date of construction of the Project no later than one month prior to the commencement of construction of the Project	Notified EPD on 14 January 2022
2.1	An ET shall be established by the Permit Holder	Informed EPD on 29 March 2017

2.2	An IEC shall be employed by the Permit Holder	Informed EPD on 29 March 2017
2.3	Inform the Director in writing the management organization of the main construction companies and/or any form of joint ventures associated with the construction of the Project	Informed EPD on 14 January 2022
2.4	Detailed Drainage Plan	Approved by EPD on 22 June 2017
2.5	Noise Mitigation Plan	Approved by EPD on 26 October 2017
2.6	L&V Implementation Plan	Approved by EPD on 28 September 2017
5.3	Baseline Monitoring Report (Air, Noise & Water)	The report was confirmed of no adverse comment by EPD on 28 October 2021
	Baseline Monitoring Report (Ecology)	The report was confirmed of no adverse comment by EPD on 16 February 2022
	Baseline Monitoring Report (Landscape and Visual)	The report was submitted to EPD on 14 January 2022, and pending EPD's reply
6.2	Set up a dedicated Internet web site and notify the Director in writing the Internet address where the environmental monitoring data and project information is to be placed	Notified EPD on 22 March 2022

Table 4 Environmental Licenses, Notification and Permits

Permit/ Notification/ License No.	Valid Period		Status
	From	To	
Environmental Permit (EP)			
EP-515/2017	11 Jan 2017	N/A	Valid
Notification of Carrying out Notifiable Works under Air Pollution Control (Construction Dust) Regulation			
470660	17 Aug 2021	N/A	Valid
Billing Account for Disposal of Construction Waste			

7041613	17 Sep 2021	N/A	Valid
Chemical Waste Producer Registration			
5213-541-H4250-01	6 Sep 2021	N/A	Valid
Wastewater Discharge License			
WT00039502-2021	27 Jan 2022	31 Jan 2027	Valid

2.0 AIR QUALITY

2.1 Monitoring Requirement

2.1.1 In accordance with the EM&A manual, 1-hour Total Suspended Particulates (TSP) levels were measured at the designated air quality monitoring stations to monitor the potential impacts of construction dust on air quality. For construction phase impact monitoring of 1-hour TSP, a sampling frequency of at least three times every 6 days shall be undertaken when the highest dust impacts are anticipated to occur based on the nature of the construction works.

2.2 Monitoring Equipment

2.2.1 A portable direct reading dust meter was used to carry out the 1-hr TSP monitoring at the designated monitoring stations. The 1-hr TSP sampling was determinate by HVS to check the validity and accuracy of the result measured by direct reading method.

2.2.2 The model of the air quality monitoring equipment used is summarized in **Table 5**.

Table 5 Air Quality Monitoring Equipment

Item	Brand	Model	Equipment	Serial No.
1	TSI	Model AM520	Handheld TSP Meter	5201735004

2.3 Monitoring Location

2.3.1 In accordance with the EM&A Manual, one air quality monitoring location, namely AM1 was designated (**Table 6**) and the location of the air monitoring station was shown in **Figure 3**.

Table 6 Air Quality Monitoring Station

Station	Location	Location of Measurement
AM1	Existing building (near Ha San Wai Road)	Ground Level

2.4 Monitoring Methodology

2.4.1 The monitoring procedure for air quality monitoring using portable meter method, in accordance with the manufacturer's instruction, shall be as below:

1. Press the "PAGE" key to switch on the equipment.
2. Press "UP" or "DOWN" key to select "Data Log" mode.
3. Press "UP" or "DOWN" key to select "Run Manual" Mode.
4. Press the "Start/Stop" to start sampling. Light beep sound indicates the sampling in operation.
5. Place the zero cap to allow zero check sampling for 60 seconds. Proceed to next step if reading drops to zero, otherwise conduct zero calibration as per the equipment operation manual and repeat this step.
6. Press "Start/Stop" key to stop the zero-check sampling. Remove the zero cap.
7. Press the "Start/Stop" to start sampling. Record the start time of sampling and allow for sampling for 1 hour.
8. Press "Start/Stop" key to stop the sampling event after 1 hour.
9. Repeat steps 7-8 for the next sampling event.

Maintenance and Calibration

2.4.2 The portable direct reading dust meters would be checked before every monitoring, and calibrated annually. Calibration certificates of the portable meter direct dust meters are presented in **Appendix C**.

Weather condition

2.4.3 The weather conditions, including wind data during the monitoring period were collected from the nearest Hong Kong Wetland Park Station established by the Hong Kong Observation and provided in **Appendix F**.

2.5 Monitoring Results

2.5.1 The impact air quality monitoring was conducted at the designated monitoring station as scheduled. The schedule of air quality monitoring in reporting period is provided in **Appendix D.**

2.5.2 No works related Action / Limit Level exceedances were recorded for 1-hr TSP at AM1.

2.5.3 No effect that arose from the other factors was noted during the current monitoring month.

2.5.4 The monitoring data of 1-hr TSP are summarized in **Table 7**. Detailed monitoring

data are presented in **Appendix E**.

Table 7 Summary of Air Quality Monitoring Results

Station	Average (μg/ m³)	Range (μg/ m³)	Action Level (μg/ m³)	Limit Level (μg/ m³)
AM1	111	28 - 246	275	500

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

2.5.6 The Event and Action Plan for air quality is given in **Appendix G**.

2.6 Comparison of EM&A Results with EIA Prediction

2.6.1 The monitoring data recorded in the reporting period was compared with the EIA predictions as summarized in **Table 8**.

Table 8 Comparison of EM&A Data with EIA Predictions

Station	EIA ID	Predicted Maximum 1-hr TSP (μg/ m³)	Measured Maximum 1-hr TSP (μg/ m³)
AM1	A27	316	246

Notes: Predicted TSP Concentration extracted from Table 3-9 of EIA Report, AEIAR-205/2017

2.6.2 The measured 1-hr TSP at AM1 was below the predicted maximum hourly average (1-hr TSP) concentration in the approved EIA report.

3.0 NOISE

3.1 Monitoring Requirement

3.1.1 In accordance with the 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 conducted between 0700 and 1900 on normal weekdays at the designated monitoring locations. As supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.

3.2 Monitoring Equipment

3.2.1 Sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications were used for carrying out the noise monitoring. Immediately prior to and following each noise measurement, the accuracy of the sound level meter were checked using an acoustic calibrator generating a known sound pressure level at a known frequency. The noise monitoring equipment used to carry out the monitoring are listed in **Table 9** below.

Table 9 Noise Monitoring Equipment

Item	Brand	Model	Equipment	Serial No.
1	Rion	NL-52	Sound Level Meter	00175560
2	Rion	NL-52	Sound Level Meter	01143484
3	Rion	NC-74	Sound Level Calibrator	34678506

3.3 Monitoring Parameters, Frequency and Location

3.3.1 In accordance with the EM&A Manual, one noise quality monitoring location, namely NM1 was designated (**Table 10**) and the location of the noise monitoring station was shown in **Figure 4.** The details of the monitoring parameters described in **Table 11**.

Table 10 Noise Monitoring Station

Station	Location	Location of Measurement
NM1	Bethel High School	Ground Level*

*For Free Field measurement, +3dB(A) should be added to the measured results.

Table 11 Noise Monitoring Parameters, Frequency, and Duration

Station	Parameter	Frequency and Duration
NM1	L_{eq} (30 min), (L_{10} and L_{90} will be recorded for reference)	At each station at 0700-1900 hours on normal weekdays at a frequency of once a week

3.4 Monitoring Methodology

3.4.1 The monitoring procedures are as follow:

- For free field measurement, the meter was positioned away from any nearby reflective surfaces and be at a position 1.2m above the ground. All records for free field noise levels were adjusted with a correction of +3 dB(A).
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - Frequency weighting:A
  - Time weighting: Fast
  - Measurement time: 5 minutes ($L_{eq\ (30\text{-}min)}$ would be determined for daytime noise by calculating the logarithmic average of six $L_{eq\ (5min)}$ data.)
- 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 recalibration or repair of the equipment.
- Noise measurement should be paused during periods of high intrusive noise if possible and observation shall be recorded when intrusive noise is not avoided.
- At the end of the monitoring period, the L_{eq}, L_{10} and L_{90} shall be recorded. In addition, site conditions and noise sources should be 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.

3.4.2 Maintenance and calibration procedures are as follows:

- The sound level meter and calibrator should be calibrated annually by a HOKLAS laboratory. The calibration certificates are presented in **Appendix C**.

3.5 Monitoring Results

3.5.1 The schedule of noise monitoring in reporting period is provided in **Appendix D**.

3.5.2 No works related Action / Limit Level exceedances were recorded at NM1.

3.5.3 No effect that arose from the other factors was noted during the current monitoring month.

3.5.4 The noise monitoring data are summarized in **Table 12**. Detailed monitoring data are presented in **Appendix E**.

Table 12 Summary of Noise Monitoring Results

Time Period	Station	Range L_{eq} (30 min) dB(A)	Action Level	Limit Level dB(A)
0700-1900 hrs on normal weekdays	NM1	52.6 – 62.5	When one documented complaint is received	75

Remark: NM1: Free-field measurement (+3 dB(A) correction has been applied).

3.5.5 The Action and Limit Levels for noise impact monitoring have been set and are presented in **Appendix B**.

3.5.6 The Event and Action Plan for noise is given in **Appendix G**.

3.6 Comparison of EM&A Results with EIA Prediction

3.6.1 The noise monitoring data was compared with the EIA predictions as summarized in **Table 13**.

Table 13 Comparison of EM&A Data with EIA Predictions

Station	EIA ID	Predicted Maximum Noise Level (dB(A))	Measured Maximum Noise Level (dB(A))
NM1	N8	61 - 62	62.5

Unit of measurement: $L_{eq(30min)}$.

3.6.2 The construction noise monitoring results at NM1 was below the Maximum Predicted mitigated Construction Noise Level in the approved Environmental Impact Assessment (EIA) Report.

4.0 WATER QUALITY

4.1 Monitoring Requirement

4.1.1 In accordance with the EM&A Manual, water quality monitoring at designated locations at the nearby inland water bodies are proposed to be carried out during the construction phase to monitor any sub-standard water discharge into the nearby water bodies from the site. Water quality monitoring is conducted for three days per week with sampling and measurement at the designated stations.

4.2 Monitoring Equipment

4.2.1 The water monitoring equipment used during the water monitoring are presented in **Table 14**.

Table 14 Water Quality Monitoring Equipment

Model	Equipment	Serial Number
YSI (a xylem brand)	YSI ProDSS (Multi-Parameters) (Dissolved Oxygen, Temperature, pH and Turbidity)	21G105356

4.2.2 Calibration certificates of the monitoring equipment are presented in **Appendix C**.

4.3 Monitoring Parameters, Frequency and Locations

4.3.1 Six designated water monitoring stations were proposed for monitoring during construction phase. A location plan showing the monitoring locations is presented in **Figure 5**. The details of the station are described in **Table 15** and **Table 16**.

Table 15 Water Quality Monitoring Stations

Station	Nature	Location	Coordinates	
			Easting	Northing
C1	Control	Ngau Tam Mei Drainage Channel	823596.6	837730.5
W1	Impact		823297.0	837074.5
C2	Control	Drainage ditch along Ha Chuk Yuen Road	823641.3	837126.6
W2	Impact		823550.5	837375.2
C3	Control	Drainage ditch along Ha San Wai Road	823617.1	837016.3
W3	Impact		823380.4	837091.9

Table 16 Water Quality Parameters and Monitoring Frequency

Station	Monitoring Parameters	Monitoring Frequency
C1 W1 C2 W2 C3 W3	Temperature (°C); pH; Turbidity (NTU); Water Depth (m); Dissolved Oxygen (DO) (mg/L & % Saturation); and Suspended Solids (SS) (mg/L).	3 days per week (36 hours interval was allowed between subsequent sets of measurement)

4.4 Monitoring Methodology

Sampling Procedure

4.4.1 All in-situ monitoring instrument were checked and calibrated before use. DO meter and turbidimeter shall be calibrated by a HOKLAS accredited laboratory, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring.

Turbidity, DO, Temperature and pH

4.4.2 Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring location.

4.4.3 Place the entire probe into the water bodies and make sure all the probes are fully immersed during measurement.

Suspended Solids (SS)

4.4.4 The SS determination shall be carried in a HOKLAS accredited laboratory, and the testing method shall meet the technical specification listed in the table below, or the equivalent endorsed under the HOKLAS. The HOKLAS accredited laboratory shall has comprehensive quality assurance and quality control programmes, including conducting one duplicated sample analysis for every batch of 20 samples analyzed.

4.4.5 Water samples were collected for the laboratory analysis of SS. The water samples for SS determination should be stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen) and keep in dark during both on-site temporary storage and shipment to the testing laboratory. The samples shall be delivered to the laboratory within 24 hours of collection and be analysed as soon as possible after collection.

4.4.6 The test method for SS determination is summarized in **Table 17** below.

Table 17 Laboratory Analysis for Suspended Solids (SS)

Parameter	Analytical Method	Limit of Reporting
Suspended Solids (SS)	APHA 2540D	2 mg/L

4.5 Monitoring Results

4.5.1 The schedule of water quality monitoring in reporting period is provided in **Appendix D**.

4.5.2 Water quality monitoring was conducted at all designated monitoring stations in the reporting period. The detailed monitoring results and graphical presentations are provided in **Appendix E**.

4.5.3 For the monitoring works on 30 March 2022, the water level of C3 was very shallow (Photo 1 of **Appendix E**) such that sampling of water would disturb the bottom sediment rendering collecting representative water sample not possible, hence, the water quality monitoring at C3 was omitted on that date.

4.5.4 A total of zero Action Level and eight Limit Level exceedances were recorded at the three impact stations. After investigation, none of the exceedances were related to the construction works of the project. The exceedances recorded in the reporting period is summarized in **Table 18**.

Table 18 Summary of Water Quality Exceedances

Station	Exceedance	DO	Turbidity	SS	Total
W1	Action	0	0	0	0
	Limit	0	2	1	3
W2	Action	0	0	0	0
	Limit	0	0	0	0
W3	Action	0	0	0	0
	Limit	0	4	1	5

4.5.5 For the exceedances recorded on 9 and 23 March 2022, ground investigation and formwork of manhole were carried out during the monitoring period according to the information provided by the Contractor. Mitigation measure for water quality impact from above mentioned works such as established trenches surround working machine, and u-channel along the site boundary, etc., were implemented to direct the surface runoff to AquaSed for treatment before discharge. The AquaSed that apply effective chemical agent to enhance sedimentation has been checked by contractor, and was functional and well maintained. No direct discharge of surface runoff or effluent were observed from construction activities into the concerned waterbody on the monitoring days and during the regular site audit. Hence, the exceedances were not considered related to the project works.

4.5.6 For the exceedances recorded on 28 and 30 March 2022, no construction works under this project were carried out as informed by the Contractor. Having reviewed and considered that the exceedance may be caused by the change or influences of ambient condition in the vicinity as no construction works under this project were carried out. No dusty materials are stored on site, and the construction site has been paved with permanently used materials. Hence, they are considered that there was no evidence to suggest the exceedance was related to the project works.

4.5.7 The details of Notification of Exceedance are shown in **Appendix K.**

4.5.8 The Event and Action Plan for water quality is given in **Appendix G.**

5.0 ECOLOGY

5.1 Monitoring Requirements

5.1.1 According to the EM&A Manual, construction phase ecological monitoring will be conducted between October and March. Survey will be conducted twice a month, one at low tide and one at high tide. Transect count method will be used. Survey will cover the section of Ngau Tam Mei Drainage Channel near the project site (**Figure 6**). Abundance and their behaviour of bird species observed in the channel will be recorded. Bird species, their abundance, habitat utilization and behaviour in this section of Ngau Tam Mei Drainage Channel will be recorded during each survey. Any changes in site condition that will potentially affect utilisation of the channel by birds will also be reported.

5.1.2 A summary report will be submitted within one week after completion of monitoring surveys of each year. The report will summarise the survey results, any major changes in site condition that might affect bird uses of the channel and any significant changes in bird community in the surveyed section of Ngau Tam Mei Drainage Channel. Effectiveness of the proposed mitigation measures will also be evaluated.

5.1.3 Regular site audit will be conducted on weekly basis for checking the implementation of good site practice during construction phase. The ecological surveys and the audits should be undertaken by a qualified ecologist.

5.2 Monitoring Results

5.2.1 According to the EM&A Manual, the ecological monitoring results will be submitted separately and is not included in the regular EM&A report.

6.0 WASTE MANAGEMENT

6.1 Monitoring Requirements

6.1.1 According to the 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. 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. Site inspections would be undertaken by the ET at least once every week during the construction period.

6.2 Waste Management Status

6.2.1 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 C&D materials and general refuse are being implemented. The monthly summary of waste flow table is detailed in **Appendix H**.

6.2.2 No outstanding issues were reported during the reporting period. Details of observations recorded during the site inspections are summarized in **Appendix J**.

7.0 LANDSCAPE AND VISUAL

7.1 Audit Requirements

7.1.1 According to the EM&A Manual, quarterly site audit would be undertaken during the construction phase and planting establishment period of the project to check that the proposed landscape and visual mitigation measures are properly implemented and maintained as per their intended objectives.

7.1.2 The audit will be undertaken by a member of the ET who is a certified arborist or who has tree survey relevant experiences not less than 1 year for monitoring and auditing the landscape works during the construction period (construction phase) and the planting establishment period (operation phase).

7.2 Results and Observations

7.2.1 To monitor and audit the implementation of landscape and visual mitigation measures, quarterly site audits would be carried out during the construction phase. No site audit was carried out during the reporting period.

8.0 ENVIRONMENTAL AUDIT

8.1 Site Audits

8.1.1 Site audits should be carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site.

8.1.2 In the reporting period, four site inspections with the contractor were carried out on 3, 9, 16 and 23 March 2022, while joint site inspection with the representative of IEC was conducted on 2 March 2022 in the reporting period. Since the Project site has been closed on 25 March 2022, no further site inspection would be considered necessary afterwards..

8.1.3 No outstanding issues were reported during the reporting period. Details of observations recorded during the site inspections are summarized in **Appendix J**.

8.2 Implementation Status of Environmental Mitigation Measure

8.2.1 The Contractor had implemented environmental mitigation measures and requirements as stated in the EIA Reports, the EP and EM&A Manuals. The implementation status of the environmental mitigation measures during the reporting period is summarized in **Appendix L**.

9.0 ENVIRONMENTAL COMPLAINT AND NON-CONFORMANCE

9.1 Environmental Exceedance

9.1.1 No works related air quality exceedances were recorded in the reporting period.

9.1.2 No works related noise exceedances were recorded in the reporting period.

9.1.3 A total of zero Action Level and eight Limit Level exceedances for water quality monitoring were recorded in the reporting period and these were investigated and found not works related.

9.2 Complaints, Notification of Summons and Prosecution

9.2.1 No environmental complaint, notification of summons and successful prosecution were received in the reporting period.

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

9.2.3 Cumulative statistic on complaints and successful prosecutions are summarized in **Table 19**.

Table 19 Cumulative Statistics on Complaints and Successful Prosecutions

Period	Complaints	Successful Prosecutions
March 2022	0	0
Total	0	0

10.0 FUTURE KEY ISSUES

10.1 Construction Programme

10.1.1 Tentative construction programmes for the next three months are provided in **Appendix D**.

10.2 Key Issues for the Coming Month

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

10.2.2 Key environmental issues in the coming months are listed as below:

- As the project site is closed, and no construction works were scheduled during this period, no environmental issues would be raised.

10.3 Monitoring Schedules

10.3.1 The tentative environmental monitoring schedule for the next months is provided in **Appendix D**.

11.0 CONCLUSION AND RECOMMENDATIONS

11.1 Conclusion

11.1.1 The construction phase and EM&A programme of the Project commenced on 14 February 2022.

11.1.2 No works related Action/Limit Level exceedances were recorded at the designate station for construction phase air quality monitoring carried out in the reporting period.

11.1.3 No works related Action/Limit Level exceedances were recorded at the designated station for construction noise monitoring carried out in the reporting period.

11.1.4 No works related Action / Limit Level exceedances were recorded at the designated stations for construction phase water quality monitoring carried out in the reporting period. While a total of zero Action Level and eight Limit Level exceedances were recorded, they were investigated and found not project works related.

11.1.5 In the reporting period, four environmental site audit and inspections were carried out. Recommendations on remedial actions were given to the Contractor for remediating the deficiencies identified during the site audit and inspections.

11.1.6 Ecological monitoring was conducted in the reporting period and the monitoring result will be submitted separately as per the EM&A Manual.

11.1.7 Audit and monitoring of the implementation of landscape and visual mitigation measures shall be conducted quarterly. No landscape and visual audit and monitoring was scheduled in the reporting period.

11.1.8 Referring to the Contractor's information, no environmental complaint, notification of summons and successful prosecution was received in the reporting period.

11.2 Recommendations

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

11.2.2 According to the environmental site audit and inspections performed in the reporting period, the following recommendations were provided:

Air Quality Impact

- No specific observation was identified in the reporting period.

Construction Noise Impact

- No specific observation was identified in the reporting period.

Water Quality Impact

- No specific observation was identified in the reporting period.

Chemical and Waste Management

- The contractor was reminded that the drip tray should be provided to chemical containers.

Ecology

- No specific observation was identified in the reporting period.

Landscape and Visual Impact

- No specific observation was identified in the reporting period.

Permit / License

- No specific observation was identified in the reporting period.

Figure 1 Location of the Project Site

Figure 2 Typical Construction Phase Environmental Monitoring and Audit Procedure with Project Organisation Structure

Figure 3 Locations of Air Quality Monitoring Stations

Figure 4 Locations of Noise Monitoring Stations

Figure 5 Locations of Water Quality Monitoring Stations

Figure 6 Location of Survey Transect to be Covered During Baseline Survey and Construction Phase Monitoring

Appendix A Construction Programme

Appendix B Action and Limit Levels

Appendix C Calibration Certificates of Air, Noise and Water Quality Monitoring Equipment

Appendix D Environmental Monitoring Schedules

Appendix E Monitoring Results

Appendix F Weather and Meteorological Conditions

Appendix G Event and Action Plan

Appendix H Waste Flow Table

Appendix I Summaries of Environmental Complaint Warning Summon and Notification of Successful Prosecution

Appendix J Summary of Observations and Findings made in Site Audit and Inspection in the Reporting Period

Appendix K Notification of Exceedance

Appendix L Implementation Status of Environment Mitigation Measures

Appendix M Photo Records

Table of Bookmarks

	Code	Value
Rept Month	bm_month	March 2022
Day end of Month	bm_month_end	31 March 2022
Prep Month	bm_month_write	April 2022
Inspection	bm_et_audit	four
Date of inspection	bm_et_audit_dt	3, 9, 16 and 23 March 2022
L&V Inspection	bm_et_LnV_audit	No
Date of V&L Inspection	bm_et_LnV_audit_dt	.

	Project related		**AL**		**LL**			
	Code	**Value**	**Code**	**Value**	**Code**	**Value**		
Air	bm_AQ_PR	No	bm_AQ_AL_word	zero	bm_AQ_LL_word	zero		
Noise	bm_NQ_PR	No	bm_NQ_AL_word	zero	bm_NQ_LL_word	zero		
Water	bm_WQ_PR	No	bm_WQ_AL_word	zero	bm_WQ_LL_word	eight		
Total	bm_Tot_PR	No	bm_AL_word	zero	bm_LL_word	eight		

	Average		**Min**		**Max**			
	Code	**Value**	**Code**	**Value**	**Code**	**Value**		
Air	bm_AQ_avg	111	bm_AQ_min	28	bm_AQ_max	246		
Noise	bm_NQ_avg	60.0	bm_NQ_min	52.6	bm_NQ_max	62.5		