Maeda-CREC-SELI Joint Venture

Contract NO. DC/2007/12 - Design and Construction of Tsuen Wan Drainage Tunnel

Quarterly EM&A Report (April to June 2012)

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MAEDA

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Report No EB000364R0821

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Report No	EB000364R0821	
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Executive Summary

1 This quarterly EM&A summary report under the Main Contract for the Design and Construction of Tsuen Wan Drainage Tunnel (hereafter referred to as the "Project") to Maeda-CREC-SELI Joint Venture (MCSJV), which summarises the findings of environmental impact monitoring works during the period from April to June 2012.

2 Air borne noise monitoring was performed at five monitoring stations (NSR1, NSR3, NSR6, NSR8 and NSR9). Air quality monitoring was carried out at four monitoring stations (ASR1, ASR3, ASR8 and ASR9). Water quality monitoring was carried out at four monitoring stations (Intake I-1, Intake I-2, Intake I-3 and Outfall O-1). Noise level was measured in terms of L_{eq}, L_{10} and $L_{90\ (30min)}$. Air quality was measured in terms of 1-hour Total Suspended Particulates (TSP). Water quality was measured in terms of Temperature, pH, Dissolved Oxygen (DO), Turbidity (Tby) and Suspended Solids (SS).

3 Details of all monitoring stations are summarized in the table below.

Type of Monitoring	Monitoring Station ID	Name of Premises	Status of Monitoring Works during the Reporting Period
Air Quality Monitoring	ASR1	Sik Sik Yuen Ho Fung College	Ongoing
	ASR3	Hong Hoi Chee Hong Temple	Ongoing
	ASR8	Beach Tower (Long Beach Garden)	Ongoing
	ASR9	Greenview Terrace (Block 1)	Ongoing
Air Borne Noise Monitoring	NSR1	Sik Sik Yuen Ho Fung College	Ongoing
	NSR3	Hong Hoi Chee Hong Temple	Ongoing
	NSR6	Squatters	Ongoing
	NSR8	Beach Tower (Long Beach Garden)	Ongoing
	NSR9	Greenview Terrace (Block 1)	Ongoing
Water Quality Monitoring	I-1	Intake I-1	Ongoing
	I-2	Intake I-2	Ongoing
	I-3	Intake I-3	Ongoing
	O-1	Outfall O-1	Ongoing

- The major construction activities undertaken by the Contractor during the period from April to June 2012 include site cleaning and tidying at Outfall, I-1, I-2 and I-3; dismantling noise enclosure at Outfall; breaking foundation of muck hopper at Outfall; construction of H-pile at Outfall; construction of box culvert and L-shaped retaining wall at Outfall; excavation, rock and concrete breaking for open tapered channel, cascade at Outfall; construction of buttress wall, box culvert and L-shaped retaining wall at Outfall; construction of reinforced concrete (RC) structure of buttress wall and opened tapered channel at Outfall; minor reinstatement of seawall blocks and basin panels at west side corner at Portion E; construction of deaeration chamber reinforced concrete (RC) structure at I-3; drilling hole and excavation for main adit tunnel at I-3; construction of man access adit RC structure at I-3; lowering down the permanent access road at PB wall at I-3; construction of vortex drop shaft RC

Structure at I-3; construction of 85 degree cut slope above access road at I-3; excavation and construction of road drainage (U-channel and 900 mm diameter pipe) at proposed access road at I-3; tree planting at I-3; blasting and excavation of man access adit, deaeration chamber and main adit tunnel at I-2; construction of upper man access adit and deaeration chamber RC structure at I-2; drainage and reinstatement works (1500 mm diameter pipe and associated works) at Portion G at I-2; installation of erosion control mat and associated landscaping works at portion G at I-2; modification works of 1500 mm step-channel outlet at portion G at I-2; installation of steel works at portion G at I-2; dismantling and removal of tunnel boring machine (TBM) and backups at I-1; installation of hand rails of spiral ramp at I-1; construction of remaining box culvert RC structure at I-1; installation of waterproof and I-1 membrane and screeding for tiling works at I-1; dismantling and removal of TBM services at Outfall and I-1;and grouting and segment repair works at Tunnel.

4 Dismantling TBM facilities and utilities inside tunnel, grouting works inside tunnel, TBM main bearing transportation from Intake I-1 to Portion I, mucking out of excavated material from vortex drop shaft (VDS) to ground level within noise enclosure at I-2, excavation of vortex drop shaft at I-2, excavation rock splitting and mucking out at VDS and man access shaft (MAS) at I-2, mucking out of excavated material from MAS to ground level within noise enclosure at I-2, excavation and mucking out of main adit tunnel at Intake I-3, shotcreting for main adit tunnel at I-3, rebar fixing of de-aeration chamber at I-3, installation and grouting of rock dowel at I-3, mucking out of excavated material from main adit tunnel to +69mPD platform within the site at I-3; and dismantling of metal scaffold for de-aeration chamber at I-3 were undertaken during the restricted hours in the reporting period

5 As confirmed by the Contractor, no marine mud dredging works for basin scheme at Portion E was conducted in the reporting period.

6 No project related exceedance of air quality, noise and water quality monitoring was recorded. The table below summarizes the exceedances of air quality, noise and water quality in the reporting period.

Parameter	Action Level Exceedance	Limit Level Exceedance
Air	Nil	Nil
Air Borne Noise	Nil	Nil
DO	Three records at O-1(FT) on 5 Apr 2012 and at O-1(ET) on 2 and 5 Apr 2012.	Sixty-seven records at O-1(FT) on 2, 5, 10, 12, 14, 16, 18, 20, 23, 25, 27 and 30 Apr 2012 and at O-1(ET) on 2, 5, 10, 12, 14, 16, 18, 20, 23, 25, 27 and 30 Apr 2012.
Turbidity	One record at I-1 on 28 May 2012; Three records0 at I-3 on 25 Apr, 16 May and 13 June 2012.	Three records at I-1 on 20 Apr, 4 May, 18 June 2012; Two records at I-2 on 4 May, 13 June 2012; Eight records at I-3 on 16 Apr, 20 Apr, 2 May, 4 May, 18 May, 11 June, 18 June and 22 June 2012.
SS	Two records at I-1 on 21 May and 28 May 2012; Three records at I-2 on 1 27 Apr, 13 June and 20 June 2012; Three records at I-3 on 11 June, 18 June and 22 June 2012.	Two records at I-1 on 5 and 20 Apr 2012, Three records at I-2 on 25 Apr, 4 May, 7 May 2012 Four records at I-3 on 20 Apr, 4 May, 18 May, 13 June 2012 One record at O-1(ET) on 14 Apr 2012

7 Waste figures during the reporting period are summarized in the table below.

Status of Waste Management	Quantity
Inert C&D Material Disposed of to Public Fill at Tuen Mun (m^3)	5,084.3
Inert C&D Material Reused in this Contract (m^3)	0
Inert C&D Material Reused in other Contract* (m^3)	1,905.0
Metals Generated (kg)	254,354.0
Paper / Cardboard Packaging (kg)	800.0
Plastics (kg)	57.0
Chemical Waste (kg)	26,016.0
General Waste Disposed of to NENT Landfill (m^3)	98.0

* Other Contracts include CV/2009/14, DC/2007/08, DC/2007/09, HY/2007/09, HY/2007/10, HY/2008/09, XRL823AB and Tailor Recycle Aggregate

8 No complaint was received during the reporting period.

9 No Notification of Summons was received since the commencement of the Project.

1 Introduction

1.1.1 The Drainage Services Department (DSD) proposes to construct a tunnel of an internal diameter of 6.5 m and length 5.13 km, with the purpose to alleviate the flooding risk in Tsuen Wan and Kwai Chung.

1.1.2 This project is a Designated Project under Schedule 2 Part I Category Q, of the Environmental Impact Assessment Ordinance (EIAO) as part of the proposed Tsuen Wan Drainage Tunnel (TWDT) passes underneath the existing Tai Mo Shan Country Park. An Environmental Impact Assessment (EIA) Study was undertaken to provide information on the nature and extent of environmental impacts arising from the construction and operation of the proposed designed project and related activities taking place concurrently. From the EIA the recommendations for monitoring contained herein, are made.

1.1.3 The Maeda-CREC-SELI Joint Venture (MCSJV) was awarded by DSD with the Contract – Design and Construction of Tsuen Wan Drainage Tunnel.

1.1.4 Hyder was commissioned by the MCSJV as the ET to implement an EM&A program in accordance with the EM&A Manual. The proposed tunnel section flows from the junction of Shing Mun Road and Wo Yi Hop Road and discharges to south of Yau Kom Tau underneath Castle Peak Road, as shown in Appendix A.

1.1.5 The construction works of the Project commenced in January 2008. This is the seventeenth querterly EM&A report summarising the impact monitoring results and audit findings of the EM&A program during the reporting period between April and June 2012.

2 Project Information

2.1 Project Organization and Management Structure

2.1.1 The organization chart and lines of communication with respect to the on-site environmental management are shown in Appendix B.

2.2 Construction Progress

2.2.1 It is anticipated that the overall project programme from the detail design to completion of all civil works shall take approximately 54 months. The construction programme is presented in Appendix C.

The major construction activities undertaken in the reporting month were:

- Site cleaning and tidying at Outfall, I-1, I-2 and I-3;
- Dismantling noise enclosure at Outfall;
- Excavation, rock and concrete breaking for open tapered channel, cascade at Outfall;
- Breaking foundation of muck hopper at Outfall;
- Construction of H-pile at Outfall;
- Construction of box culvert and L-shaped retaining wall at Outfall;

- Construction of buttress wall, rock and concrete opening for open tapped channel, cascade at outfall;
- Construction of RC structure of buttress wall and opened tapered channel at Outfall
- Minor reinstatement of seawall blocks and basin panels at west side corner at Portion E;
- Construction of deaeration chamber reinforced concrete (RC) structure at I-3;
- Drilling hole and excavation for main adit tunnel at I-3;
- Construction of man access shaft RC structure at I-3;
- Construction of vortex drop shaft RC structure at I-3;
- Lowering down the permanent access road at PB wall at I-3;
- Construction of 85 degree cut slope above access road at I-3;
- Excavation and construction of road drainage (U-channel and 900 mm diameter pipe) at proposed access road at I-3;
- Tree planting at I-3;
- Blasting and excavation of man access adit, deaeration chamber and main adit tunnel at I-2;
- Construction of upper man access adit and deaeration chamber RC structure at I-2;
- Drainage and reinstatement works (1500 mm diameter pipe and associated works) at Portion G at I-2;
- Installation of erosion control mat and associated landscaping works at portion G at I-2;
- Modification works of 1500 mm step-channel outlet at portion G at I-2;
- Installation of steel works at portion G at I-2;
- Dismantling and removal of TBM and backups at I-1; and
- Installation of hand rails of spiral ramp at I-1;
- Construction of remaining box culvert RC Structure at I-1;
- Installation of waterproof membrane and screeding for tiling works at I-1;
- Grouting and segment repair works at tunnel; and
- Dismantling and removal of tunnel boring machine (TBM) services at Outfall and I-1.

2.3 Mitigation Measures

2.3.1 The environmental mitigation measures that were implemented and their statuses are given in Appendix D.

3 EM&A Requirement

3.1 General

3.1.1 The EM&A requirements are stipulated in the EM&A Manual. The principal purposes of the EM&A program are to assess the compliance with applicable environmental legislation and associated regulations, to ensure the implementation of mitigation measures specified in the EM&A Manual, and to identify any remedial works necessary for redressing any unacceptable or unanticipated environmental impacts.

3.2 EM&A on Air Quality, Noise and Water Quality

Monitoring Parameters

3.2.1 The air quality, noise and water quality monitoring frequencies and parameters are shown in Table 3-1.

Type of Monitoring	Monitoring Station ID	Parameter	Frequency
Air Quality Monitoring	ASR1; ASR3; ASR8 and ASR9	1-hour TSP (mg/m^3)	Once every 6 days
Air Borne Noise Monitoring	NSR1; NSR3; NSR6; NSR8 and NSR9	$L_{eq\ (30\ min.)}$ (dB(A))	Once every week
Water Quality Monitoring	I-1, I-1-C, I-2, I-2-C, I-3, I-3-C, O-1(FT), O-1-C(FT), O-1(ET) and O-1-C(ET)	DO (mg/L)	Three days per week
		SS (mg/L)	
		Turbidity (NTU)	
		pH	
		Temperature (^oC)	

Table 3-1 Frequency of Air Quality, Noise and Water Quality Monitoring

3.3 Monitoring Locations

3.3.1 The monitoring locations for air quality, noise and water quality are shown in Tables 3-2, 3-3, 3-4 and Appendix E.

Monitoring Station ID	Name of Premises	Floor Level
ASR1	Sik Sik Yuen Ho Fung College	G/F
ASR3	Hong Hoi Chee Hong Temple	Podium
ASR8	Beach Tower (Long Beach Garden)	G/F
ASR9	Greenview Terrace (Block 1)	G/F

Table 3-2 Air Quality Monitoring Locations

Monitoring Station ID	Name of Premises	Floor Level
NSR1	Sik Sik Yuen Ho Fung College	G/F
NSR3	Hong Hoi Chee Hong Temple	Podium
NSR6	Squatters	G/F
NSR8	Beach Tower (Long Beach Garden)	G/F
NSR9	Greenview Terrace (Block 1)	Podium (up to 6 July 2009) Roof* (from 16 July 2009)

* The noise monitoring location of NSR9 had been relocated to the rooftop from 16 July 2009.

Table 3-3 Noise Monitoring Locations

Monitoring Station ID	Name of Premises
I-1	Intake I-1
I-1-C	Control of Intake I-1
I-2	Intake I-2
I-2-C	Control of Intake I-2
I-3	Intake I-3
I-3-C*	Control of Intake I-3
Marine	
O-1 (FT) and (ET)	Outfall O-1 during Flood Tide and Ebb Tide
O-1-C (FT)	Control of Outfall O-1 during Flood Tide
O-1-C (ET)	Control of Outfall O-1 during Ebb Tide

Note: *The upper stream location (I-3-C*) had been relocated from end of February 2009 due to coarse stone blockage.

Table 3-4 Water Quality Monitoring Locations

3.3.2 Referring to Section 4.4 of the approved Contract Specific EM&A Manual (Report No. EB000364R0273, dated 6 January 2010), while the construction of the Outfall requires minor dredging, water quality monitoring at the Outfall shall be undertaken during the period of the dredging works. As advised by the Contractor, all relevant marine works at Portion E of the site were completed in April 2012. As such, the ET submitted a proposal to EPD on 30 April 2012 to terminate the marine water quality monitoring effective from 1 May 2012. EPD had no objection to the proposal in their reply on 7 May 2012.

3.4 Performance Limits (AL Levels)

3.4.1 In accordance with the EM&A Manual, the appropriate Action and Limit Levels for air quality, air borne noise and water quality were established. They are presented in Table 3-5, Table 3-6 and Table 3-7. Should non-compliance of the air quality, noise and water quality criteria occur, actions in accordance with the Event / Action Plan stipulated in contract specific EM&A Manual should be carried out.

Station	1-hr TSP Level in µg/m^3	
	Action Level	Limit Level
ASR1	307	500
ASR3	327	500
ASR8	337	500
ASR9	329	500

Table 3-5 Action & Limit Levels for Air Quality

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

Note: * For educational establishments the limit level shall be 70 dB(A) and reduced to 65 dB(A) during examination periods between 0700 and 1900 hours on normal weekdays.

Table 3-6 Action & Limit Levels for Air Borne Noise

Parameters	Action	Limit
DO in mg/L (Surface, Middle & Bottom)	Surface & Middle 5%-ile of baseline data for surface and middle layer. Bottom 5%-ile of baseline data for bottom layer.	Surface & Middle 4 mg/L, except 5 mg/L for Fish Culture Zone (FCZ) or 1%-ile of baseline data for surface and middle layer Bottom 2 mg/L or 1%-ile of baseline data for bottom layer
SS in mg/L (Depth-averaged)	95%-ile of baseline data or 120% of upstream control station's SS level at the same tide of the same day	99%-ile of baseline or 130% of upstream control station's SS level at the same tide of the same day and specific sensitive receiver water quality requirements (e.g. required suspended solids levels for concerned sea water intakes)
Turbidity (Tby) in NTU (Depth-averaged)	95%-ile of baseline data or 120% of upstream control station's Tby at the same tide of the same day	99%-ile of baseline or 130% of upstream control station's Tby at the same tide of the same day

Notes:

- For DO, non-compliance of the water quality limit occurs when monitoring result is lower than the limits.
- For SS and Tby, non-compliance of the water quality limit occurs when monitoring result is higher than the limits.
- All the figures given in the table are used for reference only and the EPD may amend the figures whenever necessary.

Table 3-7 Action & Limit Levels for Water Quality

3.5 Monitoring Result

3.5.1 All measured air quality monitoring levels were complying with the Action and Limit Levels in the reporting period. A summary of air quality monitoring results is presented in Table 3-9 and Appendix F.

Monitoring Station	1-hour TSP (μg/m^3)			Action Level	Limit Level
	Range			(μg/m^3)	(μg/m^3)
ASR1	18.8	-	145.5	307	500
ASR3	13.8	-	121.6	327	500
ASR8	14.2	-	137.7	337	500
ASR9	14.5	-	185.6	329	500

Italic indicates the exceedances of *Action Levels*
Bold indicates the exceedances of **Limit Levels**

Table 3-8 Summary of Air Quality Monitoring Results

3.5.2 All measured air borne noise monitoring levels were complying with the Action/Limit Levels in the reporting period.

3.5.3 A summary of noise monitoring results is presented in Table 3-9 and Appendix F.

Monitoring Station	$L_{eq\ (30mins)}$ dB(A)			Limit Level
	Range			dB(A)
NSR1	63	-	66	65/70#
NSR3	59	-	69	75
NSR6	59	-	67	75
NSR8	62	-	68	75
NSR9	62	-	73	75

Note: **Bold** indicates the exceedances of **Limit Levels**
- Noise Limit Level was reduced to 65 dB(A) from 70 dB(A) during school examination period. The records above 65 dB(A) are not in that period.

Table 3-9 Summary of Impact Air Borne Noise Monitoring Results

3.5.4 A summary of water quality monitoring results is presented in Table 3-10 and Appendix F.

3.5.5 None of exceedance related to project construction activities was recorded during the reporting quarter but a total of **105** non-project related exceedances were recorded.

3.5.6 A total of **9** non-project related exceedances were recorded in **April 2012** including:

- One exceedance of turbidity action level was recorded at I-3 on 25 April 2012. The measured turbidity level (4.16 NTU) was higher than the baseline action level, but lower than the turbidity level (4.21 NTU) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. Therefore, the exceedance was considered to be contributed by natural variation. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity limit level was recorded at I-1 on 20 April 2012. The measured turbidity level (19.75 NTU) was higher than the baseline limit level, but lower than 120% of the turbidity level (19.73 NTU) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 66.2 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day. Therefore, the exceedance was considered to be contributed by the heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- Two exceedances of turbidity limit levels were recorded at I-3 on 16 and 20 April 2012. For 16 April 2012, the measured turbidity level (4.34 NTU) was higher than the baseline limit level, but lower than the turbidity level (4.38 NTU) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. Therefore, the exceedance was considered to be contributed by high turbidity level at upstream location. For 20 April 2012, the measured turbidity level (42.25 NTU) was higher than the baseline limit level, but lower than the turbidity level (42.60 NTU) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 66.2 mm rainfall was recorded by the Hong Kong Observatory on 20 April 2012. Therefore, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedances were non-project related, no further action was required.

- One exceedance of SS action level was recorded at I-2 on 27 April 2012. The measured SS level (2.60 mg/L) was well below the baseline action/limit level, but higher than 120% of the SS level (<2.00 mg/L) of the control station (I-2-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. Therefore, the exceedance was considered to be contributed by natural variation. Since the exceedance was non-project related, no further action was required.

- Two exceedances of SS limit level were recorded at I-1 on 5 and 20 April 2012. For 5 April 2012, the measured SS level (2.85 mg/L) was well below the baseline action/limit level, but higher than 130% of the SS level (<2.00 mg/L) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. Therefore, the exceedance was considered to be contributed by natural variation. Since the exceedance was non-project related, no further action was required. For 20 April 2012, the measured SS level (11.75 mg/L) was higher

than the baseline limit level and the SS level (8.25 mg/L) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 66.2 mm rainfall was recorded by the Hong Kong Observatory on 20 April 2012. Although the SS level at I-1 was about 42.4% higher than that at I-1-C, no direct sources of impact from the site were identified. As such, no further mitigation measures or actions were recommended.

- One exceedance of SS limit level was recorded at I-2 on 25 April 2012. The measured SS level (9.85 mg/L) was higher than the baseline limit level and the SS level (7.40 mg/L) of the control station (I-2-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. Therefore, the exceedance was considered to be contributed by natural variation and high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS limit level was recorded at I-3 on 20 April 2012. The measured SS level (34.30 mg/L) was higher than the baseline limit level, but lower than the 120% of the SS level (33.40 mg/L) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 66.2 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day. Therefore, the exceedance was considered to be contributed by heavy rainfall and high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

3.5.7 A total of **13** non-project related exceedances were recorded in **May 2012** including:

- One exceedance of turbidity limit level was recorded at I-3 on 2 May 2012. The measured turbidity level (5.24 NTU) was higher than the baseline limit level, but lower than the turbidity level (5.30 NTU) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. The exceedance was considered to be contributed by high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity limit level was recorded at I-1 on 4 May 2012. The measured turbidity level (12.73 NTU) was higher than the baseline limit level, but lower than the turbidity level (12.85 NTU) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 35.7 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity limit level was recorded at I-2 on 4 May 2012. The measured turbidity level (23.79 NTU) was higher than the baseline limit level, but lower than the turbidity level (24.15 NTU) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 35.7 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity limit level was recorded at I-3 on 4 May 2012. The measured turbidity level (7.17 NTU) was higher than the baseline limit level, but lower than 120% of the turbidity level (7.10 NTU) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 35.7 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity action level was recorded at I-3 on 16 May 2012. The measured turbidity level (4.09 NTU) was higher than the baseline action level, but lower than 120% of the turbidity level (4.07 NTU) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. The exceedance was considered to be contributed by natural variation. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity limit level was recorded at I-3 on 18 May 2012. The measured turbidity level (27.35 NTU) was higher than the baseline limit level, but lower than the turbidity level (27.45 NTU) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 83.8 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity action level was recorded at I-1 on 28 May 2012. The measured turbidity level (11.19 NTU) was higher than the baseline action level, but lower than the turbidity level (11.30 NTU) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 10.5 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS limit level was recorded at I-2 on 4 May 2012. The measured SS level (10.80 mg/L) was higher than the baseline limit level, but lower than the SS level (12.85 mg/L) of the control station (I-2-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 35.7 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day. The exceedance was considered to be contributed by heavy rainfall and high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS limit level was recorded at I-3 on 4 May 2012. The measured SS level (9.30 mg/L) was higher than the baseline limit level, but lower than 120% of the SS level (8.80 mg/L) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 35.7 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day. The exceedance was considered to be contributed by

heavy rainfall and high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS limit level was recorded at I-2 on 7 May 2012. The measured SS level (2.80 mg/L) was well below the baseline action/limit level, but higher than 130% of the SS level (<2.00 mg/L) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. Therefore, the exceedance was considered to be contributed by natural variation. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS limit level was recorded at I-3 on 18 May 2012. The measured SS level (11.05 mg/L) was higher than the baseline limit level, but lower than the SS level (12.90 mg/L) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 83.8 mm rainfall was recorded by the Hong Kong Observatory during the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS action level was recorded at I-1 on 21 May 2012. The measured SS level (2.45 mg/L) was well below the baseline action/limit level, but higher than 120% of the SS level (<2.00 mg/L) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. Therefore, the exceedance was considered to be contributed by natural variation. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS action level was recorded at I-1 on 28 May 2012. The measured SS level (4.75 mg/L) was well below the baseline action/limit level, but higher than 120% of the SS level (3.75 mg/L) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 10.5 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day. Therefore, the exceedance was considered to be contributed by rainfall and high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

3.5.8 A total of **12** non-project related exceedances were recorded in **June 2012** including:

- One exceedance of turbidity limit level was recorded at I-3 on 11 June 2012. The measured turbidity level (4.58 NTU) was higher than the baseline limit level, but lower than the turbidity level (4.71 NTU) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. The exceedance was considered to be contributed by high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity limit level was recorded at I-2 on 13 June 2012. The measured turbidity level (8.69 NTU) was higher than the baseline limit level, but lower than the turbidity level (9.00 NTU) of the control station (I-2-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was

observed from the site. About 22.5 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity action level was recorded at I-3 on 13 June 2012. The measured turbidity level (4.13 NTU) was higher than the baseline action level, but lower than the turbidity level (4.19 NTU) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 22.5 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity limit level was recorded at I-1 on 18 June 2012. The measured turbidity level (12.99 NTU) was higher than the baseline limit level, but lower than the turbidity level (13.21 NTU) of the control station (I-1-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 17.7 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity limit level was recorded at I-3 on 18 June 2012. The measured turbidity level (16.60 NTU) was higher than the baseline limit level, but lower than 120% of the turbidity level (16.48 NTU) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 17.7 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of turbidity limit level was recorded at I-3 on 22 June 2012. The measured turbidity level (15.87 NTU) was higher than the baseline limit level, but lower than the turbidity level (16.16 NTU) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 16.0 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high turbidity level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS action level was recorded at I-3 on 11 June 2012. The measured SS level (6.20 mg/L) was higher than the baseline action level, but lower than 120% of the SS level (6.05 mg/L) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. The exceedance was considered to be contributed by high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS action level was recorded at I-2 on 13 June 2012. The measured SS level (7.95 mg/L) was higher than the baseline action level, but lower than 120% of the

SS level (8.05 mg/L) of the control station (I-2-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 22.5 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day. The exceedance was considered to be contributed by heavy rainfall and high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS limit level was recorded at I-3 on 13 June 2012. The measured SS level (3.10 mg/L) was well below the baseline action/limit level, but higher than 130% of the SS level (2.25 mg/L) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. Therefore, the exceedance was considered to be contributed by natural variation. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS action level was recorded at I-3 on 18 June 2012. The measured SS level (7.05 mg/L) was higher than the baseline action level, but lower than 120% of the SS level (6.30 mg/L) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 17.7 mm rainfall was recorded by the Hong Kong Observatory during the monitoring day, the exceedance was considered to be contributed by heavy rainfall and high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS action level was recorded at I-2 on 20 June 2012. The measured SS level (3.30 mg/L) was well below the baseline action/limit level, but higher than 120% of the SS level (2.55 mg/L) of the control station (I-2-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. Therefore, the exceedance was considered to be contributed by natural variation. Since the exceedance was non-project related, no further action was required.

- One exceedance of SS action level was recorded at I-3 on 22 June 2012. The measured SS level (6.60 mg/L) was higher than the baseline action level, but lower than 120% of the SS level (5.65 mg/L) of the control station (I-3-C). Details of the construction activities conducted on the monitoring day are given in Appendix G. No direct disturbance was observed from the site. About 16.0 mm rainfall was recorded by the Hong Kong Observatory on the monitoring day. Therefore, the exceedance was considered to be contributed by rainfall and high SS level at upstream location. Since the exceedance was non-project related, no further action was required.

Marine Water Quality Monitoring

3.5.10 A total of **71** non-project related exceedances were recorded in April 2012 including:

- One exceedance of DO action level was recorded at O-1(FT) (marine surface) on 5 April 2012. The measured DO level (6.82 mg/L) at the monitoring station was below the baseline action level and lower than the DO level (6.91 mg/L) of the corresponding control station (about 1.3%). No construction works was undertaken at the Outfall basin (Portion E) on the monitoring day. No direct disturbance was observed from the site. The exceedance was

considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

- One exceedance of DO action level was recorded at O-1(ET) (marine surface) on 5 April 2012. The measured DO level (6.96 mg/L) at the monitoring station was below the baseline action level and lower than the DO level (7.07 mg/L) of the corresponding control station (about 1.6%). No construction works was undertaken at the Outfall basin (Portion E) on the monitoring day. No direct disturbance was observed from the site. The exceedance was considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

- One exceedance of DO action level was recorded at O-1(ET) (marine bottom) on 2 April 2012. The measured DO level (6.56 mg/L) at the monitoring station was below the baseline action level and lower than the DO level (6.64 mg/L) of the corresponding control station (about 1.2%). No construction works was undertaken at the Outfall basin (Portion E) on the monitoring day. No direct disturbance was observed from the site. The exceedance was considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

- Ten exceedances of DO limit levels were recorded at O-1(FT) (marine surface) on 10, 12, 14, 16, 18, 20, 23, 25, 27 and 30 April 2012. For 10, 12, 14, 16, 20, 23 and 25 April 2012, the measured DO levels (6.09, 6.51, 6.16, 5.76, 5.51, 5.67 and 5.69 mg/L, respectively) at the monitoring station were below the baseline action level and lower than the DO levels (6.17, 6.66, 6.22, 5.84, 5.69, 5.78 and 5.85 mg/L, respectively) of the corresponding control station (about 1.3%, 2.3%, 1.0%, 1.4%, 3.2%, 1.9% and 2.7%, respectively). For 18, 27 and 30 April 2012, the measured DO levels (5.87, 5.45 and 5.69 mg/L, respectively) at the monitoring station were below the baseline limit level, but higher than the DO levels (5.79, 5.40 and 5.58 mg/L, respectively) of the corresponding control station. No direct disturbance was observed from the site. The exceedances were considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

- Twelve exceedances of DO limit levels were recorded at O-1(FT) (marine mid-depth) on 2, 5, 10, 12, 14, 16, 18, 20, 23, 25, 27 and 30 April 2012. For 2, 10, 20, 23 and 25 April 2012, the measured DO levels (6.76, 5.83, 5.37, 5.61 and 5.33 mg/L, respectively) at the monitoring station were below the baseline limit level and lower than the DO levels (6.84, 5.88, 5.47, 5.68 and 5.47 mg/L, respectively) of the corresponding control station (about 1.2%, 0.9%, 1.8%, 1.2% and 2.6%, respectively). For 5, 12, 14, 18, 27 and 30 April 2012, the measured DO levels (6.34, 6.13, 6.17, 5.82, 5.36 and 5.22 mg/L, respectively) at the monitoring station were below the baseline limit level, but higher than the DO levels (6.19, 6.06, 5.94, 5.76, 5.34 and 5.11 mg/L, respectively) of the corresponding control station. For 16 April 2012, the measured DO level (5.88 mg/L) at the monitoring station was below the baseline limit level and the same as the DO level of the corresponding control station. No direct disturbance was observed from the site. The exceedances were considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

- Twelve exceedances of DO limit levels were recorded at O-1(FT) (marine bottom) on 2, 5, 10, 12, 14, 16, 18, 20, 23, 25, 27 and 30 April 2012. For 2, 12, 18, 20 and 27 April 2012, the measured DO levels (6.54, 6.03, 5.74, 5.48 and 5.44 mg/L, respectively) at the monitoring station were below the baseline limit level, but higher than the DO levels (6.51, 6.02, 5.73,

5.42 and 5.40 mg/L, respectively) of the corresponding control station. For 10, 14, 16, 23, 25 and 30 April 2012, the measured DO levels (5.86, 5.82, 5.81, 5.49, 5.35 and 5.12 mg/L, respectively) at the monitoring station were below the baseline limit level and lower than the DO levels (5.90, 5.84, 5.84, 5.57, 5.36 and 5.16 mg/L, respectively) of the corresponding control station (about 0.7%, 0.3%, 0.5%, 1.4%, 0.2% and 0.8%, respectively). For 5 April 2012, the measured DO level (6.41 mg/L) at the monitoring station was below the baseline limit level and same as the DO level of the corresponding control station. No direct disturbance was observed from the site. The exceedances were considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

- Ten exceedances of DO Limit levels were recorded at O-1(ET) (marine surface) on 10, 12, 14, 16, 18, 20, 23, 25, 27 and 30 April 2012. For 10, 20 and 30 April 2012, the measured DO levels (6.18, 5.67 and 5.73 mg/L, respectively) at the monitoring station was below the baseline limit level, but higher than the DO levels (6.17, 5.65 and 5.67 mg/L, respectively) of the corresponding control station. For 12, 14, 16, 18, 23, 25 and 27 April 2012, the measured DO levels (6.36, 6.35, 5.80, 5.81, 5.53, 5.55 and 5.42 mg/L, respectively) at the monitoring station were below the baseline limit level and lower than the DO levels (6.43, 6.36, 5.99, 5.94, 5.62, 5.59 and 5.47 mg/L, respectively) of the corresponding control station (about 1.1%, 0.2%, 3.2%, 2.2%, 1.6%, 0.7% and 0.9%, respectively). No direct disturbance was observed from the site. The exceedances were considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

- Twelve exceedances of DO limit levels were recorded at O-1(ET) (marine mid-depth) on 2, 5, 10, 12, 14, 16, 18, 20, 23, 25, 27 and 30 April 2012. For 2, 5, 23, 27 and 30 April 2012, the measured DO levels (6.84, 6.27, 5.37, 5.34 and 5.18 mg/L, respectively) at the monitoring station were below the baseline limit level and lower than the DO levels (6.86, 6.33, 5.47, 5.38 and 5.20 mg/L, respectively) of the corresponding control station (about 0.3%, 0.9%, 1.8%, 0.7% and 0.4%, respectively). For 10, 12, 14, 20 and 25 April 2012, the measured DO levels (6.27, 6.20, 5.90, 5.44 and 5.42 mg/L, respectively) at the monitoring station were below the baseline limit level, but higher than the DO levels (6.08, 6.17, 5.84, 5.27 and 5.38 mg/L, respectively) of the corresponding control station. For 16 and 18 April 2012, the measured DO levels (5.87 and 5.85 mg/L, respectively) at the monitoring station were below the baseline limit level and the same as the DO levels of the corresponding control station. No direct disturbance was observed from the site. The exceedances were considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

- Eleven exceedances of DO limit levels were recorded at O-1(ET) (marine bottom) on 5, 10, 12, 14, 16, 18, 20, 23, 25, 27 and 30 April 2012. For 5, 14, 16, 20, 25 and 27 April 2012, the measured DO levels (6.46, 5.89, 5.79, 5.33, 5.38 and 5.41 mg/L, respectively) at the monitoring station were below the baseline limit level and lower than the DO levels (6.52, 5.91, 5.83, 5.37, 5.42 and 5.45 mg/L, respectively) of the corresponding control station (about 0.9%, 0.3%, 0.7%, 0.7%, 0.7% and 0.7%, respectively). For 10, 12, 18, 23 and 30 April 2012, the measured DO levels (6.13, 6.09, 5.78, 5.41 and 5.06 mg/L, respectively) at the monitoring station was below the baseline limit level, but higher than the DO levels (6.07, 6.05, 5.75, 5.38 and 5.01 mg/L, respectively) of the corresponding control station. No direct disturbance was observed from the site. The exceedances were considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

- One exceedance of SS limit level was recorded at O-1(ET) on 14 April 2012. The measured SS level (2.67 mg/L) at the monitoring station was well below the baseline action/limit level, but higher than 130% of the SS level (<2.00 mg/L) of the corresponding control station. No construction works was conducted at the Outfall basin (Portion E) on the monitoring day. No direct disturbance was observed from the site. The exceedance was considered to be contributed by natural variation and non-project related. Therefore, no further action was required.

3.5.10 The above mentioned exceedances were considered non-project related. However, proper mitigation measures had been implemented during measurements. Details of the above mentioned investigations can be referred to the Interim Notifications of Environmental Quality Limits Exceedances as enclosed in Appendix G.

Monitoring Station	Temperature (°C)	DO (mg/L)		pH	Turbidity (NTU)		Suspended Solid (mg/L)	
	Range	Range	Action / Limit Level	Range	Range	Action / Limit Level	Range	Action / Limit Level
I-1	21.40 - 32.20	6.64 - 7.85	3.42 / 3.34	7.67 - 8.66	1.82 - **19.75**	9.75 / 12.47	<2.00 - **11.75**	8.85 / 10.17
I-1-C	21.40 - 32.20	6.60 - 7.78	-	7.66 - 8.66	1.85 - 19.73	-	<2.00 - 8.25	-
I-2	21.00 - 31.80	6.64 - 7.94	3.66 / 3.63	7.70 - 8.62	1.72 - **23.79**	6.63 / 6.99	<2.00 - **10.80**	7.68 / 8.34
I-2-C	21.00 - 31.80	6.58 - 7.87	-	7.70 - 8.62	1.68 - 24.15	-	<2.00 - 12.85	-
I-3	21.40 - 32.05	6.48 - 7.92	3.65 / 3.51	7.72 - 8.60	0.91 - **42.25**	3.99 / 4.18	<2.00 - **34.30**	6.13 / 7.23
I-3-C	21.40 - 32.05	6.50 - 7.99	-	7.72 - 8.60	0.94 - 42.60	-	<2.00 - 33.40	-

Note: *Italic* indicates the exceedances of Action Levels
Bold indicates the exceedances of **Limit Levels**

Table 3-10 Summary of Impact Water Quality Monitoring Results

Monitoring Station		Temperature (°C)	DO (mg/L)		pH	Turbidity (NTU)		Suspended Solid (mg/L)	
		Range	Range	Action / Limit Level	Range	Range	Action / Limit Level	Range	Action / Limit Level
O-1(FT)	Surface	19.20 - 23.93	**5.45** - 7.17	6.84 / 6.81	7.87 - 8.05	1.10 - 5.94	10.35 / 13.15	<2.00 - 8.07	14.10 / 18.08
	Middle		**5.22** - **6.76**						
	Bottom		**5.12** - **6.54**	6.99 / 6.96					
O-1-C(FT)	Surface	19.20 - 23.90	5.40 - 7.18	- / -	7.88 - 8.05	1.10 - 6.05	- / -	<2.00 - 7.73	- / -
	Middle		5.11 - 6.84						
	Bottom		5.16 - 6.51						
O-1(ET)	Surface	19.27 - 23.87	**5.42** - 7.25	7.02 / 6.94	7.85 - 8.24	0.78 - 5.91	11.87 / 13.44	<2.00 - 7.85	13.25 / 14.39
	Middle		**5.18** - **6.84**						
	Bottom		**5.06** - *6.56*	6.70 / 6.48					
O-1-C(ET)	Surface	19.23 - 23.87	5.47 - 7.34	- / -	7.86 - 8.17	0.80 - 6.27	- / -	<2.00 - 7.28	- / -
	Middle		5.20 - 6.86						
	Bottom		5.01 - 6.64						

Note: *Italic* indicates the exceedances of Action Levels
Bold indicates the exceedances of **Limit Levels**

Table 3-11 Summary of Impact Marine Water Quality Monitoring Results

4 Quarterly Summary, Environmental Condition and Non-Compliance Records

4.1 Summary of Waste Disposal Records

4.1.1 According to the information provided by the Contractor, the quantities of C&D materials and other wastes in the reporting period are summarized in Table 4-1

Status of Waste Management	April 2012	May 2012	June 2012
Inert C&D Material Disposed of to Public Fill at Tuen Mun (m^3)	271.6	2,041.6	2,771.1
Inert C&D Material Reused in this Contract (m^3)	Nil	Nil	Nil
Inert C&D Material Reused in other Contract* (m^3)	720.0	560.0	625.0
Metals Generated (kg)	67,322.0	96,280.0	90,752.0
Paper / Cardboard Packaging (kg)	400.0	Nil	400.0
Plastics (kg)	20.0	Nil	37.0
Chemical Waste (kg)	12,116.0	3,200.0	10,700.0
General Waste Disposed of to NENT Landfill (m^3)	62.7	18.7	16.6

* Other Contracts include CV/2009/14, DC/2007/08, DC/2007/09, HY/2007/09, HY/2007/10, HY/2008/09, XRL823AB and Tailor Recycle Aggregate

Table 4-1 Waste Generated from April to June 2012

4.2 Weather Conditions

4.2.1 The weather conditions during the period from April to June 2012 were mainly sunny, cloudy and rainy.

4.3 Summary of Project-Related Exceedances

4.3.1 Summary of exceedance results are summarized in Table 4-2. Appendix G shows the Interim Notifications of Environmental Quality Limits Exceedances issued in the reporting period.

Environmental Monitoring	Total No. of Measurement	Action Level Exceedance	% of Action Level Exceedance	Limit Level Exceedance	% of Limit Level Exceedance
Air Quality	192	0	0	0	0
Air Borne Noise	60	0	0	0	0

Environmental Monitoring	Total No. of Measurement	Action Level Exceedance	% of Action Level Exceedance	Limit Level Exceedance	% of Limit Level Exceedance
Water	328	0	0	0	0

Table 4-2 Summary of Project-Related Exceedances

5 Complaint

5.1.1 A complaint hotline at 9850 3241 of the Contractor has been established for the Project.

5.1.2 No complaint was received during the reporting period. Details of the complaint investigation and observations can be referred to Appendix H.

5.1.3 Cumulative statistics of environmental complaints are shown in Table 5-1.

Complaints Received in the Reporting Period	Cumulative Number of Complaints
0	24

Table 5-1 Cumulative Statistics of Environmental Complaints

6 Summary of Notification of Summons, Successful Prosecutions and Corrective Actions

6.1.1 No summons and successful prosecution was received during the reporting period.

6.1.2 Cumulative statistics of Notification of Summon, Successful Prosecutions and Convictions are shown in Table 6-1.

Notification of Summons		Successful Prosecution	
April – June 2012	Cumulative	April – June 2012	Cumulative
0	0	0	0

Table 6-1 Cumulative Statistics of Notification of Summons and Successful Prosecutions

7 Comments, Recommendations and Conclusion

7.1.1 During the reporting period, no project related exceedance of air quality monitoring and air borne noise monitoring was recorded. Exceedances of water quality monitoring were recorded but none of these exceedances were related to Project's construction activities.

7.1.2 No Notification of Summons has been received since the commencement of the Project.

7.1.3 Waste management mitigation measures have been implemented by the Contractor within the reporting period. Waste figures during the reporting period are summarized in Table 7-1.

Status of Waste Management	Quantity
Inert C&D Material Disposed of to Public Fill at Tuen Mun (m^3)	5084.3
Inert C&D Material Reused in this Contract (m^3)	0
Inert C&D Material Reused in other Contract* (m^3)	1905.0
Metals Generated (kg)	254,354.0
Paper / Cardboard Packaging (kg)	800.0
Plastics (kg)	57.0
Chemical Waste (kg)	26,016.0
General Waste Disposed of to NENT Landfill (m^3)	98.0

* Other Contracts include DC/2007/08, HY/2007/10, XRL823AB and Tailor Recycle Aggregate

Table 7-1 Total Wastes Generated From April to June 2012

Appendix A

Site Map and Works Area

Appendix B

Organization Chart

Appendix C

Works Programme

Appendix D

Implementation Status of Environmental Mitigation Measures

Appendix E

Monitoring Locations

Appendix F

Monitoring Results

Appendix G

Interim Notifications of Environmental Quality Limits Exceedances

Appendix H

Complaint Log