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TEST REPORT

China Harbour Engineering Co Ltd

Contract No.: CV/2021/09
Handling of Surplus Public Fill
(2022-2023)

TUEN MUN AREA 38 FILL BANK

QUARTERLY EM&A SUMMARY REPORT NO.07

(FROM JULY 2023 TO SEPTEMBER 2023)

Prepared by: _____
LAU, Wing Sum
Assistant Environmental Officer

Checked by: _____
LAU, Chi Leung
Environmental Team Leader

Issue Date: 20 October 2023 Report No.: ENA36724

Our Ref: PL-202401021

ETS-Testconsult Limited
8/F, Block B, Veristrong Industrial Centre
34-36 Au Pui Wan Street
Fo Tan, Hong Kong

Attention: Mr. C L Lau

11 January 2024

Dear Mr. Lau,

RE: Contract No. CV/2021/09
Handling of Surplus Public Fill (2022-2023)
Quarterly EM&A Report (No. 7) for July to September 2023 for the Tuen Mun Area 38 Fill Bank

Reference is made to your submission of the Quarterly EM&A Report for July to September 2023 for the Tuen Mun Area 38 Fill Bank, we are pleased to inform you that we have no adverse comment on the captioned report.

Thank you for your attention. Please do not hesitate to contact the undersigned should you have any queries.

Yours faithfully,

F. C. Tsang
Independent Environmental Checker

cc. CEDD – Mr. T M YEUNG

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EXECUTIVE SUMMARY

This is Quarterly Environmental Monitoring and Audit (EM&A) Summary Report No.07 prepared by ETS-Testconsult Ltd (ET) for the "Contract No. CV/2021/09 Handling of Surplus Public Fill (2022-2023) – Tuen Mun (TM) Area 38 Fill Bank" (The Project).

This report documents the findings of EM&A Works conducted during the operation phase of Fill Bank at Tuen Mun Area 38 from 01 July 2023 to 30 September 2023.

Site Activities

As informed by the Contractor, the site activities in this reporting quarter were as below:

July 2023

1. Operation of the Public Fill Reception Facilities at Tuen Mun Fill Bank (TMFB);
2. Operation and Maintenance of Crushing plant at TMFB;
3. Delivery of public fill to Taishan at TMFB;
4. Operation of the Integrated Public Fill Reception at TMFB;
5. Operation and Maintenance of Wheel Washing Bays and Facilities at TMFB;
6. Operation and Maintenance of Wash House at TMFB
7. Personnel Position Tracking and Proximity Detection System of Moving Plant at TMFB;
8. Operation and Maintenance a Digital Works Supervision System (DWSS) for TMFB;
9. Operation of a New Soil Platform for Preliminary Sorting of Public Fill at TMFB;
10. Operation of Concrete Slab at Wet Deposition Platform in TMFB
11. Operation of AI System for Crushing Plant at TMFB
12. Implementation of C Easy system at TMFB (phase 1)
13. Carry out GCO Probe test and SRT

August 2023

1. Operation of the Public Fill Reception Facilities at Tuen Mun Fill Bank (TMFB);
2. Operation and Maintenance of Crushing plant at TMFB;
3. Delivery of public fill to Taishan at TMFB;
4. Operation of the Integrated Public Fill Reception at TMFB;
5. Operation and Maintenance of Wheel Washing Bays and Facilities at TMFB;
6. Operation and Maintenance of Wash House at TMFB
7. Personnel Position Tracking and Proximity Detection System of Moving Plant at TMFB;
8. Operation and Maintenance a Digital Works Supervision System (DWSS) for TMFB;
9. Operation of a New Soil Platform for Preliminary Sorting of Public Fill at TMFB;
10. Operation of Concrete Slab at Wet Deposition Platform in TMFB
11. Operation of AI System for Crushing Plant at TMFB
12. Implementation of C Easy system at TMFB (phase 1)
13. Carry out GCO Probe test and SRT

September 2023

1. Operation of the Public Fill Reception Facilities at Tuen Mun Fill Bank (TMFB);
2. Operation and Maintenance of Crushing plant at TMFB;
3. Delivery of public fill to Taishan at TMFB;
4. Operation of the Integrated Public Fill Reception at TMFB;
5. Operation and Maintenance of Wheel Washing Bays and Facilities at TMFB;
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7. Personnel Position Tracking and Proximity Detection System of Moving Plant at TMFB;
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11. Operation of AI System for Crushing Plant at TMFB
12. Implementation of C Easy system at TMFB (phase 1)
13. Carry out GCO Probe test and SRT

Environmental Monitoring Works
Air Monitoring

No exceedance of Action and Limit levels was recorded for 1-hr and 24-hr TSP monitoring in this quarter.

Marine Water Quality Monitoring

According to the summary of marine water monitoring results, no exceedance of Action and Limit levels was recorded in this quarter.

Noise Monitoring

No exceedance of Action and Limit levels for noise monitoring was recorded in this quarter.

Environmental Complaints, Notification of summons and successful prosecutions

No complaint, notification of summon and prosecution with respect to environmental issues was received in this quarter.

1.0 INTRODUCTION

China Harbour Engineering Co Ltd (CHEC) appointed Environmental Team (ET) of ETS-Testconsult Limited (ETL) to undertake the Environmental Monitoring and Audit (EM&A) for the "Contract No: CV/2021/09 –Handling of Surplus Public Fill (2022-2023) – Tuen Mun (TM) Area 38 Fill Bank" (The Project).

In accordance with the Condition 4 of Part C of Environmental Permit (No.: EP-210/2005/E) (the EP), an EM&A programme as set out in the Project Profile should be implemented. The EM&A programme requires environmental monitoring for air quality, water quality and environmental site inspections for air quality, noise quality, water quality, landscape and visual, and waste management.

Baseline monitoring was completed in May 2003 by Stanger Asia Ltd. Action and Limit Levels were established for air and water quality parameters based on the baseline monitoring results.

This quarterly report documented the findings of EM&A Works conducted during the operation phase of Fill Bank at Tuen Mun Area 38 from July 2023 to September 2023.

2.0 PROJECT INFORMATION

2.1 Work Programme in this Reporting Quarter

Details of work programme are shown in Appendix G.

2.2 Project Organization and Management Structure

The project organization chart is shown in Appendix A.

2.3 Contact Details of Key Personnel

The key personnel contact names and telephone numbers are shown in Table 2.1.

Table 2.1 Contact Details of Key Personnel

Organization	*Name of Key Staff*	*Project Role*	*Tel. No.*	*Fax No.*
CEDD	*Mr. C W Au Yeung, Andrew Cheung*	*Engineer's Representative*	*2623 9267/ 2762 5588*	*2714 0113*
IEC (Acuity)	*Mr. F C Tsang*	*IEC*	*2698 9097*	*2333 1316*
Contractor (CHZH-JV))	*Zhou Chang Ying*	*Senior Project Manager*	*96266299*	*22474108*
ET (ETL)	*C. L. Lau*	*ET Leader*	*2946 7791*	*2695 3944*

3.0 SUMMARY OF EM&A REQUIREMENTS

3.1 EM&A Programme

The EM&A programme required environmental monitoring for air, marine water and environmental site inspections for air, marine water, landscape and visual, and waste management. The EM&A requirements for each parameter described in the following sections include:

- *All monitoring parameters;*
- *Monitoring schedules for the reporting month and forthcoming months;*
- *Action and Limit levels for all environmental parameters;*
- *Event/Action Plans;*
- *Environmental mitigation measures, as recommended in the Project EIA study final report; and*
- *Environmental requirements in contract documents.*

The advice on implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 5 of the Report.

3.2 Monitoring Stations and Parameters

The EM&A Manual designates several locations to monitor environmental impacts in terms of air quality, noise and water quality due to the Project. The description and detailed locations of monitoring stations for air quality, noise and marine water quality are shown in Figures 1, 2 and 3 and relevant sections of this Report.

3.3 Monitoring Methodology and Calibration Details

All monitoring works were conducted and monitoring equipment was calibrated in according with the EM&A Manual.

3.4 Environmental Quality Performance Limits (Action/Limit Levels)

The environmental quality performance limits, i.e. Action/Limit Levels (AL Levels) were derived from the baseline monitoring results. If the measured environmental quality parameters exceed the AL Levels, the respective action plan will be implemented. The AL Levels for each monitoring parameter are given in Appendix E. The event action plan is given in Appendix F.

3.5 Environmental Mitigation Measures

Relevant mitigation measures were recommended in the EM&A Manual for the Contractor to implement. A list of mitigation measures is given in Appendix H.

4.0 MONITORING RESULTS

4.1 Air Quality

In accordance with the EM&A Manual, 1-hr and 24-hr TSP air quality monitoring are to be conducted three times and one time per six days correspondingly. In the reporting quarter, no exceedances of Action and Limit levels were recorded for 1-hr and 24-hr TSP monitoring. The monitoring trend of air quality during the reporting quarter are given in Appendix B.

Major dust sources in the Fill Bank were dump truck traffic and hauling activities.

Table 4.1 presents the number of exceedances recorded in each month of the reporting quarter. The number of monitoring event included regular monitoring events and additional ones.

Table 4.1 Summary of Number of Exceedances for 1-hr and 24-hr TSP Monitoring

Monitoring Parameter	*Level of Exceedance*	*July 2023*	*August 2023*	*September 2023*
24-hr TSP	*No of monitoring events*	*5*	*5*	*5*
	Action Level	*0*	*0*	*0*
	Limit Level	*0*	*0*	*0*
1-hr TSP	*No of monitoring events*	*15*	*18*	*14*
	Action Level	*0*	*0*	*0*
	Limit Level	*0*	*0*	*0*

4.2 Noise

Since Lands Dept did not approve to carry out noise monitoring at their own area where the noise monitoring stations TM-N1 and TM-N2 located due to the security, noise monitoring carried out at two noise monitoring stations TM-RN1 and TM-RN2 (refer to the figure attached) from 18 December 2007.

No exceedance was recorded in this reporting quarter. The trend of noise monitoring during the reporting quarter is presented in Appendix C.

4.3 Marine Water Quality

In accordance with the Project Profile, impact marine water quality monitoring was conducted at two control monitoring stations (TM-FC1 and TM-FC2) and two impact monitoring stations (TM-FM1and TM-FM2) in this quarter.

Impact marine water quality monitoring was conducted three days per week. Measurements were taken at both mid-ebb and mid-flood tides at three depths (i.e. 1m below surface, mid depth and 1m above seabed). The AL Levels are included in Appendix E.

According to the summary of marine water monitoring results, no exceedance of action and limit level was recorded in this quarter. Table 4.2 presents the total number of marine water quality exceedances in the reporting quarter. The trend of marine water quality in the past three months is depicted in Appendix D.

Table 4.2 Total Number of Marine Water Quality Exceedances in this quarter

Parameter	*Exceedance Level*	*July 2023*	*August 2023*	*September 2023*
Number of monitoring days		*12*	*14*	*13*
Dissolved Oxygen, DO (S&M)	*Action*	*0*	*0*	*0*
	Limit	*0*	*0*	*0*
Dissolved Oxygen, DO (B)	*Action*	*0*	*0*	*0*
	Limit	*0*	*0*	*0*
Turbidity	*Action*	*0*	*0*	*0*
	Limit	*0*	*0*	*0*
Suspended Solids, SS	*Action*	*0*	*0*	*0*
	Limit	*0*	*0*	*0*

A comparison between the quarterly mean/median of SS and the 1.3 times of the baseline mean was made for each tide at each station. The statistical analysis results are given in Appendix I. Monitoring stations with significant difference ($p<0.05$) is summarized in Table 4.3.

Table 4.3 Summary of Statistically Significant Results of SS

Monitoring Station		*Significant difference*	
		Mid-flood	*Mid-ebb*
Designated Control Station	*FC1*	*X*	*X*
	FC2	*X*	*X*
Designated Monitoring Station	*FM1*	*X*	*X*
	FM2	*X*	*X*

5.0 INSPECTION RESULTS

5.1 Implementation Status of Environmental Mitigation Measures

ET conducted weekly site inspections to monitor the Contractor's implementation of environmental mitigation measures. In this reporting period, thirteen weekly site inspections were conducted.

Air quality was the major environmental issue in the reporting quarter. The Contractor generally implemented most of the environmental mitigation measures in the reporting quarter. Dump truck traffic was the major dust source in the Fill Bank. Generally, the Contractor implemented adequate dust mitigation measures in the reporting quarter including dampening of haul roads, water spraying on the truckloads, during loading and unloading of material and for crushing plant, operation of automatic wheel washing facilities, dampening of fill material prior to handling or stockpiling, etc.

The major noise source was dump truck traffic in the Fill Bank. All site equipment and machinery were well maintained and no noise nuisance was observed during operating.

Drainage channels and wastewater treatment facilities were found maintained in good condition for merit function. The Contractor arranged site workers to clean up the silt and mud regularly.

Although there were a few observations regarding accumulation of mud and silt inside the drainage channel and stagnant water, the Contractor rectified most of these problems. Besides, the Contractor was reminded to clear the accumulated mud and silt to avoid any blockage and clean the stagnant water properly.

Overall site area was found tidy and clean. The Contractor was reminded to collect and dispose of the general refuse and other C&D waste in a timely manner.

5.2 Status of Environmental Licensing and Permitting

The status of licences and permits is summarized in Table 5.1.

Table 5.1Summary of environmental licensing and permit status

Description	*Permit No.*	*Valid Period*		*Section*
		From	*To*	
Environmental Permit	*EP-210/2005/E*	*25/05/20*	*31/12/23*	*Issued*
Chemical Waste Producer	*5296-421-C1186-33*	*20/04/17*	*---*	*Spent battery containing heavy metals and spent lubricating oil*
Effluent Discharge License	*WT00042755-2022*	*21/02/23*	*29/02/28*	*Effluent arising from vehicle washing and dust suppression activities and contaminated surface runoff treated by screening facilities and sedimentation tanks (sedimentation and chemical precipitation).*
Marine Dumping Permit	*EP/MD/24-028*	*01/09/23*	*31/12/23*	*Approval for dumping 499,999 tons (approximately equal to 277,777 cu.m. bulked quantity) of Public Fill (Reclamation Materials) from Tseung Kwan O Area 137 Fill Bank and Tuen Mun Area 38 Fill Bank to designated dumping area at Guanghaiwan of Taishan*
Billing Account for Waste Disposal	*7042821*	*22/05/17*	*End of project*	*---*
Notification Pursuant to Section 3(1) of the Air Pollution Control (Construction Dust)	*475208*	*12/04/17*	*End of project*	*---*

5.3 Advice on Solids and Liquid Waste Management Status

Table 5.2 summarizes data on offsite waste disposal in the quarter.

Table 5.2Estimated Offsite Waste Disposal in the Reporting Quarter

Waste Type	*July 2023*	*August 2023*	*September 2023*
Public Fill ('000m^3)	*0*	*0*	*0*
C&D Waste (general refuse) ('000kg)	*76.23*	*36.1*	*54.71*
Chemical Waste e.g. Waste oil (L) / Chemical Waste (kg)	*0(L)*	*0(L)*	*0(L)*

6.0 NON-COMPLIANCE OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

6.1 Summary of Non-compliance

According to the monitoring results, no action and limit level exceedance was recorded in this quarter.

6.2 Review of the Reasons for and the Implications of Non-compliance

Since no non-compliance was recorded in this quarter, no review was required.

6.3 Summary of Actions Taken

Since no exceedance was recorded in this quarter, no further action was required.

6.4 Summary of Environmental Complaint, Notification of Summon and Successful Prosecution Handling

No complaint, notification of summon and prosecution with respect to environmental issue was received in this quarter.

A summary of environmental complaints and prosecutions was given in Table 6.1.

Table 6.1 Summary of Environmental Complaints and Prosecutions

Period	*Complaints logged*	*Summon served*	*Successful Prosecution*
July 2023	*0*	*0*	*0*
August 2023	*0*	*0*	*0*
September 2023	*0*	*0*	*0*
Cumulative	*7*	*0*	*0*

7.0 COMMENTS, CONCLUSIONS AND RECOMMENDATION

Major activity in the Fill Bank was the import and dumping of fill materials in this quarter. Air quality was the major environmental issue in the Fill Bank. Generally, the Contractor implemented most of the mitigation measures to minimize the dust impact.

No exceedance of action and limit levels was recorded for 1-hr and 24-hr TSP monitoring in the reporting quarter.

According to the marine water monitoring results in this quarter, no exceedance of action and limit level was recorded.

The noise level measured at the monitoring station complied with the Limit Level of 65dB(A). No complaint was received regarding noise issue in this reporting quarter.

No complaint, prosecution or notification of summons was received in this quarter.

According to the ET weekly site inspection and IEC site audits carried out in this quarter, it was indicated that site practices of the Contractor were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was up to standard.

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

Air Quality

- Ensure the frequency of water spraying on haul roads, unloading areas and stockpiles to be sufficient to suppress the dust sources;
- Provide proper maintenance for the powered mechanical equipment and barges to avoid emission of dark smoke;
- Provide water spraying onto the truckloads during inspection of fill material;

- Conduct road sweeping on all paved haul roads and public roads especially outside and near the site egress by the road sweeper. Undertake water spraying on stockpiling area by water bowser;
- Erect adequate speed limit signs to advise the truck drivers of the speed limit;
- Operate mist spraying systems and automatic water sprinklers in the Fill Bank;
- Implement the dust mitigation measures for the construction activities;
- Designate proper haul roads to ensure effective water spraying; and
- Ensure all vehicles to be washed before leaving the site egress by provision, operation and maintenance of automatic wheel washing facilities.

Noise
- Conduct noisy activities at a farther location from the NSRs.
- Proper schedule of noisy operation and use of quiet machineries on site.

Water Quality
- Maintain the drainage system, including the trapezoidal channels and permanent desilting chambers regularly; and
- Remove the stagnant water or provide approved pesticides for the stagnant water in the permanent desilting chambers, if any.

Chemical and Waste Management
- Remove waste materials from the site to avoid accumulation regularly;
- Handle and store chemical wastes properly;
- Remove unwanted material in the existing stockpiles and avoid further dumping of such material;
- Provide and maintain sufficient drip trays for diesel drums, chemical containers, chemical waste storage drums and diesel operated generator set;
- Maintain good housekeeping at the workshop area;
- Ensure sufficient tarpaulin sheets are provided to cover drip trays; and
- Avoid soil being polluted during oil filling and equipment maintenance; hence, properly remove and store the contaminated soil, if any.

Landscape and Visual
- Provide hydroseeding on the exposed slopes, on which the final profile has been formed;
- Erect all the site hoarding/chaining fences in accordance with agreed design at proper location; and
- Maintain the hydroseeding slopes in accordance with the Landscape Plan.

- END OF REPORT -

Appendix A

Organization Chart

CHEC MANAGEMENT BOARD
XUE Yong, LU Shizhao

Health & Safety
Deputy General Manager
SO Sze Lung

Assistant General Manager / Senior Project Manager /
Contractor's Construction Manager
ZHOU Chang Ying

Project Manager /
Contractor's Site Agent
PAN Wing On

SAFETY TEAM

- Safety Manager ***HO Chi Yue***
- Safety Officer ***(TKO) LEE Chung Man***
- Safety Officer ***(TM) CHAK Sui Chu***
- Safety Supervisor ***(TKO) AU Ka Wai***
- Safety Supervisor ***(TM) WONG Ho Yeung***

ENVIRONMENTAL

- Environmental Officer ***KWOK Wing Lam***
- Environmental Team

TKO 137 OPERATION TEAM

- Section Agent (TKO) ***CHOI Chi Hong***
- Section Sub-Agent (TKO) ***WONG Kwan Wai***
- Superintendent ***(Stockpiling Area)***
- Superintendent ***(Vessel Loading)***
- Superintendent ***(Dewatering Plant) CHAN Hung***
- Foreman ***(Stockpiling Area)***
- Foreman ***(Vessel Loading)***
- Dewatering Plant 3 nos. Operator
- Technical Apprentice x 1
- Mooring Assistant *x 3*
- Technical Apprentice x 1
- Reception & Exit Office 6 nos. Computer Operator 3 nos. Assistant
- Electrician
- Recorder House A1, A2 & A4 6 nos. Computer Operator
- 1 no. Computer Supervisor
- Recorded House A1, A2 & A4 2 nos. AFS
- Reception & Exit Office 3 nos. AFS
- Stockpiling 10 nos. AFS
- Reception and Queuing Area 2 nos. AFS
- Tipping Hall 2 nos. AFS
- Inspection Platform 4 nos. AFS
- Plant Operation Team
- Temporary Haul Road 2 nos. AFS
- Labours
- Entrance 2 nos. Security Guard

ENGINEER

- Geotechnical Engineer
- Planning Engineer

TM 38 OPERATION TEAM

- Section Agent (TM) ***CHENG Chiu Loong***
- Superintendent ***(Stockpiling Area)***
- Superintendent ***(Vessel Loading)***
- Foreman ***(Stockpiling Area)***
- Foreman ***(Vessel Loading)***
- Technical Apprentice x 1
- Mooring Assistant *x 2*
- Reception & Exit Office 5 nos. Computer Operator 1 no. Assistant
- Electrician
- Recorder House B7 & B8 3 nos. Computer Operator
- 1 no. Computer Supervisor
- Recorder House B7 & B8 1 nos. AFS
- Reception & Exit Office for B1a, B1b & B1c 2 nos. AFS
- Stockpiling Area 4 nos. AFS
- Reception and Queuing Area 2 nos. AFS
- Tipping Hall 3 nos. AFS
- Inspection Platform 4 nos. AFS
- Plant Operation Team
- Temporary Haul Road 2 nos. AFS
- Labours
- Entrance 2 nos. Security Guard

FLEET MOVEMENT CONTROL TEAM

- Section Sub-Agent ***CHIU Ka Toa***
- Marine Engineer (Mainland)
- L & L Coordinators X 2 ***TSE Yun Kau, YU Chun Kwok***
- TKO Fleet Superintendent
- TM Fleet Superintendent

TAISHAN OPERATION TEAM

- Taishan Section Agent ***LUO Tao***
- Section Agent
- Design Manager ***ZHANG Mingming***
- Section Agent
- Sr. Design Engineer x 2 ***CHEN Hualin QIU Yonggang***
- Sr. Civil Engineer
- Design Engineer x 2 ***YANG Lei LI Yongye***
- Sr. Civil Engineer
- Draughting Team
- Environmental Engineer
- QA Engineer
- Planning Engineer
- Sr. Survey Engineer
- Registered Safety Engineer
- Survey Team (Land)
- Survey Team (Marine)

SURVEY TEAM

- Contractor's Survey
- Surveyor
- Survey Team

ADMINISTRATION

- Senior Administration Manager
- Contractor's Labour Officer
- Secretary
- Driver
- Amah

COMMERCIAL

- Quantity Surveyor Manager ***WU Yongqiang***
- Senior Quantity Surveyor ***WONG Bing Him***
- Quantity Surveyor *x 2*
- Assistant Quantity Surveyor

Legend

TKO Tseung Kwan O Area 137 Fill Bank
TM Tuen Mun Area 38 Fill Bank

Top Management

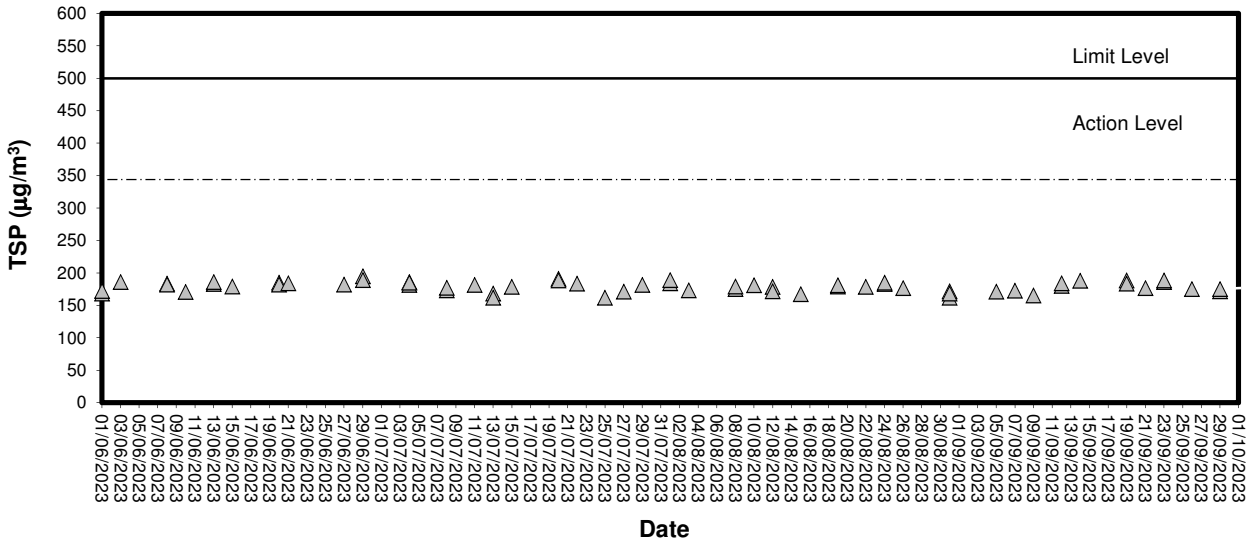
Technical Staff

Technical Staff With Mainland Experience

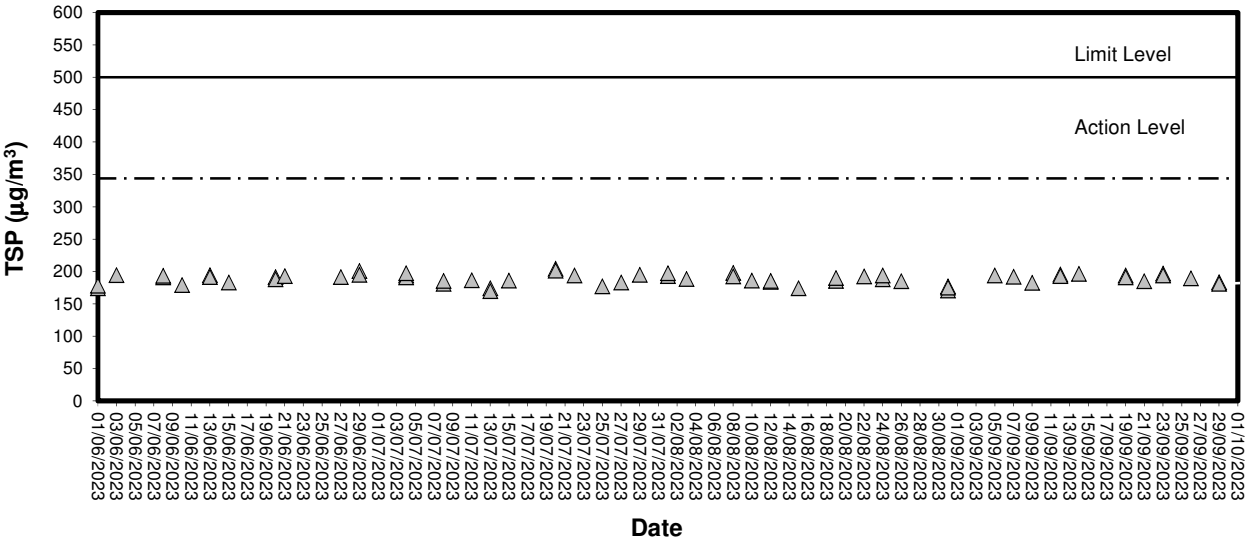
Appendix B

Graphical Plots of Air Quality Monitoring Data

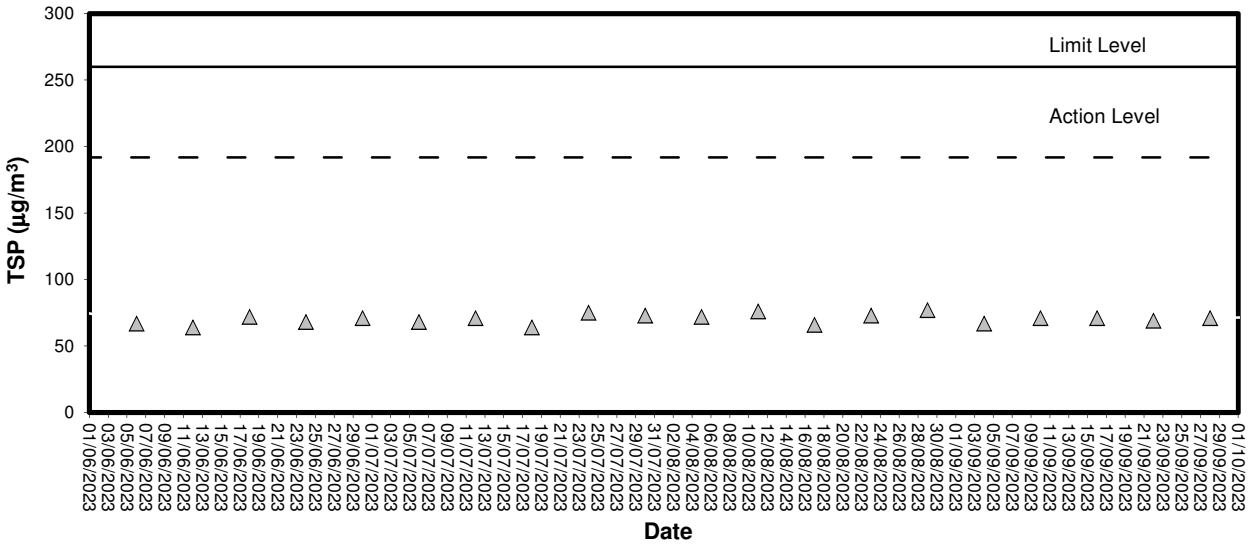
1-hour TSP level at TM-A1



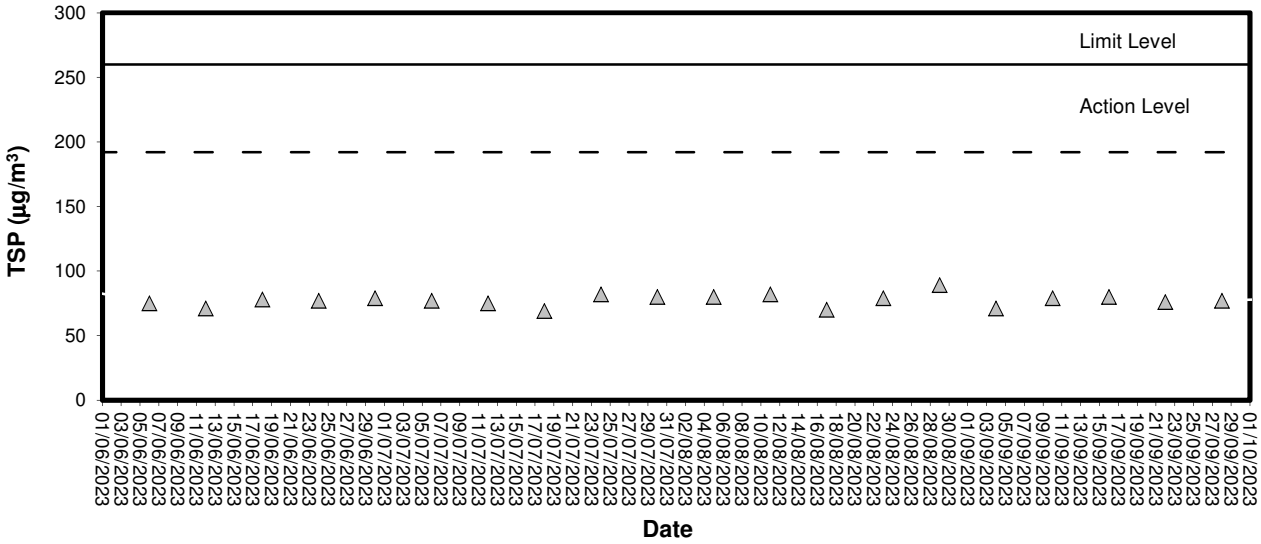
1-hour TSP level at TM-RA2



24-hour TSP level at TM-A1



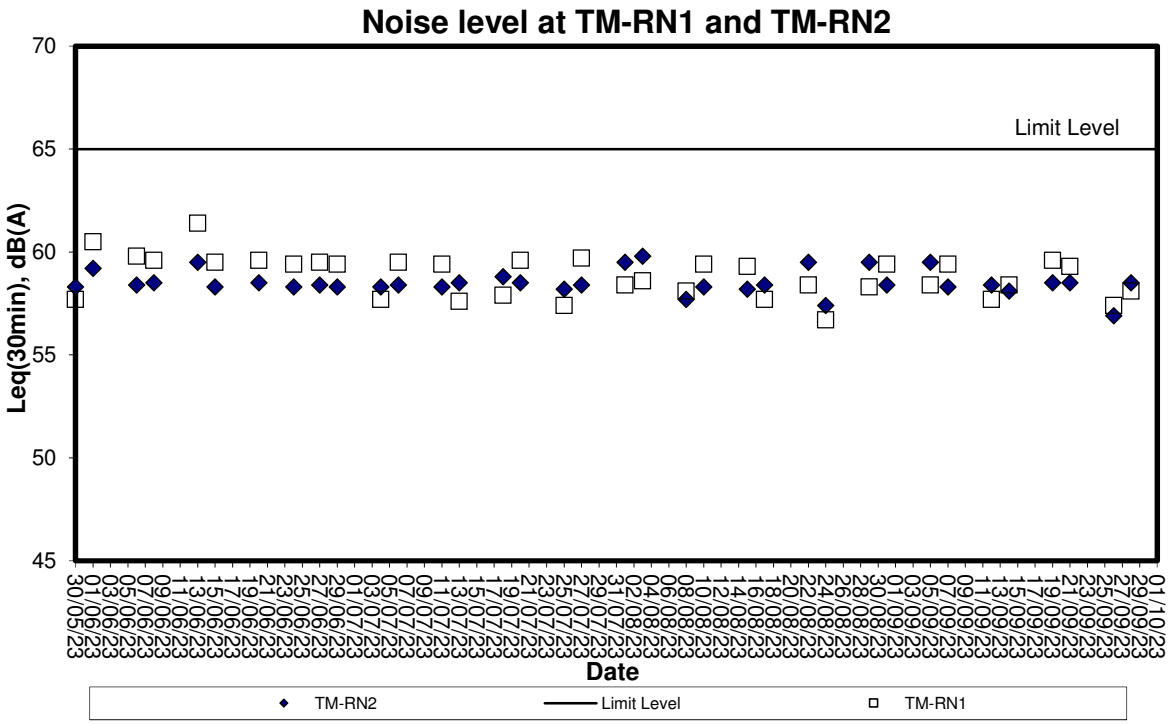
24-hour TSP level at TM-RA2



Appendix C

Graphical Plots of Impact Noise Monitoring Data

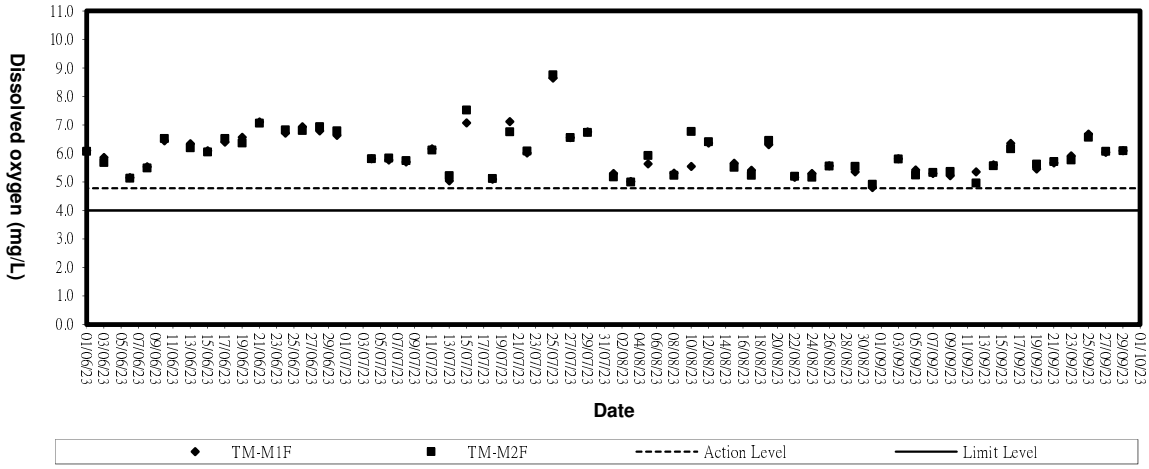
Noise Monitoring (Day-time)



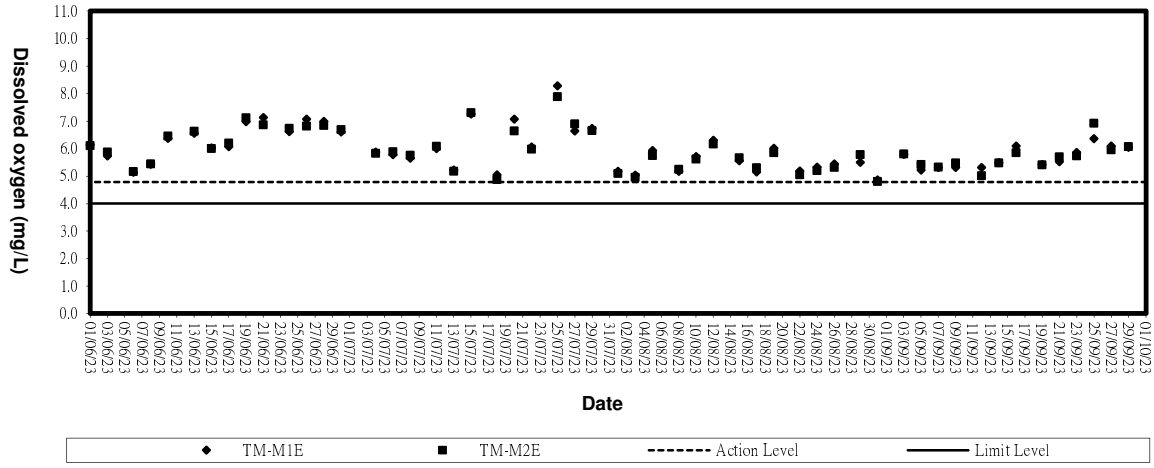
Appendix D

Graphical Plots of Impact Marine Water Quality Monitoring Data

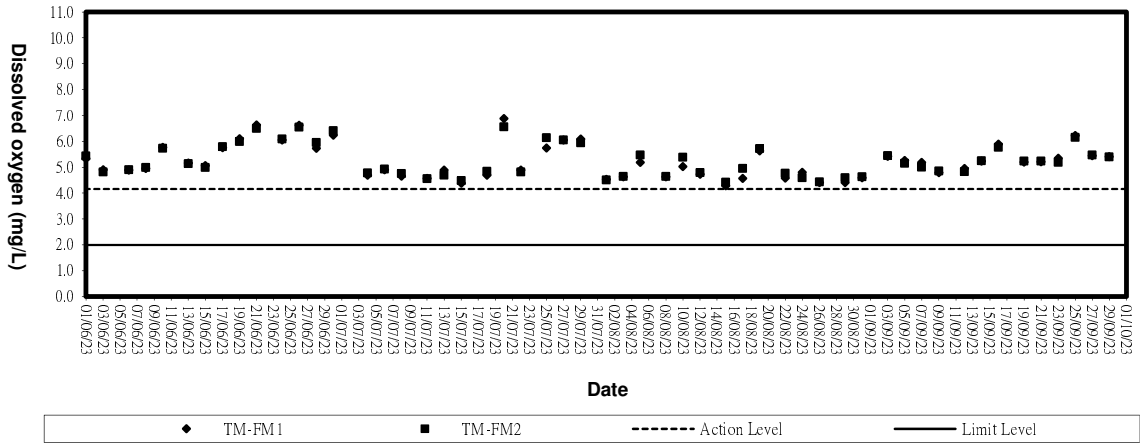
Dissolved Oxygen (Surface & Middle) at Mid-Flood Tide



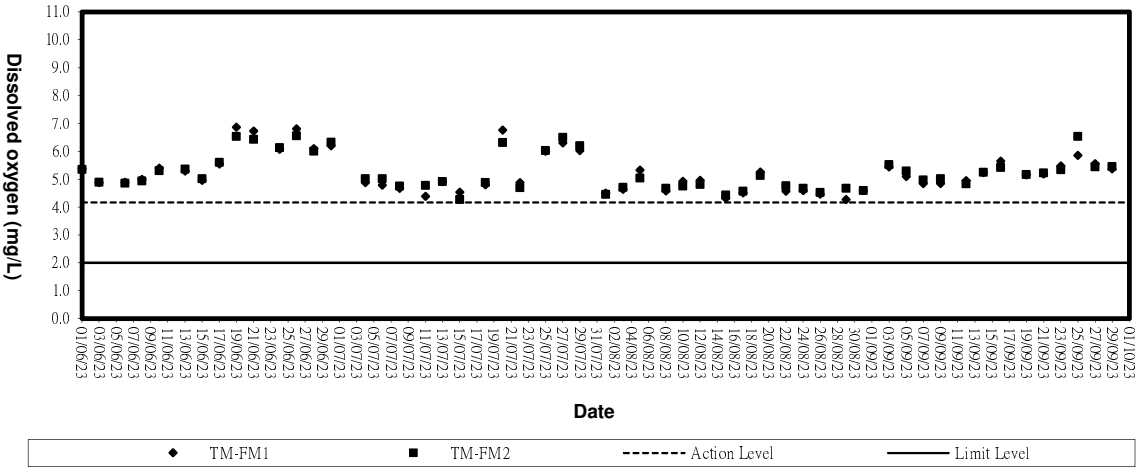
Dissolved Oxygen (Surface & Middle) at Mid-Ebb Tide



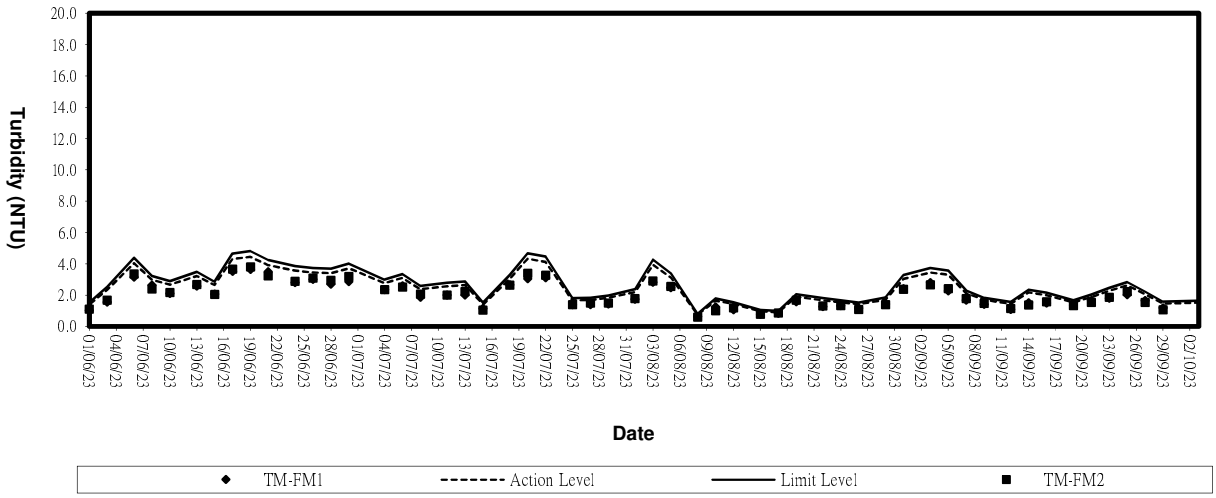
Dissolved Oxygen (Bottom) at Mid-Flood Tide



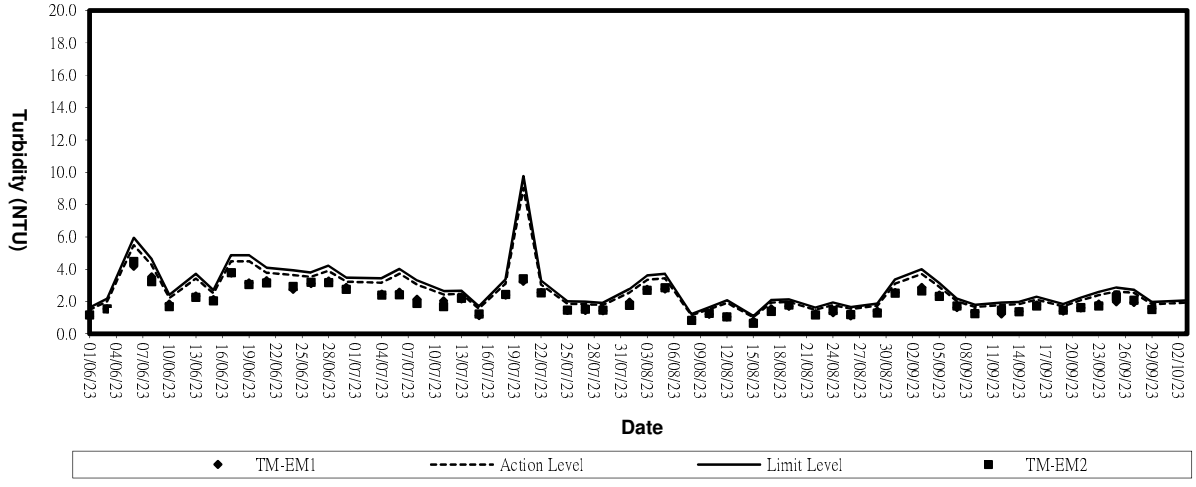
Dissolved Oxygen (Bottom) at Mid-Ebb Tide



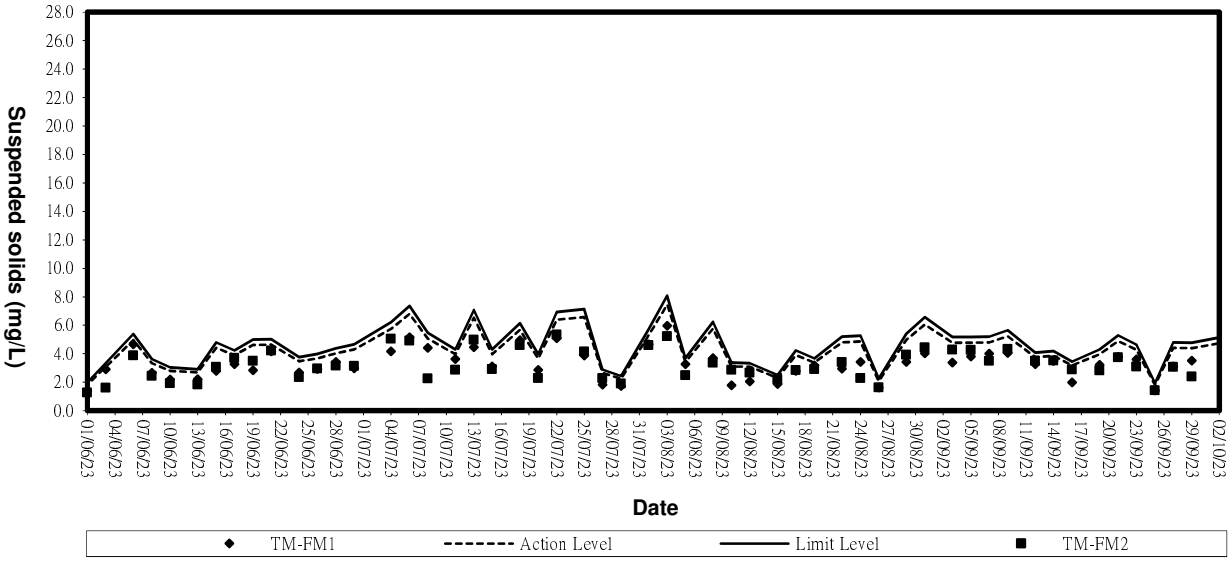
Turbidity (Depth-average) at Mid-Flood Tide



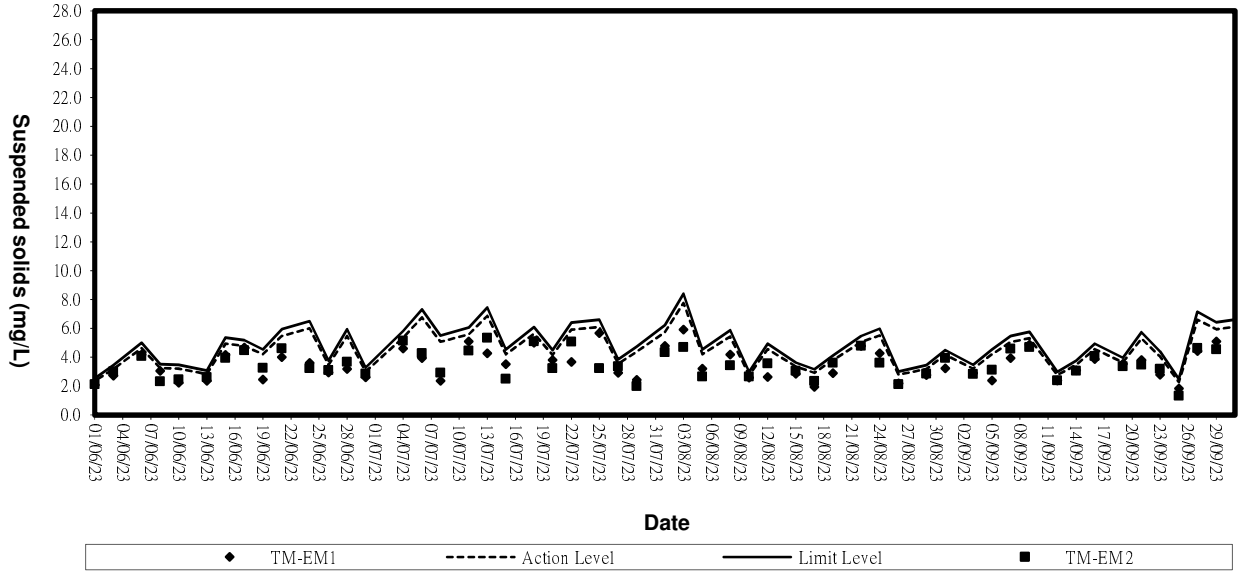
Turbidity (Depth-average) at Mid-Ebb Tide



Suspended solids (Depth-average) at Mid-Flood Tide



Suspended Solids (Depth-average) at Mid-Ebb Tide



Appendix E

Environmental Quality Performance (Action / Limit Levels)

Action and Limit Levels for 1-hour TSP and 24-hour TSP Monitoring

Monitoring Location	*24-hr TSP ($\mu g/m^3$)*		*1-hr TSP ($\mu g/m^3$)*	
	Action Level	*Limit Level*	*Action Level*	*Limit Level*
TM-A1	*192*	*260*	*344*	*500*
TM-A2	*192*	*260*	*344*	*500*

Action and Limit Levels for Marine Water Quality Monitoring

Parameter	*Action Level*	*Limit Level*
DO (mg/L)	*Surface & Middle* *<4.78 mg/L* *(5%-ile of baseline data)* *Bottom* *<4.16 mg/L* *(5%-ile of baseline data)*	*Surface & Middle* *<4.00 mg/L* *(1%-ile of baseline data)* *Bottom* *<2.00 mg/L*
SS (mg/L) *(Depth-averaged)*	*>120% of the upstream control station's SS at the same tide on the same day*	*>130% of the upstream control station's SS at the same tide on the same day*
Turbidity (NTU) *(Depth-averaged)*	*>120% of the upstream control station's turbidity at the same tide on the same day*	*>130% of the upstream control station's turbidity at the same tide on the same day*

Action and Limit Levels for Noise Monitoring

Time Period	*Action **	*Limit **
0700-1900 hrs on normal weekdays	*When one documented complaint is received*	*65 dB(A)*

Appendix F

Event-Action Plans

EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE

EVENT	ACTION			
	ET Leader	IC(E)	ER	Contractor
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Inform ER, IC(E) and Contractor 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily	1. Check monitoring data submitted by the ET 2. Check contractor's working method	1. Notify Contractor	1. Rectify any unacceptable practise 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Inform IC(E) and Contractor 3. Repeat measurements to confirm finding 4. Increase monitoring frequency to daily 5. Discuss with IC(E) and Contractor on remedial actions 6. If exceedance continues, arrange meeting with IC(E) and ER. 7. If exceedance stops, cease additional monitoring	1. Check monitoring data submitted by the ET Leader 2. Check the 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 failure in writing 2. Notify the Contractor 3. Ensure remedial measures properly implemented	1. Submit proposals for remedial actions to IC(E) within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Inform ER, Contractor and EPD 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Assess the effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results	1. Check monitoring data submitted by the ET Leader 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 failure in writing 2. Notify the Contractor 3. Ensure remedial measures properly implemented	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate.

EVENT	EVENT/ACTION PLAN FOR AIR QUALITY EXCEEDANCE			
	ACTION			
	ET Leader	IC(E)	ER	Contractor
2. Exceedance for two or more consecutive samples	1. Identify source, investigate the causes of exceedance and propose remedial measures 2. Notify IC(E), ER, EPD and Contractor 3. Repeat measurement to confirm finding 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 IC(E) and ER to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results 8. If exceedance stops, cease additional monitoring	1. Discuss amongst ER, ET and Contractor on the potential remedial actions 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly 3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IC(E), agree with the Contractor on the remedial measures to be implemented 4. Ensure remedial measures are properly implemented 5. If exceedances continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated	1. Take immediate action to avoid further exceedances 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated

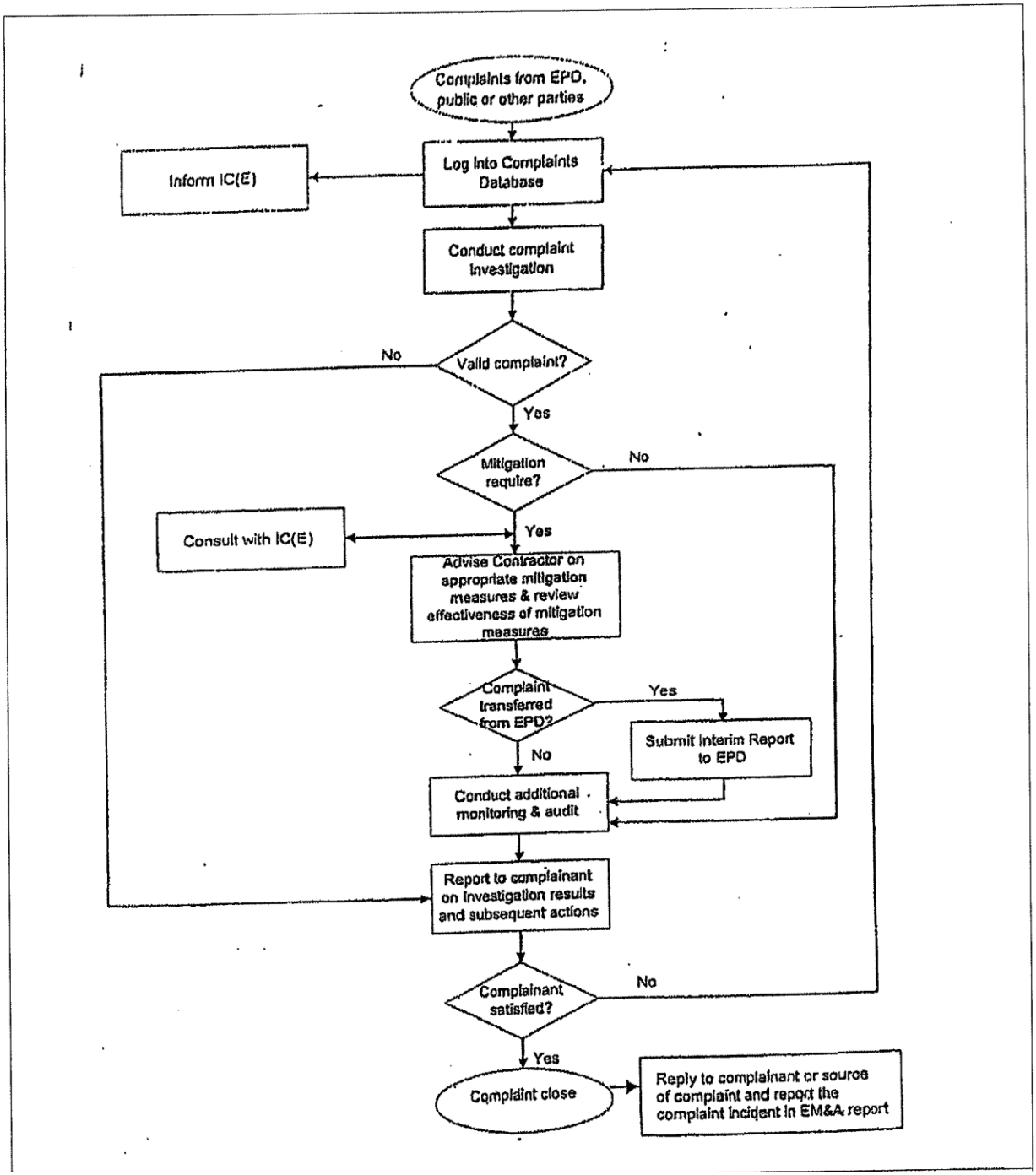
EVENT	EVENT/ACTION PLAN FOR NOISE EXCEEDANCE			
	ACTION			
	ET Leader	IC(E)	ER	Contractor
Action Level	1. Notify the IC(E) and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to the IC(E) and the Contractor. 4. Discuss with the Contractor and formulate remedial measures.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

Event	EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE			
	ACTION			
	ET Leader	Contractor	ER	IEC
Action level being exceeded by one sampling day	1. Identify source(s) of impact; 2. Repeat in-situ measurement to confirm findings; 3. Notify Contractor in writing within 24 hours of identification of the exceedance 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Carry out investigation 6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works 7. Discuss mitigation measures with Contractor if exceedance is due to the construction works within 4 working days 8. Repeat measurement on next day of exceedance if exceedance is due to the construction works	1. Notify the ER and IEC in writing within 24 hours of identification of exceedance 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Submit investigation report to IEC and ER within 3 working days of the identification of an exceedance 5. Consider changes of working method if exceedance is due to the construction works 6. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER if exceedance is due to the construction works within 4 working days of identification of an exceedance 7. Implement the agreed mitigation measures within reasonable time scale	1. Notify EPD and other relevant governmental agencies in writing within 24 hours of the identification of the exceedance 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Require contractor to propose remedial measures for the analysed problem if related to the construction works 4. Ensure remedial measures are properly implemented 5. Assess the effectiveness of the mitigation measure	1. Check monitoring data submitted by ET 2. Confirm ET assessment if exceedance is due / not due to the works 3. Discuss with ET, ER and Contractor on the mitigation measures 4. Review contractor's mitigation measures whenever necessary to ensure their effectiveness and advise the ER accordingly 5. Supervise the implementation of mitigation measures

Event	EVENT AND ACTION PLAN FOR WATER QUALITY			
	ACTION			
	ET Leader	Contractor	ER	IEC
Action level being exceeded by more than one consecutive sampling days	1. Identify source(s) of impact; 2. Repeat in-situ measurement to confirm findings 3. Notify Contractor in writing within 24 hours of identification 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Carry out investigation 6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works 7. Discuss mitigation measures with IEC and Contractor within 4 working of identification of an exceedance 8. Ensure mitigation measures are implemented; 9. Prepare to increase the monitoring frequency to daily; 10. Repeat measurement on next day of exceedance.	1. Notify IEC and ER in writing within 24 hours of identification of exceedance 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance 6. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days of identification of an exceedance 7. Implement the agreed mitigation measures within reasonable time scale	1. Notify EPD and other relevant governmental agencies in writing within 24 hours of the identification of the exceedance 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Require contractor to propose remedial measures for the analysed problem if related to the construction works 4. Ensure remedial measures are properly implemented 5. Assess the effectiveness of the mitigation measure	1. Check monitoring data submitted by ET 2. Confirm ET assessment if exceedance is due / not due to the works 3. Discuss with ET, ER and Contractor on the mitigation measures. 4. Review contractor's mitigation measures whenever necessary to ensure their effectiveness and advise the ER accordingly 5. Assess the effectiveness of the implemented mitigation measures.

Event	EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE			
	ACTION			
	ET Leader	Contractor	ER	IEC
Limit level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Notify Contractor in writing within 24 hours of identification of the exceedance 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Carry out investigation 6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works 7. Discuss mitigation measures with IEC, ER and Contractor within 4 working of identification of an exceedance 8. Ensure mitigation measures are implemented; 9. Increase the monitoring frequency to daily until no exceedance of Limit Level.	1. Notify IEC and ER in writing; within 24 hours of the identification of the exceedance 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance 6. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days of the identification of an exceedance 7. Implement the agreed mitigation measures within reasonable time scale	1. Notify EPD and other relevant governmental agencies in writing within 24 hours of identification of exceedance 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Request Contractor to critically review the working methods; 4. Ensure remedial measures are properly implemented 5. Assess the effectiveness of the implemented mitigation measures.	1. Check monitoring data submitted by ET 2. Confirm ET assessment if exceedance is due / not due to the works 3. Discuss with ET, ER and Contractor on the mitigation measures. 4. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly. 5. Assess the effectiveness of the implemented mitigation measures

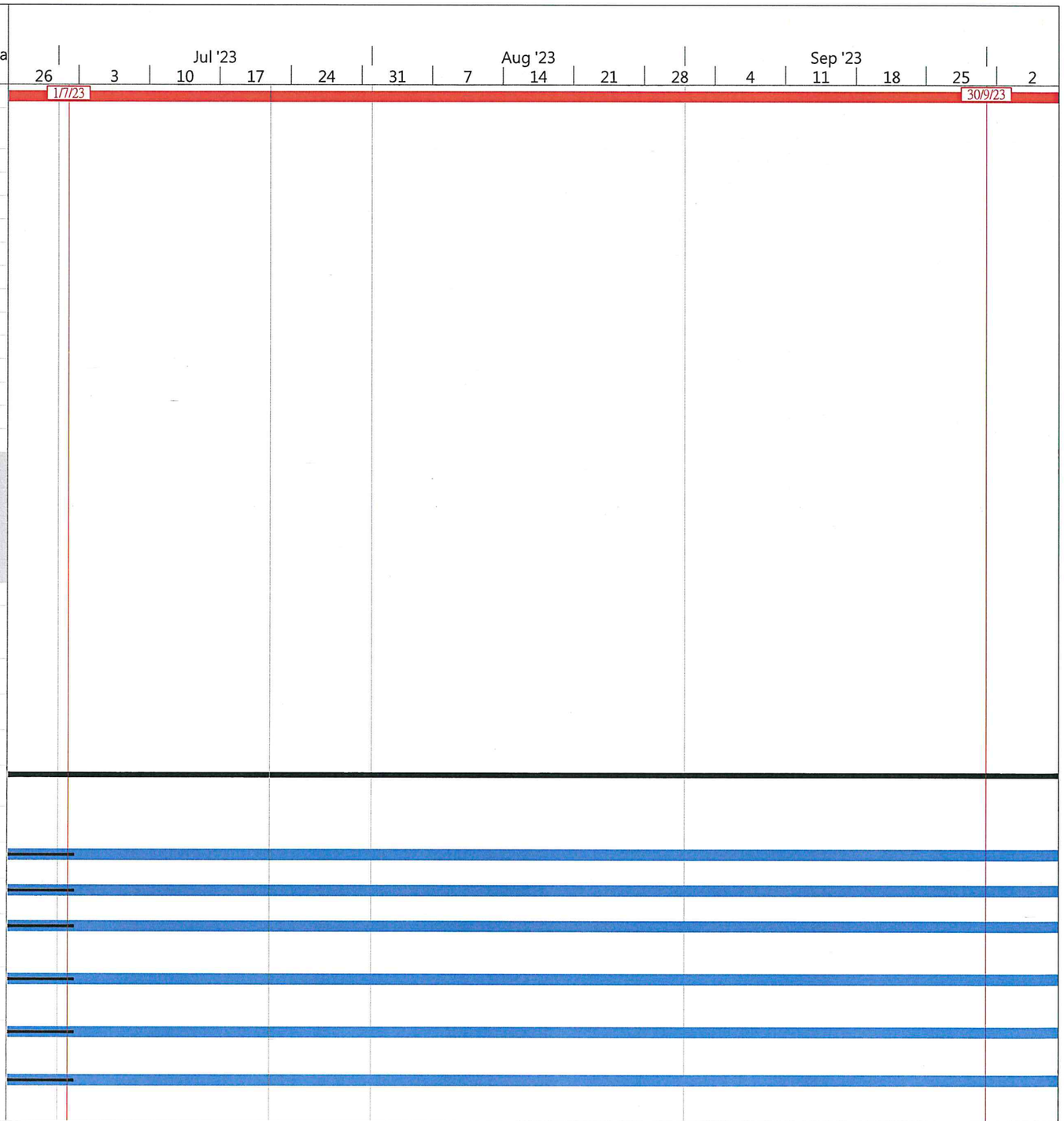
Event	EVENT AND ACTION PLAN FOR WATER QUALITY EXCEEDANCE			
	ACTION			
	ET Leader	Contractor	ER	IEC
Limit Level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Notify Contractor in writing within 24 hours of identification of the exceedance 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Carry out investigation 6. Report the results of investigation to the Contractor within 3 working days of identification of exceedance and advise contractor if exceedance is due to contractor's construction works 7. Discuss mitigation measures with IEC, ER and Contractor; 8. Ensure mitigation measures are implemented; 9. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.	1. Notify ER and IEC in writing within 24 hours of the identification of the exceedance and 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 8. Submit the results of the investigation to IEC and ER within 3 working days of the identification of an exceedance 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 4 working days; 6. Implement the agreed mitigation measures within reasonable time scale 7. As directed by the Engineer, to slow down or to stop all or part of the marine work or construction actives.	1. Notify EPD and other relevant governmental agencies in writing within 24 hours of identification of exceedance 2. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 3. Request Contractor to critically review the working methods; 6. Ensure remedial measures are properly implemented 4. Assess the effectiveness of the implemented mitigation measures; 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit Level.	1. Check monitoring data submitted by ET 2. Confirm ET assessment if exceedance is due / not due to the works 3. Discuss with ER, ET and Contractor on the mitigation measures. 4. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly. 5. Assess the effectiveness of the implemented mitigation measures.


Complaints from EPD, public or other parties
Log into Complaints Database
Inform IC(E)
Conduct complaint investigation
Valid complaint?
No
Yes
Mitigation require?
No
Yes
Consult with IC(E)
Advise Contractor on appropriate mitigation measures & review effectiveness of mitigation measures
Complaint transferred from EPD?
Yes
Submit Interim Report to EPD
No
Conduct additional monitoring & audit
Report to complainant on investigation results and subsequent actions
Complainant satisfied?
No
Yes
Complaint close
Reply to complainant or source of complaint and report the complaint incident in EM&A report

Appendix G

Work Programme

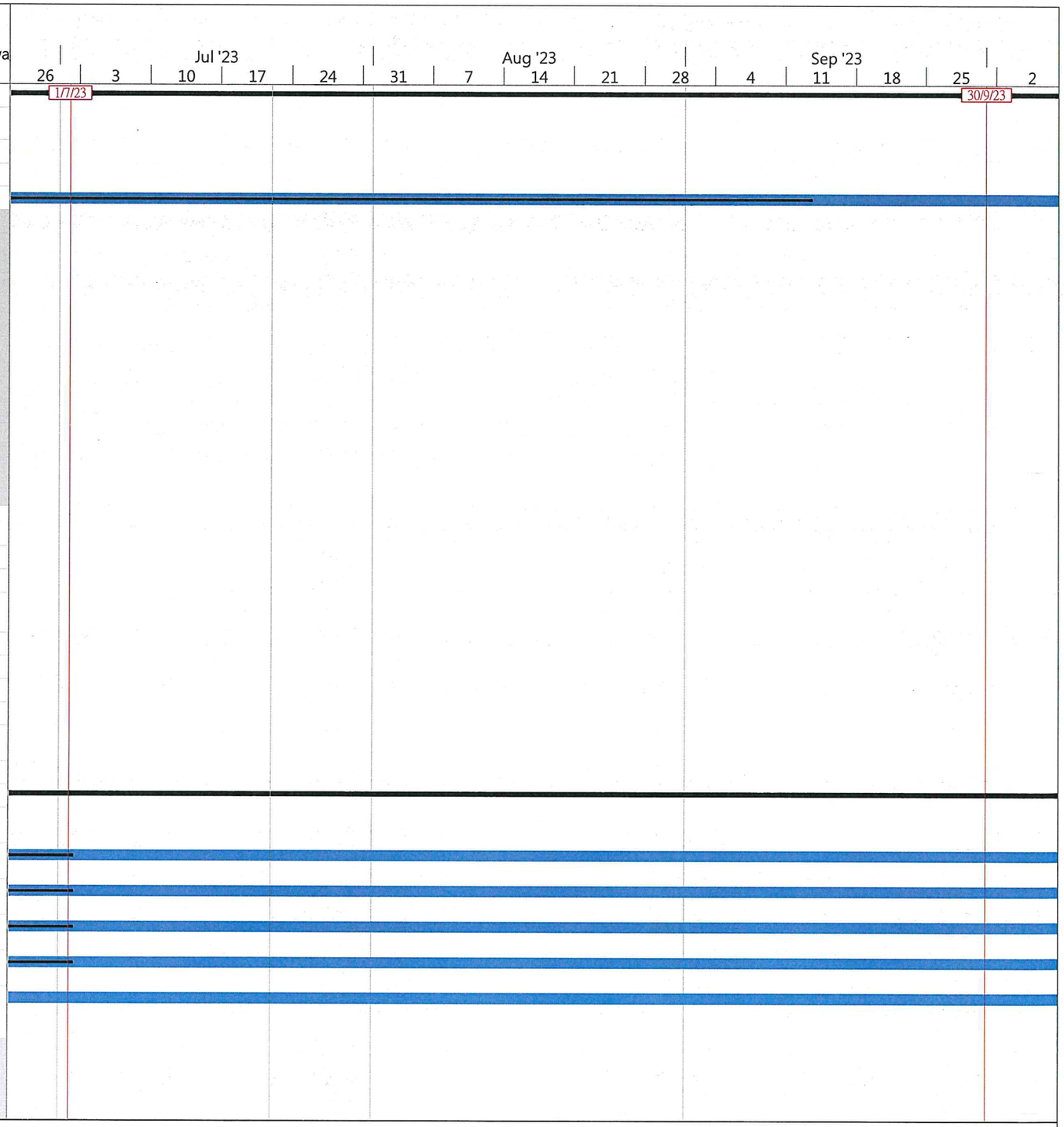
ID	Task Name	Baseline Start	Baseline Finish	Duration	Predece	time risk allowa
1	**Contract duration of Contract CV/2021/9**	**Sat 1/1/22**	**Sun 31/12/23**	**730 days**		
2	**Contract date , Date of the Letter of Acceptance (assumed)**	**Mon 20/12/21**	**Mon 20/12/21**	**0 days**		
3	**Starting Date of the Works**	Sat 1/1/22	Sat 1/1/22	**0 days**		
4	Starting Date of Section 1 of the Works	Sat 1/1/22	Sat 1/1/22	0 days		
5	Starting Date of Section 2 of the Works	Sat 1/1/22	Sat 1/1/22	0 days		
6	Starting Date of Section 3 of the Works	Sat 1/1/22	Sat 1/1/22	0 days		
7	**Date for Completion of the Works**	**Sun 31/12/23**	**Sun 31/12/23**	**0 days**		
8	Completion Date of Section 1 of the Works	Sun 31/12/23	Sun 31/12/23	0 days		
9	Completion Date of Section 2 of the Works	Sun 31/12/23	Sun 31/12/23	0 days		
10	Completion Date of Section 3 of the Works	Sun 31/12/23	Sun 31/12/23	0 days		
11	**Planned completion dates**	**Sun 31/12/23**	**Sun 31/12/23**	**0 days**		
12	Planned competion date of Section 1	Sun 31/12/23	Sun 31/12/23	0 days		
13	Planned competion date of Section 2	Sun 31/12/23	Sun 31/12/23	0 days		
14	Planned competion date of Section 3	Sun 31/12/23	Sun 31/12/23	0 days		
15	**Access Date of the Site**	**Sat 1/1/22**	**Sat 1/1/22**	**0 days**		
16	Portion A2, A3a, A3b, A3c, A4, A5a, A5b, A7c2, A10 and A11 (within 60 days after starting date)	Sat 1/1/22	Sat 1/1/22	0 days		
17	Portion B1, B3, B6a, B6b and B7 (within 60 days after starting date)	Sat 1/1/22	Sat 1/1/22	0 days		
18	Portion A1. A7a, A7b, A7c1, A9, A9a and B6c (7 day's advance notice after starting date)	Sat 1/1/22	Sat 1/1/22	0 days		
19	Portion B6c (7 day's advance notice after starting date)	Sat 1/1/22	Sat 1/1/22	0 days		
20	**Hand back of the Site**	**Sun 31/12/23**	**Sun 31/12/23**	**0 days**		
21	Portion A2, A3a, A3b, A3c, A4, A5a, A7c2, A10 and A11 (or at an earlier date notified by the Project Manager with 30 days' advance notice)	Sun 31/12/23	Sun 31/12/23	0 days		
22	Portion A1, A7b, A7c1, A9 and A9a (or at an earlier date as notified by the Project Manager with 30 days' advance notice)	Sun 31/12/23	Sun 31/12/23	0 days		
23	Portion B1, B3, B6a, B6b and B7 (or at an earlier date as notified by the Project Manager with 30 days' advance notice)	Sun 31/12/23	Sun 31/12/23	0 days		
24	Portion B6c (or at an earlier date as notified by the Project Manager with 30 days' advance notice)	Sun 31/12/23	Sun 31/12/23	0 days		
25	**Section 1 of the Works - Tseung Kwan O Area 137 Fill Bank**	**Sat 1/1/22**	**Sun 31/12/23**	**730 days**	**4SS**	
26	Taking over the existing facilities at the Tseung Kwan O Area 137 Fill Bank within Portion A of the Site	Sat 1/1/22	Sat 1/1/22	1 day	4SS	0
27	Operation of the the Tseung Kwan O Area 137 Fill Bank within Portion A of the Site	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0
28	Operation and maintenance of the surveillance system within Portion A of the Site	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0
29	Operation and maintenance of the existing tipping halls at the Tseung Kwan O Area 137 Fill Bank within Portion A of the Site	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0
30	Provision, operation and maintenance of the Crushing Plant at the Tseung Kwan O Area 137 Fill Bank within Portion A of the Site	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0
31	Operation and maintenance of the dewatering plant at the Tseung Kwan O Area 137 Fill Bank within portion A of the SIte.	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0
32	Collection and delivery of Public Fill by barges from the Chai Wan and Mui Wo Barging Points to the TKO Area 137 Fill Bank within Portion A of the Site	Sat 1/1/22	Sun 31/12/23	730 days	26SS	0



Project: 3 month rolling Programme July23- Sept23 CV/2021/09
Date: [22/07/2023]

Task	External Tasks	Duration-only	External Tasks		
Split	External Milestone	Manual Summary Rollup	External Milestone		
Milestone	Inactive Milestone	Manual Summary	Progress		
Summary	Inactive Summary	Start-only	Deadline		
Project Summary	Manual Task	Finish-only			

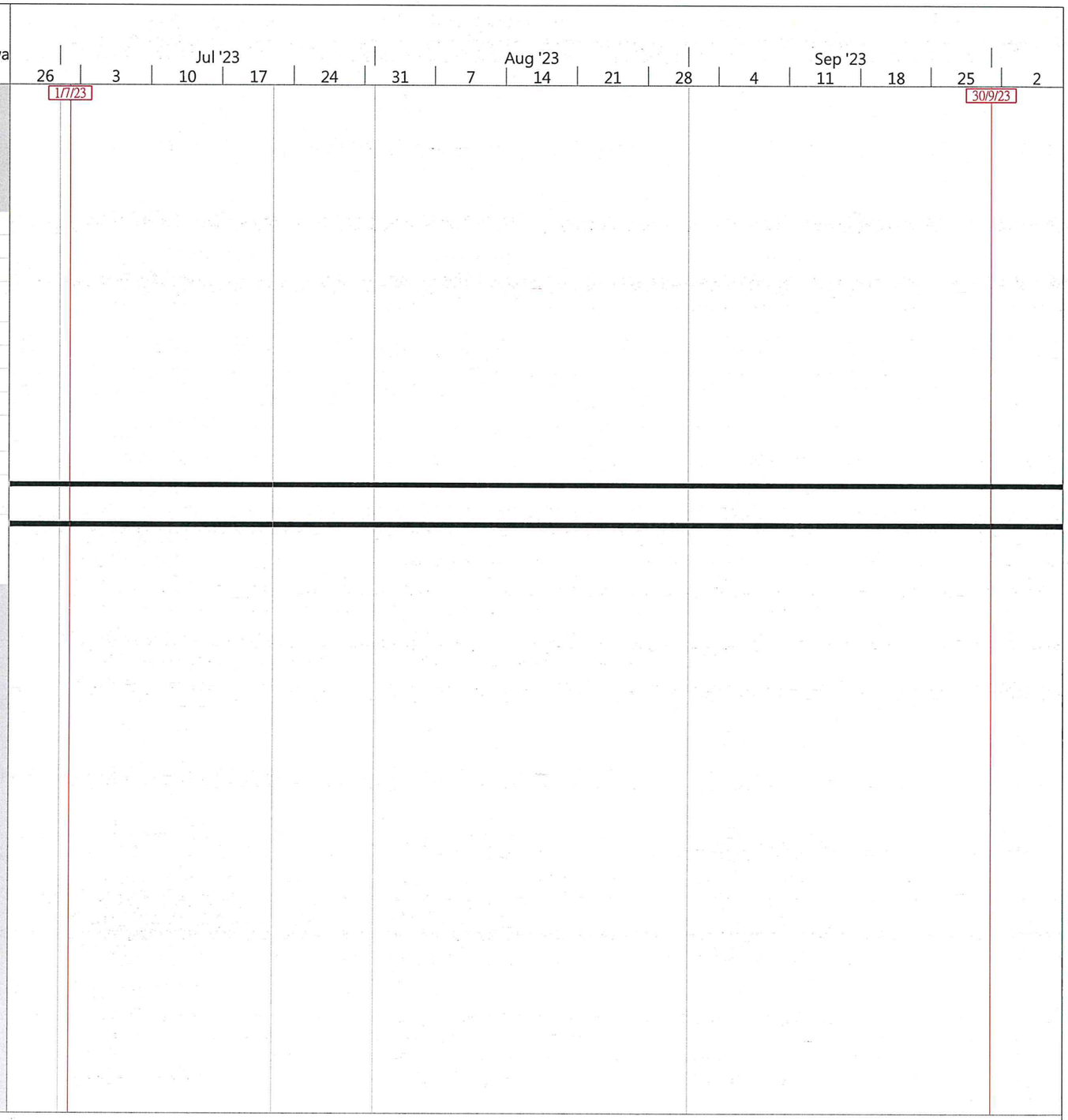
ID	Task Name	Baseline Start	Baseline Finish	Duration	Predece	time risk allowa
33	**Construction of Gabion wall**	**NA**	**NA**	**681 days**		
34	Preparing and submitting a method statement for approval	Sat 19/2/22	Fri 4/3/22	12 days		2
35	Preparing and submitting the material submission	Sat 5/3/22	Fri 18/3/22	12 days		2
36	Obtaining approval from the Project Manager	Sat 19/3/22	Fri 1/4/22	1 day	35,34	2
37	Construction of Gabion wall	Sat 2/4/22	Sun 31/12/23	546 days		7
38	**Re-surfacing of the access road at A11 TKOFB**	**Mon 21/3/22**	**Fri 22/4/22**	**33 days**		
39	Submission of method statement of re-surfacing the access road	Mon 21/3/22	Fri 25/3/22	5 days		0
40	Obtaining approval from the Project Manager	Thu 7/4/22	Thu 7/4/22	1 day	39	2
41	Milling off the existing pavement, overlaying new pavement on the access road	Fri 15/4/22	Fri 22/4/22	8 days	40	1
42	**PMI no.3 Trial Production of blanket layer material recycled from public fill**	**Tue 28/6/22**	**Wed 24/8/22**	**156 days**		
43	Submission of method statement	Tue 28/6/22	Fri 29/7/22	32 days		1
44	Obtaining approval from the Project Manager	Sat 30/7/22	Sat 20/8/22	1 day		2
45	Manufacturing and delivery of screening machine	Fri 22/7/22	Thu 11/8/22	21 days		2
46	Trial Production of blanket layer material	Mon 22/8/22	Wed 24/8/22	45 days		1
47	**PMI no.24 Implementation of C easy system at TKOFB**	**Mon 22/8/22**	**Tue 27/12/22**	**94 days**		
48	Submission of method statement for approval	Mon 22/8/22	Sun 28/8/22	1 day		
49	Obtaining approval from the Project Manager	Mon 29/8/22	Sun 18/9/22	1 day	48	2
50	Ordering and delivery of C easy system hardware to site	Mon 19/9/22	Wed 2/11/22	8 days	49	3
51	Installation of the C Easy system	Thu 3/11/22	Wed 16/11/22	19 days	50	2
52	Trail run of the system	Thu 17/11/22	Wed 30/11/22	9 days	51	2
53	Parallel run with the old system	Thu 1/12/22	Mon 26/12/22	0 days	52	2
54	Operation with C easy system individually	Tue 27/12/22	Tue 27/12/22	1 day	53	0
55	Handing over the facilities at the Tseung Kwan O Area 137 Fill Bank within Portion A of the Site to the Employer	Sun 31/12/23	Sun 31/12/23	0 days	8SS	0
56	Planned Completion Date (Section 1)	Sun 31/12/23	Sun 31/12/23	0 days		
57	**Section 2 of the Works - Tuen Mun Area 38 Fill Bank**	**Sat 1/1/22**	**Sun 31/12/23**	**730 days**		
58	Taking over the existing facilities at the Tuen Mun Area 38 Fill Bank within Portion B of the Site	Sat 1/1/22	Sat 1/1/22	1 day	5SS	0
59	Operation of the Tuen Mun Area 38 Fill Bank within Portion B of the Site	Sat 1/1/22	Sun 31/12/23	730 days	5SS	0
60	Operation and maintenance of the surveillance system within Portion B of the Site	Sat 1/1/22	Sun 31/12/23	730 days	5SS	0
61	Operation and maintenance of the existing tipping halls at the Tuen Mun Area 38 Fill Bank within Portion B of the Site	Sat 1/1/22	Sun 31/12/23	730 days	5SS	0
62	Operation and Maintenance of the Crushing Plant at the Tuen Mun Area 38 Fill Bank within Portion B of the Site	Sat 1/1/22	Sun 31/12/23	730 days	5SS	0
63	Operation and maintemnance of glass cullet storage compartment at the Tuen Mun Area 38 Fill Bank within Portion B of the Site	Sat 1/1/22	Sun 31/12/23	730 days	5SS	0
64	**PMI no.05 Construction of vehicle washing house facilities**	**Wed 6/4/22**	**Fri 2/9/22**	**180 days**		
65	Submission of method statement of vehicle washing house facilities	Wed 6/4/22	Wed 6/4/22	1 day		1



Project: 3 month rolling Programme July23- Sept23 CV/2021/09
Date: [22/07/2023]

Task	External Tasks	Duration-only	External Tasks
Split	External Milestone	Manual Summary Rollup	External Milestone
Milestone	Inactive Milestone	Manual Summary	Progress
Summary	Inactive Summary	Start-only	Deadline
Project Summary	Manual Task	Finish-only	

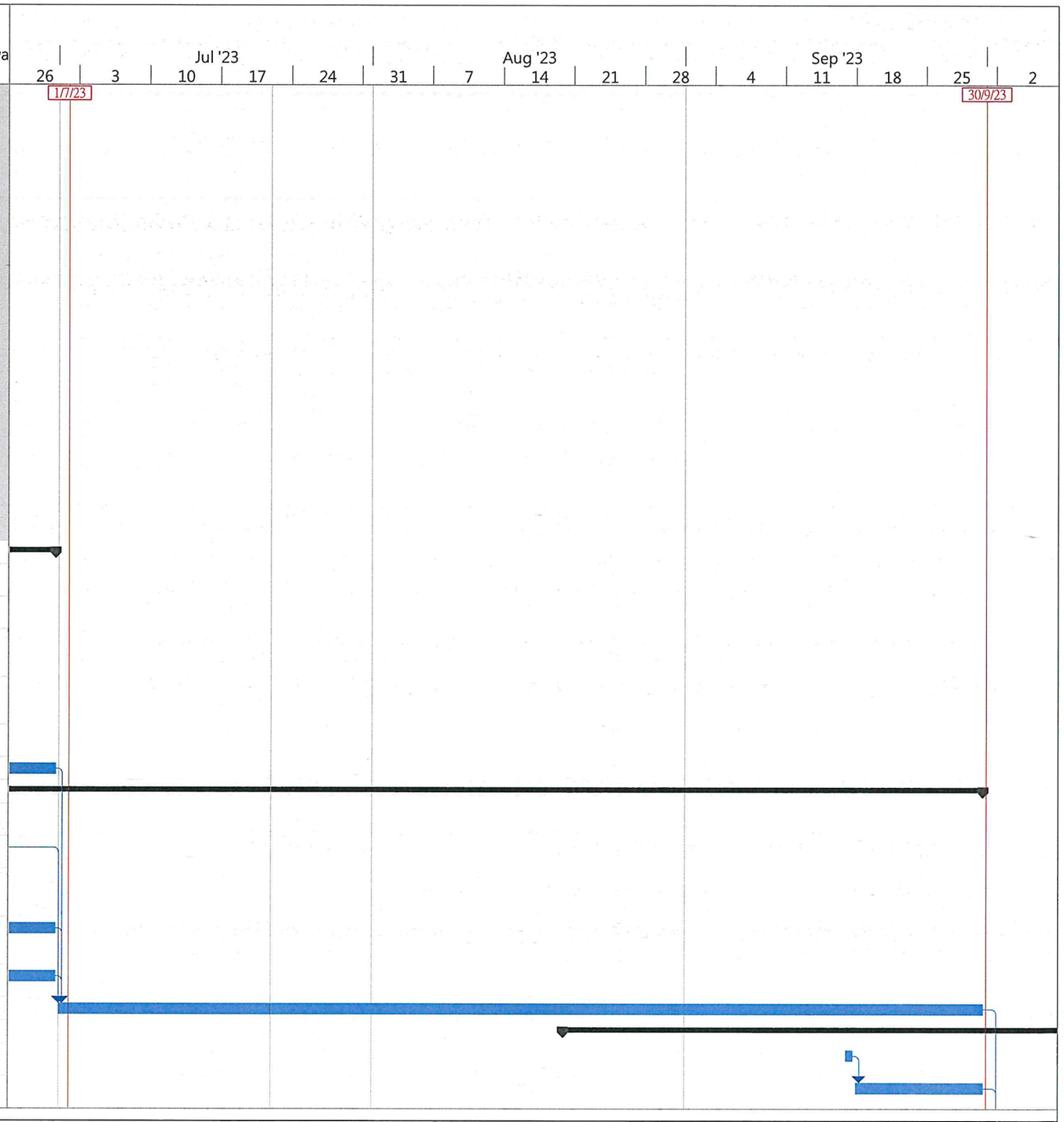
ID	Task Name	Baseline Start	Baseline Finish	Duration	Predece	time risk allowa
66	Obtaning approval from the Project Manager	Mon 25/4/22	Mon 25/4/22	1 day	65	2
67	Fabrication and delivery of the vehicle washing house facilities materials on site	Fri 10/6/22	Mon 8/8/22	70 days		5
68	Installation of the vehicle washing house facilities	Tue 9/8/22	Thu 1/9/22	17 days	67	2
69	Trial run of vehicle washing house facilities	Fri 2/9/22	Fri 2/9/22	1 day	68	0
70	**PMI no.20 Implementation of C easy system at TMFB**	**Mon 22/8/22**	**Tue 27/12/22**	**118 days**		
71	Submission of method statement for approval	Mon 22/8/22	Sun 28/8/22	1 day		1
72	Obtaining approval from the Project Manager	Mon 29/8/22	Sun 18/9/22	1 day	71	2
73	Ordering and delivery of C easy system hardware to site	Mon 19/9/22	Wed 2/11/22	5 days	72	3
74	Installation of the C Easy system	Thu 3/11/22	Wed 16/11/22	18 days	73	2
75	Trail run of the system	Thu 17/11/22	Wed 30/11/22	0 days	74	2
76	Parallel run with the old system	Thu 1/12/22	Mon 26/12/22	26 days	75	2
77	Operation with C easy system individually	Tue 27/12/22	Tue 27/12/22	1 day	76	0
78	Handing over the facilities at the Tuen Mun Area 38 Fill Bank within Portion B of the Site to the Employer	Sun 31/12/23	Sun 31/12/23	1 day	9SS	0
79	Planned Completion Date (Section 2)	Sun 31/12/23	Sun 31/12/23	0 days		
80	**Section 3 of the Works - Designated Reclamation Sites in the Mainland**	**Mon 20/12/21**	**Sun 31/12/23**	**755 days**		
81	**Collection and delivery of 2 million tonnes of Public Fill by vessels from Tseung Kwan O Area 137 Fill Bank and the Tuen Mun Area 38 Fill Bank to the Desiognated Reclamation Sites in the Mainland**	**Mon 20/12/21**	**Sun 31/12/23**	**744 days**		
82	**1st and 2nd quarter of first year**	**Mon 20/12/21**	**Thu 31/3/22**	**190 days**		
83	Installing Front End Mobile Unit (FEMU) onto the proposed vessels	Mon 20/12/21	Sun 26/12/21	1 day		2
84	Submitting application documents to EPD for application of dumping permits	Mon 20/12/21	Mon 20/12/21	1 day		0
85	Obtaining the dumping permit from EPD	Tue 21/12/21	Fri 31/12/21	1 day	84	2
86	Submitting Application documents to the Employer for the application of the dumping permit of waste at the sea	Mon 20/12/21	Mon 20/12/21	1 day		
87	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer	Tue 21/12/21	Fri 31/12/21	1 day		14
88	Obtaining all necessary permits, licenses,approvals and concents	Mon 20/12/21	Fri 31/12/21	1 day		14
89	Collection and delivery of 166666 tonnes of Public Fil	Sat 1/1/22	Thu 31/3/22	21 days		10
90	**3rd quarter of first year**	**Fri 20/5/22**	**Fri 30/9/22**	**168 days**		
91	Submitting application documents to EPD for application of dumping permits	Fri 17/6/22	Fri 17/6/22	1 day		0
92	Obtaining the dumping permit from EPD	Sat 18/6/22	Thu 30/6/22	1 day	91	14
93	Submitting Application documents to the Employer for the application of the dumping permit of waste at the sea	Fri 20/5/22	Fri 20/5/22	1 day		0
94	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer	Sat 21/5/22	Thu 30/6/22	1 day	93	14
95	Obtaining all necessary permits, licenses,approvals and concents	Fri 17/6/22	Thu 30/6/22	1 day		0
96	Collection and delivery of 499998 tonnes of Public Fil	Fri 1/7/22	Fri 30/9/22	1 day	95,92,94	14
97	**4th quarter of first year**	**Sat 20/8/22**	**Sat 31/12/22**	**71 days**		



Project: 3 month rolling Programme July23- Sept23 CV/2021/09
Date: [22/07/2023]

Task	External Tasks	Duration-only	External Tasks
Split	External Milestone	Manual Summary Rollup	External Milestone
Milestone	Inactive Milestone	Manual Summary	Progress
Summary	Inactive Summary	Start-only	Deadline
Project Summary	Manual Task	Finish-only	

ID	Task Name	Baseline Start	Baseline Finish	Duration	Predece	time risk allowa
98	Submitting application documents to EPD for application of dumping permits	Sat 17/9/22	Sat 17/9/22	14 days		0
99	Obtaining the dumping permit from EPD (assumed on 30/9/22)	Sun 18/9/22	Fri 30/9/22	5 days	98	2
100	Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	Sat 20/8/22	Sat 20/8/22	1 day		0
101	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer (assumed on	Sun 21/8/22	Fri 30/9/22	1 day	100	14
102	Obtaining all necessary permits, licenses,approvals and concents	Sat 17/9/22	Fri 30/9/22	1 day		2
103	Collection and delivery of 333332 tonnes of Public Fil	Sat 1/10/22	Sat 31/12/22	15 days	96,102,1	14
104	**1st quarter of second year**	**Sun 20/11/22**	**Fri 31/3/23**	**76 days**		
105	Submitting application documents to EPD for application of dumping permits	Sun 18/12/22	Sun 18/12/22	1 day		0
106	Obtaining the dumping permit from EPD (assumed on 31/12/22)	Mon 19/12/22	Sat 31/12/22	1 day	105	2
107	Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	Sun 20/11/22	Sun 20/11/22	1 day		0
108	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer	Mon 21/11/22	Sat 31/12/22	1 day	107	14
109	Obtaining all necessary permits, licenses,approvals and concents	Sun 18/12/22	Sat 31/12/22	1 day		2
110	Collection and delivery of 250000 tonnes of Public F	Sun 1/1/23	Fri 31/3/23	14 days	103,109,	14
111	**2nd quarter of second year**	**Sat 18/2/23**	**Fri 30/6/23**	**133 days**		
112	Submitting application documents to EPD for application of dumping permits	Sat 18/3/23	Sat 18/3/23	1 day		0
113	Obtaining the dumping permit from EPD (assumed on 31/3/23)	Sun 19/3/23	Fri 31/3/23	13 days	112	2
114	Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	Sat 18/2/23	Sat 18/2/23	1 day		0
115	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer (assumed on	Sun 19/2/23	Fri 31/3/23	41 days	114	14
116	Obtaining all necessary permits, licenses,approvals and concents	Sat 18/3/23	Fri 31/3/23	14 days		2
117	Collection and delivery of 250000 tonnes of Public F	Sat 1/4/23	Fri 30/6/23	91 days	110,113,	14
118	**3rd quarter of second year**	**Sat 20/5/23**	**Sat 30/9/23**	**134 days**		
119	Submitting application documents to EPD for application of dumping permits	Sat 17/6/23	Sat 17/6/23	1 day		0
120	Obtaining the dumping permit from EPD (assumed on 30/6/23)	Sun 18/6/23	Fri 30/6/23	13 days	119	14
121	Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	Sat 20/5/23	Sat 20/5/23	1 day		0
122	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer (assumed on	Sun 21/5/23	Fri 30/6/23	41 days	121	14
123	Obtaining all necessary permits, licenses,approvals and concents	Sat 17/6/23	Fri 30/6/23	14 days		2
124	Collection and delivery of 250000 tonnes of Public F	Sat 1/7/23	Sat 30/9/23	92 days	117,123,	14
125	**4th quarter of second year**	**Sun 20/8/23**	**Sun 31/12/23**	**123 days**		
126	Submitting application documents to EPD for application of dumping permits	Sun 17/9/23	Sun 17/9/23	1 day		0
127	Obtaining the dumping permit from EPD (assumed on 30/9/23)	Mon 18/9/23	Sat 30/9/23	13 days	126	2



Project: 3 month rolling Programme July23- Sept23 CV/2021/09
Date: [22/07/2023]

Task	External Tasks	Duration-only	External Tasks
Split	External Milestone	Manual Summary Rollup	External Milestone
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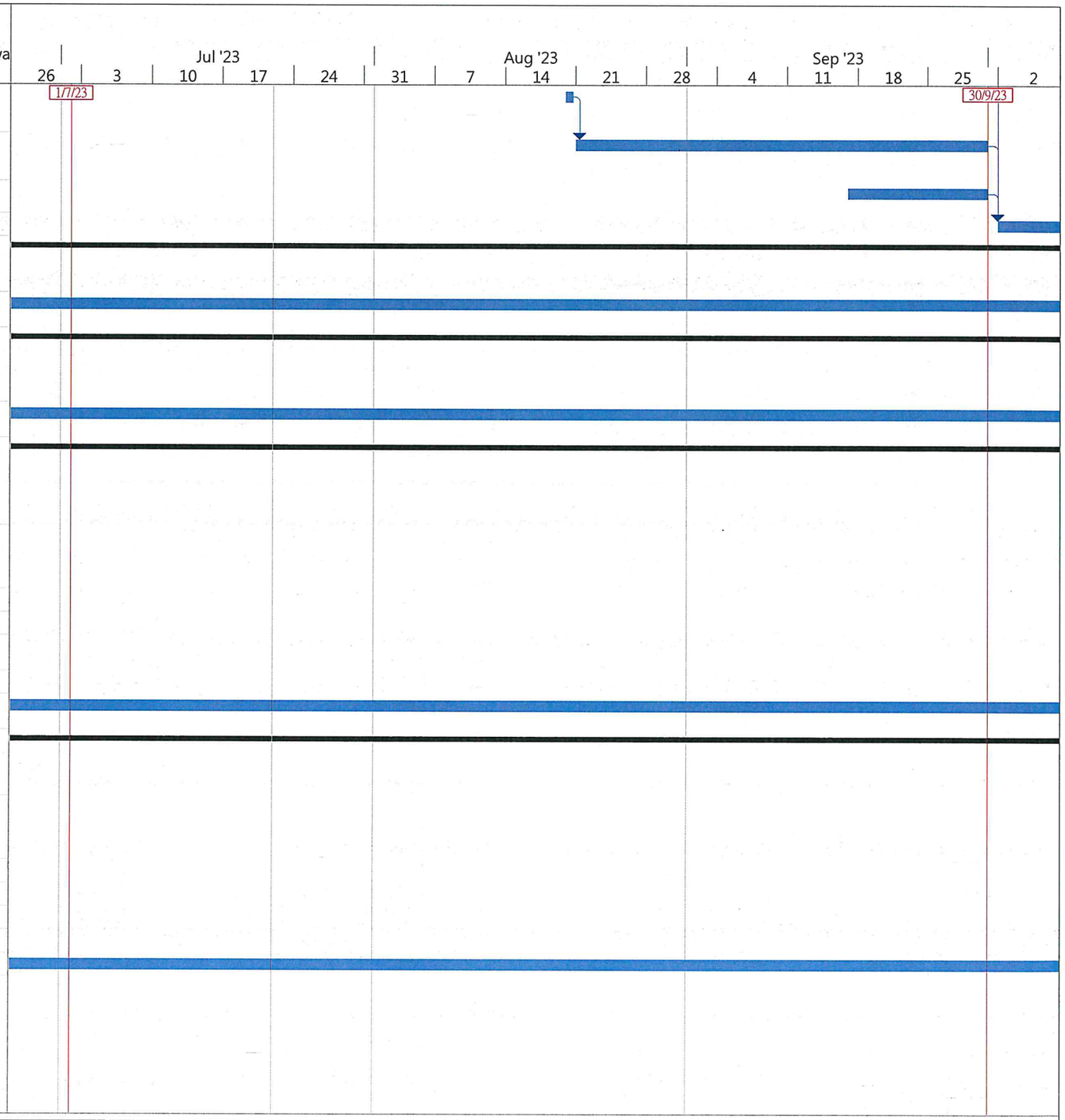
Summary	Inactive Summary	Start-only	Deadline
Project Summary	Manual Task	Finish-only	

ID	Task Name	Baseline Start	Baseline Finish	Duration	Predece	time risk allowa
128	Submiting Application documents to the Employer for the application of the dumping permit of waste at the sea	Sun 20/8/23	Sun 20/8/23	1 day		0
129	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer(assumed on 30/9/23)	Mon 21/8/23	Sat 30/9/23	41 days	128	14
130	Obtaining all necessary permits, licenses,approvals and concents	Sun 17/9/23	Sat 30/9/23	14 days		0
131	Collection and delivery of 250000 tonnes of Public F	Sun 1/10/23	Sun 31/12/23	80 days	124,130,	14
132	**Removal, excavation and deposition of stockpiled and/or deposited Public Fill within the Designated Reclamation Sites in the Mainland**	**Sat 1/1/22**	**Sun 31/12/23**	**730 days**	**6SS**	
133	Removal, excavation and deposition of stockpiled and/or deposited public fill	Sat 1/1/22	Sun 31/12/23	730 days		14
134	**Operation and maintenance of the existing navigation channel and turning basins in association with the existing berthing facilituy at Zone E of the Desiganted Reclamation Sites in the Mainland**	**Sat 1/1/22**	**Sun 31/12/23**	**730 days**	**6SS**	
135	Operation and maintenance of the existing navigation channel and turning basins	Sat 1/1/22	Sun 31/12/23	730 days		14
136	**Design, construction, operation and maintenance of the new navigation channel and turning basins in association with the new berthing facility at Zone B of the Designated Reclamation Sites in the Mainland (subject to Project's Manager's instruction)**	**Sat 12/12/09**	**Sat 12/12/09**	**564 days**		
137	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer for Zone A & B (assumed on 31/12/21)	Fri 31/12/21	Mon 31/1/22	1 day		0
138	Preparation of design submission	Sat 1/1/22	Sun 30/1/22	30 days	137	7
139	Obtaining all necessary design approvals and concents	Mon 31/1/22	Tue 1/3/22	30 days	138	7
140	Construction of the new navigation channel and turning basins	Wed 2/3/22	Fri 29/7/22	150 days	139	14
141	Obtaining the construction completion certificate	Sat 30/7/22	Sun 28/8/22	30 days	140	7
142	Operation and maintenance of navigation channel and turning basins	Mon 29/8/22	Sun 31/12/23	321 days	141	14
143	**Design, construction, operation and maintenance of new berthing facilities at Zone B of the Designated Reclamation Sites in the Mainland (subject to Project's Manager's instruction)**	**Fri 31/12/21**	**Sun 31/12/23**	**564 days**		
144	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer for Zone A & B (assumed on 31/12/21)	Fri 31/12/21	Fri 31/12/21	1 day		
145	Preparation of design submission	Sat 1/1/22	Sun 30/1/22	30 days	144	7
146	Obtaining all necessary design approvals and concents	Mon 31/1/22	Tue 1/3/22	30 days	145	7
147	Construction of the berthing facilities	Wed 2/3/22	Sun 28/8/22	180 days	146	14
148	Obtaining the construction completion certificate	Mon 29/8/22	Tue 27/9/22	30 days	147	7
149	Operation and maintenance of new berthing facilities	Wed 28/9/22	Sun 31/12/23	293 days	148	14
150	**Design and construction of seawalls (approximate 200m) in association with new berthing facility at Zone B of the Designated Reclamation Sites in the Mainland**	**Fri 10/6/22**	**Sat 4/2/23**	**181 days**		
151	Obtaining the dumping permits from Ministry of Ecology and environment of the People's Republic of China through the Employer for Zone A & B	Sat 1/1/22	Sat 1/1/22	1 day		0
152	Preparation of design submission (PMI no18)	Sun 2/1/22	Mon 31/1/22	30 days	151	7



Project: 3 month rolling Programme July23- Sept23 CV/2021/09
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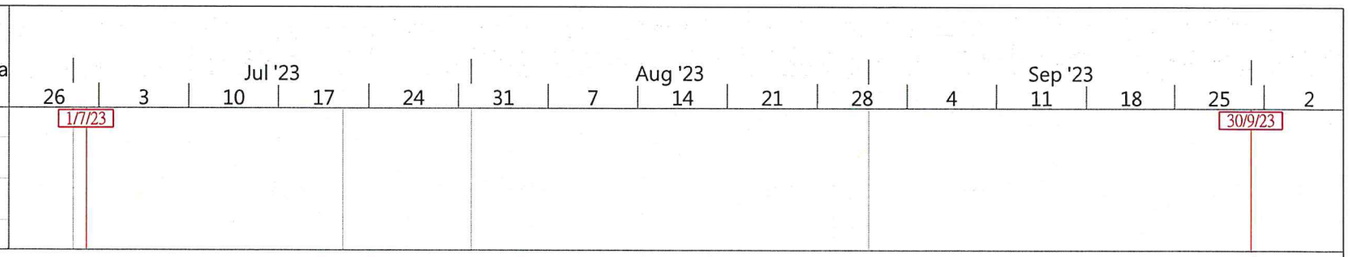
Project Summary	Manual Task	Finish-only	

ID	Task Name	Baseline Start	Baseline Finish	Duration	Predece	time risk allowa
153	Obtaining all necessary design approvals and concents	Tue 1/2/22	Wed 2/3/22	30 days	152	7
154	Construction of seawalls (subject to Project's Manager's instruction)	Thu 3/3/22	Tue 31/5/22	90 days	153	14
155	Obtaining the construction completion certificate (subject to Project's Manager's instruction)	Wed 1/6/22	Thu 30/6/22	30 days	154	7
156	Planned Completion Date (Section 3)	Sun 31/12/23	Sun 31/12/23	0 days		



Project: 3 month rolling Programme July23- Sept23 CV/2021/09
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Task	External Tasks	Duration-only	External Tasks		
Split	External Milestone	Manual Summary Rollup	External Milestone		
Milestone	Inactive Milestone	Manual Summary	Progress		
Summary	Inactive Summary	Start-only	Deadline		
Project Summary	Manual Task	Finish-only			

Appendix H

Implementation Schedule of Environmental Mitigation Measures (EMIS)

Environmental Mitigation Implementation Schedule

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Air Quality					
▪ Dust control / mitigation measures shall be provided to prevent dust nuisance.	All areas		√		
▪ Water sprays shall be provided and used to dampen materials.	All areas	√			
▪ All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	All areas	√			
▪ Any vehicle with open load carrying area used for moving materials which has the potential to create dust shall have properly fitting side and tail boards. Material having the potential to create dust shall not be loaded to a level higher than the side and tail boards, and shall be covered by a clean tarpaulin.	All areas	√			
▪ Unpaved areas should be watered regularly to avoid dust generation.	Site Egress	√			
▪ The designated site main haul road shall be paved or regular watering.	All haul roads	√			
▪ The public road around the site entrance should be kept clean and free from dust.	All areas	√			
▪ Wheel washing facilities including high-pressure water jet shall be provided at the entrance of work site and and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.	Site Egress	√			
▪ Every vehicle shall be washed to remove any dusty materials from its body and wheels before leaving the fill bank.	Site Egress	√			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	All areas	√			
▪ Vehicle and equipment should be switched off while not in use.	All areas	√			
▪ All plant and equipment should be well maintained e.g. without black smoke emission.	All areas	√			
▪ Open burning should be prohibited.	All areas	√			
▪ Approval or exemption Non-road Mobile Machinery (NRMM) labels should be painted or securely fixed on regulated machines and non-road vehicles at a conspicuous position according to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (APCO Cap.311).	All areas	√			
Noise Impact					
▪ The approved method of working, equipment and sound-reducing measures (e.g. use of silenced type of equipment, etc.) shall be adapted.	All areas	√			
▪ Only well maintained plant should be operated on-site and plant should be serviced regularly during the site works.	All areas	√			
▪ Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	All areas	√			
▪ Air compressors and hand held breakers should have noise labels.	All areas	√			
▪ Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	All areas	√			
▪ Noisy equipment and mobile plant shall always be site away from NSRs.	All areas	√			

Remark: √ = Implemented, ∇ = Partially Implemented X = Not Implemented N/A = Not Applicable

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
Water Quality					
▪ The existing / realigned intercepting channels and the sand / silt removal facilities shall be used and maintained.	All areas	√			
▪ Temporary intercepting drains should be used at the stockpiling area to divert polluted stormwater to the intercepting channels. Earth bunds and sand bay barriers shall be used to assist the diversion of polluted stormwater to the intercepting channels.	All areas	√			
▪ The stormwater intercepting system shall be effective to collect of runoff and remove suspended solids before discharge.	All areas	√			
▪ The material shall be properly covered to prevent washed away especially before rainstorm.	All areas	√			
▪ Unnecessary water retained in receptacles and standing water should be avoided to prevent mosquito breeding.	All areas	√			
▪ The temporary slope surfaces shall be covered with impermeable sheet or sprayed with water.	Temporary Slopes	√			
▪ Existing and newly constructed Catchpits, sand and silt removal facilities and intercepting channels shall be maintained, and the deposited silt and grit shall be removed weekly and on a need basis especially at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	All areas	√			
▪ A wheel washing bay shall be provided at the site exit and wash-water shall have sand and silt settled out or removed before being discharged into storm drains.	Wheel Washing facility	√			
▪ The section of construction road between wheel washing bay and the public road shall be paved with concrete, bituminous materials or hardcores to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains.	Site Egress	√			
▪ Sewage from toilets shall be discharged in to a foul sewer, or chemical toilets shall be provided.	Site Office	√			
▪ The chemical toilets (if use) shall be provided by a licensed contractor, who will be responsible for disposal and maintenance of these facilities.	All areas	√			
▪ Tipping halls enclosed with top and 3-side to prevent spillage of material into marine water.	All areas	√			
▪ Adequate environmental control measures shall be provided to prevent / avoid dropping of fill material into the sea during the transfer.	Along the seafront	√			
▪ A waste collection vessel shall be deployed to remove floating debris.	Along the seafront	√			
Landscape and Visual					
• The maximum stockpiling height at the fill bank shall be limited to a maximum of +40mPD.	All areas	√			
• Surface of outer slopes of the Fill Bank shall preferably be hydroseeded.	Completed slopes	√			
• Stockpile of public fill shall be removed in a sequence to allow the outer hydrseeded to be removed later than other portions as far as practicable.	Completed slopes	√			
• Casuarina equisetifolia were planted as buffer tree along the northern perimeter of the Site. The height of Casuarina equisetifolia was maintained at least 3m above soil level.	Site boundary	√			
• Lighting shall be set to minimise night-time glare.	All areas	√			
Waste Management					
Construction Waste Management					
• Relevant licence / permits for disposal of construction waste or excavated materials available for inspection.	All areas	√			

Remark: √ = Implemented, ∇ = Partially Implemented X = Not Implemented N/A = Not Applicable

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
• Excavated material to be generated from construction works to be re-used on-site as far as practicable to reduce off-site disposal.	All areas	√			
• Mud and debris should be removed from waterworks access roads and associated drainage systems.	All areas	√			
• Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	All areas	√			
• Prior to disposal of C&D waste, recyclable materials should be salvaged for reuse (such as wood and metal) and inert waste utilised as public fill to minimise the quantity of waste to be disposed of to landfill.	All areas	√			
• In order to monitor the disposal of C&D material and solid wastes at public filling areas and landfills, and to control fly-tipping, a trip-ticket system should be included as one of the contractual requirements.	All areas	√			
▪ Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.	All areas	√			
Chemical Waste Management					
• It is required to register as a chemical waste producer if chemical wastes would be produced from the site activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	Waste Storage Area	√			
• After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	Waste Storage Area	√			
• Spent chemicals should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	Waste Storage Area	√			
• Chemical wastes should be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facility.	Waste Storage Area	√			
• Chemical wastes including waste oil should be stored properly in designated areas, e.g. chemical waste storage area.	Waste Storage Area	√			
• The designated chemical waste storage area should only be used for storing chemical wastes.	Waste Storage Area	√			
The set-up of chemical waste storage area should					
• Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition.	Waste Storage Area	√			
• Be enclosed on at least 3 sides and securely closed.	Waste Storage Area	√			
• Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest.	Waste Storage Area	√			
• Have adequate ventilation.	Waste Storage Area	√			
• Be covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary).	Waste Storage Area	√			
• Be arranged so that incompatible materials are adequately separated.	Waste Storage Area	√			
• Warning panels should be displayed at the waste storage area.	Waste Storage Area	√			

Remark: √ = Implemented, ∇ = Partially Implemented X = Not Implemented N/A = Not Applicable

Environmental Protection Measures	Location	Implementation Status			
		Implemented	Partially implemented	Not implemented	Not Applicable
• Waste storage area should be cleaned and maintained regularly.	Waste Storage Area	√			
• Chemical waste should be transported by a registered chemical waste collector to a facility licensed to receive chemical waste.	All areas	√			
• All generators, fuel and oil storage should be within bundle areas.	All areas	√			
• Oil leakage from machinery, vehicle and plant should be prevented.	All areas		√		
• In the event of chemical waste / dangerous goods / chemicals spillage or leakage, the procedures as outlined in the Spillage Response Plan should be followed.	All areas	√			
• The dangerous goods / chemical spillage or leakage procedures (including equipments) should be in place.	All areas	√			
Good Site Practices					
• Nomination of approved personnel, such as site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.	All areas	√			
• Training of site personnel in proper waste management and chemical handling procedures should be provided.	All areas	√			
• Good site practices should be adopted to clean the rubbish and litter on a regular basis so as to prevent the rubbish and litter from dropping into the nearby environment.	All areas	√			
• Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	All areas	√			
• The Environmental Permit should be displaced conspicuously on site.	Site Entrance	√			
• Construction noise permits should be posted at site entrance or available for site inspection.	Site Entrance				√
• Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	All areas	√			
• Chemical storage area provided with lock and located on sealed areas.	Chemical Storage Area	√			
• All chemicals should be placed at the banded area with adequate band capacity (>110% of largest tank).	Chemical Storage Area	√			
• Any unused chemicals or those with remaining functional capacity should be recycled.	All areas	√			
• Regular cleaning and maintenance programme for waste storage area, drainage systems, silt traps, sumps and oil interceptors.	All areas	√			
• To encourage collection of aluminium cans by individual collectors, separate labelled bins should be provided to segregate this waste from other general refuse generated by the workforce.	All areas	√			
• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.	All areas	√			
• A collection area should be provided where waste can be stored and loaded prior to removal from site. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light material. If an open area is unavoidable for the storage or loading/unloading of wastes, then the area should be bunded and all the polluted surface run-off collected within this area should be diverted into wastewater treatment system.	All areas	√			
• Remove wastes in a timely manner.	All areas	√			

Remark: √ = Implemented, ∇ = Partially Implemented X = Not Implemented N/A = Not Applicable

Appendix I

Statistical Analysis of the Trend of Suspended Solids in the Quarter

Statistical Analysis of the Trend of Suspended Solids

For Mid-Flood Tide

Station: TM-FM1

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	5.9733	1.3518	0.3902
Quarterly Mean	39	0	3.4000	1.0685	0.1711

Result:

Difference between means = 2.5733
(95% CI : 1.8182 < Diff < 3.3284)

t-value of difference = 6.0393 (15 degrees of freedom)

Calculated t-value > Critical t-value

Conclusion:

There is statistically significant difference between the groups.
The P-Value of 130% Baseline Mean is larger than quarterly mean = >0.99
The result of suspended solids in this reporting period is lower than that of 130% baseline.

Station: TM-FM2

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	6.0267	1.1748	0.3391
Quarterly Mean	39	0	3.3611	10542	0.1688

Result:

Difference between means = 2.6656
(95% CI : 1.9475 < Diff < 3.3837)

t-value of difference = 7.0365 (17 degrees of freedom)

Calculated t-value > Critical t-value

Conclusion:

There is statistically significant difference between the groups.
The P-Value of 130% Baseline Mean is larger than quarterly mean = >0.99
The result of suspended solids in this reporting period is lower than that of 130% baseline.

Statistical Analysis of the Trend of Suspended Solids

For Mid-Flood Tide

Station: TM-FC1

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	6.6942	1.8839	0.5438
Quarterly Mean	39	0	3.3209	1.1111	0.1779

Result:

Difference between means = 3.3773
(95% CI : 24947 < Diff < 4.2519)

t-value of difference = 5.8953 (13 degrees of freedom)

Calculated t-value > Critical t-value

Conclusion:

There is statistically significant difference between the groups.
The P-Value of 130% Baseline Mean is larger than quarterly mean = >0.99
The result of suspended solids in this reporting period is lower than that of 130% baseline.

Station: TM-FC2

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	6.3067	1.8674	0.5391
Quarterly Mean	39	0	3.7150	1.153	0.1846

Result:

Difference between means = 2.5917
(95% CI : 1.6983 < Diff < 3.4852)

t-value of difference = 5.0862 (13 degrees of freedom)

Calculated t-value > Critical t-value

Conclusion:

There is statistically significant difference between the groups.
The P-Value of 130% Baseline Mean is larger than quarterly mean = >0.99
The result of suspended solids in this reporting period is lower than that of 130% baseline.

Statistical Analysis of the Trend of Suspended Solids For Mid-Ebb Tide

Station: TM-FM1

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	7.0008	1.6394	0.4733
Quarterly Mean	39	0	3.6051	1.0686	0.1711

Result:

Difference between means = 3.3957
(95% CI : 2.5862 < Diff < 4.2051)

t-value of difference = 6.7477 (14 degrees of freedom)

Calculated t-value > Critical t-value

Conclusion:

There is statistically significant difference between the groups.
The P-Value of 130% Baseline Mean is larger than quarterly mean = >0.99
The result of suspended solids in this reporting period is lower than that of 130% baseline.

Station: TM-FM2

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	7.2758	1.5293	0.4415
Quarterly Mean	39	0	3.5795	0.9937	0.1591

Result:

Difference between means = 3.6963
(95% CI : 2.9426 < Diff < 4.4500)

t-value of difference = 7.8767 (14 degrees of freedom)

Calculated t-value > Critical t-value

Conclusion:

There is statistically significant difference between the groups.
The P-Value of 130% Baseline Mean is larger than quarterly mean = >0.99
The result of suspended solids in this reporting period is lower than that of 130% baseline.

Statistical Analysis of the Trend of Suspended Solids

For Mid-Ebb Tide

Station: TM-FC1

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	7.0008	1.6394	0.4733
Quarterly Mean	39	0	3.8726	1.0939	0.1752

Result:

Difference between means = 3.1282
(95% CI : 2.3072 < Diff < 3.9491)

t-value of difference = 6.1989 (14 degrees of freedom)

Calculated t-value > Critical t-value

Conclusion:

There is statistically significant difference between the groups.
The P-Value of 130% Baseline Mean is larger than quarterly mean = >0.99
The result of suspended solids in this reporting period is lower than that of 130% baseline.

Station: TM-FC2

t-test

Group Name	N	Missing	Mean	Std Dev	SE
130% Baseline Mean	12	0	7.2758	1.5293	0.4415
Quarterly Mean	39	0	3.7218	1.2537	0.2008

Result:

Difference between means = 3.5540
(95% CI : 2.6780 < Diff < 4.4301)

t-value of difference = 7.3283 (16 degrees of freedom)

Calculated t-value > Critical t-value

Conclusion:

There is statistically significant difference between the groups.
The P-Value of 130% Baseline Mean is larger than quarterly mean = >0.99
The result of suspended solids in this reporting period is lower than that of 130% baseline.

Appendix J

Site General Layout plan

LOCATION PLAN
LOCATION OF PORTION 8 OF THE SITE
SETTING-OUT DETAILS
HANDLING OF SURPLUS PUBLIC FILL (2016-2018)
PORTION 8 - TUEN MUN AREA 38 FILL BANK
FM10077-3
FILL MANAGEMENT DIVISION
CIVIL ENGINEERING OFFICE
CEDD
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT
EXISTING ACCESS ROAD P1
EXISTING ACCESS ROAD P2
RIVER TRADE TERMINAL
EXISTING PORTION OF SITE OF OTHERS
EDA PARK PHASE 1
SHING WING STEEL LTD.

Appendix K

Weather Condition

Daily Extract of Meteorological Observations , July 2023 - Tuen Mun

Day	Mean Pressure (hPa)	Air Temperature			Mean Dew Point (deg. C)	Mean Relative Humidity (%)	Total Rainfall (mm)	Prevailing Wind Direction (degrees)	Mean Wind Speed (km/h)
		Absolute Daily Max (deg. C)	Mean (deg.C)	Absolute Daily Min (deg. C)					
1	1006.6	30.9	28.9	26.2	25.6	82	4.7	200	16.2
2	1007.9	29.3	27.5	26.2	25.5	89	15.6	240	11.6
3	1008.8	32.4	28.9	27	25.7	83	3.6	200	19.5
4	1008.7	32	29.3	26.7	25.8	82	10.6	230	25.5
5	1008.4	33	30.4	28.9	25.9	77	Trace	230	25.5
6	1008.9	32.8	30.3	28.4	25.7	77	Trace	230	26.7
7	1009.7	33.4	30.4	29	25.7	76	0.3	220	24.7
8	1010.4	33.2	30.4	28.8	25.6	76	-	240	18.7
9	1009.8	33.7	30.5	28.7	26	77	Trace	240	21.5
10	1008.5	33.7	30.7	28.9	25.7	75	-	240	21.5
11	1008.4	33.6	30.7	28.9	25.8	76	-	240	18
12	1008.2	34.5	30.7	28.9	25.4	74	-	180	11
13	1006.8	34.8	30.9	28.6	24.8	71	-	90	6.5
14	1004.4	33.8	31.3	28.5	25.2	71	-	240	9.1
15	1000.8	34.5	31.1	28.2	25.8	74	2.5	270	11.7
16	997.7	33.3	29.7	27.2	24.8	75	4.9	50	45.5
17	997.5	29.4	28.4	27.2	25.7	85	29	100	61.4
18	1004.5	31.1	29.2	27.5	26.6	86	10.9	120	35.3
19	1007.5	30.3	28.7	27.3	26.5	88	3.9	120	19.8
20	1008.5	33.6	29.6	26.8	25.6	80	4.8	120	10.6
21	1009.7	32.4	29.7	27.7	25.6	79	Trace	160	5.4
22	1010.8	34	30.6	28.3	25.7	76	-	120	4.6
23	1009.5	34.1	30.6	28.6	26	77	Trace	110	8
24	1007.7	34.6	30.7	28.4	26	76	-	130	5.5
25	1006.3	33.4	30.7	28.4	25.3	73	-	240	14.3
26	1002.3	35.5	32	29.3	26.1	72	-	10	8.7
27	997.7	36.1	32.2	28.4	25.1	67	6.9	360	16.6
28	996.8	34.7	31.5	28.9	25.7	72	-	230	16.6
29	1002.3	31.5	29.8	27.2	26.8	84	21	220	18
30	1005.4	32.1	29.2	27.5	26.7	87	10	140	17.3
31	1006.3	32.5	29.1	26.5	26.1	84	46.5	80	21.9

Rainfall measured in increment of 0.5 mm. Amount of < 0.5 mm cannot be detected

Daily Extract of Meteorological Observations , August 2023 - Tuen Mun

Day	Mean Pressure (hPa)	Air Temperature			Mean Dew Point (deg. C)	Mean Relative Humidity (%)	Total Rainfall (mm)	Prevailing Wind Direction (degrees)	Mean Wind Speed (km/h)
		Absolute Daily Max (deg. C)	Mean (deg.C)	Absolute Daily Min (deg. C)					
1	1004.7	32.2	29.3	27.9	25.3	80	Trace	70	10.6
2	1003.7	34.6	30.4	27.9	24.1	70	-	60	9.4
3	1002.8	35.1	30.8	27.9	25.2	73	-	170	10.8
4	1004.7	33.5	30.5	28.3	26	77	2.6	220	28.3
5	1004.5	33	30.4	28.3	26.3	79	5.9	230	30.1
6	1002.4	33	30.3	29.2	26.1	78	Trace	230	28.8
7	1001.8	32.4	30.1	28	25.4	76	1.6	230	21.2
8	1003.6	33.3	30.3	28.9	25.2	74	-	230	18
9	1004.9	32.8	30.3	28.7	25.4	76	Trace	230	21.5
10	1004.7	32.1	29.2	27.5	25.7	82	11.1	250	14.3
11	1003.5	30.1	27.8	25.7	24.9	85	26.4	240	16.3
12	1003.5	32.1	29	26.6	24.9	79	0.9	190	15
13	1003.7	29.6	28.5	26.1	25.6	84	34.2	200	13.8
14	1005.2	32.2	29.4	27	25.9	82	3.6	200	15.7
15	1006.7	32.5	29.9	28.8	26.2	80	Trace	210	9.3
16	1006.8	34	30.6	28.8	26.2	78	-	230	16.6
17	1005.2	32	30	29	26.5	82	Trace	250	22
18	1004	30.6	29.2	27.2	26.6	86	9.3	240	16.5
19	1005.7	30.6	28.8	27.3	25.8	84	0.3	230	11.6
20	1007.7	31.5	29.7	28.4	26	80	0.6	120	2.8
21	1007.8	32.1	29.6	28.2	26.2	82	0.2	20	6.4
22	1006.1	33	30	28	25.8	79	0.3	180	5.5
23	1005.3	33.5	30.4	28.2	25.9	78	0.3	190	8.7
24	1006.7	31.4	29.1	27.5	26.1	85	5.7	30	11.7
25	1006.8	30.9	29.3	28.2	26.1	83	0.2	20	8.4
26	1005.2	32.8	29.7	27.9	26.4	83	-	110	5.7
27	1003.2	31.9	29.4	26.4	26.4	84	2.2	110	7.1
28	1002.6	33.4	29.9	28.1	26.2	81	0.5	110	5.3
29	1003.5	32.6	29	26.8	25.8	83	34.4	20	10.5
30	1003.9	32	28.9	26.7	23.3	72	-	360	20
31	1002.7	32.1	29.2	27.7	23.2	70	0.4	350	31.2

Rainfall measured in increment of 0.5 mm. Amount of < 0.5 mm cannot be detected

Daily Extract of Meteorological Observations , September 2023 - Tuen Mun

Day	Mean Pressure (hPa)	Air Temperature			Mean Dew Point (deg. C)	Mean Relative Humidity (%)	Total Rainfall (mm)	Prevailing Wind Direction (degrees)	Mean Wind Speed (km/h)
		Absolute Daily Max (deg. C)	Mean (deg.C)	Absolute Daily Min (deg. C)					
1	996.3	28.7	26.9	25	23.2	81	98.9	330	65.9
2	1000.1	27.2	26.2	25.2	24.7	92	80.4	80	51.8
3	1001.9	33.7	29.4	27	24.6	76	0.1	50	13.8
4	1002.1	32.6	29.9	27.3	24.4	73	Trace	270	8.5
5	1003.6	31	29.1	27.7	23.6	73	0.4	280	13
6	1005.4	32.1	29.4	27.8	23.8	72	-	220	16
7	1006.3	29.7	27.7	25.5	25.6	89	215.7	90	17.4
8	1007.9	26.3	25.7	25	24.7	94	425	80	30.8
9	1008.2	26.6	26.2	25.5	24.7	92	9.8	80	18.4
10	1008.3	26.5	25.8	24.8	24.5	93	67.4	80	19.8
11	1007.3	28.2	26.5	25.6	25.3	93	20.5	80	21.4
12	1006.5	29.4	27	26	25	89	0.9	70	10.2
13	1006.6	30.4	27.9	26.8	25.7	88	2.5	70	16.2
14	1007.7	28.2	26.9	25.6	25.5	92	103.5	70	18.5
15	1009.5	30.6	27.3	25.2	25.3	89	28.5	70	16.1
16	1011.1	28.8	27.1	25.4	25.2	89	4.3	70	17.6
17	1010.9	31.7	28.5	26.8	25.5	85	-	60	15.1
18	1011.4	32.7	29.2	27.4	25.3	80	-	60	7.5
19	1011.9	33.5	29.5	27.3	25.3	79	-	90	4.6
20	1011	32.9	29.6	27.5	24.7	76	-	100	2.7
21	1010.5	33.6	30	27.6	25.5	77	-	220	8.9
22	1010.4	34.4	30.2	28.4	25.3	75	Trace	80	5.7
23	1010.5	33.7	30.1	28.3	24.8	74	-	60	22.9
24	1009.9	33.1	29.9	28.5	24.9	75	-	60	30.5
25	1010.1	33.1	29.8	27.9	25	76	1.5	60	30.4
26	1010.7	33.4	30	28.3	25	75	-	60	28.3
27	1010.5	33.9	30.3	28.6	24.7	72	Trace	80	20.3
28	1011.6	33.6	30.3	28.7	24.4	71	-	70	25.9
29	1012	33.7	29.8	26.7	25.4	78	7.7	70	21.8
30	1010.4	33.6	30	28.2	25	75	-	140	9

Rainfall measured in increment of 0.5 mm. Amount of < 0.5 mm cannot be detected

Appendix L

Complaint Log

東業德勤測試顧問有限公司
ETS-TESTCONSULT LTD.

Complaint Log

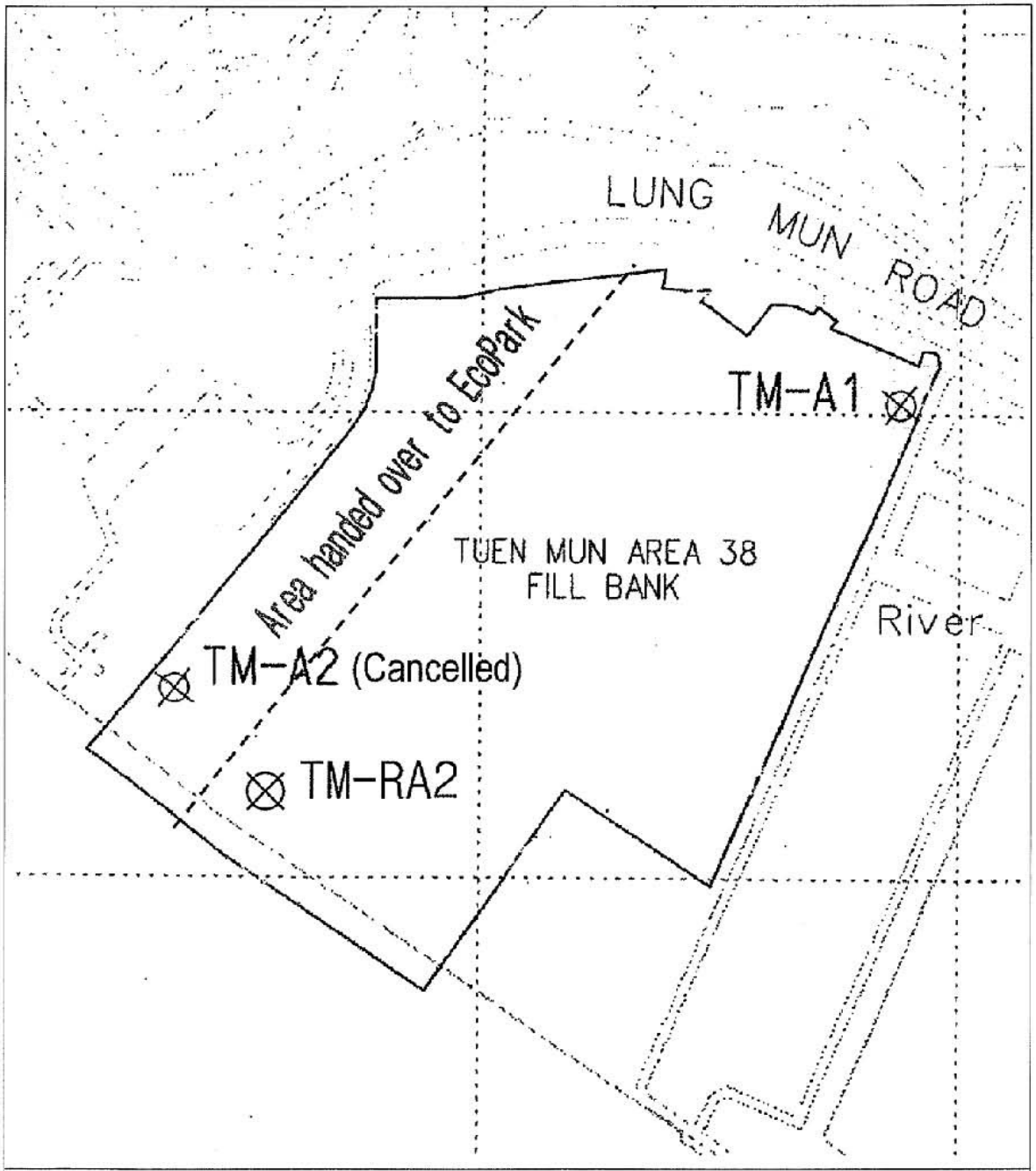
Log Ref.	Location	Received Date	Details of Complaint	Investigation / Mitigation Action	Status
001	Lung Mun Road near Tuen Mun Area 38 Fill Bank	24 May 2017	One complaint received on 24 May 2017, which was forwarded to ET on 03 June 2017, from public against the rocks and debris deposited on the road surface along Lung Mun Road near Tuen Mun Area 38 Fill Bank. The complainant complained that waste generated caused an environmental nuisance.	Refer to the ET site investigation on 06 June 2017, the condition of Lung Mun Road near Tuen Mun Area 38 Fill Bank was found satisfactory. Details of Action(s) Taken by the Contactor: 1. Regular water spraying by water lorries is provided for road cleaning at Lung Mun Road; 2. Regular cleaning on Lung Mun Road and the access road at the site exit by road sweeper to remove mud and gravel is arranged four times on each working day; 3. Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; 4. Site vehicle for transporting materials are covered properly by using clean tarpaulin sheets; 5. Regular cleaning at the site haul road is provided to minimize the fugitive dust emission.	Closed
002	Lung Mun Road near Tuen Mun Area 38 Fill Bank	16 April 2018	One complaint received on 16 April 2018 from public and forwarded to ET by email at 10:51 on 25 May 2018. The complaint detail was”來往屯門第 38 區填料庫的龍門路沿路有很多泥頭車出入，泥頭會從車上掉至路面上，要求部門跟進及回覆。”	Refer to the ET site investigation on 26 May 2018, the condition of Lung Mun Road near Tuen Mun Area 38 Fill Bank was found satisfactory. Details of Action(s) Taken by the Contactor: 1. Regular cleaning on Lung Mun Road and the access road at the site exit by road sweeper to remove mud and gravel is arranged four times on each working day; 2. Regular water spraying by water lorries is provided for road cleaning at Lung Mun Road; 3. Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving; 4. Site vehicles for transporting materials are covered properly by using clean tarpaulin sheets; 5. Regular cleaning at the site haul road is provided	Closed

003	Lung Mun Road near Tuen Mun Area 38 Fill Bank	26 June 2018	One complaint received on 26 June 2018 from public and forwarded to ET by email at 13:58 on 03 July 2018. The complaint detail was" 當天水車於 6 時出動洗街,導致交通阻塞."	Refer to the ET site investigation on 07 July 2018, the condition of Lung Mun Road near Tuen Mun Area 38 Fill Bank was found satisfactory. Details of Action(s) Taken by the Contactor: 1. Improve the road washing plan to avoid washing in traffic peak peroid 2. Revised the road washing schedule as soon as possible once there is traffic jam	Closed
004	Tuen Mun Area 38 Fill Bank	06 October 2021	A complaint was received on 06 October 2021 from public regarding dust nuisance within TM38 Fill Bank and was forwarded to ET by email on 06 October 2021 for investigation.	Refer to the ET site investigation on 12 October 2021, no defective observation related to dust emission was recorded during the investigation. Details of Action(s) Taken by the Contactor: 1. Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank. Regular cleaning at the site haul road is provided to minimize the dust emission.	Closed

005	Tuen Mun Area 38 Fill Bank	28 June 2022	A complaint was received on 28 June 2022, which was forwarded to ET by email on 28 June 2022 for investigation, from public against "土木工程署屯門第 38 區填料庫經常發出異味，致現場的空氣及環境被受污染，土木工程拓展署難辭其咎，環保署亦應就現場大量大型車輛造成的空氣污染作出跟進。"	Refer to the ET site investigation on 30 June 2022, no defective observation related to dust emission was recorded during the investigation Details of Action(s) Taken by the Contactor: 1. Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank; 2. Regular cleaning at the site haul road is provided to minimize the dust emission; 3. Site vehicles are washed to remove any dusty materials from their bodies and wheels by using high pressure water jet manually at the entrance of work site before leaving;	Closed
006	Tuen Mun Area 38 Fill Bank	05 July 2022	A complaint was received on 05 July 2022, which was forwarded to ET by email on 15 July 2022 for investigation, from an environmental group against "為何 TM38 區之斜坡不同蓋上帆布”.	Refer to the ET site investigation on 14 July 2022, no defective observation related to dust emission was recorded during the investigation. Details of Action(s) Taken by the Contactor: 1. Regular water spraying by water lorries is provided for dust suppression inside the Fill Bank. 2. Regular cleaning at the site haul road is provided to minimize the dust emission.	Closed

007	Tuen Mun Area 38 Fill Bank	30 September 2022	A complaint was received on 30 September 2022, which was forwarded to ET by email on 03 October 2022 for investigation, against "In recent days, we found that there was significant dust emission from the fill bank. As you are aware that we need to conduct RSP and TSP monitoring at the site boundary with very tight limits. We worry that these situations might affect our measurement. Please see the videos attached. They are taken on 21 Sept and one on 26 Sept. Grateful if you could investigate the cases and ensure dust is properly controlled.".	The video provided by the complainant showed that there was serious dust emission in 3RS collection area of public fill. Based on this situation, mitigation measures implemented in TM38 Fill Bank were reviewed and enhanced to avoid dust emission. A joint site inspection and meeting was carried out on 06 October 2022 to discuss the dust emission at TM38 Fill Bank. The location of 3RS and discharge point would be inspected in every weekly environmental audit. The status of 3RS location would be recorded to monthly EM&A report. Details of Action(s) Taken by the Contactor: 1. Increasing the frequency of water spraying by water lorries inside the Fill Bank. 2. Setting up water spraying machine in the 3RS area 3. Regular cleaning at the site haul road is provided to minimize the dust emission.	Closed

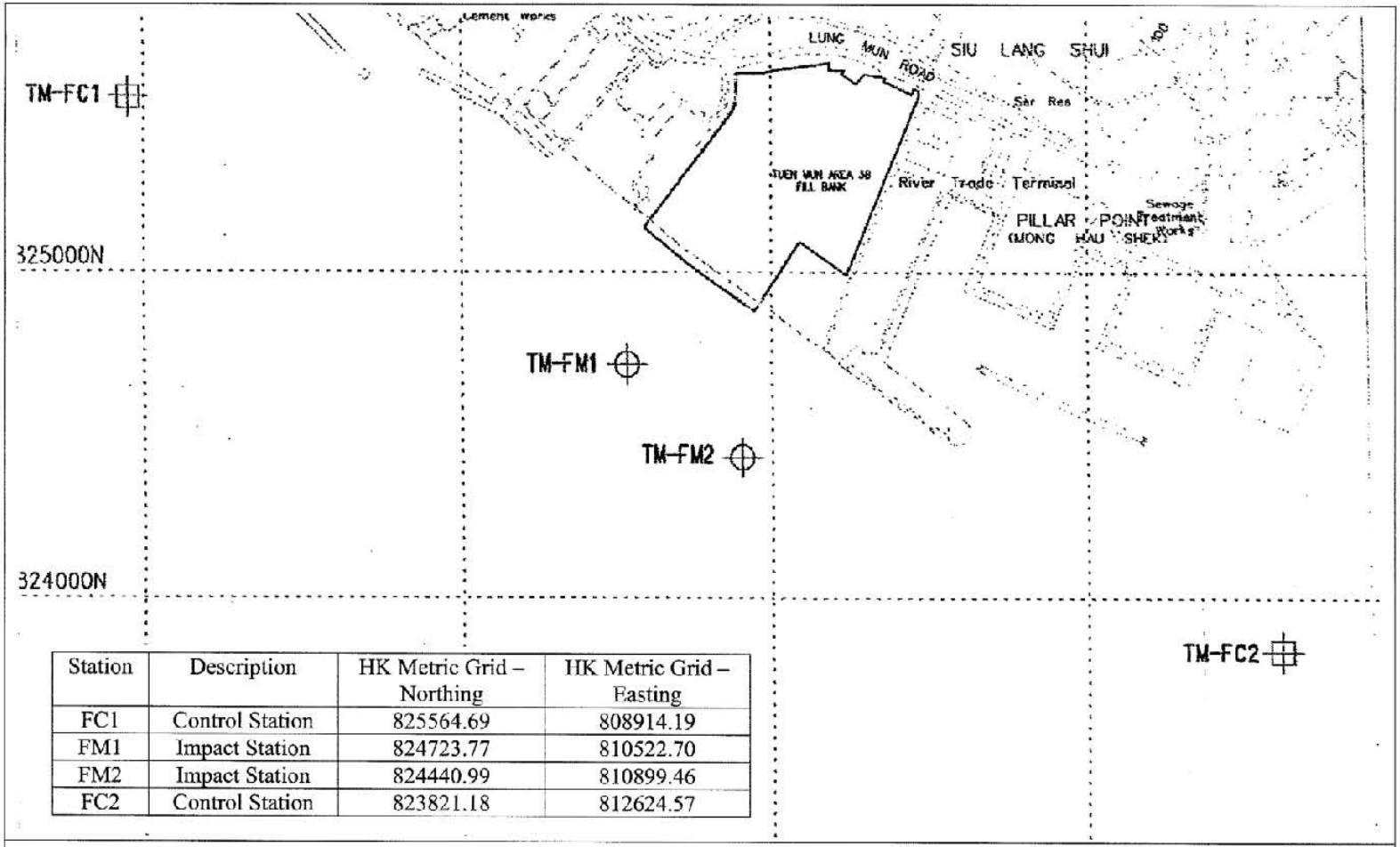
Figures



Contract No. CV/2021/09
Handling of Surplus Public Fill (2022-2023)

Figure 1
Locations of Air Quality Monitoring Stations –
Tuen Mun Area 38 Fill Bank

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED

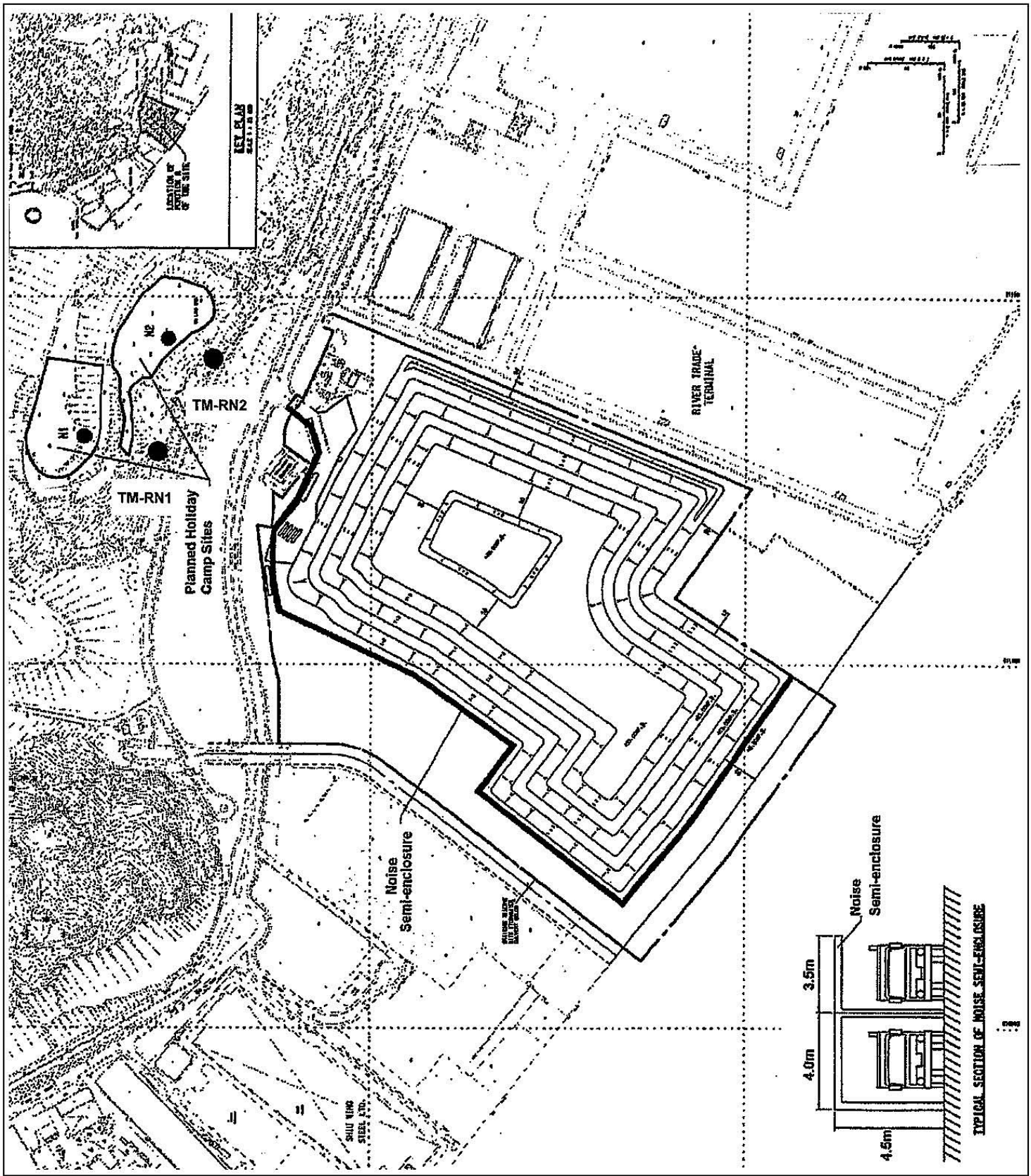


Station	Description	HK Metric Grid – Northing	HK Metric Grid – Easting
FC1	Control Station	825564.69	808914.19
FM1	Impact Station	824723.77	810522.70
FM2	Impact Station	824440.99	810899.46
FC2	Control Station	823821.18	812624.57

Contract No. CV/2021/09
Handling of Surplus Public Fill (2022-2023)

Figure 2
Locations of Water Quality Monitoring Station –
Tuen Mun Area 38 Fill Bank

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED



Contract No. CV/2021/09
Handling of Surplus Public Fill (2022-2023)

Figure 3
Locations of Noise Monitoring Stations –
Tuen Mun Area 38 Fill Bank

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ETS-TESTCONSULT LIMITED