



DRAINAGE SERVICES DEPARTMENT
CONTRACT NO. DC/2011/06

REPROVISIONING OF BOUNDARY PATROL ROAD
AND ASSOCIATED SECURITY FACILITIES
BETWEEN PING YUEN RIVER AND PAK FU SHAN
AND DRAINAGE WORKS IN NORTH DISTRICT

THE FIFTH QUARTERLY
EM&A SUMMARY REPORT FOR DRAINAGE
WORKS UNDER EP-277/2007/A
(JUNE – AUGUST 2013)

PREPARED FOR
SANG HING CIVIL CONSTRUCTORS CO., LTD.

Quality Index

Date	Reference No.	Prepared By	Approval By
15 October 2013	TCS00599/12/600/R0153	 Ben Tam Environmental Consultant	 T. W. Tam Environmental Team Leader

Version	Date	Description
0	23 September 2013	First submission.
1	15 October 2013	Amendment against IEC comments on 14 October 2013

This report has been prepared by Action-United Environmental Services & Consulting with all reasonable skill, care and diligence within the terms of the Agreement with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

Ref.: DSDBPRNDEM00_0_0192L.13

15 October 2013

By Post and Fax (2959 6079)

Action-United Environmental Services & Consulting
Unit A, 20/F,
Gold King Industrial Building,
New Territories, Hong Kong

Attention: Mr. TW Tam

Dear Sir,

**Re: Contract No. DC/2011/06
Reprovisioning of Boundary Patrol Road and Associated Security Facilities
between Ping Yuen River and Pak Fu Shan and Drainage Works in North
District
Fifth Quarterly EM&A Summary Report for Drainage Works under EP-
277/2007/A (June – August 2013)**

Reference is made to the Environmental Team's submission of the captioned report (Version 1) dated 15 October 2013 received through E-mail on 15 October 2013 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission.

Should you have any queries, please do not hesitate to contact the undersigned or our Mr. Simon Cheung at 3465 2810.

Yours sincerely,



Roger Leung
Independent Environmental Checker

c.c.	DSD	Mr. Eric Cheng	by fax: 2827 8700
	SHCCCL	Mr. Raymond W.M. Yau	by fax: 2403 1162

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EXECUTIVE SUMMARY

REPORTING OF THE CONTRACT

ES01. In order to ease reporting of the Contract, it has been agreed among the Engineer, IEC, Contractor and ET that the EM&A reports for the Contract are split into three stand-alone reports, namely EM&A Report for Advanced Works under EP-430/2011, EM&A Report for Drainage Works under EP-277/2007/A and EM&A Report for Drainage Works at Ma Wat Wai. This is the fifth quarterly EM&A summary report for Drainage Works under EP-277/2007/A, covering the construction period of the Works from 1 June to 31 August 2013.

ES02. The structure of this Report is as follows:

EXECUTIVE SUMMARY

- 1 *Introduction*
- 2 *Requirements for Construction Impact monitoring*
- 3 *Environmental monitoring Results*
- 4 *solid and liquid Waste Management*
- 5 *Complaints, Notification of Summons and Successful Prosecution*
- 6 *Conclusions and Recommendations*

Annex

- Annex A* *Location plan for the Works*
Annex B *Environmental Management Organization, Communication Lines and 24-Hour Hotline*
Annex C *Construction Program*
Annex D *Status of Environmental Licenses and Permits*
Annex E *Environmental Monitoring Locations*
Annex F *Graphical Plots of the Trends of Monitored Parameters*
Annex G *Monthly Summary of Waste Flow Table*

BREACH OF ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

ES03. No exceedances of environmental quality performance limits for air quality, construction noise and water quality were recorded. Therefore, neither NOE nor remedial actions were required.

COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES04. No environmental complaints, notifications of summons and successful prosecutions were registered during the quarter.

CONCLUSIONS

ES05. The EM&A results for the Reporting Period confirmed that the monitoring work was effective and was generating data with the necessary statistical power to categorically identify or confirm the absence of impact attributable to the works.

ES06. Neither breaches of environmental quality performance limits nor written or verbal environmental complaints, notification of summons and successful prosecutions were recorded during the Reporting Period, indicating the implemented environmental mitigation measures were effective and efficient to alleviate adverse environmental impacts generated from the construction activities of the Works.

RECOMMENDATIONS

ES07. The Contractor is reminded to fully comply with all the environmental requirements stipulated in the environmental regulations, guidelines and Particular Specifications under the Contract, in particular construction suppression measures during dusty construction activities under dry and windy conditions and water quality mitigation measures during rainy conditions.

ES08. In addition, attention is drawn to implementation of the construction noise mitigation measures during noisy construction works.

1 INTRODUCTION

BASIC PROJECT INFORMATION

- 1.01 Sang Hing Civil Contractors Company Limited has been awarded by DSD since 31 March 2012 Contract No. DC/2011/06 – Re-provisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan and Drainage Works in North District (hereafter “the Contract”). The Contract comprises:
- 1) Drainage Works in North District to be implemented under Environmental Permit No. EP-277/2007/A (hereinafter “Drainage Works under EP-277/2007/A or “the Works”);
 - 2) Re-provisioning of Boundary Patrol Road and Associated Security Facilities between Ping Yuen River and Pak Fu Shan; and
 - 3) Drainage Works in North District, a non-designated project of drainage works at Ma Wat Wai.
- 1.02 Location plan for the Works is shown in *Annex A*, whereas environmental management organization and communication lines, including contacts of key personnel under the Contract are shown in *Annex B*.
- 1.03 The Works has been commenced since 21 May 2012 upon completion of the site clearance and preparation activities after commencement of the Contract since 31 April 2012.
- 1.04 Action-United Environmental Services and Consulting (hereinafter “AUES”) has been commissioned by the Contractor as the Environmental Team (hereinafter “the ET”) to implement the environmental monitoring and audit (hereinafter “EM&A”) under the Contract.
- 1.05 In order to ease reporting of the Contract, it has been agreed among the Engineer, IEC, Contractor and ET that the EM&A reports for the Contract are split into three stand-alone reports, namely EM&A Report for Advanced Works under EP-430/2011, EM&A Report for Drainage Works under EP-277/2007/A and EM&A Report for Drainage Works at Ma Wat Wai.
- 1.06 This is the fifth quarterly EM&A summary report (herein after “this Report”) for Drainage Works under EP-277/2007/A, covering the construction period from 1 June to 31 August 2013 (hereinafter “the Reporting Period”).

WORK UNDERTAKEN DURING THE QUARTER

- 1.07 Construction program is presented in *Annex C*, whereas construction activities undertaken during the Reporting Period are summarized in the following *Table 1-1*.

Table 1-1 Major Construction Activities of the Works during the Reporting Period

Major Construction Activities during the Reporting Period at Portion E (Man Uk Pin)	
June 2013	<ul style="list-style-type: none"> • Installation of sheet pile for excavation; • Construction of gabion wall at CH317; • Establishment of Transplanting of tree T1107; and • Installation of temporary noise barrier.
July 2013	<ul style="list-style-type: none"> • Pruning, felling and transporting of existing trees; • Installation of temporary noise barrier. • Installation of sheet pile for excavation; • Construction of gabion wall and channel; and • Construction of box culvert transition;
August 2013	<ul style="list-style-type: none"> • Installation of sheet pile for excavation; • Construction of gabion wall at CH317 • Establishment of Transplanted Tree T1107 • Trail pit for existing watermain; • Concreting of Inlet at CH310; and • Liaise with lot owner for the access.

ENVIRONMENTAL MITIGATION MEASURES AND ENVIRONMENTAL IMPLEMENTATION STATUS

- 1.08 Environmental mitigation measures to minimize potential environmental impacts arising from the construction of the project have been recommended in the Final EIA and summarized in the stand-alone EM&A Manual. They can be found in the *First Monthly EM&A Report for Drainage Works under EP-277/2007/A* (ref. TCS00599/12/600/R0017v4, dated 16 July 2012).
- 1.09 Implementation status of environmental protection and pollution control/mitigation measures, as recommended in the Final EIA and summarized in the updated implementation schedule is detailed in the following *Section 3 to 5* of this Report, whereas status of environmental licenses and permit is summarized in the *Annex D*.

2 REQUIREMENTS FOR CONSTRUCTION IMPACT MONITORING

MONITORING PARAMETERS

- 2.01 The monitoring parameters to be monitored are summarized in *Table 2-1*.

Table 2-1 Summary of Environmental Monitoring Parameters

Aspect	Parameters	
Air Quality	<ul style="list-style-type: none"> 1-Hour Total Suspended Particulate (hereinafter ‘1-Hr TSP’); and 24-Hour Total Suspended Particulate (hereinafter ‘24-Hr TSP’). 	
Construction Noise	<ul style="list-style-type: none"> A-weighted equivalent continuous sound pressure level (30min) (hereinafter ‘Leq(30min)’ during the normal working hours; and A-weighted equivalent continuous sound pressure level (5min) (hereinafter ‘Leq(5min)’ for construction work during the restricted hours. 	
Water Quality	In Situ Measurement:	Temperature, Dissolved Oxygen, Dissolved Oxygen Saturation, pH value, Water Depth & Turbidity
	Laboratory Analysis	Suspended Solids (hereinafter ‘SS’),
Ecology	<ul style="list-style-type: none"> The stream conditions monitoring (in-situ measurements of DO, pH and turbidity; laboratory testing of SS); Riparian vegetation along the banks of channel monitoring; General site audit to ensure the existing natural stream channel is protected; and Reported the sediment condition during the construction phase 	

- 2.02 As there was neither riparian vegetation along the banks of channel nor existing natural stream channel within the construction site under the Works, no ecology monitoring is required.

MONITORING LOCATIONS

Monitoring Locations Designated in the EM&A Manual

- 2.03 The sensitive receiver designated in the EM&A Manual, namely MUP05-2, which is the closest to the construction site, is selected as monitoring location for air quality namely MUP-A1 and construction noise namely MUP-N1 respectively. They are shown in *Annex E* and summarized in *Table 2-2* below.

Table 2-2 Designated Monitoring Locations

Issue	Channel	Sensitive Receiver	Location ID	Detailed Address
Air	MUP05	MUP05-2	MUP-A1	A village house at Man Uk Pin
Noise	MUP05	MUP05-2	MUP-N1	Same village house at Man Uk Pin as MUP-A1

Additional Monitoring Locations

- 2.04 Additional monitoring locations for construction noise and water quality are also shown in *Annex E* and summarized in *Table 2-3* below.

Table 2-3 Summary of Additional Environmental Monitoring Locations

Issue	Channel	Sensitive Receiver	Location ID	Detailed Address
Noise	MUP05	MUP05-2	MUP-Nx	Village house
Water Quality	MUP05	-	MUP-Wx1	Additional Up-Stream Control Station: (Prior to and after connection of stream diversion)
		-	MUP-Wx2	Additional Impact Monitoring Station: (Prior to connection of stream diversion)
		-	MUP-Wx3	Additional Impact Monitoring Station: (After connection of stream diversion)

ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

2.05 The environmental quality performance limits, i.e. Action/Limit Levels, for air quality and construction noise are summarized in *Table 2-4* and *Table 2-5* respectively.

Table 2-4 Action and Limit Levels for Air Quality

Monitoring Station	Action Level ($\mu\text{g}/\text{m}^3$)		Limit Level ($\mu\text{g}/\text{m}^3$)	
	1-Hour TSP	24-Hour TSP	1-Hour TSP	24-Hour TSP
MUP-A1	307	156	500	260

Table 2-5 Action and Limit Levels for Construction Noise (dB(A))

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

2.06 Environmental quality criteria for additional water quality monitoring are presented in *Table 2-6* below.

Table 2-6 Action and Limit Levels for Water Quality

Action Level	Limit Level
120% of the Levels of Up-Stream Control Station	130% of the Levels of Up-Stream Control Station

3 ENVIRONMENTAL MONITORING RESULTS

3.01 Graphical plots of the trends of monitored parameters over the past 4 months, including the last month of the previous quarter and the Reporting Period, are presented in *Annex F*.

3.02 Weather conditions extracted from Hong Kong Observatory have been used in interpretation of this Report. They can be found in corresponding Monthly EM&A Reports.

EXCEEDANCES OF THE ENVIRONMENTAL QUALITY PERFORMANCE LIMITS

3.03 No exceedances of environmental quality performance limits were registered during the Reporting Period. Neither Notice Of Exceedances of the environmental quality performance limits (hereinafter “NOE”) nor the associated remediation actions were required during the Reporting Period.

CONCLUSIONS

3.04 The EM&A results confirmed that the monitoring work was effective and generating data with necessary statistical power to categorically identify the absence of impact attributable to the works.

3.05 Monitoring results recorded no exceedances of the environmental quality performance limits during the Reporting Period, indicating no adverse environmental impacts were generated from construction activities during the Reporting Period. No remediation actions were required.

4 SOLID AND LIQUID WASTE MANAGEMENT

4.01 The quantity of solid and liquid waste for disposal or reuse is summarized in Monthly Summary of Waste Flow Table in *Annex G*.

5 COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTION

5.01 No written or verbal environmental complaints, notification of summons and successful prosecutions were recorded during the Reporting Period. They are summarized in *Table 5-1*.

Table 5-1 Summary of Complaints, Notification of Summons and Successful Prosecutions

Environmental Issue	Frequency of Occurrence	
	From the project commencement to last reporting month	This reporting Period
	December 2012 – May 2013	June to August 2013
Complaints	0	0
Nature of Complaints	Not Applicable	Not Applicable
Notification of Summons	0	0
Nature of Summons	Not Applicable	Not Applicable
Successful Prosecutions	0	0
Nature of Prosecutions	Not Applicable	Not Applicable

5.02 Project proponents' contacts and hotline telephone number for the public to make enquiries can be found in *Annex B*.

6 CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

6.01 Neither breaches of environmental quality performance limits nor written/verbal environmental complaints, notification of summons and successful prosecutions were recorded during the Reporting Period, indicating the implemented environmental mitigation measures were effective and efficient to alleviate adverse environmental impacts generated from the construction activities of the Works.

RECOMMENDATIONS

6.02 The Contractor is reminded to fully comply with all the required environmental mitigation measures, in particular construction dust suppression measures during dusty construction activities under dry and windy conditions and water quality mitigation measures during rainy conditions. In addition, attention is drawn to implementation of the construction noise mitigation measures during noisy construction works.

ANNEX A

LOCATION PLAN FOR THE WORKS

NOTES:

1. ALL LEVELS ARE IN METERS UNLESS SPECIFIED.
2. CHANNELS AND DRAINAGE FACILITIES ARE TO BE DESIGNED ACCORDING TO THE SITE CONDITIONS.
3. EXISTING AND PROPOSED CHANNELS ARE TO BE DESIGNED WITH SUFFICIENT CLEARANCE UNDER BRIDGES AND OVER SPANS TO MAINTAIN THE CHANNELS IN GOOD WORKING ORDER.
4. THE CHANNELS FOR THE DRAINAGE ARE TO BE DESIGNED TO MAINTAIN THE CHANNELS IN GOOD WORKING ORDER AND TO BE DESIGNED ACCORDING TO THE SITE CONDITIONS.
5. THE EXISTING LOCATION FOR THE CONSTRUCTION OF WALLS, REINFORCED AND GRATES TO BE IN ACCORD WITH THE DESIGNER'S INTENT.
6. FLOOD WARNING SIGN BOARDS TO BE DESIGNED ACCORDING TO THE DESIGNER'S INTENT.

LEGEND:

- CHANNEL LINE
- SETTING OUT POINT (S.O.P.) FOR CHANNEL
- ALIGNMENT OF ALIGNMENT
- USE OF ALIGNMENT
- PROPOSED CHANNEL
- PROPOSED FLOOD WARNING SIGN

FOR TENDER PURPOSES ONLY

Category	Code	Description	Quantity	Unit	Remarks
Channel	1.0	Channel	1000	m	1000m
Wall	2.0	Channel Wall	2000	m ²	2000m ²
Grate	3.0	Channel Grate	100	nos.	100nos.
Sign	4.0	Flood Warning Sign	10	nos.	10nos.

Contract No. DC/2011/06

REVISIONS OF BOUNDARY
 FENCED ROAD AND ASSOCIATED SECURITY FACILITIES BETWEEN PING TUN RIVER AND PING FU SHUI AND DRAINAGE WORKS IN NORTH DISTRICT

GENERAL LAYOUT PLAN FOR DRAINAGE CHANNEL MIP05

Scale: DDP/DC1106/41011 1:500 A1 1:1000 A3



香港特別行政區政府渠務署
 THE HONG KONG SPECIAL ADMINISTRATIVE REGION DRAINAGE SERVICES DEPARTMENT

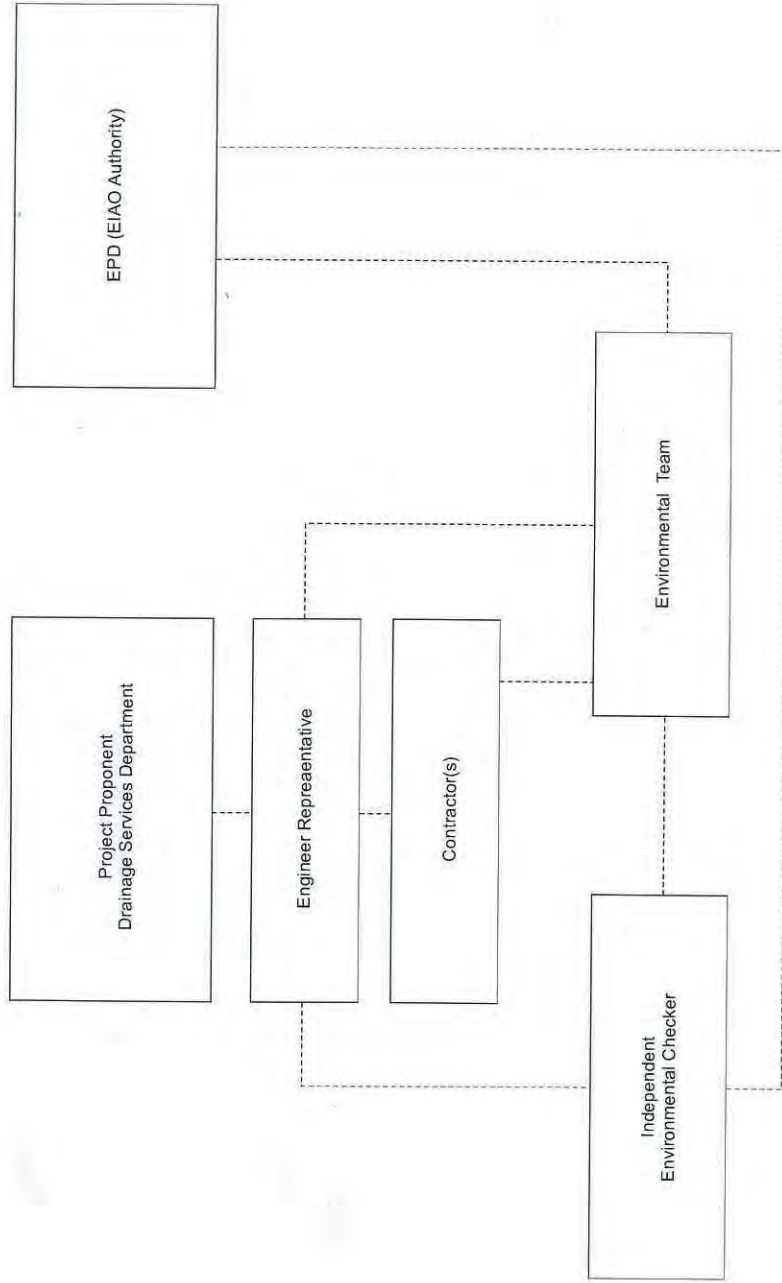
HELAND & NEALE ENGINEERS LIMITED
 海蘭工程師有限公司



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ANNEX B

***ENVIRONMENTAL MANAGEMENT ORGANIZATION AND
COMMUNICATION LINES
AND
24-HOUR HOTLINE***



Key
- - - - - Line of Communication

EM&A Organisation Chart

Contact Details of Key Personnel

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Project Proponent / Employer	Mr. Eric Y. M. Cheng	2594-7341	2827-8700
Environ	Independent Environmental Checker	Mr. Roger W. K. Leung	3465 2888	3465 2899
CHCC	Project Manager	Mr. Raymond Yau	2403 1165	2403 1165
SHCC	Site Agent	Mr. Elvin Lam	2640 9286	2640 9286
AUES	Environmental Team Leader	Mr. T. W. Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Miss Nicola Hon	2959-6059	2959-6079
AUES	Environmental Team Supervisor	Mr. Ben Tam	2959-6059	2959-6079

24-Hour Hotline Telephone Number for the Public to Make Enquiries

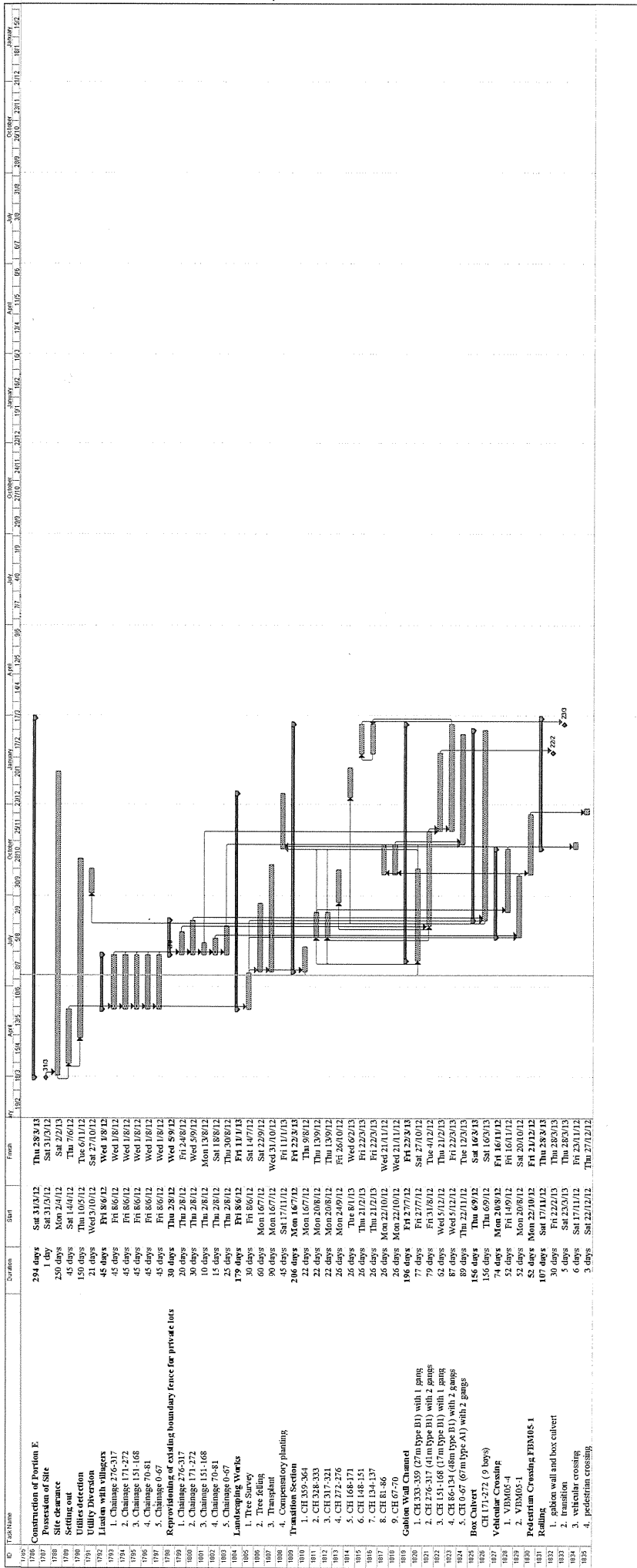
24-Hour Hotline: 6770 3827
Contact Person: Mr. Mocha Mok

Legends:

- DSD (Project Proponent / Engineer) – Drainage Services Department*
SHCC (Main Contractor) – Sang Hing Civil Constructors Co., Ltd
Environ (IEC) – Environ Hong Kong Limited
AUES (ET) – Action-United Environmental Services & Consulting

ANNEX C

CONSTRUCTION PROGRAM



ID	Task Name	Duration	Start	Finish
1786	Construction of Portion E	294 days	Sat 11/11/12	Thu 28/11/13
1787	Possession of Site	1 day	Sat 11/11/12	Sat 11/11/12
1788	Site clearance	250 days	Mon 2/4/12	Sat 11/11/12
1789	Settling out	45 days	Sat 11/11/12	Thu 6/1/12
1790	Utilities detection	150 days	Thu 10/5/12	Sat 27/10/12
1791	Utility diversion	21 days	Wed 3/10/12	Wed 1/8/12
1792	Liaison with villagers	45 days	Fri 8/6/12	Wed 1/8/12
1793	Chainage 276-317	45 days	Fri 8/6/12	Wed 1/8/12
1794	Chainage 151-168	45 days	Fri 8/6/12	Wed 1/8/12
1795	Chainage 70-81	45 days	Fri 8/6/12	Wed 1/8/12
1796	Chainage 6-67	45 days	Fri 8/6/12	Wed 1/8/12
1797	Chainage 6-67	45 days	Fri 8/6/12	Wed 1/8/12
1798	Chainage 276-317	30 days	Thu 2/8/12	Wed 4/8/12
1799	Chainage 151-168	30 days	Thu 2/8/12	Wed 4/8/12
1800	Chainage 70-81	30 days	Thu 2/8/12	Wed 4/8/12
1801	Chainage 6-67	30 days	Thu 2/8/12	Wed 4/8/12
1802	Chainage 6-67	10 days	Thu 2/8/12	Mon 13/8/12
1803	Chainage 6-67	15 days	Thu 2/8/12	Sat 18/8/12
1804	Chainage 6-67	25 days	Thu 2/8/12	Thu 30/8/12
1805	Landscaping Works	179 days	Fri 8/6/12	Fri 11/1/13
1806	The Survey	30 days	Fri 8/6/12	Sat 14/7/12
1807	The Edging	60 days	Mon 16/7/12	Sat 22/9/12
1808	Transit plant	90 days	Mon 16/7/12	Wed 31/10/12
1809	Transit plant	42 days	Sat 17/11/12	Fri 11/1/13
1810	Transition Station	26 days	Mon 16/7/12	Thu 9/8/12
1811	CH 359-366	22 days	Mon 20/8/12	Thu 13/9/12
1812	CH 317-321	22 days	Mon 20/8/12	Thu 13/9/12
1813	CH 272-276	26 days	Mon 24/9/12	Fri 26/10/12
1814	CH 168-171	26 days	Thu 8/1/13	Wed 6/2/13
1815	CH 148-151	26 days	Thu 21/2/13	Fri 22/2/13
1816	CH 134-137	26 days	Thu 21/2/13	Fri 22/2/13
1817	CH 81-86	26 days	Mon 22/10/12	Wed 21/11/12
1818	CH 67-70	26 days	Mon 22/10/12	Wed 21/11/12
1819	CH 55-57 (7m type B1) with 1 gangs	77 days	Fri 2/7/12	Fri 22/8/13
1820	CH 55-57 (7m type B1) with 2 gangs	77 days	Fri 2/7/12	Fri 22/8/13
1821	CH 231-237	65 days	Wed 14/8/12	Thu 4/12/12
1822	CH 151-168 (7m type B1) with 1 gang	65 days	Wed 14/8/12	Thu 4/12/12
1823	CH 151-168 (7m type B1) with 2 gangs	87 days	Wed 14/8/12	Fri 22/9/13
1824	CH 86-131 (6m type B1) with 1 gang	89 days	Thu 22/11/12	Thu 12/2/13
1825	CH 86-131 (6m type B1) with 2 gangs	156 days	Thu 6/9/12	Sat 16/3/13
1826	CH 171-272 (9 bays)	156 days	Thu 6/9/12	Sat 16/3/13
1827	Vehicle Crossing	74 days	Mon 20/8/12	Fri 16/11/12
1828	Vehicle Crossing	52 days	Fri 14/9/12	Fri 16/11/12
1829	Vehicle Crossing	52 days	Mon 20/8/12	Sat 20/10/12
1830	Vehicle Crossing	52 days	Mon 20/8/12	Sat 20/10/12
1831	Vehicle Crossing	107 days	Sat 17/11/12	Thu 28/3/13
1832	Vehicle Crossing	30 days	Fri 2/2/13	Thu 28/3/13
1833	Vehicle Crossing	2 days	Sat 23/3/13	Thu 28/3/13
1834	Vehicle Crossing	6 days	Sat 17/11/12	Thu 23/11/12
1835	Vehicle Crossing	2 days	Sat 23/11/12	Thu 27/12/12

ANNEX D

SUMMARY OF STATUS OF ENVIRONMENTAL LICENSES AND PERMIT

Permit Type	Licenses / Permit No.	Date of Issuance by EPD	Expiry Date	Concerned Location	Status
Environmental Permit	EP-277/2007	09 Jul 2007	N.A.	Man Uk Pin	EP-277/2007/A to supersede EP-277/2007
	EP-277/2007/A	01 Dec 2009			
Notification pursuant to Section 3(1) of the Air Pollution Control Ordinance (APCO) (Construction Dust) Regulation	N.A.	Pending	N.A.	Contract Area (Lin Ma Hang, Man Uk Pin, Ma Wat Wai and Ping Yuen River)	The Notification was submitted to EPD on 28 May 2012
Account for Disposal of Construction Waste	7015003	07 May 2012	N.A.	Contract Area (Lin Ma Hang, Man Uk Pin, Ma Wat Wai and Ping Yuen River)	Valid
Application for Wastewater Discharge License under Water Pollution Control Ordinance (WPCO)	W5/11363/1	29 August 2012	31 Aug 2017	Man Uk Pin	Valid
Register as a Chemical Waste Producer under Waste Disposal Ordinance	5123-642-S3565-03	3 October 2012	N.A.	Contract Area (Lin Ma Hang, Man Uk Pin, Ma Wat Wai and Ping Yuen River)	Valid

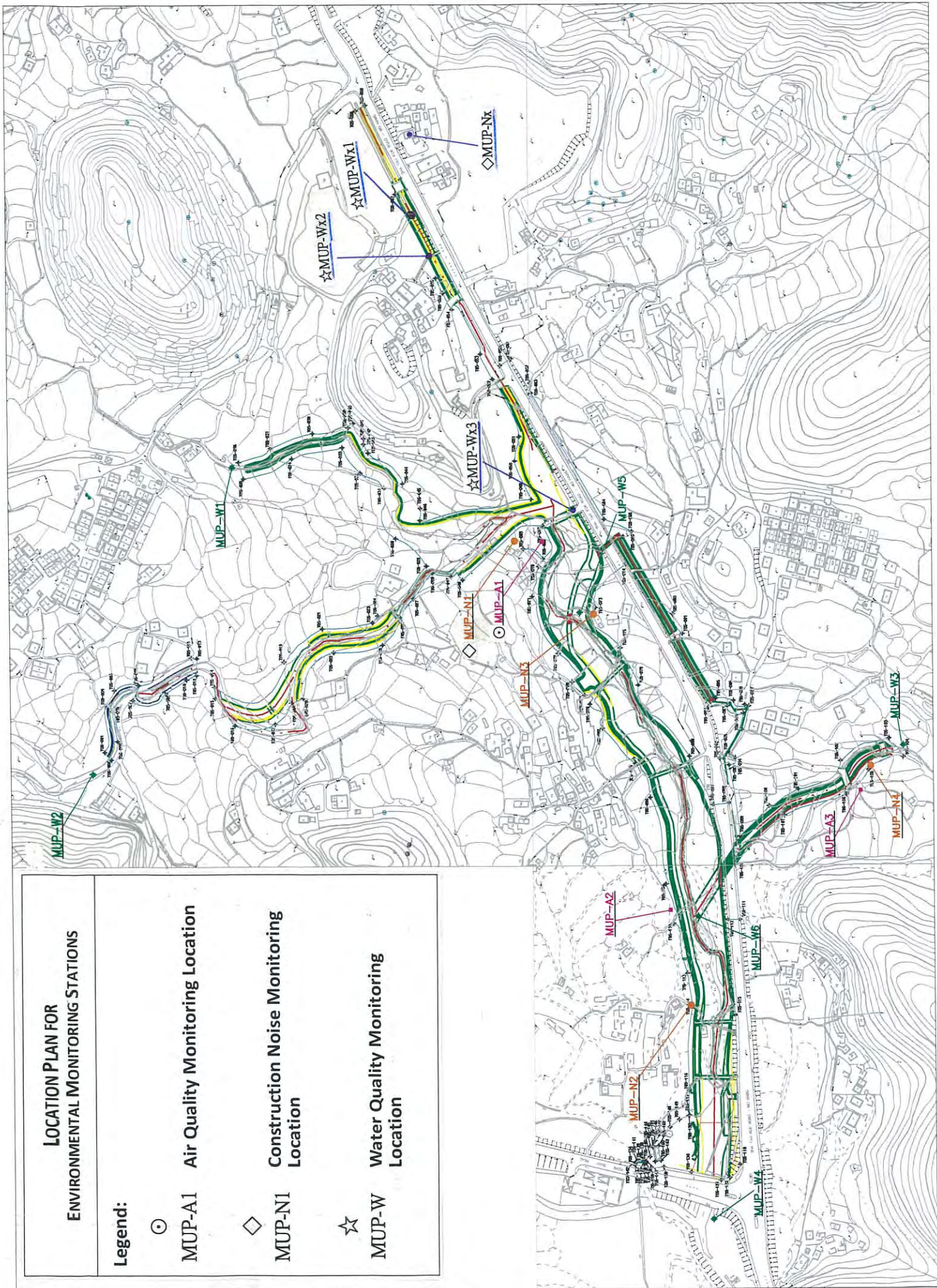
ANNEX E

ENVIRONMENTAL MONITORING LOCATIONS

LOCATION PLAN FOR ENVIRONMENTAL MONITORING STATIONS

Legend:

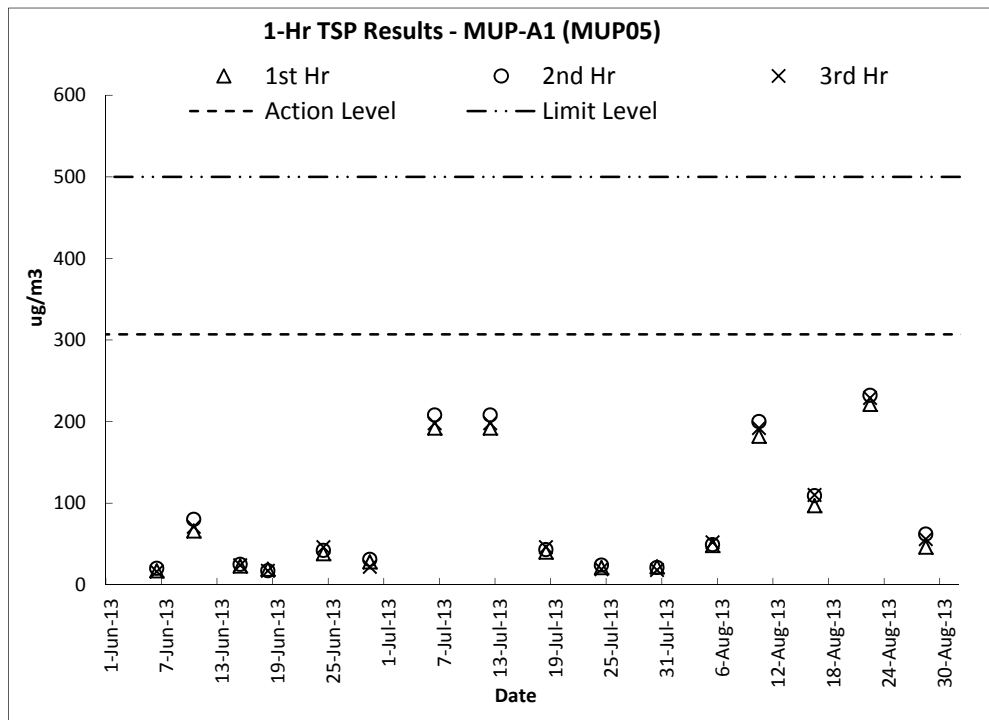
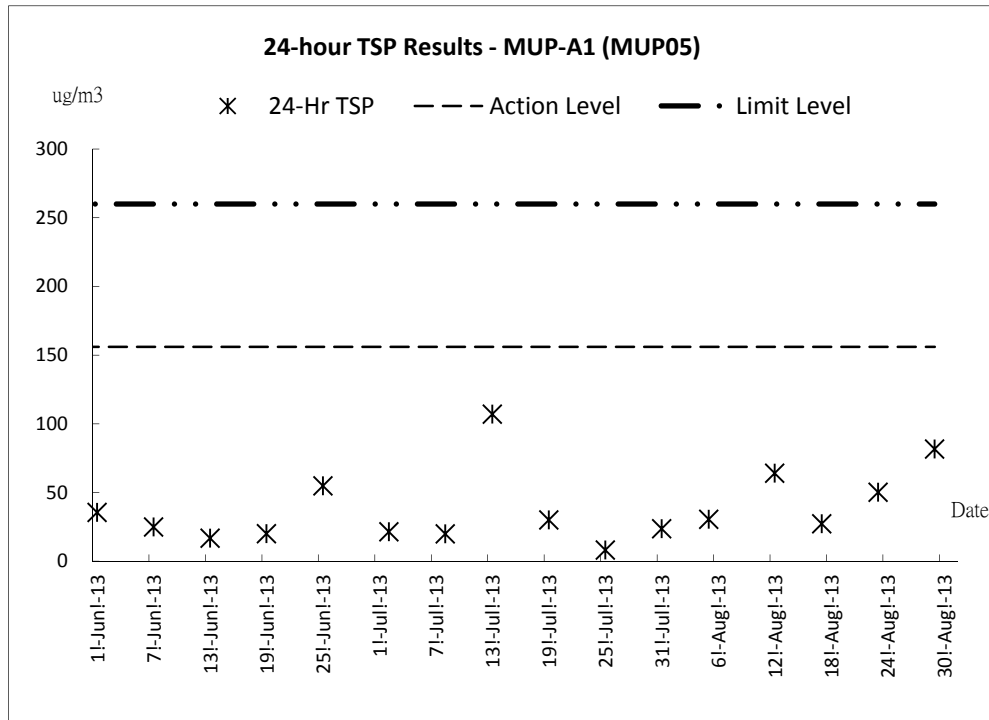
- MUP-A1 Air Quality Monitoring Location
- ◇ MUP-N1 Construction Noise Monitoring Location
- ☆ MUP-W Water Quality Monitoring Location



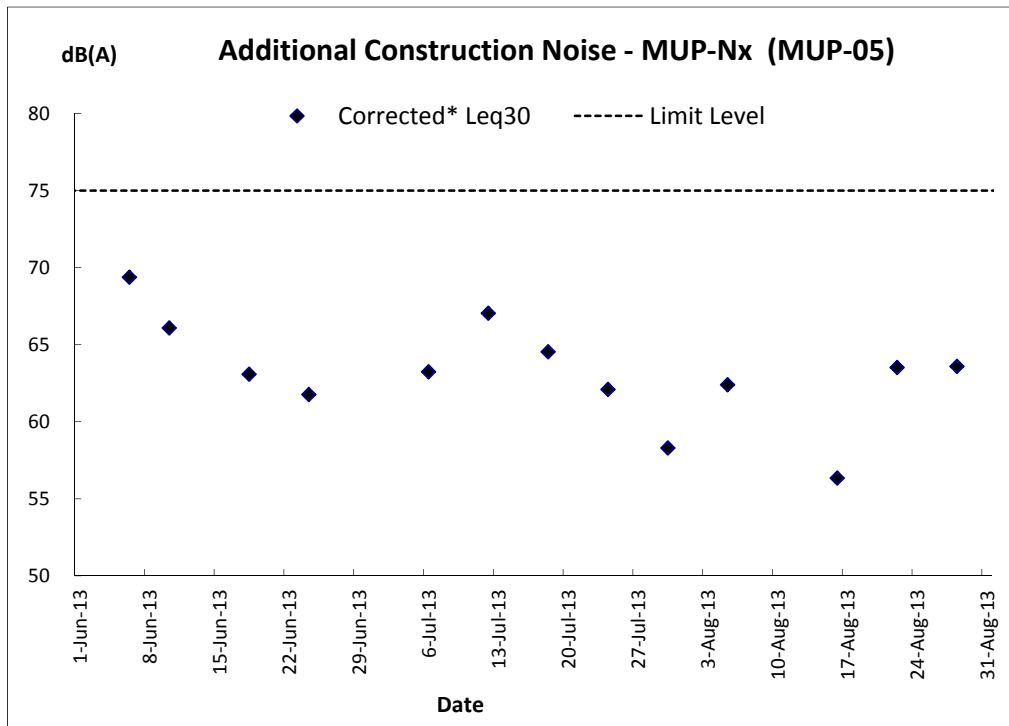
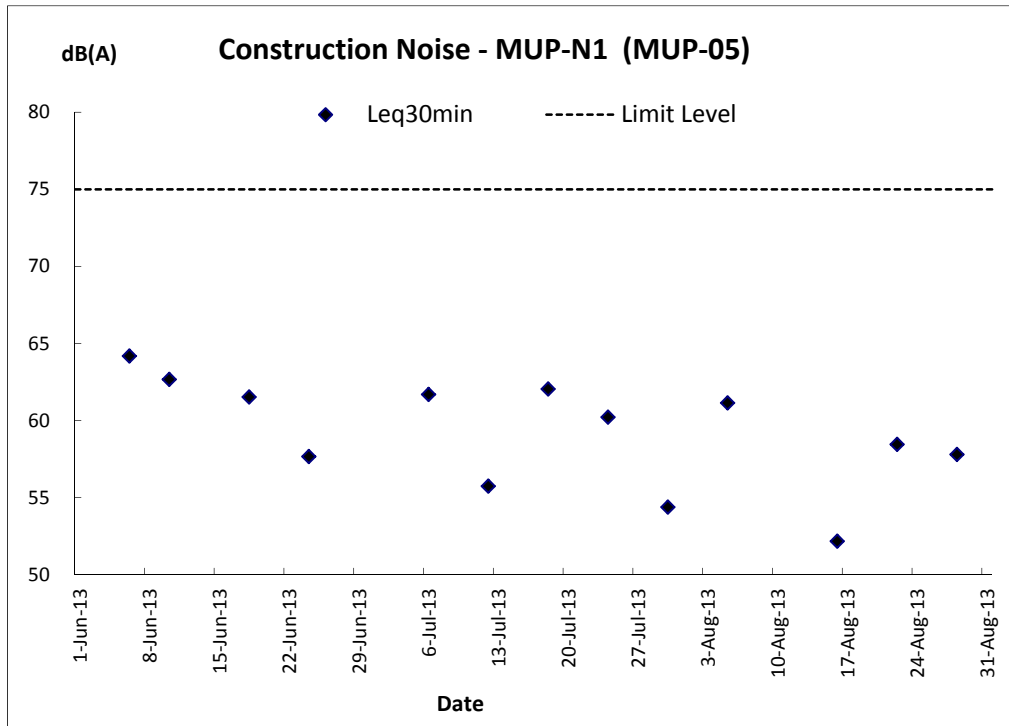
ANNEX F

GRAPHICAL PLOTS OF THE TRENDS OF MONITORED PARAMETERS

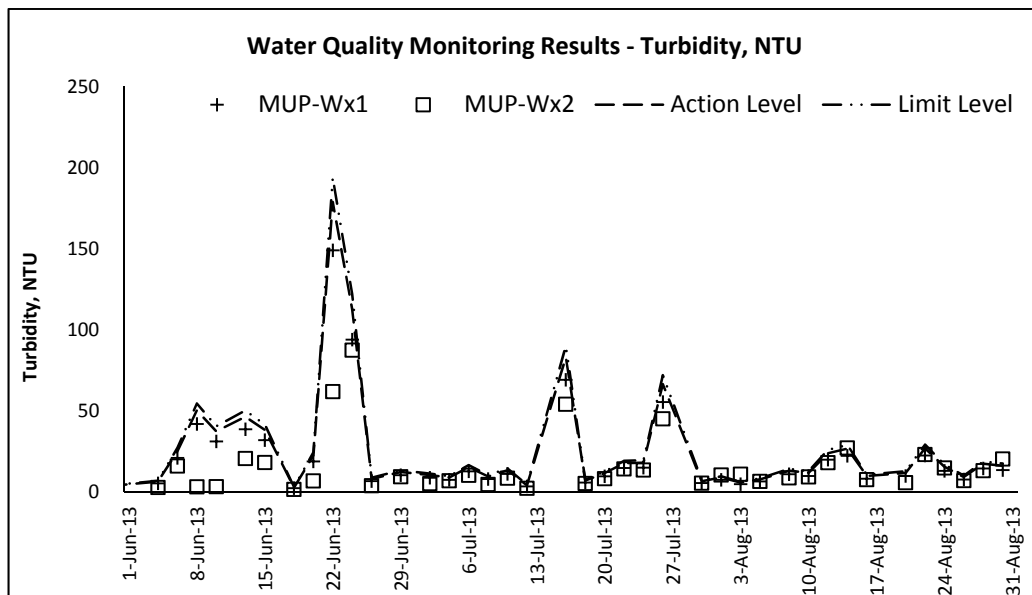
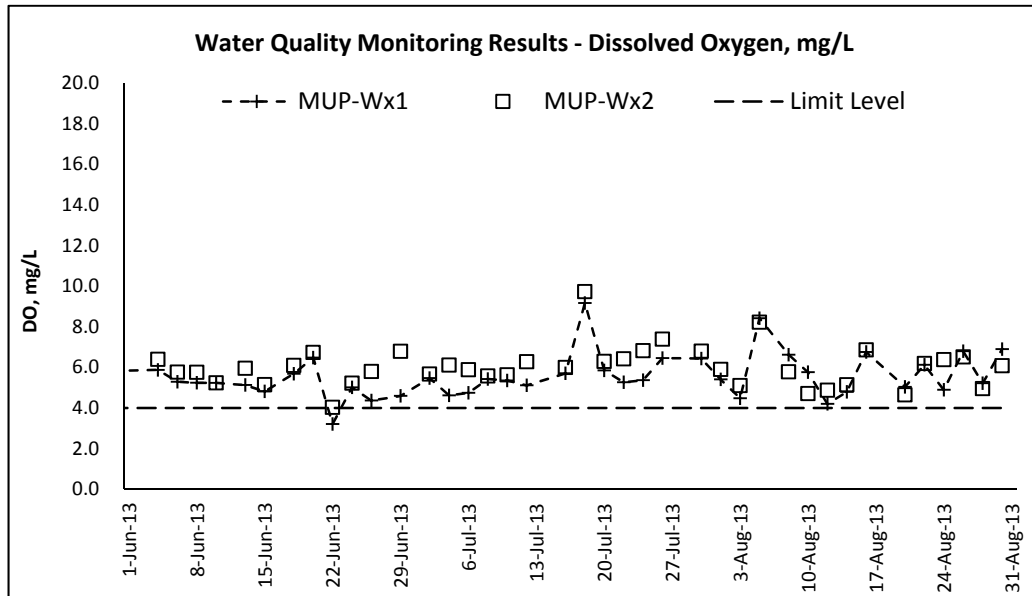
Air Quality



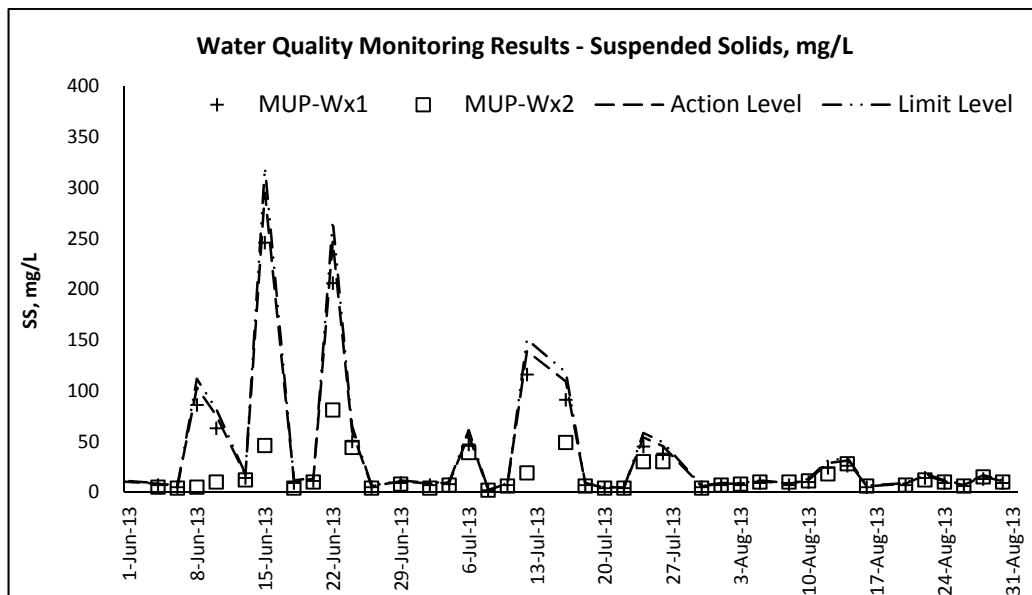
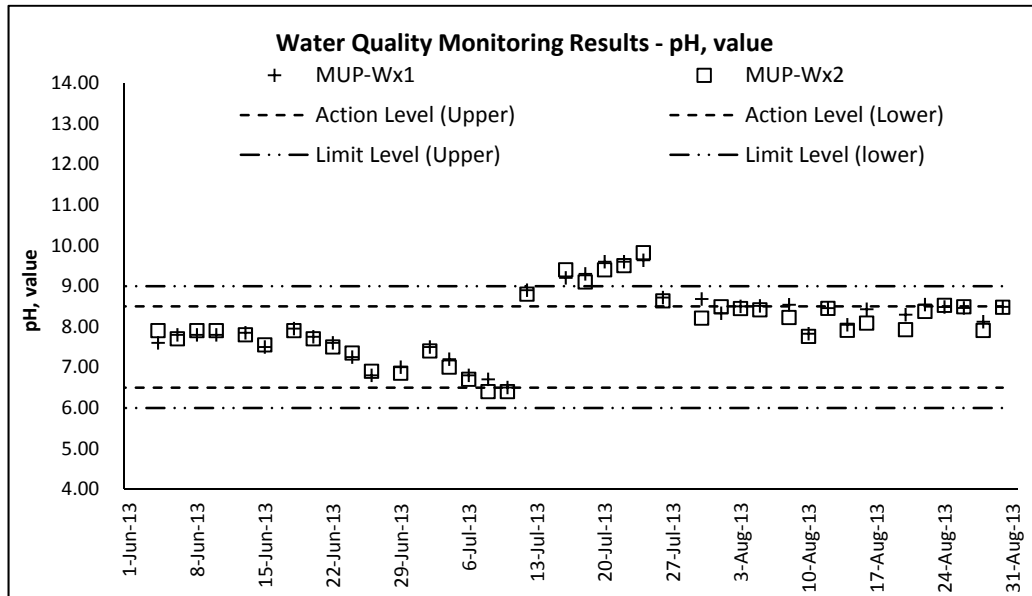
Construction Noise



Water Quality



Water Quality



ANNEX G

MONTHLY SUMMARY OF WASTE FLOW TABLE

Monthly Summary Waste Flow Table

Name of Department: DSD

Contract No.: DC/2011/06

Monthly Summary Waste Flow Table for 2013

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of Non C&D Wastes Generated Monthly					
	Total Quantity Generated (in '000m ³)	Hard Rock and Large Broken Concrete (in '000m ³)	Reused in the Contract (in '000m ³)	Reused in other Projects (in '000m ³)	Disposed as Public Fill (in '000m ³)	Imported Fill (in '000m ³)		Metals (in '000kg)	Paper/ cardboard packaging (in '000kg)	Plastics (see Note 3) (in '000kg)	Chemical Waste (in '000kg)	Others, e.g. general refuse (in '000m ³)	
Jan-13	0.002	0.000	0.002	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.035	
Feb-13	0.001	0.000	0.001	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.015	
Mar-13	0.003	0.000	0.003	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.041	
Apr-13	0.003	0.000	0.003	0.000	0.000	0.000		0.000	0.000	0.000	0.020	0.041	
May-13	0.002	0.000	0.002	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.035	
Jun-13	0.002	0.000	0.002	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.037	
Jul-13	0.003	0.000	0.003	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.036	
Aug-13	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.016	0.000	
Total	0.036	0.000	0.036	0.000	0.000	0.000		0.000	0.000	0.000	0.036	0.549	

Notes :
 (1) Note Used.
 (2) The waste flow table shall include C&D materials that are specified in the Contract to be imported for use at the Sites.
 (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging materials.
 (4) The summary table shall be submitted to the Engineer's Representative monthly together with the Waste Flow Table for review and monitoring.