JOB NO.: TCS00491/09

DSD CONTRACT NO.: DC/2009/08

CONSTRUCTION OF YUEN LONG SOUTH BRANCH SEWERS AND EXPANSION OF HA TSUEN SEWAGE PUMPING STATION

1ST QUARTERLY ENVIRONMENTAL MONITORING & AUDIT SUMMARY REPORT – (FEBRUARY 2010 TO APRIL 2010)

PREPARED FOR

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) COMPANY LIMITED

Quality Index

Date	Reference No.	Prepared By	Certified By
15 July 2011	TCS00491/09/600/R0212v2	Nicola Hon (Environmental Consultant)	T.W. Tam (Environmental Team Leader)

Version	Date	Description
1	8 July 2011	First submission
2	15 July 2011	Amended against IEC comments on 12 July 2011

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18 July 2011

By Post

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Your Ref:

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For attention of: Mr. T. W. Tam

Dear Mr. Tam,

Contract No.: DC/2009/08
Construction of Yuen Long South Branch Sewers and Expansion of Ha Tsuen Sewage Pumping Station
Quarterly EM&A Report for Designated Project, February to April 2010 – IEC Verification

With reference to ET's captioned report (ET's ref.: TCS00491/09/600/R0212v2 dated 15 July 2011) received on 15 July 2011, we have no comment and hereby verify the captioned report excluding the Landscape and Visual Impact section of the report.

We request the ET to submit the separate submission of Landscape and Visual Impact section of the report as soon as possible, for the completion of the captioned report.

Should there be any queries, please feel free to contact our William Law on 2911 2511.

Yours sincerely

F.C. TSANG
Independent Environmental Checker
HYDER CONSULTING LIMITED

FCT/WL/ri

EXECUTIVE SUMMARY

ES.01. This is the first quarterly EM&A summary report under Environmental Permit No.EP327/2009 (hereinafter ''the EP'') for the *Expansion of Ha Tsuen Sewage Pumping Station*, covering the period from 8 February 2010 to 30 April 2010 (hereinafter "Reporting Period").

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.02. Environmental monitoring activities under the EM&A program in the Reporting Period are summarized in the following table.

Aspects	Environmental Monitoring Parameters / Inspection	Occasions
Air Quality	1-hour TSP	78
	24-hour TSP	27
Construction Noise	Leq (30min) Daytime	26
Water Quality	Dissolved Oxygen	33
	Turbidity	33
	Suspended Solids (SS)	33
Inspection / Audit	ET Weekly Environmental Site Inspection	9

Note: Power failure incident of HVS was recoded at Location AM2 on 24 April 2010

BREACHES OF ACTION/LIMIT LEVELS

ES.03. Monitoring results demonstrated that no exceedance of environmental quality criteria of construction noise. However, one Action Level exceedance of 24-hour TSP monitoring was recorded at Location AM2 on 30 April 2010. Furthermore, 42 Action/Limit Levels exceedances of water quality monitoring at Tin Shui Wan Nullah was recorded in this Reporting Period. The summary of the water quality exceedances are presented below:

Month	Exceedance	DO	Turbidity	SS	Sub-total
February 2010	Action Level	1	0	0	1
	Limit Level	1	1	1	3
March 2010	Action Level	0	2	0	2
	Limit Level	1	9	9	19
April 2010	Action Level	0	0	0	0
	Limit Level	2	10	5	17
Total	**Action Level**	**1**	**2**	**0**	**3**
	Limit Level	**4**	**20**	**15**	**39**

ES.04. Investigation concluded that the air quality and water quality exceedances were not due to the Project. No corrective action was therefore recommended.

ES.05. The results and findings for landscape and visual monitoring, as part of the EM&A programme, will be submitted in a stand-alone submission.

ENVIRONMENTAL COMPLAINT, NOTIFICATIONS OF SUMMONS AND PROSECUTIONS

ES.06. In this reporting period, EPD received two public concerns/complaints on the dust issue at Ping Ha Road on 22 and 23 March 2010. To investigate the source of the dust impact, EPD did carry out two visits at Ha Tsuen Pumping Station as well as the construction sites under other CEDD Contracts at Ping Ha Road on 22 and 30 March 2010. For these two visits, no dust problems due to the work from Ha Tsuen Pumping Station were pointed out by EPD and air mitigation measures were fully implemented on site. Therefore, it was concluded that the concerns / complaints were not related to the works under Ha Tsuen Pumping Station and no associated mitigation is recommended.

REPORTING CHANGES

ES.07. No reporting changes were made during the Reporting Period.

FUTURE KEY ISSUES

ES.08. As rainy season has approached, runoff may be a key environmental issue for the coming months. Water quality prevention measures should therefore be fully implemented. In addition, the implemented construction noise and dust mitigation measures should also be maintained and improved, as necessary.

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1 INTRODUCTION

BACKGROUND

1.01 The China State Construction Engineering (Hong Kong) Limited (hereinafter "CSCE") has been awarded by the Drainage Services Department (DSD) the Contract D**C/2009/08** *Construction of Yuen Long South Branch Sewers and Expansion of Ha Tsuen Sewage Pumping Station* (the Project) in October 2009.

1.02 The Project involves construction of about 9km of sewers and rising mains with diameter ranging from 200-1500mm in Yuen Long South and Ha Tsuen areas, a sewage pumping station near Shui Tsui San Tsuen Road in Yuen Long South, expansion of existing Ha Tsuen Sewage Pumping Station. The site layout plan is shown in ***Appendix A***.

1.03 The construction of expansion Ha Tsuen Sewage Pumping Station is under a statutory EIA (Register No. AEIAR-072/2003) study for "*Upgrading and expansion of San Wai Sewage Treatment Works and expansion of Ha Tsuen Pumping Station*" commissioned by the DSD. An Environmental Permit (No.EP-327/2009) for upgrading and expansion of Sewage Treatment Works at San Wai (excluded for the Project) and Ha Tsuen Sewage Pumping Station has been obtained by DSD in January 2009 for the relevant works.

1.04 According to the Section 25 of the Particular Specification (PS) and the Environmental Permit No. EP-327/2009, the scope of monitoring includes air quality, construction noise, water quality and environmental site audit. It should be undertaken in accordance with the Environmental Monitoring and Audit Manual as part of EIA report [AEIAR-072/2003] (hereafter "the EM&A Manual") by an independent Environmental Team (ET).

1.05 This report is the part of the EM&A programme under EP No. No.EP-327/2009 for the Expansion Ha Tsuen Sewage Pumping Station, and this is the first Quarterly EM&A Summary Report (hereinafter "this Report'), covering the first quarter months from 8 February 2010 to 30 April 2010 (hereinafter "the Reporting Period') during the designated works commencement on 8 February 2010 as notified by CSCE.

REPORT STRUCTURE

1.06 This Report is structured as follows:

Section 1 Introduction
Section 2 Project Organization and Construction Progress
Section 3 Summary of Impact Environmental Monitoring and Audit Requirements
Section 4 Monitoring Results and Breaches of Environmental Quality Criteria
Section 5 Waste Management
Section 6 Site Inspection
Section 7 Non-compliance, Complaints, Notifications of Summons and Successful Prosecutions
Section 8 Implementation Status of Mitigation Measures
Section 9 Conclusions and Recommendations

2 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

PROJECT ORGANIZATION AND MANAGEMENT STRUCTURE

2.01 Organization structure and contact details of the Contractor and relevant parties with respect to the on-site environmental management are shown in ***Appendix B***.

WORKS UNDERTAKEN DURING THE REPORTING PERIOD

2.02 The master tentative construction program is enclosed in ***Appendix C.*** Also, the major construction activities undertaken in this three months February 2010, March 2010 and April 2010 are listed below:

February 2010
- Noise barrier erection in accordance with EP requirement;
- Ground investigation work; and
- Site clearance and preparation work.

March 2010
- Installation Pre-bored H-pile

April 2010 Due to the open examination in the period from 27 March 2010 to 12 May 2010 at Tang Siu Tong Secondary School and Pui Shing Secondary School, so no construction activities was carried out in accordance with the EP Condition 3.4

SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.03 Summary of the relevant permits, licences, and/or notifications on environmental protection for this Project in the Reporting Period is presented in ***Table 2-1***.

Table 2-1 Status of Environmental Licenses and Permits

Item	Description	License/Permit Status
1	Air pollution Control (Construction Dust)	In progress
2	Construction Noise Permit	In progress
3	Chemical waste Producer Registration Registration No. 5213-511-C3570-01	Issued on 13 Nov 2009
4	Water Pollution Control Ordinance (Discharge License) License No. WT00005671-2009	Issued on 12 Jan 2010 Expiry date: 31 Jan 2015
5	Billing Account for Disposal of Construction Waste (Account Number: 700947)	Issued on 7 October 2009

2.04 The baseline monitoring report - *Expansion of Ha Tsuen Sewage Pumping Station* (*Ref: TCS00491/09/600/R0023v6*) had been verified by IEC and endorsed by EPD.

3 SUMMARY OF IMPACT MONITORING REQUIREMENTS

MONITORING PARAMETERS

3.01 According to the *EM&A Manual*, the environmental aspect implemented by ET, including air quality, construction noise and water quality, also the landscape and visual impact to be monitored by a competent landscape architect. The monitoring parameters are summarized in ***Table 3-1***.

Table 3-1 Summary of Monitoring Parameters

Environmental Aspect	Parameters
Air Quality	• 1-hour Total Suspended Particulate (hereinafter '1-hr TSP'); and • 24-hour Total Suspended Particulate (hereinafter '24-hr TSP').
Construction Noise	• 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 – Local Stream Course	• In Situ Measurement - Dissolved Oxygen (DO) and Turbidity • Laboratory Analysis - Suspended Solids (SS)
Water Quality – Effluent Discharge	• In Situ Measurement - pH value • Laboratory Analysis - SS and Chemical oxygen demand (COD)
Landscape and Visual Resources	• Vegetation survey undertaken on an "area" basis to identify representative types and species composition; • Assessment of landscape character; and • Tree survey report. • The inspection findings will be submitted separately.

MONITORING LOCATIONS

Air Quality

3.02 The designated monitoring location Yeung Chun Pui Care & Attention Home located at Sha Chau Lei Road has been identified, but the premise was granted by CEDD existing project CV/2008/03 for air quality monitoring. Also, the HVS installation at the other one designated air monitoring station Tin Shing Court, the premises is refused by the incorporated owners. The alternative location Ho Tak Sum Primary School as one sensitive receiver mentioned in the EIA Report (Register No. AEIAR-072/2003) is proposed to be the replacement to undertake air quality monitoring during the expansion works of Ha Tsuen Sewage Pumping Station in accordance with the EM&A Manual Clauses 2.2.1.20. Simultaneously, air monitoring at the designated location Yeung Chun Pui Care & Attention Home is proposed to perform. The proposal and recommendation is agreed by IEC and as endorsed by EPD. The monitoring stations are detailed to list in ***Table 3-2*** and illustrated in ***Appendix D***.

Table 3-2 Air Quality Monitoring Station under the Project Proposed in the EM&A Manual

Monitoring Location ID	Identified Address	Remarks
AM1	Ho Tak Sum Primary School	Replace the Designated Monitoring Station Tin Shing Court
AM2	Yeung Chun Pui Care & Attention Home	Designated in the EM&A Manual

Construction Noise

3.03 Similarly to the air monitoring, the construction noise monitoring stations undertaken for EM&A programme was agreed by IEC and as endorsed by EPD. The detailed monitoring stations are listed in ***Table 3-3*** and shown in ***Appendix D***.

Table 3-3 Construction Noise Monitoring Station under the Project Proposed in the EM&A Manual

Monitoring Location ID	Identified Address	Remarks
NM1	Ho Tak Sum Primary School	Replace the Designated Monitoring Station Tin Shing Court
NM2	Yeung Chun Pui Care & Attention Home	Designated in the EM&A Manual

Water Quality

3.04 One designated location of a local stream course, Tin Shui Wai Nullah, is recommended to carry out water quality monitoring in accordance with the EM&A Manual. The designated sampling location R1 is located at the midpoint between two pedestrian flyovers athwart Tin Shui Wai Nullah, which are 320 meters apart, there is technical difficulty and safety is concerned. So, a new sampling point located at approximately 160m upstream of the R1 (hereinafter as R1b) was therefore proposed for the local stream impact monitoring and has been verified by IEC and no further comments by EPD.

3.05 The detailed monitoring station is listed in ***Table 3-4*** and shown in ***Appendix D***.

Table 3-4 Local Stream Water Quality Monitoring Station

Monitoring Location ID	Identified Address	Remarks
R1b	The athwart Tin Shui Wai Nullah pedestrian flyover	About 160 meters upstream from the designated location as stipulated in the EM&A Manual. Also, it is closer to the existing Ha Tsuen Pumping Station

Landscape and Visual

3.06 The selected route and area, frequency and requirements of landscape & visual monitoring is proposed by a competent landscape architect.

MONITORING FREQUENCY

3.07 The impact monitoring frequency and duration for air quality, construction noise, water quality of local stream course, and landscape & visual are summarized below.

Air Quality Monitoring

Parameters: 1-hour TSP and 24-hour TSP.

Frequency: Once every six days for 24-hour TSP and three times every six days for 1-hour TSP.

Duration: Throughout the construction period.

Noise Monitoring

Parameters: One set of Leq(30min) as 6 consecutive Leq(5min) between 0700-1900 hours on normal weekdays.

Leq (5min), L10 and L90 during the construction undertaken during Restricted Hours (from 19:00 to 07:00 hours of the following day and full day of public holiday and Sunday)

Frequency: Once every six days during 0700-1900 hours on normal weekdays. Restricted Hour monitoring should depend on conditions stipulated in Construction Noise Permit.

Duration: Throughout the construction period.

Water Quality Monitoring of Local Stream Course

Parameters: DO, Turbidity and SS.

Frequency: 3 days per week.

Depth: mid-depth

Duration: Throughout the construction period and the interval between 2 sets of monitoring is

not less than 36 hours

Landscape and Visual Monitoring

Parameters: Site inspection with broad scope of audit as listed in the EM&A Manuals
Frequency: Once every 2 weeks
Duration: Throughout the construction period

Site inspection and Audit

Frequency: Once per week.
Duration: Throughout the construction period.

ENVIRONMENTAL QUALITY CRITERIA

3.08 The environmental quality criteria i.e. Action and Limit levels (herein after 'A/L levels') are listed in Table 3-5, 3-6 and 3-7 below.

Table 3-5 Action and Limit Levels for Air Quality Monitoring

Monitoring Location	Action Level (μg /m^3)		Limit Level (μg /m^3)	
	1-hour	24-hour	1-hour	24-hour
AM1	305	162	> 500	> 260
AM2	310	190	> 500	> 260

Table 3-6 Action and Limit Levels for Construction Noise

Monitoring Location	Action Level	Limit Level in dB(A)
	0700-1900 hrs on normal weekdays	
NM1	When one or more documented complaints are received	70 dB(A) of Leq(30min) during normal hours from 0700 to 1900 hours on normal weekdays, reduced to 65 dB(A) during school examination periods
NM2		70 dB(A) of Leq(30min) during normal hours from 0700 to 1900 hours on normal weekdays

*Note: *Reduces to 65 dB(A) during the school examination periods.*

Table 3-7 Action and Limit Levels for a Local Stream Water Quality Monitoring (R1b)

Parameter	Action Level	Limit Level
DO (mg/L)	4.6	4 mg/L or 40% saturation at 15^{o}C
Turbidity (NTU)	15.6	16.2
SS (mg/L)	31.5	31.9

ENVIRONMENTAL MITIGATION MEASURES

3.09 Environmental Mitigation Implementation Schedule (EMIS) such as the construction dust, noise, wastewater and waste management shall be performed in accordance with the project EM&A Manual Appendix A requirements.

4 MONITORING RESULTS AND BREACHES OF ENVIRONMENTAL QUALITY CRITERIA

AIR QUALITY MONITORING

4.01 Monitoring results and breaches A/L levels of air quality during the Reporting Period are respectively listed in ***Tables 4-1*** and ***4-2***; and graphic plots in ***Appendix E***.

Table 4-1 Summary of Air Quality Monitoring Results, (μg/m3)

Date	24-hour TSP		Date	1-hour TSP					
				AM1			AM2		
	AM1	AM2		1st hour	2nd hour	3rd hour	1st hour	2nd hour	3rd hour
10-Feb-10	23	32	11-Feb-10	97	108	106	109	121	118
18-Feb-10	24	129	17-Feb-10	71	78	75	79	87	86
22-Feb-10	53	66	23-Feb-10	92	104	101	102	111	109
27-Feb-10	33	69	01-Mar-10	89	102	97	114	120	119
05-Mar-10	24	21	06-Mar-10	70	77	76	72	84	80
11-Mar-10	32	47	12-Mar-10	89	102	97	102	124	122
17-Mar-10	37	63	18-Mar-10	82	94	91	87	98	95
23-Mar-10	153	153	24-Mar-10	76	87	85	87	98	96
29-Mar-10	108	58	30-Mar-10	82	102	97	98	112	107
07-Apr-10	84	43	08-Apr-10	144	154	149	104	127	118
13-Apr-10	32	76	14-Apr-10	81	103	94	86	109	92
19-Apr-10	34	48	20-Apr-10	107	130	126	140	156	151
24-Apr-10	41	(*)	26-Apr-10	137	154	148	159	167	163
30-Apr-10	64	**219**							
Average (Range)	**53 (23-153)**	**79 (21-219)**	**Average (Range)**	**101 (70-154)**			**110 (72-167)**		

Remarks: (*) Power Failure

Table 4-2 Summaries of Breaches of Air Quality A/L Levels

Location	Exceedance	1-Hour TSP	24-Hour TSP	Total
AM1	Action Level	0	0	0
	Limit Level	0	0	0
AM2	Action Level	0	1	1
	Limit Level	0	0	0

4.02 In this quarterly month (February 2010, March 2010 and April 2010), only one exceedance of Action Level of 24-Hr TSP was recorded at AM2 on 30 April 2010. Notification of Exceedance (NOE) was issued to relevant parties upon confirmation of the results. In consideration that no major construction activities were undertaken at the existing Ha Tsuen Sewage Pumping Station since 27 March 2010 in accordance with EP Condition 3.4 requirement. The exceedance is considered not related to the work under the Project.

4.03 All the 1-Hr TSP and other monitoring day of 24-Hr TSP results were well below the corresponding A/L level. No corrective action was recommended for the parameters.

CONSTRUCTION NOISE MONITORING

4.04 Monitoring results and breaches A/L levels of construction noise during the Reporting Period are respectively listed in ***Tables 4-3*** and ***4-4***; and graphic plots in ***Appendix E***.

Table 4-3 Summary of Construction Noise Monitoring Results (Leq30, dB(A))

Date	(*) NM1	(*) NM2
11-Feb-10	60.4	56.7
17-Feb-10	56.0	59.8
23-Feb-10	63.2	60.1
01-Mar-10	58.1	59.8
06-Mar-10	58.6	62.4

Date	(*) NM1	(*) NM2
12-Mar-10	67.1	60.6
18-Mar-10	60.5	63.0
24-Mar-10	(#) 62.9	62.2
30-Mar-10	(#) 60.0	62.5
08-Apr-10	(#) 60.0	60.3
14-Apr-10	(#) 58.5	64.8
20-Apr-10	(#) 60.6	63.2
26-Apr-10	(#) 57.5	59.4

Remarks:
(*)A façade correction of +3dB(A) has been added according to acoustical principles and EPD guidelines.
(#)Reduces to 65dB(A) during the school examination periods on 23 to 26 March 2010.

Table 4-4 Summaries of Breaches of Construction Noise A/L Levels

Station	Exceedance of Environmental Quality Criteria	
	Action Level	Limit Level
NM1	0	0
NM2	0	0

4.05 In this reporting quarter (February 2010, March 2010 and April 2010), all the construction noise results fluctuated below the Limit level. Neither documented construction complaint nor exceedance of Limit level was recorded during the Reporting Period. Neither NOE nor corrective action was recommended for the parameter.

WATER QUALITY MONITORING – LOCAL STREAM COURSE

4.06 In this Reporting Period (February 2010, March 2010 and April 2010), there had thirty-three events were undertaken for local stream course monitoring. All results are presented in graphic plots in ***Appendix E***. Statistics including minimum, maximum and average of the monitoring results are summarized in ***Table 4-5***.

Table 4-5 Statistics of the Monitoring Results

Statistics	DO (mg/L)	Turbidity (NTU)	SS (mg/L)
Minimum	2.3	5.6	2.0
Average	7.8	18.5	34.2
Maximum	12.7	43.3	168.0

4.07 Breaches of water quality A/L levels and statistic of the water quality criteria compliance during the Reporting Period are summarized in ***Table 4-6***.

Table 4-5 Summaries of Breaches of the Existing Water Quality A/L Levels

Construction Month	No of sample analysis in each Parameter	Exceedance	DO	Turbidity	SS	Total Exceedances in the Month
February 2009	8	Action Level	1	0	0	1
		Limit Level	1	1	1	3
		Sub-Total	2	1	1	4
March 2009	14	Action Level	0	2	0	2
		Limit Level	1	9	9	19
		Sub-Total	1	11	9	21
April 2009	11	Action Level	0	0	0	0
		Limit Level	2	10	5	17
		Sub-Total	2	10	5	17
Total	33	**Action Level**	**1**	**2**	**0**	**3**
		Limit Level	**4**	**20**	**15**	**39**
Total Exceedances in the Quarterly Month			**15.1%**	**66.7%**	**54.5%**	**42.4%**

4.08 As shown in ***Tables 3-6*** and graphic plots in ***Appendix E***, a total of 42 Action/Limit Level exceedances of water quality were recorded during the Reporting Period. The exceeded parameters included 1 Action Level and 4 Limit level of Dissolved Oxygen (DO), 2 Action Level and 20 Limit Level of Turbidity and 15 Limit Level of Suspended Solids (SS). The NOEs and the associated investigation reports were issued upon confirmation of the results and construction information.

4.09 For the investigation, it noted that site hoarding, noise barriers erection, ground investigation and clearance were carried out in February 2009; the pre-bored H-pile installation was undertaken in March 2009 and the muddy water come from the pre-bored H pile installation was recycled and reused on pre-bored H pile installation. Moreover, the project site was paused in accordance with Environmental Permit Condition 3.4 requirement during the school examination started on 27 March and will be resumed on 12 May 2009. Furthermore, in viewing that Tin Shui Wai Nullah is sensitive by the seasonal change and large fluctuation of values were obtained before. It was considered that water quality exceedances were not due to the Project and no corrective action was therefore recommended.

OTHER MONITORING AND AUDIT

Landscape and Visual

4.10 Regular landscape and visual audit shall undertake twice a month by the landscape architect. Due to monitoring and audit works for landscaping and visual as part of the EM&A programme was undertaken by others. Hence, no monitoring and audit is presented in this Quarterly EM&A Summary Report.

4.11 For information, hoarding and fencing erection to protect the retained and transplanted trees were observed during the regular weekly site inspection. Furthermore, the retained and transplanted trees overall are health to be described in the Project Tree Report.

5 WASTE MANAGEMENT

5.01 Waste management was performed by an on-site Environmental Officer or an Environmental Supervisor from time to time. A Billing Account (The account number 700947) under the ***Waste Disposal (Charges for Disposal of Construction Waste) Regulation*** has already been assigned on 7 October 2009, a discharge license No. WT00005671-2009 under Section 20 of the ***Water Pollution Control Ordinance*** has been issued. CSCE has also registered as a Chemical Waste Producer with EPD under the Waste Disposal (Chemical Waste) (General) Regulation and the Waste Producer Number assigned is WPN: 5213-511-C3570-01 dated 13 November 2009.

RECORDS OF WASTE QUANTITIES

5.02 All types of waste arising from the construction work are classified into the following:

- Construction & Demolition (C&D) Material;
- Chemical Waste;
- General Refuse; and
- Excavated Soil.

5.03 Whenever possible, materials were reused on-site as far as practicable. The quantities of waste for disposal in the Reporting Period are summarized in ***Tables 5-1*** and ***5-2***. The Monthly Summary Waste Flow Table provided by the Contractor can be found at the relevant EM&A monthly report.

Table 5-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Quantity				Disposal Location
	Feb 10	Mar 10	Apr 10	Total	
C&D Materials (Inert) (m^3)	0	0	0	0	-
Reused in this Contract (Inert) (m^3)	0	0	0	0	-
Reused in other Projects (Inert) (m^3)	0	0	0	0	-
Disposal as Public Fill (Inert) (m^3)	36	654	579	1,269	Tuen Mun Area 38

Table 5-2 Summary of Quantities of C&D Wastes

Type of Waste	Quantity				Disposal Location
	Feb 10	Mar 10	Apr 10	Total	
Recycled Metal (kg)	0	0	0	0	-
Recycled Paper/Cardboard Packing (kg)	0	0	0	0	-
Recycled Plastic (kg)	0	0	0	0	-
Chemical Wastes (kg)	0	0	0	0	--
General Refuses (m^3)	3	14	6	23	NENT Landfill

5.04 There was no site effluent or surface runoff discharged in the Reporting Period. The Monthly Summary Waste Flow Table provided by the Contractor can found from the relevant EM&A monthly report.

6 SITE INSPECTIONS

6.01 According to the Environmental Monitoring and Audit Manual, regular environmental site inspections had been carried out by ET joined with the Contractor and ER to confirm the environmental performance. During the Reporting Period, a total nine events of the joint site inspection was undertaken to evaluate the site environmental performance. No non-compliance was noted. However, 8 reminders and 7 Observations were found during the site inspections and monthly audit within the Reporting Period. ***Table 6-1*** is summarized the findings. The inspection checklists can found from the relevant EM&A monthly report.

Table 6-1 Site Reminders/Observations Found in the Reporting Period

Date	Findings / Deficiencies
23 February 2010	• The wheel washing facility is reminded to maintain functional.
2 March 2010	• The Contractor was reminded to keep the site clean and tidy. • The Contractor was reminded to clear the channel or apply larvidical oil to prevent mosquitoes breeding.
9 March 2010	• C&D waste cumulated was observed, the Contractor was reminded to clean in regular basis. • Scattered of C&D waste and general refuse were observed, the contractor was reminded to improve the housekeeping on site.
23 March 2010	• Water spraying is needed to minimize the dust generation especially near the public road. • As a general reminder, the contractor should keep carrying out the mitigation measure for the cement mixing device to prevent the fugitive dust.
30 March 2010	• Muddy water was observed during site inspection. The Contractor was reminded to keep the road near site area clean. • The contractor was reminded to clear the general refuse in regular basis.
07 April 2010	• No environmental issue was observed during the site inspection. As a reminder, stagnant water should be removed after the rainfall to prevent mosquito breeding.
13 April 2010	• Muddy water was observed at the site exit, the contractor was reminded to clean the wheel-washing facility regularly and keep the site exit clean.
22 April 2010	• Exposed C&D material cumulated without covering was observed, the contractor was reminded to tidy regularly to prevent stagnant water accumulation.
27 April 2010	• The Contractor was advised to implement water mitigation measures to eliminate any accumulation of stagnant water on site especially in rainy season

6.02 In general, it was reminded that good housekeeping practice should be maintained; beside, the dust mitigation measures should be improve to prevent the dust emission during dry season. The environmental performance of the Project was therefore considered satisfactory.

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

NON-COMPLIANCE

7.01 Apart from the exceedances of air and water quality A/L levels respectively summarized in ***Table 4-2*** and ***Table 4-6*** above section, no non-compliance or deficiency was identified during regular site inspection and environmental audit. No associated remedial actions were recommended. No other non-compliance or deficiency was identified during regular site inspections and environmental audits. No associated remedial actions were recommended.

ENVIRONMENTAL COMPLAINT

7.02 In this reporting period, EPD received two public concerns/complaints on the dust issue at Ping Ha Road on 22 and 23 March 2010. To investigate the source of the dust impact, EPD did carry out two visits at Ha Tsuen Pumping Station as well as the construction sites under other CEDD Contracts at Ping Ha Road on 22 and 30 March 2010. For these two visits, no dust problems due to the work from Ha Tsuen Pumping Station were pointed out by EPD and air mitigation measures were fully implemented on site. Therefore, it was concluded that the concerns / complaints were not related to the works under Ha Tsuen Pumping Station and no associated mitigation is recommended. The statistical summary table of environmental complaint is presented in ***Table 7-1***.

Table 7-1 Statistical Summary of Environmental Complaints

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
8 Feb– 28 Feb 2010	0	0	NA
1 Mar 10 – 31 Mar 2010	2	2	Air (2)
1 Apr 10 – 30 Apr 2010	0	2	NA

NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

7.03 No notifications of summons and successful prosecutions were recorded during the Reporting Period. No associated remedial actions were recommended The statistical summary table of environmental summons and successful prosecution are presented in ***Tables 7-2 and 7-3***.

Table 7-2 Statistical Summary of Environmental Summons

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
8 Feb– 28 Feb 2010	0	0	NA
1 Mar 10 – 31 Mar 2010	0	0	NA
1 Apr 10 – 30 Apr 2010	0	0	NA

Table 7-3 Statistical Summary of Environmental Prosecution

Reporting Period	Environmental Complaint Statistics		
	Frequency	Cumulative	Complaint Nature
8 Feb– 28 Feb 2010	0	0	NA
1 Mar 10 – 31 Mar 2010	0	0	NA
1 Apr 10 – 30 Apr 2010	0	0	NA

8 IMPLEMENTATION STATUS OF MITIGATION MEASURES

8.01 The environmental mitigation measures that recommended in the Environmental Monitoring and Audit Manual covered the issues of dust, noise and waste.

8.02 The Contractor had been implementing the required environmental mitigation measures according to the Environmental Monitoring and Audit Manual subject to the site condition. Environmental mitigation measures generally implemented during the Reporting Period are summarized in ***Table 8-1***.

Table 8-1 Environmental Mitigation Measures Implementation in the Reporting Period

Issues	Environmental Mitigation Measures
Air Quality	• Regular watering to reduce dust emissions from all exposed site surface, particularly during dry weather; • Frequent watering for particularly dusty construction areas and areas close to air sensitive receivers; • Cover all excavated or stockpile of dusty material by impervious sheeting or sprayed with water to maintain the entire surface wet; • Public roads around the site entrance/exit had been kept clean and free from dust; • Tarpaulin covering of any dusty materials on a vehicle leaving the site; and • Spanker of water spray system is provided at haul road to reduce dust emissions during the vehicles passing through the haul road.
Noise	• Use of site hoarding with noise barriers to screen noise at ground level of NSRs; and • Scheduling of no any construction works during school examination period in the Ha Tsuen Pumping Station.
Water Quality	• Wastewater were appropriately treated by treatment facilities; • Drainage channels were provided to convey run-off into the treatment facilities; • Drainage systems were regularly and adequately maintained; • De-silting facility was provided to treat the discharged water; also the treated water is reused for spraying the road surface.
Waste and Chemical Management	• Excavated material should be reused on site as far as possible to minimize off-site disposal. Scrap metals or abandoned equipment should be recycled if possible; • Waste arising should be kept to a minimum and be handled, transported and disposed of in a suitable manner; • The Contractor should adopt a trip ticket system for the disposal of C&D materials to any designed public filling facility and/or landfill; and • Chemical waste shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes.
General	• The site was generally kept tidy and clean.

9 CONCLUSIONS AND RECOMMENTATIONS

CONCLUSIONS

9.01 This is the 1st quarterly EM&A summary report for the Designated Project of Expansion of Ha Tsuen Sewage Pumping Station, covering the construction period from 8 February 2010 to 30 April 2010.

9.02 Monitoring results demonstrated that no exceedance of environmental quality criteria in construction noise during the Reporting Period. However, there were 1 Action Level exceedance for air quality and 42 Action/Limit Levels exceedances for water quality monitoring reported in this quarter period. All the exceedances were not related to the works under the Project and no corrective actions therefore recommended.

9.03 Monitoring and audit works for landscaping and visual was undertaken by others. Hence, the landscape and visual impacts monitoring findings will be submitted separately as a stand-alone document. However, hoarding and fencing erection to protect the retained and transplanted trees were observed during the regular weekly site inspection. The Project Tree Report also described the retained and transplanted trees were health overall.

9.04 During the Reporting Period, a total nine events of the joint site inspection was undertaken to evaluate the site environmental performance. No non-compliance was noted. However, 8 reminders and 7 Observations were found during the site inspections and monthly audit within the Reporting Period.

9.05 Two public concerns/complaints of air quality were received by EPD on 22 and 23 March 2010 during the Reporting Period. Notification and associated investigations had been conducted. Conclusion that the concerns / complaints were not relevant works at Ha Tsuen Pumping Station to drawn. No notifications of summons and successful prosecutions were received during the Reporting Period. No adverse environmental impacts were observed during the weekly site inspection and environmental audit of the Reporting Period, indicating the implemented mitigation measures for air quality, construction noise and water quality were effective. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

9.06 No site inspection was undertaken by the Agriculture, Fisheries and Conservation Department (AFCD) and Leisure and Cultural Services Department (LCSD) in this Reporting Period. However, EPD was carried out a site inspection on 22 March 2010, 30 March 2010 and 13 April 2010 to inspect the dust control implemented in the construction site.

RECOMMENDATIONS

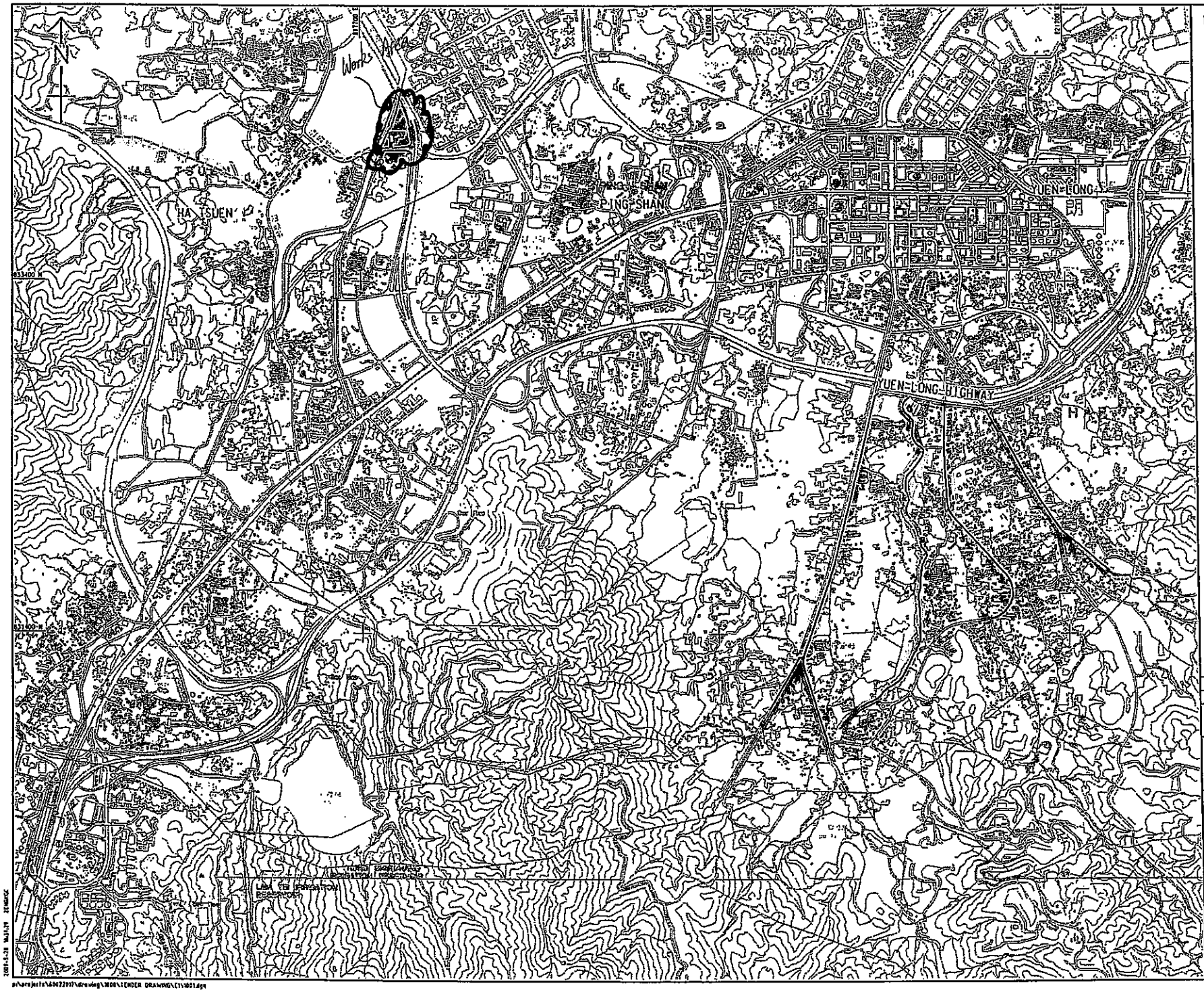
9.07 Due to rainy season come soon, water quality mitigation measures to avoid ingression of turbidity and other water quality pollutants via site surface water runoff into the Tin Shui Wai Nullah should be properly maintained or improved, as appropriate.

9.08 In addition, special attention should also be paid to construction noise and other environmental issues identified in the EM&A Manual. Mitigation measures recommended in the EIA and summarized in Mitigation Measure Implementation Schedule of EM&A Manual should be fully implemented.

9.09 The baseline monitoring of water quality was conducted during typical dry season (November to April next year) in Hong Kong. It is important to note that influence of seasonal changes should be taken into account when interpreting monitoring data obtained during wet season. Review of the baseline conditions may need to be conducted regularly, in particular during seasonal changes. If the changes in baseline conditions are evident, the environmental performance criteria should be re-established by agreement of the ER and IEC and submitted for EPD endorsement.

Appendix A

Site Layout Plan



-	TENDER DRAWING	DSD/ACTS	05.09

DRAINAGE SERVICES DEPARTMENT,
THE GOVERNMENT OF THE HONG KONG
SPECIAL ADMINISTRATIVE REGION

YUEN LONG AND KAM TIN SEWERAGE AND SEWAGE DISPOSAL - CONSTRUCTION OF YUEN LONG SOUTH BRANCH SEWERS AND EXPANSION OF HA TSUEN SEWAGE PUMPING STATION

LOCATION PLAN

AECOM

DRG NO. 60022017/C1/1001

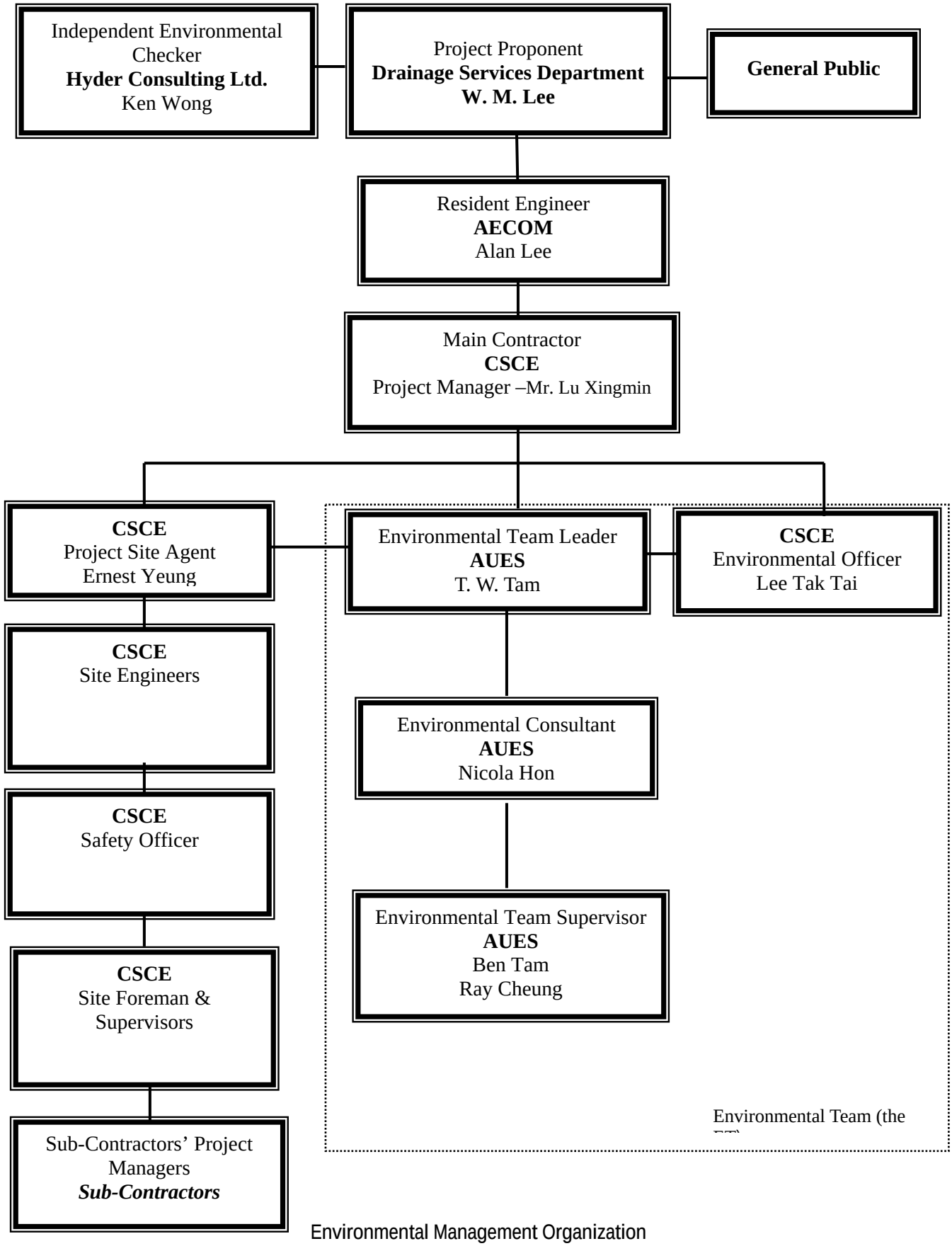
CONTRACT NO. DC/2009/08

SCALE AT A1 1 : 10000

METRES

Appendix B

On-site environmental management



Environmental Management Organization

Contact Details of Key Personnel

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Employer	Mr. W. M. Lee	--	2827-8700
AECOM	Engineer's Representative	Mr. Alan Lee	9706 9568	2472 0132
Hyder	Independent Environmental Checker	Mr. Ken Wong	2911 2730	2805 5028
CSCE	Project Manager	Mr. Lu Xingmin	2472 0113	2472-0229
CSCE	Site Agent	Mr. Ernest Yeung	2472 0113	2472-0229
CSCE	Site Engineer	Mr. Poon Kwong Keung	2472 0113	2472-0229
CSCE	Environmental Officer	Mr. Lee Tak Tai	2472 0113	2472-0229
CSCE	Safety Officer	Mr. Ng Ka Po	2472 0113	2472-0229
AUES	Environmental Team Leader	Mr. T. W. Tam	2959-6059	2959-6079
AUES	Environmental Consultant	Ms. Nicola Hon	2959-6059	2959-6079
AUES	Assistance Environmental Consultant	Mr. Ray Cheung	2959-6059	2959-6079
AUES	Team Supervisor	Mr. Ben Tam	2959-6059	2959-6079

Legend:

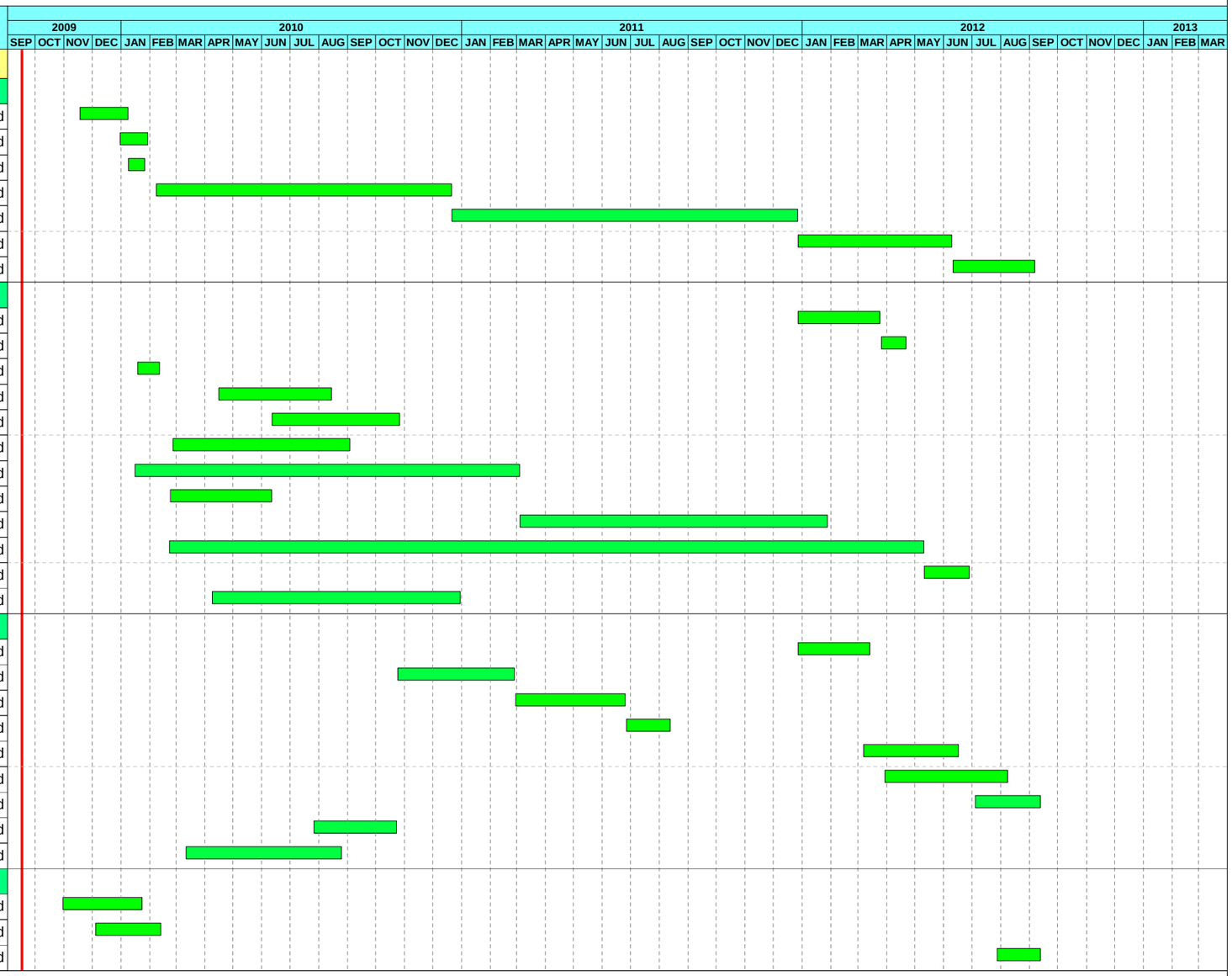
DSD (Employer) – Drainage Services Department
AECOM (Engineer) – AECOM
CSCE (Main Contractor) – China State Construction Engineering (Hong Kong) Ltd
Hyder (IEC) – Hyder Consulting Limited
AUES (ET) – Action-United Environmental Services & Consulting

Appendix C

Master construction program

Contract No. DC/2009/08
Construction of Yuen Long South Branch Sewers and Expansion of HTS Pumping Station

Activity ID	Description	Original Duration	Early Start	Early Finish	Total Float
Ha Tsuen Area					
Pumping Station					
H/200020	Site investigation and report	42	18NOV09	08JAN10	67d
H/200030	Install acoustic screen	25	31DEC09	29JAN10	154d
H/200040	Installation of monitoring point	15	09JAN10	26JAN10	157d
H/200050	Prebored H-piles	210	08FEB10	21DEC10	147d
H/200070	Substructure	252 *	22DEC10	27DEC11	147d
H/201800	Superstructure	84	28DEC11	09JUN12	158d
H/202100	Finishes	75	11JUN12	06SEP12	158d
Rising Main					
H/300010	Gang B: RM from station to extg valve chamber	70	28DEC11	24MAR12	192d
H/300020	Testing of RM bet station and extg valve chamber	20	26MAR12	21APR12	192d
H/300200	Trial pit to locate existing sleeve at nullah	21	19JAN10	11FEB10	116d
H/300210	Rising Main under existing nullah	100	16APR10	14AUG10	133d
H/300400	Rising Main bet ch274 to ch298 & washout chamber	112	12JUN10	26OCT10	4d
H/300500	Rising Main between ch0 to ch89	155	26FEB10	03SEP10	116d
H/300600	Pipe jacking between ch385 to ch815	330 *	16JAN10	04MAR11	96d
H/300665	Pipe jacking between ch298 to ch385	88	23FEB10	11JUN10	4d
H/300800	Gang A : RM between ch815 to ch1002	264 *	05MAR11	28JAN12	96d
H/300900	Gang A : RM between ch1002 to ch1585	651 *	22FEB10	10MAY12	13d
H/301430	Testing of RM bet ch1787 to extg valve chamber	40	11MAY12	28JUN12	13d
H/302000	Pipe jacking between ch 1585 to ch1787.2	219 *	09APR10	30DEC10	359d
Road and Drain					
H/400020	Concrete pipe between extension to FM17	60	28DEC11	13MAR12	153d
H/400030	Sewage between FM17 to FM15 and manholes	100 *	25OCT10	26FEB11	169d
H/400050	Concrete pipe between M1 to FM16	50	28FEB11	25JUN11	169d
H/400090	Manhole M1 and sewage connection	40	27JUN11	12AUG11	169d
H/400100	Storm water drain	36	07MAR12	16JUN12	153d
H/400110	Power supply to pumping station	60	30MAR12	08AUG12	153d
H/400115	Roadworks	60 *	05JUL12	12SEP12	153d
H/400135	Pipe jacking between FM16 to existing FM7	74 *	27JUL10	23OCT10	169d
H/410010	Pipe jacking between FM16 to FM15	89 *	12MAR10	25AUG10	169d
Landscaping					
H/600110	Tree transplant at HTSPS Extension	70	31OCT09	23JAN10	7d
H/600120	Tree transplant at Ping Ha Road	70	05DEC09	12FEB10	158d
H/600130	Landscaping finishes at HTSPS	40	28JUL12	12SEP12	153d



Start date	17SEP09
Finish date	02JUL15
Run date	05FEB10
Project name	WP11
Page number	1A
c Primavera Systems, Inc.	

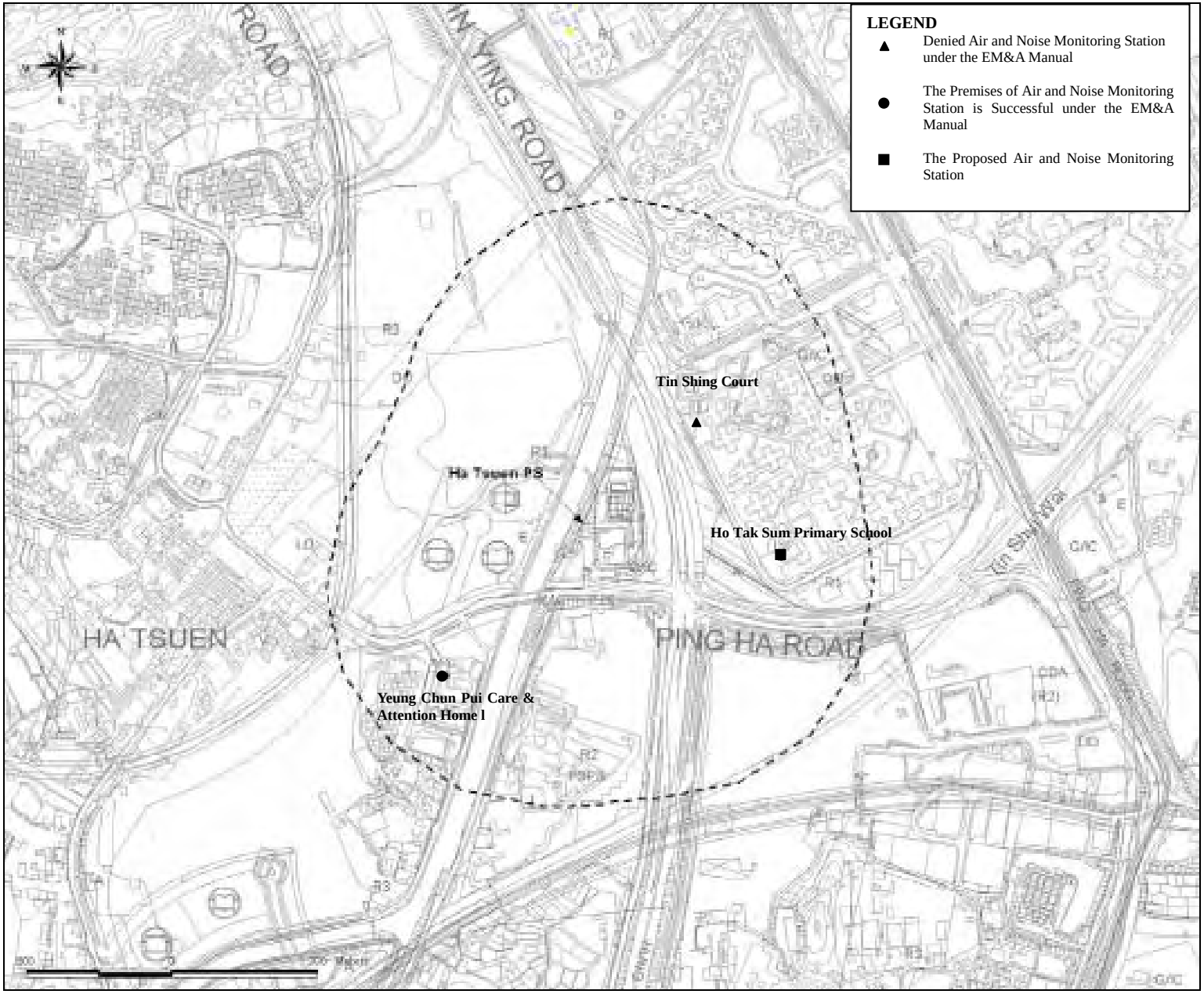
Early bar
Critical bar
Summary bar
Start milestone point
Finish milestone point

Initial Works Programme - Rev 02 (Ha Tsuen Area)

中國建築 CHINA STATE CONSTRUCTION

Appendix D

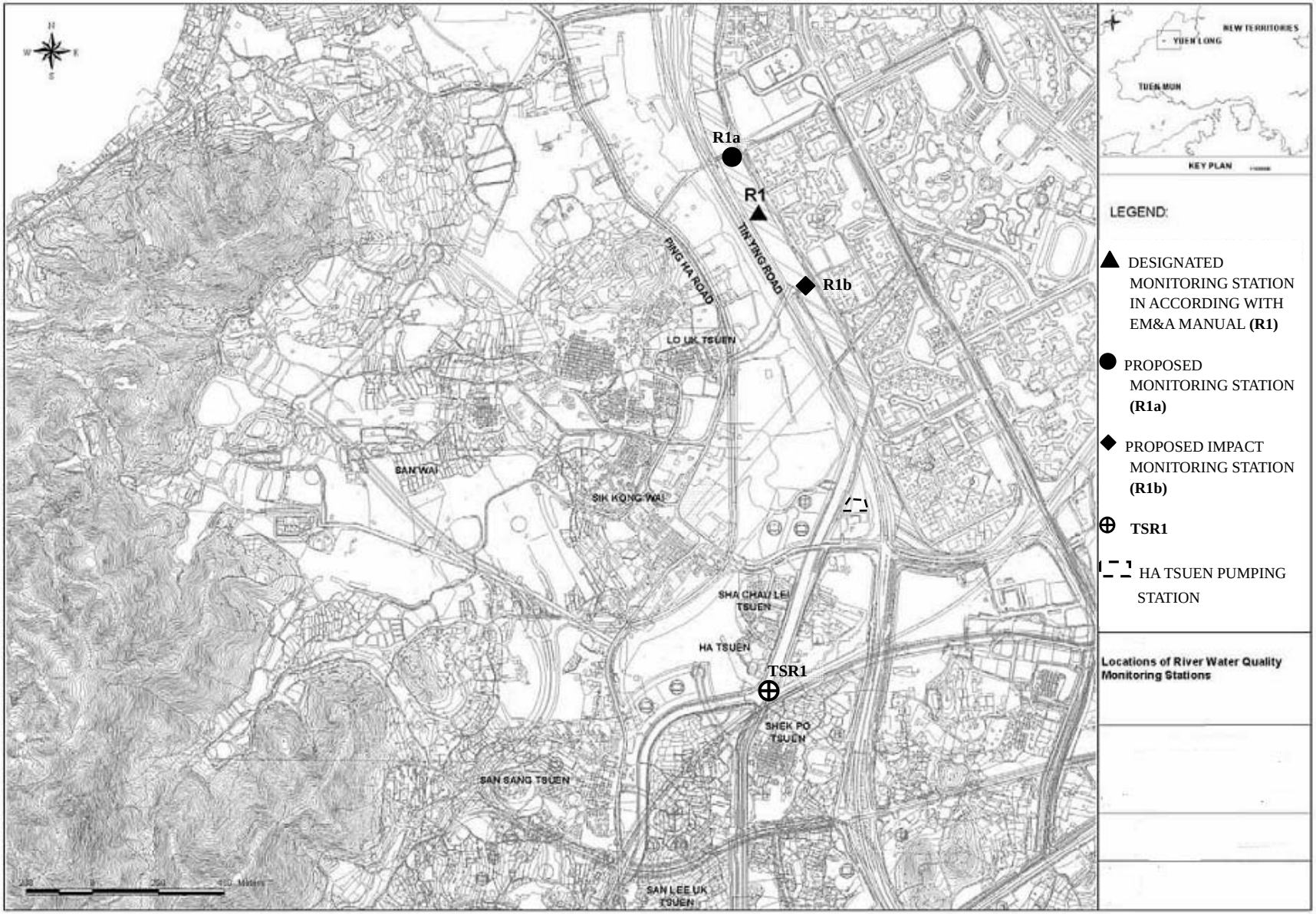
Monitoring Location of EM&A Programme


LEGEND
Denied Air and Noise Monitoring Station under the EM&A Manual
The Premises of Air and Noise Monitoring Station is Successful under the EM&A Manual
The Proposed Air and Noise Monitoring Station
Tin Shing Court
Ha Tsuen PS
Ho Tak Sum Primary School
Yeung Chun Pui Care & Attention Home l
HA TSUEN
PING HA ROAD
IN YING ROAD

DSD Contract No. DC/2009/08 – Construction of Yuen Long South Branch Sewers And Extension of Ha Tsuen Sewage Pumping Station

Proposed Water Quality Monitoring Location

AUES

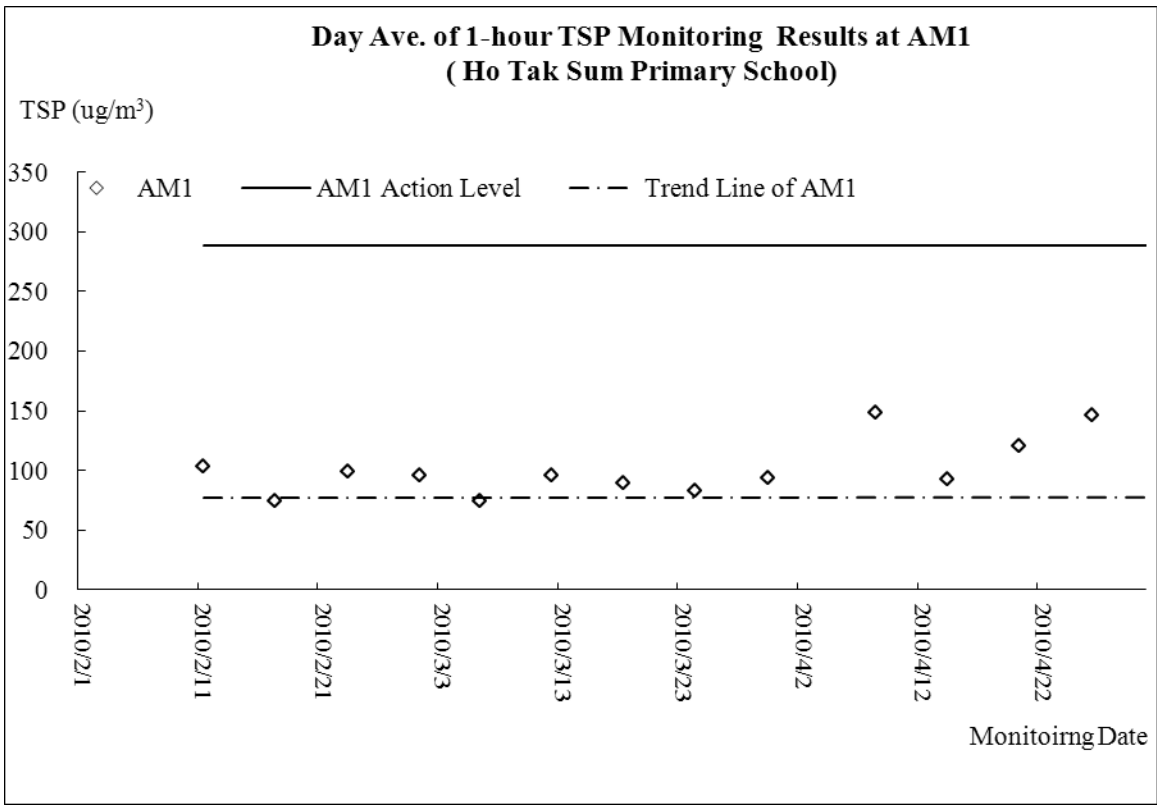


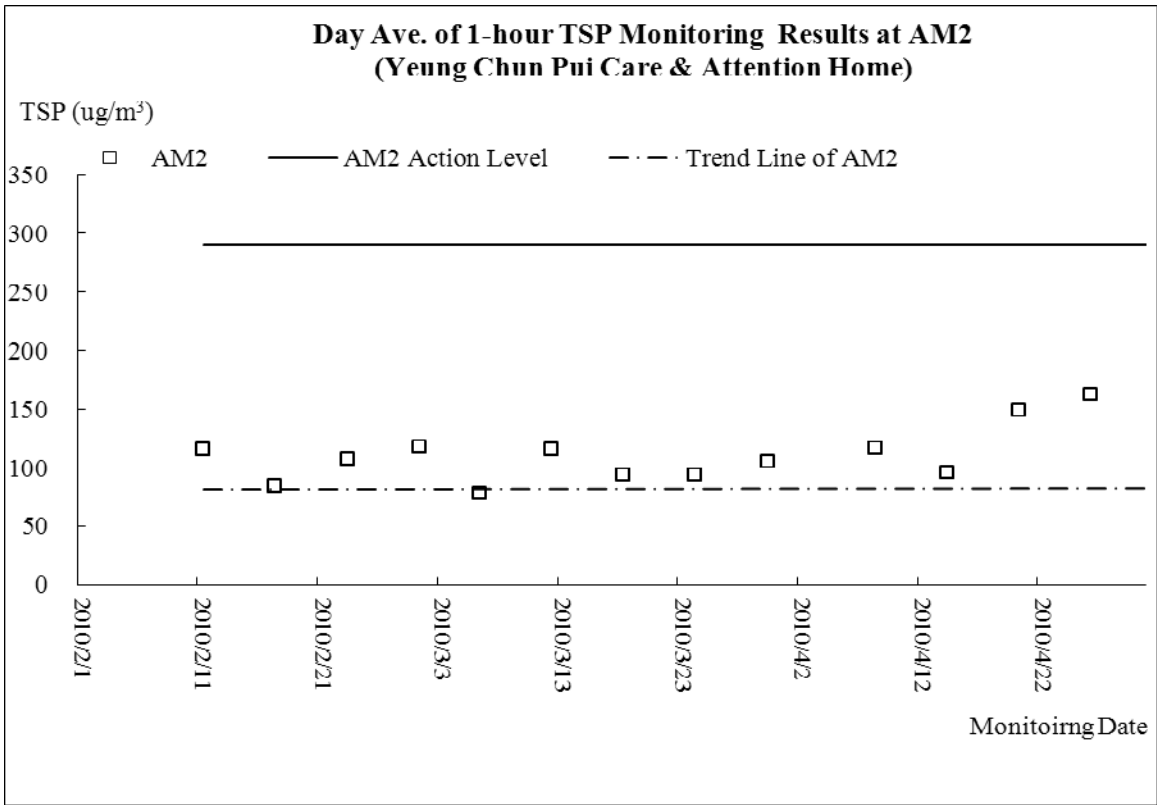
Appendix E

Graphic Plot of

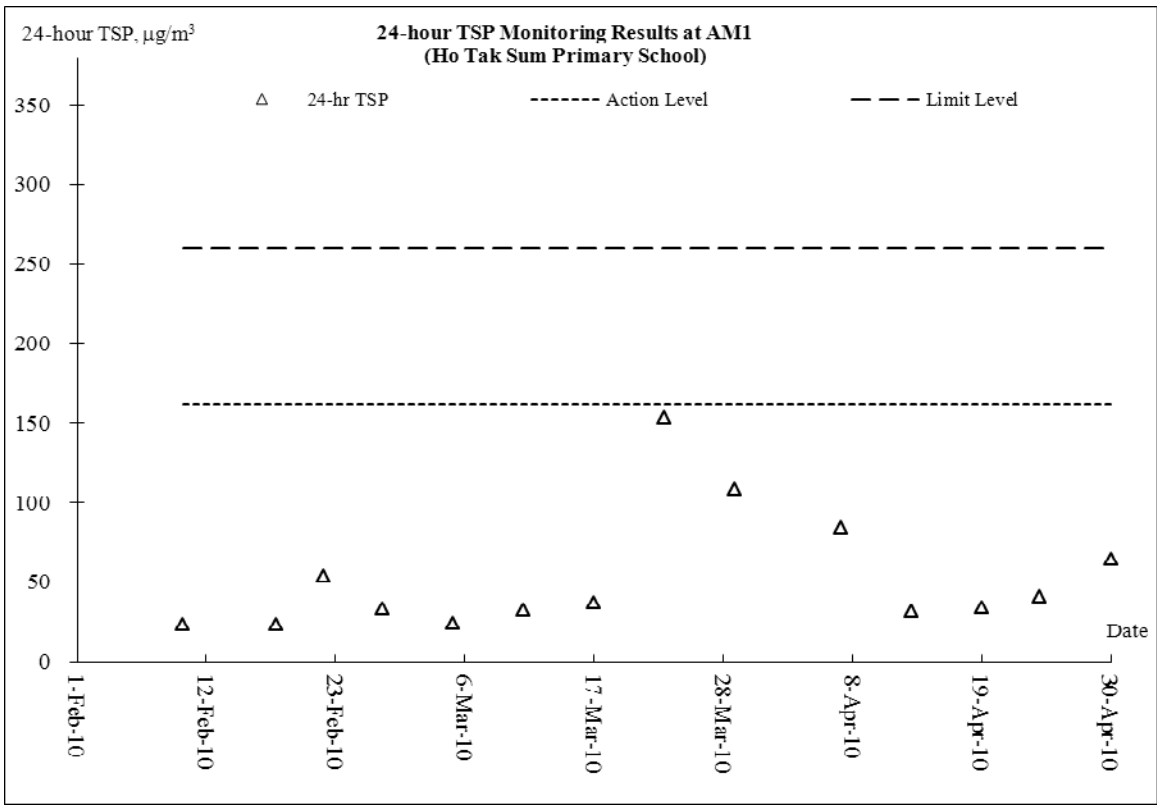
- **Air Quality**
- **Construction Noise**
- **Water Quality**

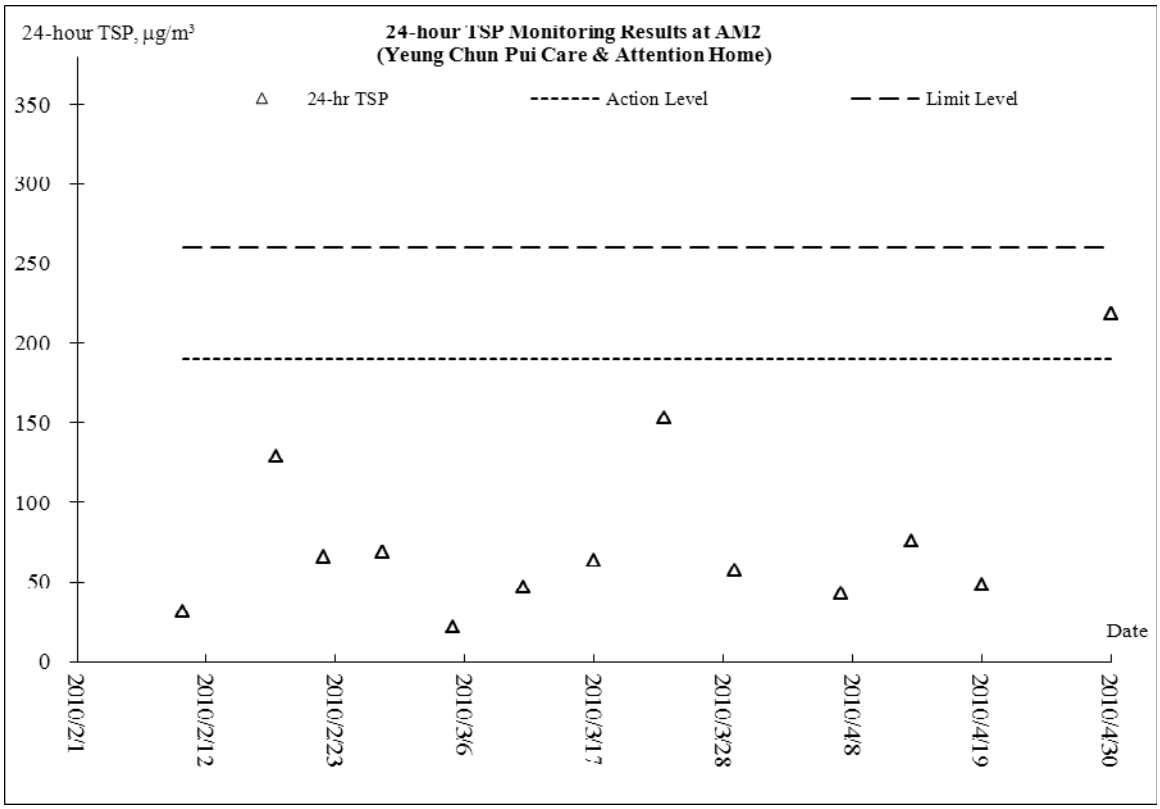
Air Quality – One Hour TSP



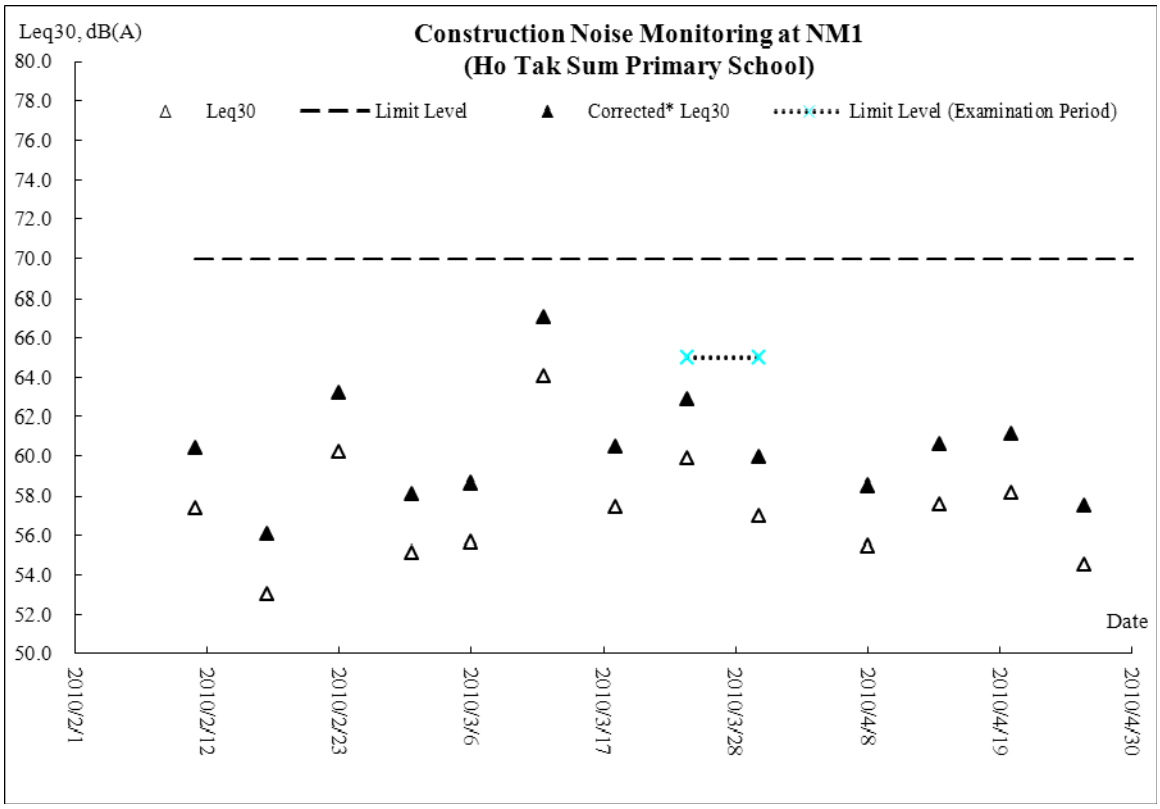


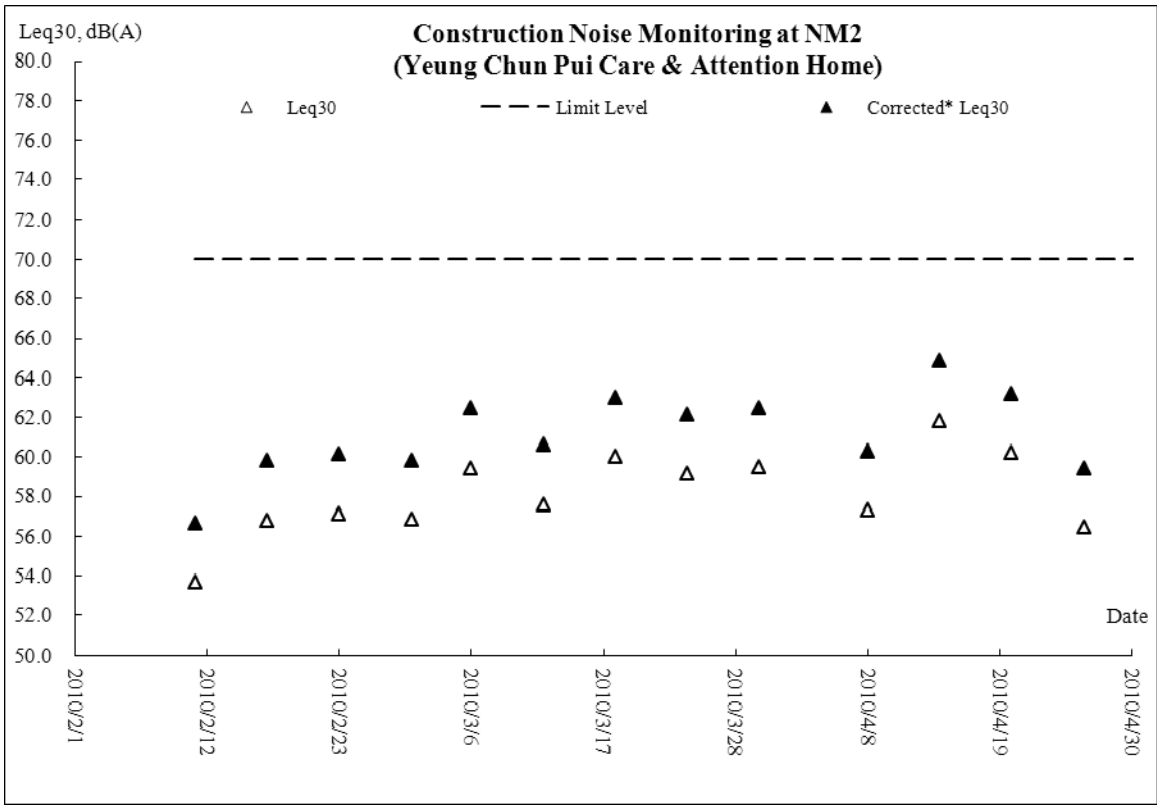
Air Quality – 24-our TSP



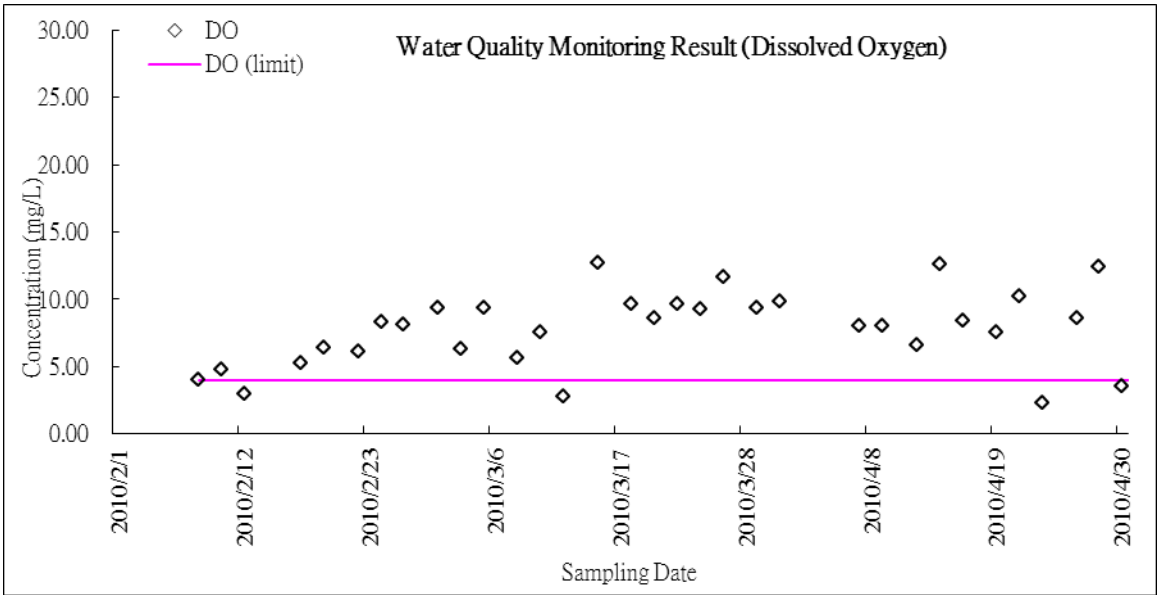


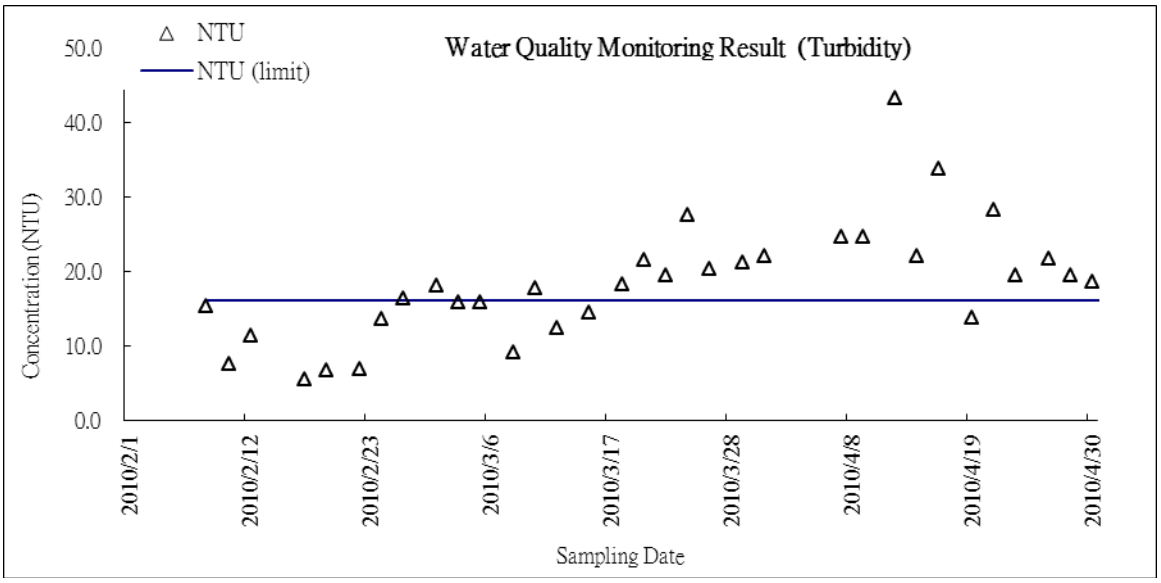
Construction Noise

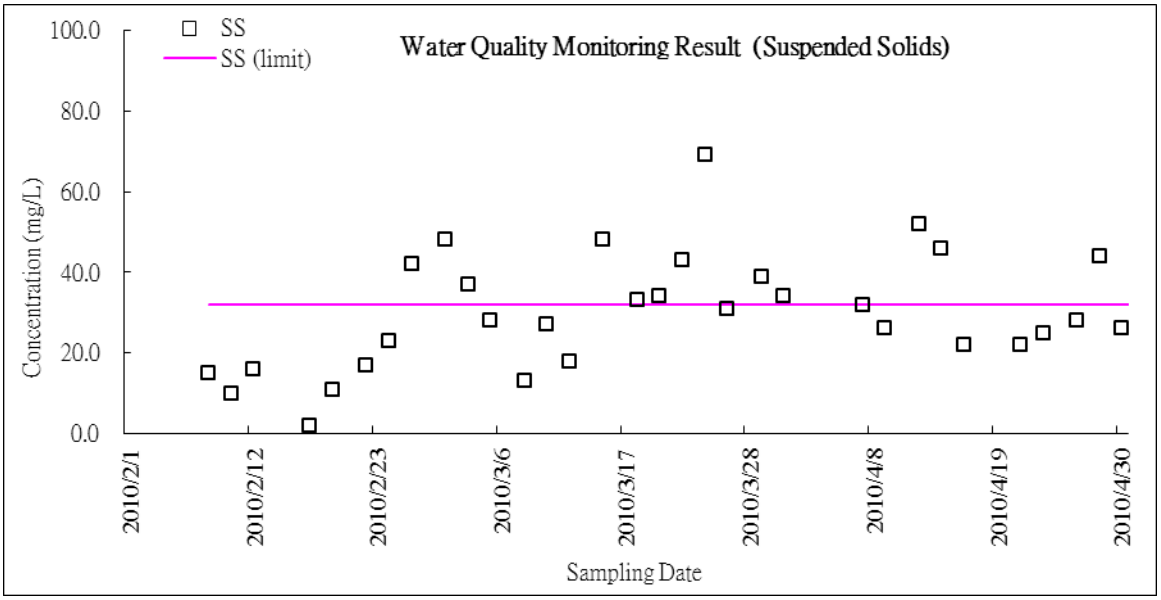




Water Quality (R1b)







Appendix F

Meteorological information

Meteorological Data Extracted from HKO – February 2010

Date		Weather	Total Rainfall (mm)	Lau Fau Shan Weather Station			
				Mean Air Temp. (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
Tue	9-Feb-10	Foggy with a few light rain patches at first.	0	23.8	18.5	80.5	S/SE
Wed	10-Feb-10	Moderate to fresh easterly winds.	Trace	25.2	16.7	7	S/SE
Thu	11-Feb-10	Mainly cloudy with light rain.	Trace	25.6	19	76	S/SW
Fri	12-Feb-10	Cloudy to overcast with a few rain patches.	Trace	17	24	74	NE
Sat	13-Feb-10	Holiday					
Sun	14-Feb-10	Holiday					
Mon	15-Feb-10	Holiday					
Tue	16-Feb-10	Holiday					
Wed	17-Feb-10	Moderate to fresh northerly winds.	1	7.9	18.2	83.5	N/NE
Thu	18-Feb-10	It will be cold and cloudy with a few light rain patches.	0.8	8.1	17.7	69.5	NE
Fri	19-Feb-10	Mainly cloudy with a few rain patches at first.	3.7	7.7	13.5	88	N/NE
Sat	20-Feb-10	Cloudy with mist. A few showers at first.	Trace	11.9	8.8	72.5	N/NE
Sun	21-Feb-10	Moderate east to northeasterly winds.	Trace	16.2	9	73.5	E/NE
Mon	22-Feb-10	Cloudy/ sunny periods during the day.	0.1	18.6	8.2	82.2	N/NW
Tue	23-Feb-10	Cloudy with mist patches. Sunny intervals during the day.	0	20.3	11.5	79.5	E/SE
Wed	24-Feb-10	Mainly cloudy with a few showers.	Trace	23.2	22.2	78.5	S/SE
Thu	25-Feb-10	Misty tomorrow morning. Sunny periods during the day.	0.4	24.8	13.5	82	S/SE
Fri	26-Feb-10	Sunny intervals with one or two showers.	0.3	25.2	13.5	84	S/SE
Sat	27-Feb-10	Mainly cloudy with fog patches.	Trace	25.7	13.2	81.2	S/SE
Sun	28-Feb-10	Light to moderate southerly winds.	Trace	26	19.5	75.5	S/SE

Meteorological Data Extracted from HKO – March 2010

Date		Weather		Lau Fau Shan Weather Station			
			Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Mar-10	Mon	Foggy. Moderate east to southeasterly winds.	0	25.9	24	76.2	S/SE
2-Mar-10	Tue	Sunny periods and coastal fog. Moderate southerly winds.	0	25.5	13.7	79	S/SE
3-Mar-10	Wed	Cloudy with mist. Moderate east to southeasterly winds.	0	26.3	17.5	75.7	S/SE
4-Mar-10	Thu	Sunny intervals with fog patches. Moderate south to southeasterly winds.	0.1	24.9	19.5	80.2	S/SE
5-Mar-10	Fri	Moderate southerly winds, fresh over offshore waters at first.	Trace	26.7	17.5	74.2	S/SE
6-Mar-10	Sat	Mainly cloudy with one or two showers.	Trace	25.9	17.7	79	S/SE
7-Mar-10	Sun	Cloudy to overcast with a few rain and mist patches.	4.9	18.8	13.5	87	E/NE
8-Mar-10	Mon	Cool. Moderate to fresh east to northeasterly winds	0.5	13.2	12.7	92.5	E/NE
9-Mar-10	Tue	Cloudy and cold. Fresh to strong northerly winds.	2.7	10.3	32.7	70.5	N/NE
10-Mar-10	Wed	Cold, fine and very dry. Fresh northerly winds	0	11.3	16.7	39.5	NE
11-Mar-10	Thu	Fine and dry. Moderate east to northeasterly winds.	0	13.5	11.5	57.5	E/SE
12-Mar-10	Fri	Cloudy with one or two rain patches. Moderate easterly winds.	0.4	15.1	8.5	84	E/NE
13-Mar-10	Sat	Cloudy with fog and one or two rain patches. Light to moderate easterly winds.	Trace	19.7	8.2	83.5	E
14-Mar-10	Sun	Foggy with one or two rain patches.	Trace	23.5	16.5	80	SE
15-Mar-10	Mon	Sunny periods. Light to moderate southeasterly winds.	Trace	25.1	12	80	S/SE
16-Mar-10	Tue	Cloudy. Moderate to fresh northerly winds.	Trace	19.2	18.5	79.2	E/NE
17-Mar-10	Wed	Mainly cloudy. Moderate easterly winds.	0	19.4	10.7	73	E/SE
18-Mar-10	Thu	Sunny periods with haze. Light to moderate northerly winds	0	21.2	10.7	74	W/SW
19-Mar-10	Fri	Mainly fine. Light to moderate easterly winds.	0	21.1	15.5	65	W/NW
20-Mar-10	Sat	Sunny periods. Visibility relatively low. Light winds.	Trace	21.3	9	71	W
21-Mar-10	Sun	Sunny periods with rather low visibility.	0	22.5	10.5	74.2	E
22-Mar-10	Mon	Moderate to fresh easterly winds.	0	23.1	13	72	E/NE
23-Mar-10	Tue	Moderate easterly winds, becoming southeaster lies.	0	24.4	15	72.5	SE
24-Mar-10	Wed	Mist patches. Moderate south to southeasterly winds.	Trace	24.2	16	76.5	S/SE
25-Mar-10	Thu	Cool and dry. Fresh northerly winds	8.9	16.4	30.2	72	N/NE
26-Mar-10	Fri	Fine and very dry. Fresh easterly winds.	6	18	18.7	43	NE
27-Mar-10	Sat	Dry. Moderate easterly winds, fresh later.	0	18	15	61.5	E/NE
28-Mar-10	Sun	Mainly cloudy and very dry. Fresh easterly winds	0	20.4	12.2	52.5	N/NE
29-Mar-10	Mon	Cloudy. One or two light rain patches overnight.	0	18.6	16.5	51	E
30-Mar-10	Tue	Cloudy. Fresh to strong easterly winds	Trace	20.4	20.2	67.5	E
31-Mar-10	Wed	Sunny intervals. A couple of light rain patches at first. Moderate easterly winds.	Trace	24.4	15.2	70.5	E

Meteorological Data Extracted from HKO – April 2010

Date		Weather	Total Rainfall (mm)	Lau Fau Shan Weather Station			
				Mean Air Temp. (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
Thu	1-Apr-10	Misty at first. Mainly fine in the afternoon. Light winds.	Trace	24.8	11.7	76	SE
Fri	2-Apr-10	Holiday					
Sat	3-Apr-10	Holiday					
Sun	4-Apr-10	Holiday					
Mon	5-Apr-10	Holiday					
Tue	6-Apr-10	Holiday					
Wed	7-Apr-10	Cloudy with rain at times. Misty. Fresh easterly winds, occasionally strong offshore	1.8	20.6	18	8.3	E
Thu	8-Apr-10	Cloudy with rain. A few squally thunderstorms at first.	9.6	16.6	13	83	E
Fri	9-Apr-10	Sunny periods. Light to moderate east to northeasterly winds.	Trace	19	6.7	81.7	E/NE
Sat	10-Apr-10	Cloudy with sunny intervals.	1.7	20.4	14	91.7	E/NE
Sun	11-Apr-10	Mainly cloudy with coastal fog.	Trace	24.7	20.7	84	S/SE
Mon	12-Apr-10	cloudy with a few rain and fog patches.	0	26.8	12.2	79	S
Tue	13-Apr-10	Cloudy with a few rain patches.	0.9	25	17.5	815	S/SE
Wed	14-Apr-10	Cloudy with a few rain patches. Misty at first.	0.3	20.4	21.2	79	E
Thu	15-Apr-10	Cloudy with mist and a few rain patches.	8.2	15.4	16.5	90	E/NE
Fri	16-Apr-10	Cloudy with a few light rain patches.	Trace	15.1	10.7	78	E/NE
Sat	17-Apr-10	Misty. Sunny periods this afternoon.	2	19.1			
Sun	18-Apr-10	Cloudy with coastal fog. Sunny intervals.	3.1	20.7	10.5	84	E
Mon	19-Apr-10	Cloudy. Moderate east to southeasterly winds.	Trace	24.2	14	79	E/NE
Tue	20-Apr-10	Foggy. Mainly cloudy. A few rain patches at first.	1.1	25.2	20.5	81.5	S/SE
Wed	21-Apr-10	Sunny periods in the afternoon. A few showers tonight.	0	27.1	20.5	75.5	S/SE
Thu	22-Apr-10	Rainy with a few squally thunderstorms. Fresh northerly winds.	6.8	23.8	29.5	86	S/SE
Fri	23-Apr-10	Mainly fine and dry in the afternoon. Cloudy tonight.	0	21.9	21	66.5	N/NE
Sat	24-Apr-10	Sunny intervals during the day. Rain tonight.	Trace	22.7	15.2	57.5	E
Sun	25-Apr-10	Cloudy with a few rain patches.	0	22.7	13.5	64	E
Mon	26-Apr-10	Visibility relatively low.	0.2	22.3	14.5	79	E/NE
Tue	27-Apr-10	Mainly cloudy. Light to moderate northerly winds	Trace	21.2	11	75.7	N/NE
Wed	28-Apr-10	Mainly cloudy with one or two light rain patches.	Trace	22.5	9.5	82	W/SW
Thu	29-Apr-10	Cloudy with occasional rain.	40.6	21.7	13.5	84	E/NE
Fri	30-Apr-10	Cloudy with a few rain patches	0.6	21.4	13.2	78.5	E/NE