



CONTRACT NO: HK/2015/01

**WANCHAI DEVELOPMENT PHASE II AND CENTRAL
WANCHAI BYPASS
SAMPLING, FIELD MEASUREMENT AND TESTING WORK
(STAGE 3)**

**ENVIRONMENTAL PERMIT NO. EP-364/2009/D,
FURTHER ENVIRONMENTAL PERMIT NOS. FEP-01/364/2009,
FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A, FEP-
07/364/2009/D, FEP-09/364/2009/B, FEP-10/364/2009/B AND
FEP-11/364/2009/B**

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

- JULY 2016 -

CLIENTS:

**Civil Engineering and Development
Department

and

Highways Department**

PREPARED BY:

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Environmental Team Leader**

DATE:

11 August 2016

Ref.: AACWBIECEM00_0_8392L.16

11 August 2016

AECOM Asia Company Limited
11/F Tower 2 Grand Central Plaza
138 Shatin Rural Committee Road
Shatin New Territories
Hong Kong

By Post and Fax (2691 2649)

Attention: Mr. Conrad Ng

Dear Mr. Ng,

**Re: Contract No. HK/2015/01
Wan Chai Development Phase II - Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 3)**

**Monthly Environmental Monitoring and Audit Report (July 2016)
for EP-364/2009/D, FEP-01/364/2009, FEP-02/364/2009, FEP-
05/364/2009/A, FEP-06/364/2009/A, FEP-07/364/2009/D, FEP-
09/364/2009/B, FEP-10/364/2009/B & FEP-11/364/2009/B**

Reference is made to the Environmental Team's submission of the captioned Monthly Environmental Monitoring and Audit (EM&A) Report for July 2016 received by e-mail on 11 August 2016 for our review and comment.

Please be informed that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 in the captioned Environmental Permits.

Thank you very much for your attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,



David Yeung
Independent Environmental Checker

c.c.	HyD	Attn: Mr. Eddy Wu	by fax: 2714 5289
	CEDD	Attn: Mr. Stephen Lo	by fax: 2577 5040
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EXECUTIVE SUMMARY

- i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – [July 2016](#) specific for Environmental Permit no. EP-364/2009/D, Further Environmental Permit nos. FEP-01/364/2009, FEP-02-364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A FEP-07/364/2009/D, FEP-09/364/2009/B, FEP-10/364/2009/B and FEP-11/364/2009/B. The EM&A report is prepared by the Environmental Team (ET) employed under Contract No. HK/2015/01 – Wan Chai Development Phase II and Central Wanchai Bypass – Sampling, Field Measurement and Testing Works (Stage 3). This report presents the environmental monitoring findings and information recorded during the period of [27 June 2016 to 26 July 2016](#).
- ii. The implementation of the Environmental Monitoring and Audit Programme for the Wan Chai Development phase II and Central-Wan Chai Bypass Project has been taken over by the Lam Geotechnics Limited (LGL) under Contract HK/2015/01 – Wan Chai Development Phase II and Central Wanchai Bypass – Sampling, Field Measurement and Testing Works (Stage 3) from 27 December 2015 in continuation of the previous Environmental Team employed under Contact HK/2011/07 – Wan Chai Development Phase II and Central Wanchai Bypass – Sampling, Field Measurement and Testing Works (Stage 2).

- iii. In the reporting month, the principal work activities of individual contracts are included as follows:

Contract no. HY/2009/18 - Central - Wan Chai Bypass (CWB) - Central Interchange under FEP-05/364/2009/A

- [Drainage works](#)
- [Road works](#)
- [Landscaping works](#)
- [Modification and Construction of Sign Gantries / Traffic Signs](#)
- [Maintenance works](#)

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre - Tunnel Works under FEP-02/364/2009

- [Stage 4 backfilling works](#)
- [Reinstatement of outfall](#)
- [Road and Drain works](#)

Contract no. HK/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- [Remedial works against water leakage and concrete defects.](#)
- [Middle and side wall construction](#)
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- Excavation work
- ELS S1 layer installation
- Pumping test
- Erection of hoarding for the demolition of ex-WSD Salt Water Pumping
- Fabrication of steel hoardings

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Remedial works inside tunnel structure at Mined Tunnel, TS4, TPCWAE and TPCWAW

Contract no. HY/2009/19 - Central - Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- Pier construction for IEC
- Construction of EVB
- Column modification at F1 to F8
- Approach ramp sheet piling and pre-bored piling works
- Bridge construction and segment erection
- Hing Fat Street modification works
- Hing Fat Street Slip Road Bridge E L3 railing construction
- EVB back filling & waterproofing works
- Pier 26 to 28 Tie Beam construction

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009B

- Grouting
- Construction of MVB and CWB Tunnel
- Construction of concrete plug
- Excavation and lateral support installation for CWB tunnel

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009B

- Tree protection works next to existing BGO,
- Drainage improvement works,
- Excavation and Lateral Support for U-structure,
- Grouting works,
- Utility diversion works,
- Retaining wall works
- ELS works,
- Construction works for subway extension



Contract no. HY/2011/08 –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft, West Ventilation Building
- Construction of Tunnel Thermal Barrier
- Installation of Electricals and Mechanicals
- Installation of Tunnel Features

Noise Monitoring

- iv. Noise monitoring during daytime was conducted at M1a - Harbour Road Sports Center; M2b - Noon-day gun area; M3a - Tung Lo Wan Fire Station; M4b - Victoria Center; M5b - City Garden, M6 - HK Baptist Church Henrietta Secondary School, M7e and M7w – International Financial Centre East Podium and International Finance Centre West Podium and M8 – City Hall on weekly basis in the reporting month.
- v. With respect to the shift in major construction site portions at Wan Chai North, the noise monitoring station M1a – Harbour Road Sports Centre was finely adjusted from East of Harbour Road Sports Centre to West of Harbour Road Sports Centre on 21 June 2016.
- vi. One limit level exceedance was recorded at noise monitoring station M1a – Harbour Road Sports Center on 28 June 2016. The exceedance was concluded as non-project related.
- vii. One limit level exceedance was recorded at noise monitoring station M6 – HK Baptist Church Henrietta Secondary School on 12 July 2016. The exceedance was concluded as non-project related.
- viii. 24-hour real time noise monitoring was conducted at RTN1 - FEHD Hong Kong Transport Section Whitfield Depot for construction activities at IEC bridge deck. No limit level exceedance was recorded in the reporting month.
- ix. 24-hour real time noise monitoring was conducted at RTN2a – Hong Kong Electric Centre. No project related exceedance was recorded in the reporting month.
- x. 24-hour real time noise monitoring was conducted at RTN3 – Yu Lee Mo Fan Memorial School. No project related exceedance was recorded in the reporting month.
- xi. 24-hour real time noise monitoring was conducted at RTN4 – Causeway Bay Community Centre. Project related exceedance and non-Project related exceedances were recorded in the reporting month.

Air Quality Monitoring

- xii. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at CMA1b – Oil Street Site Office; CMA2a - Causeway Bay Community Center; CMA3a - CWB PRE Site Office Area; CMA4a – Society for the Prevention of Cruelty to Animals; CMA5b - Pedestrian Plaza; MA1e and MA1w – International Finance Centre eastern and western podium on every six days basis.
- xiii. No action or limit level exceedance was recorded in the reporting month.
- xiv. Due to interruption of electricity supply, the following TSP monitoring were rescheduled :-
The 24hr TSP monitoring at air quality monitoring station CMA1b was rescheduled from 05 July 2016 to 06 July 2016.
The 24hr TSP monitoring at air quality monitoring station CMA2a was rescheduled from 16 July 2016 to 18 July 2016.
The 24hr TSP monitoring at air quality monitoring station CMA5b was rescheduled from 11 July 2016 to 12 July 2016.

Complaints, Notifications of Summons and Successful Prosecutions

- xv. One environmental complaint was received in the reporting month.
- xvi. A public complaint referred by EPD was received by ET on 14 July 2016 (Case Ref.: H08/RS/00016213-16). The complainant reported the concern about night time construction noise from construction works between 0200hrs to 0300hrs and construction dust emission from construction site of TS3 near Slip Road 8 section.

ET confirmed with the Resident Site Staff that excavation at TS3 and loading of material onto derrick barge (Shun Tat 28) by crawler crane was undertaken by the Contractor of HY/2010/08 from 19:00hrs to around 02:00hrs on 30 June 2016. Total one crawler crane was in operation. Noise mitigation measures including equipping the crawler crane with noise barrier was implemented by the Contractor of HY/2010/08. Dust mitigation measures including manual spraying of water and mist nozzles are deployed on the ground level and at the cofferdam.

Based on the site records confirmed by RSS, excavation at TS3 and loading of material onto derrick barge (Shun Tat 28) by crawler crane was undertaken by the Contractor of HY/2010/08 from 19:00hrs on 29 June 2016 to around 02:00hrs on 30 June 2016. No construction works was conducted at the concerned location after around 02:00hrs on 30 June 2016. Total one crawler crane was in operation and noise mitigation measures including equipping the crawler crane with noise barrier was implemented by the Contractor of HY/2010/08.

Based on review on relevant record, Construction Noise Permit GW-RS0434-16 for the operation of crawler crane at the concerned location was in place. However, based on relevant site record, it was noted that the crawler crane deployed during the concerned period could not match with the specific PME requirement under condition 3a (Crane, crawler, mounted with noise barrier (Kobelco 7250S)) of the Construction Noise Permit GW-RS0434-16 between 23:00hrs to 07:00hrs on the following day. Dust mitigation measures including manual spraying of water and mist nozzles were deployed on the ground level and at the cofferdam.

Follow up inspection was conducted on 20 July 2016, the potential concerned excavation works at the concerned location was not observed and no particular dust impact was observed around the concerned location.

In view of the above, the Contractor of HY/2010/08 was advised to review the site control system for construction works carried out during restricted hours to check and ensure the model/ specific PMEs deployed are in compliance with relevant Construction Noise Permit. The Contractor of HY/2010/08 was also reminded to maintain regular maintenance of the plant and equipment deployed to avoid potential nuisance to the nearby public. Also, the Contractor of HY/2010/08 was reminded to maintain sufficient watering for excavated material handling to avoid potential dust nuisance to the surroundings.

Site Inspections and Audit

- xvii. The Environmental Team (ET) conducted weekly site inspections for Contract no. HY/2009/15, HY/2009/18, HY/2009/19, HY/2010/08, HK/2009/01, HK/2009/02, HK/2012/08 and HY/2011/08 in this reporting period.
- xviii. Construction of bored pile E3B under HY/2009/17 was confirmed completed and the respective work area under FEP-03/364/2009 was handover and inspected under HY/2009/19 from 19 Dec 2012 onwards.
- xix. Construction works under HK/2010/06 was confirmed completed and the respective work area under FEP-08/364/2009/A was handover and inspected under HK/2012/08 from 22 Sep 2014 onwards.
- xx. The Contractors rectified major observations and recommendations made during the audit sessions. No non-conformance was identified during the site inspections.

Future Key Issues

- xxi. In the coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- Drainage works
- Road works
- Landscaping works
- Modification and Construction of Sign Gantries / Traffic Signs
- Maintenance works

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- Stage 4 backfilling works
- Reinstatement of outfall
- Road and Drain works

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Placing of pre-cast concrete covers
- Tunnel OHVD construction
- Tunnel wall and top slab construction
- Road side barrier construction
- ELS S4 removal and king post load transfer
- Waterproofing layer at tunnel top slab
- Tunnel backfilling
- General cleaning of OHVD & tunnel base slab, carrier drain and cross road duct.
- Removal of remaining temporary sheet pile seawall
- Removal of blockwork seawall near the interface between Portion 2 and Portion 5
- Excavation work
- Strut installation
- Erection of hoarding for the demolition of ex-WSD Salt Water Pumping Station
- Demolition of ex-WSD Salt Water Pumping Station from roof to 1/F

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Remedial works inside tunnel structure at Mined Tunnel, TS4, TPCWAE and TPCWAW

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- Pier construction for IEC
- Construction of EVB
- Column modification at F1 to F8
- Approach ramp sheet piling and pre-bored piling works
- Bridge construction and segment erection
- Hing Fat Street modification works
- Hing Fat Street Slip Road Bridge E parapet construction
- EVB waterproofing works
- Pier 26 to 28 Tie Beam construction continues
- Oil Street drainage works
- Excavation / Construction of retaining wall

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

- Grouting
- Construction of MVB and CWB Tunnel
- Construction of concrete plug
- Excavation and lateral support installation for CWB tunnel

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009

- Tree protection works next to existing BGO,
- Drainage improvement works,
- Excavation and Lateral Support for U-structure,
- Grouting works,
- Utility diversion works,
- Retaining wall works
- ELS works
- Construction works for subway extension

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft/Building, West Ventilation Building
- Construction of Tunnel Thermal Barrier
- Installation of Electricals and Mechanicals
- Installation of Tunnel Features

1 INTRODUCTION

1.1 Scope of the Report

1.1.1. Lam Geotechnics Limited (LGL) has been appointed to work as the Environmental Team (ET) under Environmental Permit no. EP-364/2009/D and Further Environmental permit nos. FEP-01/364/2009, FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A, FEP-07/364/2009/D, FEP-09/364/2009/B, FEP-10/364/2009B and FEP-11/364/2009B to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) and in the EM&A Manual of the approved EIA Report for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001).

1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 10.3 of EM&A Manual and “*Environmental Monitoring and Audit Requirements*” under Particular Specification Section 27.

1.1.3. This report documents the finding of EM&A works for Environmental Permit (EP) no. EP-364/2009/D, Further Environmental Permit (FEP) nos. FEP-01-364/2009, FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A, FEP-07/364/2009/D, FEP-09/364/2009/B, FEP-10/364/2009/B and FEP-11/364/2009/B during the period [27 June 2016 to 26 July 2016](#).

1.2 Structure of the Report

Section 1 *Introduction* – details the scope and structure of the report.

Section 2 *Project Background* – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.

Section 3 *Status of Regulatory Compliance* – summarizes the status of valid Environmental Permits / Licenses during the reporting period.

Section 4 *Monitoring Requirements* – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.

Section 5 *Monitoring Results* – summarizes the monitoring results obtained in the reporting period.

Section 6 *Compliance Audit* – summarizes the auditing of monitoring results, all exceedances environmental parameters.

- Section 7** *Cumulative Construction Impact due to the Concurrent Projects* – summarizes the relevant cumulative construction impact due to the concurrent activities of the concurrent Projects.
- Section 8** *Environmental Site Audit* – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.
- Section 9** *Complaints, Notification of summons and Prosecution* – summarizes the cumulative statistics on complaints, notification of summons and prosecution
- Section 10** *Conclusion*

2 PROJECT BACKGROUND

2.1 Background

2.1.1. “Wan Chai Development phase II and Central-Wan Chai Bypass” and “Central-Wan Chai Bypass and Island Eastern Corridor Link” (hereafter called “the Project”) are Designated Project (DP) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Environmental Impact Assessment (EIA) Reports for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001) and Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) have been approved on 31 August 2001 and 11 December 2008 respectively.

2.1.2. The key purpose of Wan Chai Development Phase II (WDII) is to provide land at Wan Chai North and North Point for construction of the Central-Wan Chai Bypass and Island Eastern Corridor Link (CWB). Land formed under the project will be developed as a world-class waterfront promenade joining that at the new Central waterfront for public enjoyment.

2.1.3. There is a compelling and present need for the CWB to provide relief to the very congested east-west Connaught Road Central/Harcourt Road / Gloucester Road Corridor (the Corridor) which is currently operating beyond its capacity. The CWB will provide relief to the existing congestion along the Corridor and cater for the anticipated growth of traffic on Hong Kong Island. Without the CWB and its access roads, there will not be sufficient capacity to serve the heavy traffic demands at both strategic and local levels.

2.2 Scope of the Project and Site Description

2.2.1. Design and Construction of Central – Wan Chai Bypass and Island Eastern Corridor Link under the Project involves the construction and operation of a trunk road and its road tunnel more than 800m in length between portals that is shown at Figure 2.1.

2.2.2. The study area encompasses existing developments from Central to North Point. The scope of the Central-Wanchai Bypass (CWB) and Island Eastern Corridor Link (IECL) includes:

- A dual three-lane trunk road, approximately 4.5 km in length, and tunnel approximately 3.7 km in length defined from the connection with the existing Rumsey Street Flyover in Central, through to a connection with the existing Island Eastern Corridor to the east of the Causeway Bay Typhoon Shelter (CBTS);
- The Central Interchange near the Rumsey Street Flyover to provide road connections to the Central area;
- Tunnel control buildings and ventilation buildings;
- Slip roads to connect the CWB to the local road system in the Wan Chai North and Causeway Bay area;
- Associated road lighting, road signing, traffic control and surveillance system; and
- Other associated works.

2.2.3. The project also contains various Schedule 2 DPs that, under the EIAO, require Environmental Permits (EPs) to be granted by the DEP before they may be either constructed or operated. **Table 2.1** summarises the five individual DPs under this Project. **Figure 2.1** shows the locations of these Schedule 2 DPs.

Table 2.1 Schedule 2 Designated Projects under this Project

Item	Designated Project	EIAO Reference	Reason for inclusion
DP1	Central-Wanchai Bypass (CWB) including its road tunnel and slip roads	Schedule 2, Part I, A.1 and A.7	Trunk road and road tunnel more than 800 m in length
DP2	Road P2 and other roads which are classified as primary/district distributor roads	Schedule 2, Part I, A.1	Primary / district distributor roads
DP3	Reclamation works including associated dredging works	Schedule 2, Part I, C.1 and C.12	Reclamation more than 5 ha in size and a dredging operation less than 100 m from a seawater intake point
DP5	Wan Chai East Sewage Outfall	Schedule 2, Part I, F.5 and F.6	Submarine sewage pipelines with a total diameter more than 1,200 mm and include a submarine sewage outfall
DP6	Dredging for the Cross-harbour Water Mains from Wan Chai to Tsim Sha Tsui	Schedule 2, Part I, C.12	A dredging operation less than 100 m from a seawater intake point

2.3 Division of the Project Responsibility

2.3.1. Due to the multi-contract nature of the Project, there are a number of contracts sub-dividing the whole works area into different work areas to be commenced. Contractors of individual contracts will be required by the EP holder to apply Further Environmental Permits such that the impact monitoring stations are sub-divided accordingly to facilitate the implementation of EM&A programme and to streamline the EM&A reporting for individual FEP holders correspondingly.

2.3.2. The details of individual contracts are summarized in **Table 2.2**.

Table 2.2 Details of Individual Contracts under the Project

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HY/2009/17	Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works.	DP1	5 October 2010 (Completed)
HY/2009/18	Central – Wan Chai Bypass (CWB) – Central Interchange	DP1	21 April 2011
04/HY/2006	Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street	DP1	September 2010 (Completed)
HK/2009/01	Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works	DP1, DP2	25 August 2011

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/02	Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East(CWB Tunnel)	DP1	26 April 2011
HY/2009/15	Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)	DP1,DP3	13 July 2011
HY/2009/19	Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link	DP1	24 March 2011
HK/2010/06	Wan Chai Development Phase II- Central-Wan Chai Bypass over MTR Tsuen Wan Line	DP3	22 March 2011 (Completed)
HK/2012/08	Wan Chai Development Phase II- Central-Wan Chai Bypass at Wan Chai West	DP1,DP2, DP3	10 March 2014
HY/2010/08	Central- Wanchai Bypass Tunnel – Tunnel (Slip Road 8)	DP1, DP2, DP3	21 March 2013
HY/2011/08	Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning	DP1	8 October 2014

2.4 Project Organization and Contact Personnel

2.4.1. Civil Engineering and Development Department and Highways Department are the overall project controllers for the Wan Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.4.2. The proposed project organization and lines of communication with respect to environmental protection works are shown in Figure 2.2. Key personnel and contact particulars are summarized in **Table 2.3**:

Table 2.3 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.	Contact Fax
AECOM	Engineer's Representative for WDII	Principal Resident Engineer	Mr. Frankie Fan	2587 1778	2587 1877
	Engineer's Representative for CWB	Principal Resident Engineer	Mr. Peter Poon	3912 3388	3912 3010
Chun Wo – Leader Joint Venture	Contractor under Contract no. HK/2009/01	Project Manager	Mr. Simon Liu	2162 9909	2634 1626
		Site Agent	Mr. Andy Yu	9648 4896	
		Construction Manager	Mr. Terry Wong	9757 9846	
		Construction Manager	Mr. Wyman Wong	9627 2467	



Party	Role	Post	Name	Contact No.	Contact Fax
		Construction Manager	Mr. Terry Tsang	6683 9394	
		Environmental Officer	Ms. Wendy Ng	9803 0057	
		Assistant Environmental Engineer	Ms. Connie Chan	6157 7057	
Chun Wo – CRGL Joint Venture	Contractor under Contract no. HK/2009/02	Site Agent	Mr. K.K. Yuen	3658-3002	2827 9996
		Project Manager	Mr. Paul Yu	3658 3085	
		Environmental Officer	Mr. C.P. Ho	9191 8856	
Chun Wo - CRGL - MBEC_Joint Venture	Contractor under Contract no. HY/2009/19	Project Manager	Mr. David Lau	3758 8879	2570 8013
		Deputy Project Manager	Mr. William Luk	9456 9819	
		Deputy Site Agent	Eric Fong	6191 9337	
		Environmental Manager / Environmental Officer	Mr. M.H. Isa	3757 8218	
		Assistant Environmental Officer	Mr. Tom Ding	3757 8217	
Leighton Contractors (Asia) Limited	Contractor under Contract no. HY/2009/18	Site Agent	Mr. Jimmy Chu	2214 7700	2140 6799
		Deputy Site Agent	Mr. Bob Yeung	2214 7703	
		Environmental Officer	Mr. Chris Chan	2823 1161	
		Assistant Environmental Engineer	Mr. Christy So	3937 1065	
China State Construction Engineering (HK) Ltd.	Contractor under Contract no. HY/2009/15	Project Director	Mr. Chris Leung	3557 6393	2865 5229
		Site Manager	Mr. Y. Huo	3557 6368	
		Contractor's Representative	Mr. Rex Chan	3557 6371	2566 2192
		Environmental Officer	Mr. Andy Mak	3557 6215	
		Environmental Supervisor	Mr. Harry Wong	3557 6348	
China State-Leader JV	Contractor under Contract no. HK/2012/08	Project Director	Mr. C.N. Lai	9137 1811	2877 1522
		Project Manager	Mr. Eddie Chung	9193 8871	
		Site Agent	Mr. Keith Tse	9095 7922	
		Environmental Officer	Mr. James MA	9130 9549	



Party	Role	Post	Name	Contact No.	Contact Fax
		Environmental Supervisor	Mr. Y.L. Ho	6050 4919	
China State	Contractor under Contract no.HY/2010/08	Project Director	Cheung Kit Cheung	3557 6399	2566 8061
		Project Manager	Chan Ying Lun	9812 0592	
		Deputy Project Manager	Chris Leung	3467 4299	
		Site Agent	Mr. Andrew Wong	3467 4277	
		Environmental Officer	Mr. Gabriel Wong	3557 6464	
		Environmental Supervisor	Mr. Louis Lam Tsz Kwan	3557 6470	
Leighton Joint Venture	Contractor under Contract no. HY/2011/08	Project Manager	Paul Evans	2823 1111	21406799
		Site Agent	Colman Wong	9730 0806	
		Environmental Officer	Malcolm Leung	3973 0850	
		Environmental Supervisor	Christy So	3973 1065	
Ramboll Environ Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechnics Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

2.4.3. In this reporting month, the principal work activities of individual contracts are included as follows:

Contract no. HY/2009/18 - Central - Wan Chai Bypass (CWB) - Central Interchange under FEP-05/364/2009/A

- Drainage works
- Road works
- Landscaping works
- Modification and Construction of Sign Gantries / Traffic Signs
- Maintenance works

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre - Tunnel Works under FEP-02/364/2009

- Stage 4 backfilling works
- Reinstatement of outfall
- Road and Drain works

Contract no. HK/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Remedial works against water leakage and concrete defects.
- Middle and side wall construction
- Tunnel top slab construction
- Removal of Eastern Bulkhead Wall
- Removal of scaffolds underneath tunnel soffit
- Waterproofing layer at tunnel top slab
- Removal of ELS S4 Instrumentation work
- Excavation work
- ELS S1 layer installation
- Pumping test
- Erection of hoarding for the demolition of ex-WSD Salt Water Pumping
- Fabrication of steel hoardings

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Remedial works inside tunnel structure at Mined Tunnel, TS4, TPCWAE and TPCWAW

Contract no. HY/2009/19 - Central - Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- Pier construction for IEC
- Construction of EVB
- Column modification at F1 to F8
- Approach ramp sheet piling and pre-bored piling works
- Bridge construction and segment erection
- Hing Fat Street modification works

- Hing Fat Street Slip Road Bridge E L3 railing construction
- EVB back filling & waterproofing works
- Pier 26 to 28 Tie Beam construction

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009B

- Grouting
- Construction of MVB and CWB Tunnel
- Construction of concrete plug
- Excavation and lateral support installation for CWB tunnel

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009B

- Tree protection works next to existing BGO,
- Drainage improvement works,
- Excavation and Lateral Support for U-structure,
- Grouting works,
- Utility diversion works,
- Retaining wall works
- ELS works,
- Construction works for subway extension

Contract no. HY/2011/08 –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft, West Ventilation Building
- Construction of Tunnel Thermal Barrier
- Installation of Electricals and Mechanicals
- Installation of Tunnel Features

2.4.4. In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- Drainage works
- Road works
- Landscaping works
- Modification and Construction of Sign Gantries / Traffic Signs
- Maintenance works

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- Stage 4 backfilling works
- Reinstatement of outfall
- Road and Drain works

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Placing of pre-cast concrete covers
- Tunnel OHVD construction
- Tunnel wall and top slab construction
- Road side barrier construction
- ELS S4 removal and king post load transfer
- Waterproofing layer at tunnel top slab
- Tunnel backfilling
- General cleaning of OHVD & tunnel base slab, carrier drain and cross road duct.
- Removal of remaining temporary sheet pile seawall
- Removal of blockwork seawall near the interface between Portion 2 and Portion 5
- Excavation work
- Strut installation
- Erection of hoarding for the demolition of ex-WSD Salt Water Pumping Station
- Demolition of ex-WSD Salt Water Pumping Station from roof to 1/F

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Remedial works inside tunnel structure at Mined Tunnel, TS4, TPCWAE and TPCWAW

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- Pier construction for IEC
- Construction of EVB
- Column modification at F1 to F8
- Approach ramp sheet piling and pre-bored piling works
- Bridge construction and segment erection
- Hing Fat Street modification works
- Hing Fat Street Slip Road Bridge E parapet construction
- EVB waterproofing works
- Pier 26 to 28 Tie Beam construction continues
- Oil Street drainage works
- Excavation / Construction of retaining wall

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

- Grouting
- Construction of MVB and CWB Tunnel
- Construction of concrete plug
- Excavation and lateral support installation for CWB tunnel

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009

- Tree protection works next to existing BGO,
- Drainage improvement works,
- Excavation and Lateral Support for U-structure,
- Grouting works,
- Utility diversion works,
- Retaining wall works
- ELS works
- Construction works for subway extension

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft/Building, West Ventilation Building
- Construction of Tunnel Thermal Barrier
- Installation of Electricals and Mechanicals
- Installation of Tunnel Features

3 STATUS OF REGULATORY COMPLIANCE

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in **Table 3.1**.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project

Permits and/or Licences	Reference No.	Issued Date	Status
Environmental Permit	EP-356/2009	30 Jul 2009	Valid
Environmental Permit	EP-364/2009	17 Aug 2009	Superseded
Environmental Permit	EP-364/2009/A	4 Aug 2010	Superseded
Environmental Permit	EP-364/2009/B	20 Sep 2012	Superseded
Environmental Permit	EP-364/2009/C	11 Jul 2014	Superseded
Environmental Permit	EP-364/2009/D	24 Nov 2015	Valid
Environmental Permit	EP-376/2009	13 Nov 2010	Valid
Further Environmental Permit	FEP-01/356/2009	18 Feb 2010	Surrendered
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-04/356/2009	15 Nov 2010	Valid
Further Environmental Permit	FEP-05/356/2009	24 Mar 2011	Surrendered
Further Environmental Permit	FEP-06/356/2009	5 March 2013	Valid
Further Environmental Permit	FEP-07/356/2009	26 July 2013	Valid
Further Environmental Permit	FEP-01/364/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-02/364/2009	21 Apr 2010	Valid
Further Environmental Permit	FEP-03/364/2009	12 July 2010	Surrendered
Further Environmental Permit	FEP-04/364/2009/A	14 Oct 2010	Surrendered
Further Environmental Permit	FEP-05/364/2009/A	15 Nov 2010	Valid
Further Environmental Permit	FEP-06/364/2009/A	22 Nov 2010	Valid
Further Environmental Permit	FEP-07/364/2009/A	25 Feb 2011	Superseded
Further Environmental Permit	FEP-07/364/2009/D	24 Nov 2015	Valid
Further Environmental Permit	FEP-08/364/2009/A	15 June 2012	Surrendered

Further Environmental Permit	FEP-09/364/2009/B	5 March 2013	Valid
Further Environmental Permit	FEP-10/364/2009/B	26 July 2013	Valid
Further Environmental Permit	FEP-11/364/2009/B	2 May 2014	Valid

3.1.2. Due to the multi-contract nature of the Project, the status of permits and/or licences under the individual contract(s) are presented as below:

Contract no. HY/2009/17 – Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works under FEP-03/364/2009

3.1.3. The construction works was completed and the FEP-03/364/2009 was surrendered by the Contractor on 28 March 2013.

Contract no. 04/HY/2006 – Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street under FEP-04/364/2009/A

3.1.4. The construction works was completed, and the FEP-04/HY/2006 was surrendered by the Contractor on 11 February 2011.

Contract no. HK/2010/06 - Wan Chai Development Phase II - Central - Wan Chai Bypass over MTR Tsuen Wan Line under FEP-08/364/2009/A

3.1.5. The construction works was completed, and the FEP-08/364/2009/A was surrendered by the Contractor on 3 October 2014.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

3.1.6. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-02/364/2009 for contract no. HK/2009/01 are shown in **Table 3.2** and **Table 3.3**.

Table 3.2 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	N/A	Valid
	FEP-02/364/2009	21 Apr 2010	N/A	Valid
Notification of Works Under APCO	313088	06 Jan 2010	N/A	Valid
Construction Noise Permit (CNP) for non-pilling equipment	GW-RS1338-15	11 Dec 2015	01 Jan 2016 to 30 June 2016	Cancelled
	GW-RS0041-16	22 Jan 2016	25 Jan 2016 to 23 Jul 2016	Cancelled
	GW-RS0089-16	05 Feb 2016	20 Feb 2016 to 19 July 2016	Cancelled
	GW-RS0093-16	05 Feb 2016	22 Feb 2016 to 21 July 2016	Cancelled
	GW-RS0152-16	18 Feb 2016	25 Feb 2016 to 24 Aug 2016	Cancelled
	GW-RS0243-16	11 Mar 2016	14 Mar 2016 to 13 Sep 2016	Cancelled
	GW-RS0384-16	19 Apr 2016	22 Apr 2016 to 19 Oct 2016	Valid
	GW-RS0435-16	03 May 2016	08 May 2016 to 07 Nov 2016	Valid
	GW-RS0482-16	17 May 2016	19 May 2016 to 18 Nov 2016	Valid
	GW-RS0486-16	17 May 2016	19 May 2016 to 18 Nov 2016	Valid
	GW-RS0488-16	17 May 2016	19 May 2016 to 18 Nov 2016	Valid
	GW-RS0492-16	20 May 2016	23 May 2016 to 22 Nov 2016	Valid
GW-RS0493-16	20 May 2016	23 May 2016 to 22 Nov 2016	Valid	

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS0495-16	20 May 2016	19 May 2016 to 18 Nov 2016	Valid
	GW-RS0546-16	27 May 2016	30 May 2016 to 26 Nov 2016	Cancelled
	GW-RS0592-16	13 Jun 2016	15 Jun 2016 to 12 Dec 2016	Valid
	GW-RS0636-16	20 Jun 2016	21 Jun 2016 to 19 Dec 2016	Valid
Discharge License	WT00009641-2011	24 Jul 2011	31 Jul 2016	Valid
	WT00021138-2015	17 Mar 2014	31 Mar 2020	Valid
Billing account under Waste Disposal Ordinance	7010069	21 Jan 2010	N/A	Valid
Registration as a Chemical Waste Producer	WPN5213-134-C3585-01	21 Jan 2010	N/A	Valid

Table 3.3 Summary of submission status under FEP-02/364/2009

EP Condition	Submission	Date of Submission
Condition 2.7 & 2.8	Works Schedule and Location Plan	18 May 2011
Condition 2.6	Environmental Management Organization Chart	18 May 2011
Condition 1.12	Commencement Date of Works	20 Jun 2011
Condition 2.9	Noise Management Plan	10 Jun 2011
Condition 2.11	Landscape Plan (Rev.4)	8 July 2015

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

3.1.7. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-01/364/2009 for contract no. HK/2009/02 are shown in **Table 3.4** and **Table 3.5**.

Table 3.4 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	N/A	Valid
	FEP-01/364/2009	24 Mar 2010	N/A	Valid
Notification of Works Under APCO	313962	2 Feb 2010	N/A	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS1413-15	24 Dec 2015	02 Jan 2016 to 01 Jul 2016	Cancelled
	GW-RS0083-16	01 Feb 2016	3 Feb 2016 to 01 Aug 2016	Cancelled
	GW-RS0321-16	01 Apr 2016	5 Apr 2016 to 05 Jul 2016	Expired
	GW-RS0390-16	22 Apr 2016	27 Apr 2016 to 26 Oct 2016	Valid
	GW-RS0399-16	27 Apr 2016	27 Apr 2016 to 26 Oct 2016	Valid
	GW-RS0403-16	27 Apr 2016	30 Apr 2016 to 24 Sep 2016	Valid
	GW-RS0516-16	20 May 2016	23 May 2016 to 22 Nov 2016	Cancelled
	GW-RS0593-16	13 Jun 2016	15 Jun 2016 to 12 Dec 2016	Valid
Water Discharge License	WT00009691-2011	01 Aug 2011	31 July 2016	Valid
	WT00022295-2015	12 Aug 2015	31 July 2020	Valid
Billing Account under Waste Disposal Ordinance (Land)	7010255	10 Feb 2010	N/A	Valid
Registration as Chemical Waste Producer (Wan Chai)	WPN5213-135-C3593-01	10 Mar 2010	N/A	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Registration as Chemical Waste Producer (TKO 137)	WPN5213-839-C3593-02	22 Sep 2010	N/A	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/16-146	24 Dec 2015	01 Jan 2016 to 30 Jun 2016	Expired
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/17-041	23 Jun 2017	01 Jul 2016 to 31 Dec 2016	Valid

Table 3.5 Summary of submission status under FEP-01/364/2009

EP Condition	Submission	Date of Submission
Condition 2.7 and 2.8	Works Schedule and Location Plan	14 Jun 2011
Condition 2.6	Environmental Management Organization Chart	14 Jun 2011
Condition 1.12	Commencement Date of Works	21 Jun 2011
Condition 2.11	Landscape Plan (Revision B)	20 Nov 2012
Condition 2.9	Noise Management Plan (Revision B)	13 Jan 2012

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

3.1.8. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-05/364/2009A for contract no. HY/2009/18 are shown in **Table 3.6** and **Table 3.7**.

Table 3.6 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/18

Permit / Licence / Notification / Approval	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-05/364/2009/A	15 Nov 2010	Permit issued	Valid
Notification of Works Under APCO	322293	07 Oct 2010	Notified	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS1415-15	24 Dec 2015	01 Jan 2016 to 30 Jun 2016	Expired
	GW-RS0335-16	07 Apr 2016	08 Apr 2016 to 30 Sep 2016	Cancelled
	GW-RS0438-16	03 May 2016	05 May 2016 to 30 Sep 2016	Cancelled
	GW-RS0459-16	09 May 2016	11 May 2016 to 31 Aug 2016	Valid
	GW-RS0564-16	06 Jun 2016	08 Jun 2016 to 31 Oct 2016	Valid
	GW-RS0577-16	06 Jun 2016	08 Jun 2016 to 31 Oct 2016	Valid
	GW-RS0669-16	24 Jun 2016	01 Jul 2016 to 31 Dec 2016	Valid
	GW-RS0700-16	04 Jul 2016	06 Jul 2016 to 31 Oct 2016	Valid
	GW-RS0705-16	04 Jul 2016	06 Jul 2016 to 31 Oct 2016	Valid
Discharge Licenses	WT00013967-2012	17 Sep 2012	30 Sep 2017	Cancelled
	WT00014966-2013	08 Jan 2013	31 Jan 2018	Cancelled
	WT00020725-2015	14 Jan 2015	30 Jul 2017	Valid
	WT00024255-2016	18 May 2016	31 Jan 2021	Valid
Registration as a Chemical Waste Producer	WPN: 8335-121-L1048-04	17 Dec 2010	N/A	Registration completed
Billing Account under Waste Disposal Ordinance (Land)	Account No.: 7011587	11 Oct 2010	Account approved	Valid

Table 3.7 Summary of submission status under FEP-05/364/2009/A

EP Condition	Submission	Date of Submission
Condition 2.9	Noise Management Plan	01 March 2011
Condition 2.10	Landscape Plan (Rev. 6)	19 May 2014

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

3.1.9. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-06/364/2009/A for contract no. HY/2009/15 are shown in **Table 3.8** and **Table 3.9**.

Table 3.8 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-06/364/2009/A	22 Nov 2010	N/A	Valid
	FEP-04/356/2009	22 Nov 2010	N/A	Valid
Notification of Works Under APCO	321822	24 Sep 2010	N/A	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0232-16	08 Mar 2016	9 Mar 2016 to 08 Sep 2016	Valid
	GW-RS0233-16	14 Mar 2016	14 Mar 2016 to 10 Sep 2016	Valid
	GW-RS0235-16	10 Mar 2016	12 Mar 2016 to 08 Sep 2016	Valid
	GW-RS0553-16	30 May 2016	30 May 2016 to 24 Nov 2016	Valid
Registration as a Chemical Waste Producer	WPN: 5213-147-C1169-35	15 Nov 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance	7011553	30 Sep 2010	27 Sep 2010 to 27 Jun 2016	Valid
Billing Account under Waste Disposal Ordinance (Disposal by Vessel)	7011761	26 Jun 2015	17 Apr 2016 to 16 Jul 2016	Valid
Water Discharge Licence (Discharge at TPCWAW)	WT00020601-2014	18 Mar 2015	18 Mar 2015 to 31 Mar 2017	Valid
Water Discharge Licence (Discharge at TPCWAE)	WT00024951-2016	8 Jul 2016	8 Jul 2016 to 31 Dec 2017	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Water Discharge Licence(Discharge at TS1)	WT00024874-2016	20 Jul 2016	20 Jul 2016 to 31 Mar 2021	Valid

Table 3.9 Summary of submission status under FEP-06/364/2009/A

EP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	11 Mar 2011
	Amendment for Management Organization of Main Construction Companies	16 May 2011
Condition 2.7	Works Schedule	15 Mar 2011
Condition 2.8	Location Plan	15 Mar 2011
Condition 2.9	Noise Management Plan	6 May 2011
Condition 2.10	Landscape Plan (Rev.3)	30 Jan 2015

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

3.1.10. The current status on licences and/or permits on environmental protection pertinent and submission under FEP-07/364/2009/D for contract no. HY/2009/19 are shown in **Table 3.10** and **Table 3.11**.

Table 3.10 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/19

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-07/364/2009/A	25 Feb 2011	N/A	Superseded
	FEP-07/364/2009/D	24 Nov 2015	N/A	Valid
Notification of Works Under APCO	326160	24 Jan 2011	N/A	Valid
Registration as a Waste Producer	7012306	10 Feb 2011	N/A	Valid
Registration as Chemical Waste Producer	5213-151-C3654-01	24 Mar 2011	N/A	Valid
Application for Vessel Disposal	7012306	21 July 2011	N/A	Valid
Construction Noise Permits (CNP) for non-piling equipment	GW-RS0197-16	02 Mar 2016	02 Mar 2016 to 01 Sep 2016	Cancelled
	GW-RS0330-16	05 Apr 2016	05 Apr 2016 to 04 Oct 2016	Cancelled
	GW-RS0506-16	20 May 2016	23 May 2016 to 18 Nov 2016	Valid
	GW-RS0551-16	01 Jun 2016	18 Jun 2016 to 17 Dec 2016	Valid
	GW-RS0614-16	16 Jun 2016	16 Jun 2016 to 15 Dec 2016	Valid
Water Discharge License	WT00010093-2011	17 Aug 2012	30 Sep 2016	Valid
	WT00010865-2011	03 Nov 2011	30 Nov 2016	Cancelled

Table 3.11 Summary of submission status under FEP-07/364/2009/D

EP Condition	Submission	Date of Submission
Condition 2.13	Landscape Plan (Rev.4)	22 March 2016
Condition 2.9	Noise Management Plan (Rev.4)	15 February 2016

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

3.1.11. The current status on licences and/or permits on environmental protection pertinent and submission under FEP-09/364/2009/B for contract no. HK/2012/08 showed in **Table 3.12 and Table 3.13.**

Table 3.12 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2012/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-09/364/2009/B	5 March 2013	N/A	Valid
	FEP-06/356/2009	5 March 2013	N/A	Valid
Notification of Works Under APCO	355439	4 Feb 2013	N/A	Valid
Registration as a Chemical Waste Producer	5213-134-C3790-01	8 Mar 2013	N/A	Valid
Billing Account under Waste Disposal Ordinance	7016883	18 Feb 2013	18 Jul 2017	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0079-16	1 Feb 2016	03 Feb 2016 to 02 Aug 2016	Valid
	GW-RS0212-16	8 Mar 2016	10 Mar 2016 to 08 Sep 2016	Cancelled
	GW-RS0386-16	20 Apr 2016	22 Apr 2016 to 19 Oct 2016	Cancelled
	GW-RS0583-16	10 Jun 2016	11 Jun 2016 to 09 Dec 2016	Valid
Water Discharge Licence	WT00018223-2014	28 Jan 2014	31 Jan 2019	Cancelled
	WT00020594-2014	22 Dec 2014	31 Jan 2019	Valid

Table 3.13 Summary of submission status under FEP-09/364/2009/B

EP Condition	Submission	Date of Submission
Condition 2.9	Noise Management Plan (Rev.2)	9 July 2013
Condition 2.14	Landscape Plan (Rev.4)	24 August 2015

Contract no. HY/2010/08 –Central – Wanchai Bypass Tunnel – Tunnel (Slip Road 8)

3.1.12. The current status on licences and/or permits on environmental protection pertinent and submission under FEP-10/364/2009/B for contract no. HK/2012/08 showed in **Table 3.14 and Table 3.15.**

Table 3.14 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2010/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-10/364/2009/B	26 Jul 2013	NA	Valid
	FEP-07/356/2009	26 Jul 2013	NA	Valid
Notification of Works Under APCO	357176	2013-04-02	NIL	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C1169-44	2013-03-27	NIL	Valid
Billing Account under Waste Disposal Ordinance	7017170	2013-03-27	NIL	Valid
Water Discharge License	WT0001651-2013	2013-07-09	2018-07-28	Cancelled
	WT00020468-2014	2014-12-03	2018-07-31	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RW0061-16	02 Feb 2016	02 Feb 2016 to 31 Jul 2016	Cancelled
	GW-RS0264-16	18 Mar 2016	18 Mar 2016 to 17 Sep 2016	Valid
	GW-RS0357-16	22 Apr 2016	22 Apr 2016 to 21 Oct 2016	Valid
	GW-RS0362-16	22 Apr 2016	22 Apr 2016 to 21 Oct 2016	Cancelled
	GW-RS0407-16	20 Apr 2016	20 Apr 2016 to 19 Oct 2016	Valid
	GW-RS0434-16	05 May 2016	24 May 2016 to 23 Nov 2016	Valid
	GW-RS0442-16	06 May 2016	16 May 2016 to 15 Nov 2016	Valid
	GW-RS0531-16	06 Jun 2016	06 Jun 2016 to 05 Dec 2016	Valid
	GW-RW0240-16	04 May 2016	04 May 2016 to 28 Oct 2016	Valid
	GW-RS0533-16	26 May 2016	26 May 2016 to 23 Nov 2016	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS0779-16	14 Jul 2016	14 Jul 2016 to 13 Jan 2017	Valid
	GW-RS0838-16	03 Aug 2016	03 Aug 2016 to 31 Aug 2016	Valid

Table 3.15 Summary of submission status under FEP-10/364/2009/B

EP Condition	Submission	Date of Submission
Condition 2.9	Noise Management Plan (Rev.3)	03 January 2014
Condition 2.14	Landscape Plan (Rev.2)	19 May 2014
Condition 2.16	Additional Mitigation Plan (Rev.2)	18 February 2015

Contract no. HY/2011/08 –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009/B

3.1.13. The current status on licenses and/or permits on environmental protection pertinent and submission under FEP-11/364/2009/B for contract no. HY/2011/08 showed in **Table 3.16 and Table 3.17**.

Table 3.16 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2011/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-11/364/2009/B	2 May 2014	N/A	Valid
Notification of Works Under APCO	LCAC-EN-LE-00017	7 Mar 2014	N/A	Valid
Registration as a Chemical Waste Producer	5213-121-L2837-01	19 Apr 2016	N/A	Valid
	5213-151-L2837-02	09 Oct 2015	N/A	Registered
	5213-134-L2898-01	16 Nov 2015	N/A	Registered
Billing Account under Waste Disposal Ordinance	7019640	27 Mar 2014	N/A	Valid
	GW-RS1426-15	29 Dec 2015	01 Jan 2016 to 30 Jun 2016	Expired
	GW-RS1433-15	29 Dec 2015	01 Jan 2016 to 30 Jun 2016	Expired
	GW-RS0147-16	17 Feb 2016	19 Feb 2016 to 31 Jul 2016	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0159-16	17 Feb 2016	18 Feb 2016 to 31 Jul 2016	Valid
	GW-RS0222-16	8 Mar 2016	9 Mar 2016 to 31 Aug 2016	Valid
	GW-RS0284-16	23 Mar 2016	24 Mar 2016 to 31 Aug 2016	Valid
	GW-RS0419-16	29 Apr 2016	1 May 2016 to 31 Oct 2016	Valid
	GW-RS0520-16	24 May 2016	01 Jun 2016 to 30 Nov 2016	Valid
	GW-RS0538-16	24 May 2016	01 Jun 2016 to 30 Nov 2016	Valid
	GW-RS0626-16	22 Jun 2016	1 Jul 2016 to 31 Dec 2016	Valid
	GW-RS0645-16	22 Jun 2016	1 Jul 2016 to 31 Dec 2016	Valid
Water Discharge Licence	WT00020242-2014	04 Nov 2014	30 Nov 2019	Valid
	WT00020246-2015	15 Jul 2015	31 Jul 2019	Valid
	WT00022753-2015	3 May 2016	30 Apr 2021	Valid
	WT00024561-2016	30 May 2016	31 May 2021	Valid

Table 3.17 Summary of submission status under FEP-11/364/2009/B

EP Condition	Submission	Date of Submission
Condition 2.9	Noise Management Plan (Rev.2)	27 Jan 2015
Condition 2.14	Landscape Plan (Rev.2)	18 Feb 2015
Condition 2.13	Operational Air Quality Management Plan for West Ventilation Building (Rev.0)	25 Nov 2014
Condition 2.13	Operational Air Quality Management Plan for East Ventilation Building and East Vent Shaft (Rev.0)	18 Feb 2015

4 MONITORING REQUIREMENTS

4.1 Noise Monitoring

NOISE MONITORING STATIONS

4.1.1. The noise monitoring stations for the Project are listed and shown in **Table 4.1** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Stations

Station	Description
M1a	Harbour Road Sports Centre
M2b	Noon-day Gun Area
M3a	Tung Lo Wan Fire Station
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School
*M7e	International Finance Centre (Eastern End of Podium)
M7w	International Finance Centre (Western End of Podium)
*M8	City Hall

* Remark 1: Location ID has been updated from M7 to M8 for City Hall

* Remark 2: M7e has become a reference station starting from 7 Aug 2012

REAL TIME NOISE MONITORING STATIONS

4.1.2. The noise monitoring stations for the Project are listed and shown in **Table 4.2** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.2 Real Time Noise Monitoring Stations

District	Station	Description
Tin Hau	RTN1	FEHD Hong Kong Transport Section Whitfield Depot
North Point	RTN2a	Hong Kong Electric Centre
North Point	RTN3	Po Leung Kuk Yu Lee Mo Fan Memorial School
Tin Hau	RTN4	Causeway Bay Community Centre

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.1.3. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq(30 \text{ minutes})}$ shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods, $L_{eq(5 \text{ minutes})}$ shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.
- 4.1.4. Noise monitoring shall be carried out at all the designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:
- One set of measurements between 0700 and 1900 hours on normal weekdays.
- 4.1.5. Real time noise shall be carried out at the designated monitoring stations. The following is an initial guide on the regular monitoring frequency for each station on a 24 - hours basis when noise generating activities are underway:
- One set of measurements between 0700 and 1900 hours on normal weekdays.
 - One set of measurements between 1900 and 2300 hours on normal weekdays and 0700 and 2300 hours on public holidays.
 - One set of measurements between 2300 and 0700 hours on next day on everyday.
- 4.1.6. If construction works are extended to include works during the hours of 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring shall be carried out during respective restricted hours periods. Applicable permits under NCO shall be obtained by the Contractor.

MONITORING EQUIPMENT

- 4.1.7. As referred to in the Technical Memorandum TM issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.
- 4.1.8. Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.
- 4.1.9. The sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency before deployment to the site and during each site visit. Measurements will be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.

4.2 Air Quality Monitoring

AIR QUALITY MONITORING STATIONS

4.2.1. The air quality monitoring stations for the Project are listed and shown in **Table 4.3 and Figure 4.1. Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.3 Air Quality Monitoring Stations

Station ID	Monitoring Location	Description
CMA1b	Oil Street Site Office**	North Point (Re-commenced on 14 November 2011)
CMA2a	Causeway Bay Community Centre	Causeway Bay
CMA3a	CWB PRE Site Office *	Causeway Bay
CMA4a	Society for the Prevention of Cruelty to Animals	Wan Chai
CMA5b	Pedestrian Plaza***	Wan Chai
MA1e	International Finance Centre (Eastern End of Podium)	Central
MA1w	International Finance Centre (Western End of Podium)	Central

Remarks*: As per the ENPC meeting in March 2011, the monitoring stations CMA3a – Future CWB site office at Wanchai Waterfront Promenade was renamed as remark.

Remarks**: The location ID of monitoring station CMA1b was updated as “Oil Street Site Office” in April 2013.

Remarks***: The station ID and monitoring location was updated in December 2014 with respect to monitoring station relocation.

AIR QUALITY MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.2.2. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality. The 24-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.
- 4.2.3. All relevant data including temperature, pressure, weather conditions, elapsed-time meter reading for the start and stop of the sampler, identification and weight of the filter paper, and any other local atmospheric factors affecting or affected by site conditions, etc., shall be recorded down in detail.
- 4.2.4. For regular impact monitoring, the sampling frequency of at least once in every six days, shall be strictly observed at all the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six days should be undertaken when the highest dust impact occurs.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.2.5. High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:

- 0.6 – 1.7 m³ per minute adjustable flow range;
- Equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;
- Installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;
- Capable of providing a minimum exposed area of 406 cm²;
- Flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
- Equipped with a shelter to protect the filter and sampler;
- Incorporated with an electronic mass flow rate controller or other equivalent devices;
- Equipped with a flow recorder for continuous monitoring;
- Provided with a peaked roof inlet;
- Incorporated with a manometer;
- Able to hold and seal the filter paper to the sampler housing at horizontal position;
- Easily changeable filter; and
- Capable of operating continuously for a 24-hour period.

4.2.6. Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. The concern parties such as IEC shall properly document the calibration data for future reference. All the data should be converted into standard temperature and pressure condition.

LABORATORY MEASUREMENT / ANALYSIS

4.2.7. A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.

4.2.8. Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24 hours and be pre-weighed before use for the sampling.

4.2.9. After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.

4.2.10. All the collected samples shall be kept in a good condition for 6 months before disposal.

4.2.11. Current calibration certificates of equipments are presented in **Appendix 4.2**.

5.0 MONITORING RESULTS

5.0.1. The environmental monitoring will be implemented based on the division of works areas of each designated project managed under different contracts with separate FEP applied by individual contractors. Overall layout showing work areas of various contracts, latest status of work commencement and monitoring stations is shown in **Figure 2.1** and **Figure 4.1**. The monitoring results are presented in according to the Individual Contract(s).

5.0.2. In the reporting month, the concurrent contracts are as follows:

- Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)
- Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange
- Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link
- Contract no. HY/2010/08 – Central- Wanchai Bypass Tunnel (Slip Road 8 Section)
- Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre
- Contract no. HK/2009/02 - Wan Chai Development Phase II – Central - Wan Chai Bypass at Wan Chai East
- Contract no. HK/2012/08 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai West
- Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB)– Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

5.0.3. The environment monitoring schedules for reporting month and coming month are presented in **Appendix 5.1**.

5.1 Noise Monitoring Results

5.1.1 Monitoring for report of review baseline noise level was performed from 11 April 2011 to 8 June 2011. Then the report was submitted on the 20 June 2011, verified by IEC on 18 July 2011 and was approved by ER by January 2012. The new baseline is used for the noise calculation starting from January 2012.

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

5.1.2 Noise monitoring for the Central Interchange works under contract no. HY/2009/18 was commenced on 22 April 2011. The proposed division of noise monitoring stations for Contract no. HY/2009/18 are summarized in **Table 5.1** below:

Table 5.1 Noise Monitoring Stations for Contract no. HY/2009/18

Station	Description
*M7e	International Finance Centre (Eastern End of Podium)
M7w	International Finance Centre (Western End of Podium)
M8	City Hall

* Remark: M7e has become a reference station starting from 7 Aug 2012

5.1.3 No action or limit level exceedance was recorded in this reporting month.

5.1.4 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009 and Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

5.1.5 The commencement of construction works for Contract no. HK/2009/01 under FEP-02/364/2009 is on 25 August 2011 and HK/2009/02 under FEP-01/364/2009 is on 26 April 2011. The proposed division of noise monitoring stations are summarized in **Table 5.2** below.

Table 5.2 Noise Monitoring Station for Contract no HK/2009/01 and HK/2009/02

Station	Description
M1a	Harbour Road Sports Centre

5.1.6 One limit level exceedances was recorded at M1a- Harbour Road Sports Centre on 28 June 2016 in this reporting month.

5.1.7 Operation of drill rig at opposite to the monitoring station under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 28 June 2016. As such, the exceedances were considered as non-Project related.

5.1.8 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

5.1.9 The commencement of construction works for Contract no. HY/2009/15 under FEP-06/364/2009/A was on 13 July 2011. Noise monitoring was commenced on 13 July 2011. The proposed divisions of noise monitoring stations are summarized in **Table 5.3** below.

Table 5.3 Noise Monitoring Stations for Contract no. HY/2009/15

Station	Description
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station

5.1.10 No action or limit level exceedance was recorded in this reporting month.

5.1.11 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

5.1.12 Noise monitoring for the tunnel works under contract no. HY/2009/19 was commenced on 24 April 2011. The proposed division of noise monitoring stations are summarized in **Table 5.4** below.

Table 5.4 Noise Monitoring Stations for Contract no. HY/2009/19

Station	Description
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School

5.1.13 One limit level exceedance was recorded at M6- HK Baptist Church Henrietta Secondary School on 12 July 2016 in this reporting month.

5.1.14 Traffic noise was observed during monitoring on 12 July 2016 and it was considered as the major noise contribution. As such, the limit level exceedance was concluded as non-project related.

- 5.1.15 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**. Details of the Notification of Exceedance can be referred in **Appendix 6.2**.

Contract no. HY/2010/08 – Central-Wanchai Bypass –Wanchai Bypass Tunnel (Slip Raod 8 Section) under FEP-09/364/2009/B

- 5.1.16 The commencement of construction works for Contract no. HY/2010/08 under FEP-10/364/2009/B was on 02 September 2013. Noise monitoring was commenced on 02 September 2013. The proposed divisions of noise monitoring stations are summarized in **Table 5.5** below.

Table 5.5 Noise Monitoring Stations for Contract no. HY/2010/08

Station	Description
M3a	Tung Lo Wan Fire Station

- 5.1.17 No action or limit level exceedance was recorded in this reporting month.
- 5.1.18 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

- 5.1.19 Noise monitoring for the Central Interchange works under contract no. HY/2009/18 was commenced on 22 April 2011. The proposed division of noise monitoring stations for Contract no. HY/2011/08 are summarized in **Table 5.6** below:

Table 5.6 Noise Monitoring Stations for Contract no. HY/2011/08

Station	Description
M4b	Victoria Centre
*M7e	International Finance Centre (Eastern End of Podium)
M7w	International Finance Centre (Western End of Podium)
M8	City Hall

* Remark: M7e has become a reference station starting from 7 Aug 2012

- 5.1.20 No action or limit level exceedance was recorded in this reporting month.
- 5.1.21 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

5.2 Real Time Noise Monitoring Results

- 5.2.1. Real time noise monitoring at RTN4-Causeway Bay Community Centre was commenced on 13 Jan 2013. The baseline noise level of RTN4- Causeway Bay Community Centre has adopted the results from the baseline noise monitoring report for EP/364/2009 in 22 April 2010 in which approved by EPD.
- 5.2.2. Po Leung Kuk Yu Lee Mo Fan Memorial School granted permission for set up on 4 Sep 2012 and real time noise monitoring station RTN3 set up was performed on 14 Sep 2012. Real time noise baseline capturing was conducted during time period without construction work from 21 Sep 2012 to 04 Oct 2012. Real time noise monitoring at RTN3 – Po Leung Kuk Yu Lee Mo Fan Memorial School was commenced since 06 Oct 2012.
- 5.2.3. Real-time noise monitoring station RTN2 previously located at oil Street Community Liaison Centre was relocated to Hong Kong Electric Centre on 5 Oct 2012, which is a representative of the noise sensitive receiver City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted at Hong Kong Electric Centre from 4 December 2009 to 17 December 2009.
- 5.2.4. Real-time noise monitoring station RTN1-FEHD Whitfield Depot was finely adjusted from 2/F to roof-top at FEHD Whitfield Depot on 24 June 2013 with respect to the commencement of advance works for IEC parapet demolition.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- 5.2.5. The proposed division of noise monitoring stations are summarized in **Table 5.7** below. Real time noise monitoring for major construction works under contract no. HY/2009/19 was commenced on 24 April 2011.

Table 5.7 Real Time Noise Monitoring Stations for Contract no. HY/2009/19

Location ID	District	Description
RTN1	Tin Hau	FEHD Hong Kong Transport Section Whitfield Depot
RTN2a	North Point	Hong Kong Electric Centre
RTN3	North Point	Po Leung Kuk Yu Lee Mo Fan Memorial School
RTN4	Tin Hau	Causeway Bay Community Centre

* Real time noise monitoring results and graphical presentation during restrict hours and night time period are for information only and noise during CNP period shall be controlled under NCO.

- 5.2.6. No limit level exceedance was recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot in the reporting month.
- 5.2.7. Limit level exceedances were recorded at RTN2a-Electric Centre on 11 July 2016 during daytime in the reporting month. After checking, pre bore piling and sheet piling works were carried out on 11 July 2016 during the monitoring period and mitigation measures including erection of noise barrier was implemented by the Contractor of HY/2009/19 while adverse

weather with frequent thunderstorm was recorded at the monitoring period across monitoring station at Eastern District and is considered as the major noise contribution. As such, the exceedance was considered as non-Project related.

5.2.8. Limit level exceedance was recorded at RTN3-Yue Lee Mo Fan Memorial School on 11 July 2016 during daytime in the reporting month. After checking, no construction works was conducted by Contract HY/2009/19 on 11 July 2016 during the monitoring period while adverse weather with frequent thunderstorm was recorded at the monitoring period across monitoring stations at Eastern District and is considered as the major noise contribution. As such, the exceedance was considered as non-Project related.

5.2.9. Limit level exceedances were recorded at RTN4-Causeway Bay Community Centre on 11, 16, 18 and 20 July 2016 during daytime in the reporting month. After checking, no construction works was conducted by Contract HY/2009/19 on 11 July 2016 during monitoring period while adverse weather with frequent thunderstorm was recorded at the monitoring period across monitoring station at Eastern District and is considered as the major noise contribution. As such, the exceedances were considered as non-Project related.

No construction works was conducted by Contract of HY/2009/19 on 16 July 2016 and only erection of scaffolding with no major noise emanation was conducted under Contract HY/2009/19 on 18 July 2016. As such, the exceedances were considered to be contributed by nearby traffic and not related to Project works.

On 20 July 2016, breaking works for concrete base slab for tie beam construction was observed at Pier 22- 23 directly opposite to the monitoring station was conducted during the monitoring period and direct noise impact was observed despite the erection of noise barrier. As such, the exceedances were considered to be related to the Project works. The concerned construction was completed on the same date and no further exceedance related to the breaking works was observed. In view of the project related exceedances and the completion of the concerned breaking works, the Contractor will improve the mitigation against noise by orientation of noise barrier to better obstruct the line of sight between the breaking works and the NSR shall there be any breaking works to be carried out at the concerned location.

5.2.10. Real time noise monitoring results measured in this reporting period are reviewed and summarized. Details of real time noise monitoring results and graphical presentation can be referred to **Appendix 5.4.**

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

5.2.11. The proposed division of noise monitoring stations are summarized in **Table 5.8** below. Real time noise monitoring for major construction works under contract no. HY/2011/08 was commenced on 19 March 2015.

Table 5.8 Real Time Noise Monitoring Stations for Contract no. HY/2011/08

Location ID	District	Description
RTN1	Tin Hau	FEHD Hong Kong Transport Section Whitfield Depot
RTN2a ¹	North Point	Hong Kong Electric Centre

* Real time noise monitoring results and graphical presentation during restrict hours and night time period are for information only and noise during CNP period shall be controlled under NCO.

Remarks ¹: With respect to the possession of site area Portion Xa and Portion Xb since 7 March 2016 as confirmed by CWB RSS, real time noise monitoring station RTN2a was associated with Contract no. HY/2011/08 from 07 March 2016 onwards.

- 5.2.12. No limit level exceedance was recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot in the reporting month.
- 5.2.13. Limit level exceedances were recorded at RTN2a-Electric Centre on 11 July 2016 during daytime in the reporting month. After checking, no construction works was carried out under Contract HY/2011/08 on 11 July 2016 during the monitoring period while adverse weather with frequent thunderstorm was recorded at the monitoring period across monitoring station at Eastern District and is considered as the major noise contribution. As such, the exceedance was considered as non-Project related.

5.3 Air Quality Monitoring Results

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

5.3.1 Air quality monitoring for the Central Interchange works under contract no. HY/2009/18 was commenced on 21 April 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.9** below.

Table 5.9 Air Quality Monitoring Stations for Contract no. HY/2009/18

Station	Description
MA1e	International Finance Centre (Eastern End of Podium)
MA1w	International Finance Centre (Western End of Podium)

5.3.2 No exceedance was recorded in the reporting month.

5.3.3 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

5.3.4 The commencement of construction works for Contract no. HK/2009/01 under FEP-02/364/2009 is on 25 August 2011. Air quality monitoring was commenced on 25 August 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.10** below.

Table 5.10 Air Quality Monitoring Station for Contract no. HK/2009/01

Station	Description
CMA5b	Pedestrian Plaza

5.3.5 No exceedance was recorded in the reporting month.

5.3.6 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

5.3.7 The commencement of construction works for HK/2009/02 under FEP-01/364/2009 is on 26 April 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.11** below.

Table 5.11 Air Quality Monitoring Station for Contract no. HK/2009/02

Station	Description
CMA4a	Society for the Prevention of Cruelty to Animals

- 5.3.8 No exceedance was recorded in the reporting month.
- 5.3.9 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- 5.3.10 The commencement of construction works for Contract no. HY/2009/15 under FEP-06/364/2009/A was on 13 July 2011. Air quality monitoring was commenced on 14 July 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.12** below.

Table 5.12 Air Quality Monitoring Station for Contract no. HY/2009/15

Station	Description
CMA3a	CWB PRE Site Office

- 5.3.11 No exceedance was recorded in the reporting month.
- 5.3.12 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- 5.3.13 The proposed division of air quality monitoring stations are summarized in **Table 5.13** below. Air quality monitoring for the tunnel works under contract no. HY/2009/19 was commenced on 26 April 2011.

Table 5.13 Air Quality Monitoring Stations for Contract no. HY/2009/19

Station	Description
CMA1b	Oil Street Site Office
CMA2a	Causeway Bay Community Centre

- 5.3.14 No exceedance was recorded in the reporting month.
- 5.3.15 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2012/08- Wan Chai Development Phase II – Central-Wan Chai Bypass at Wan Chai West

5.3.16 The commencement of construction works for Contract no. HK/2012/08 under FEP-09/364/2009/C was on May 2014. Air quality monitoring was commenced on 25 August 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.14** below.

Table 5.14 Air Quality Monitoring Station for Contract no. HK/2012/08

Station	Description
CMA5b	Pedestrian Plaza

5.3.17 No exceedance was recorded in the reporting month.

5.3.18 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2010/08 – Central-Wanchai Bypass –Wanchai Bypass Tunnel (Slip Road 8 Section) under FEP-09/364/2009/B

5.3.19 The commencement of construction works for Contract no. HY/2010/08 under FEP-09/364/2009/B was on July 2014. Air quality monitoring was commenced on 14 July 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.15** below.

Table 5.15 Air Quality Monitoring Station for Contract no. HY/2010/08

Station	Description
CMA3a	CWB PRE Site Office

5.3.20 No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

5.3.21 Air quality monitoring for the Central Interchange works under contract no. HY/2011/08 was commenced on 21 April 2011. The proposed division of air quality monitoring stations are summarized in **Table 5.16** below.

Table 5.16 Air Quality Monitoring Stations for Contract no. HY/2011/08

Station	Description
MA1e	International Finance Centre (Eastern End of Podium)
MA1w	International Finance Centre (Western End of Podium)
CMA1b	Oil Street Site Office
CMA2a	Causeway Bay Community Centre



- 5.3.22 No exceedance was recorded in the reporting month.
- 5.3.23 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in **Appendix 5.3**.

5.4 Waste Monitoring Results

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

5.4.1. Inert C&D wastes and non-inert C&D wastes were disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.17**.

Table 5.17 Details of Waste Disposal for Contract no. HK/2009/01

Waste Type	Quantity this month	Cumulative-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	Nil	107791.73	TKO137, TM38
Inert C&D materials recycled, m ³	Nil	98512.03	N/A
Non-inert C&D materials disposed, m ³	101.7	4818.66	SENT Landfill
Non-inert C&D materials recycled, kg	415	1284946	N/A
Chemical waste disposed, kg	Nil	10400	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m ³	Nil	11527	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m ³	Nil	16261	East of Cha Chau South Brothers

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

5.4.2. Inert C&D & non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.18**.

Table 5.18 Details of Waste Disposal for Contract no. HK/2009/02

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	11025	501567.412	TKO137 / TM 38
Inert C&D materials recycled, m ³	Nil	46520	N/A
Non-inert C&D materials disposed, m ³	164	3375.317	SENT Landfill
Non-inert C&D materials recycled, m ³	Nil	N/A	N/A
Chemical waste disposed, kg	Nil	17718	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m ³	3197	31086	South Cheung Chau

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

5.4.3. Inert C&D and non-inert C&D waste was disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.19**.

Table 5.19 Details of Waste Disposal for Contract no. HY/2009/18

Waste Type	Quantity this month	Cumulative-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	201.37	140549.46	T.K.O. 137, TM 38
Inert C&D materials recycled, m ³	Nil	58787.05	N/A
Non-inert C&D materials disposed, m ³	27.93	4152.88	SENT Landfill
Non-inert C&D materials recycled, ton	Nil	878.37	N/A
Chemical waste disposed, kg	1469.6	6772	N/A

Remarks: As the quantity of chemical waste disposed in June 2016 reporting month was clarified as 862.4 kg instead of 0.98kg, the cumulative amount of chemical waste disposed has been updated.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

5.4.4. Inert & Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.20**.

Table 5.20 Details of Waste Disposal for Contract no. HY/2009/15

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	Nil	619726.37	Tuen Mun Area 38
	Nil	245453.3	TKO137 FB
Inert C&D materials recycled, m ³	Nil	358660.77	HY/2009/11 ex-PCWA TS4 /TS2 WDII Lun Ku Tan WENT HY/2010/08
Non-inert C&D materials disposed, m ³	32.44	4386.75	SENT Landfill
Non-inert C&D materials recycled, m ³	Nil	5496446.2	Xun Xiang Metalware Skylight Recycle (paper)
Chemical waste disposed, kg	Nil	22755	Dunwell Group
Marine Sediment (Type1-Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m ³	Nil	5684	South of the Brothers

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

5.4.5. Inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.21**.

Table 5.21 Details of Waste Disposal for Contract no. HY/2009/19

Waste Type*	Quantity this month	Cumulative-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, ton	1763.57	651451.29	N/A
Inert C&D materials recycled, ton	Nil	82349.7	N/A
Non-inert C&D materials disposed, ton	99.44	4969.14	SENT Landfill
Non-inert C&D materials recycled, ton	8.16	556.56	N/A
Chemical waste disposed, kg	Nil	9.92	N/A
Marine Sediment (Tunnel) (Type-1 Open Sea Disposal), m ³	Nil	20556	South of Cheung Chau
Marine Sediment (Tunnel) (Type 1- Open Sea Disposal (Dedicated Sites) & Type 2 – Confined Marine Disposal), m ³	Nil	30751	East of Sha Chau

Contract no. HK/2012/08 Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

5.4.6. No inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.22**.

Table 5.22 Details of Waste Disposal for Contract no. HK/2012/08

Waste Type*	Quantity this month	Cumulative-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	1743	166044	TKO 137
Inert C&D materials recycled, m ³	4163	84466	N/A
Non-inert C&D materials disposed, m ³	280	1997	SENT
Non-inert C&D materials recycled, m ³	Nil	Nil	N/A
Chemical waste disposed, kg	Nil	Nil	N/A
Marine sediment (Type 1) disposal, m ³	Nil	3145	South of Cheung Chau / East of Sha Chau / South of The Brothers

Contract no. HY/2010/08 Central – Wan Chai Bypass (CWB) – Tunnel (Slip Road 8) under FEP-10/364/2009/B

5.4.7. No inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.23**.

Table 5.23 Details of Waste Disposal for Contract no. HY/2010/08

Waste Type*	Quantity this month	Cumulative-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	4218.9	558488	TM 38
	11330.1	246772.2	WENT
	Nil	82911.8	SENT
	133.2	71067.3	TKO area 137
Inert C&D materials recycled, m ³	Nil	Nil	N/A
Non-inert C&D materials disposed, m ³	154.9	2100.86	SENT
Non-inert C&D materials recycled, m ³	Nil	Nil	N/A
Chemical waste disposed, kg	Nil	979	N/A
Type 1 – Open Sea Disposal, m ³	Nil	16368.4	East Sha Chau/ South Brothers Island
Type 2 – Confined Marine disposal, m ³	Nil	549.2	East Sha Chau

Remarks: The cumulative amount of Type 1 – Open Sea Disposal under FEP-10/364/2009/B has been updated in the reporting month.

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

5.4.8. No inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.24**.

Table 5.24 Details of Waste Disposal for Contract no. HY/2011/08

Waste Type*	Quantity this month	Cumulative-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	Nil	367.68	CWPF & TKO137
Inert C&D materials recycled, m ³	Nil	Nil	N/A
Non-inert C&D materials disposed, m ³	26.42	786.87	SENT
Non-inert C&D materials recycled, ton	Nil	31.72	N/A
Chemical waste disposed, kg	Nil	3800	N/A

6.0 COMPLIANCE AUDIT

6.0.1. The Event Action Plan for construction noise, air qualities are presented in **Appendix 6.1**.

6.1 Noise Monitoring

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

6.1.1. No exceedance was recorded in the reporting month.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention Exhibition Centre – Tunnel Works under FEP-02/364/2009

6.1.2. One limit level exceedances was recorded at M1a- Harbour Road Sports Centre on 28 June 2016 in this reporting month.

6.1.3. Operation of drill rig at opposite to the monitoring station under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 28 July 2016. As such, the exceedances were considered as non-Project related.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

6.1.4. One limit level exceedances was recorded at M1a- Harbour Road Sports Centre on 28 June 2016 in this reporting month.

6.1.5. Operation of drill rig at opposite to the monitoring station under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 28 June 2016. As such, the exceedances were considered as non-Project related.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

6.1.6. No exceedance was recorded in the reporting month.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

6.1.7. One limit level exceedance was recorded at M6- HK Baptist Church Henrietta Secondary School on 12 July 2016 in this reporting month.

6.1.8. Traffic noise was observed during monitoring on 12 July 2016 and it was considered as the major noise contribution. As such, the limit level exceedance was concluded as non-project related.



Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Road 8 Section) under FEP-10/364/2009/B

6.1.9. No exceedance was recorded in the reporting month.

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

6.1.10. No exceedance was recorded in the reporting month.

Real Time Noise Monitoring

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- 6.1.11. No limit level exceedance was recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot in the reporting month.
- 6.1.12. Limit level exceedances were recorded at RTN2a-Electric Centre on 11 July 2016 during daytime in the reporting month. After checking, pre bore piling and sheet piling works were carried out on 11 July 2016 during the monitoring period and mitigation measures including erection of noise barrier was implemented by the Contractor of HY/2009/19 while adverse weather with frequent thunderstorm was recorded at the monitoring period across monitoring station at Eastern District and is considered as the major noise contribution. As such, the exceedance was considered as non-Project related.
- 6.1.13. Limit level exceedance was recorded at RTN3-Yue Lee Mo Fan Memorial School on 11 July 2016 during daytime in the reporting month. After checking, no construction works was conducted by Contract HY/200919 on 11 July 2016 during the monitoring period while adverse weather with frequent thunderstorm was recorded at the monitoring period across monitoring station at Eastern District and is considered as the major noise contribution. As such, the exceedance was considered as non-Project related.
- 6.1.14. Limit level exceedances were recorded at RTN4-Causeway Bay Community Centre on 11, 16, 18 and 20 July 2016 during daytime in the reporting month. After checking, no construction works was conducted by Contract HY/2009/19 on 11 July 2016 during monitoring period while adverse weather with frequent thunderstorm was recorded at the monitoring period across monitoring station at Eastern District and is considered as the major noise contribution. As such, the exceedances were considered as non-Project related.

No construction works was conducted by Contract of HY/2009/19 on 16 July 2016 and only erection of scaffolding with no major noise emanation was conducted by Contract of HY/2009/19 on 18 July 2016. As such, the exceedances were considered to be contributed by nearby traffic and not related to Project works.

On 20 July 2016, breaking works for concrete base slab for tie beam construction was observed at Pier 22- 23 directly opposite to the monitoring station was conducted during the monitoring period and direct noise impact was observed despite the erection of noise barrier. As such, the exceedances were considered to be related to the Project works. The concerned construction was completed on the same date and no further exceedance related to the breaking works was observed. In view of the project related exceedances and the completion of the concerned breaking works, the Contractor will improve the mitigation against noise by orientation of noise barrier to better obstruct the line of sight between the breaking works and the NSR shall there be any breaking works to be carried out at the concerned location.

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- 6.1.15. No limit level exceedance was recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot in the reporting month.
- 6.1.16. Limit level exceedances were recorded at RTN2a-Electric Centre on 11 July 2016 during daytime in the reporting month. After checking, no construction works was carried out under Contract HY/2010/08 on 11 July 2016 during the monitoring period while adverse weather with frequent thunderstorm was recorded at the monitoring period across monitoring station at Eastern District and is considered as the major noise contribution. As such, the exceedance was considered as non-Project related.

6.2 Air Quality Monitoring

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- 6.2.1. No exceedance was recorded in the reporting month.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- 6.2.2. No exceedance was recorded in the reporting month.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- 6.2.3. No exceedance was recorded in the reporting month.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) FEP-06/364/2009/A

- 6.2.4. No exceedance was recorded in the reporting month.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/D

- 6.2.5. No exceedance was recorded in the reporting month.

Contract no. HK/2012/08 Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

- 6.2.6. No exceedance was recorded in the reporting month.

Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Raod 8 Section) under FEP-10/364/2009/B

- 6.2.7. No exceedance was recorded in the reporting month.

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

6.2.8. No exceedance was recorded in the reporting month.

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

6.3.1. There was no non-compliance from the site audits and monitoring in the reporting period. The observations and recommendations made in each individual site audit session were presented in Section 8.

6.4 Summary of action taken in the event of and follow-up on non-compliance

6.4.1 There was no particular action taken since no non-compliance was recorded from the site audits and monitoring in the reporting period.

7.0 CUMULATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS

- 7.0.1. According to Condition 3.4 of the EP-364/2009/D, this section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) and Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel).
- 7.0.2. According to the Final EM&A Report of Central Reclamation Phase III (CRIII) for Contract HK 12/02, the major construction activities were completed by end of January 2014 and no construction activities were undertaken thereafter and the water quality monitoring was completed in October 2011. As such, it is considered that there were no cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) undertaken by contractor HK12/02 in the reporting month.
- 7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area include structural works for tunnel construction, road works and drainage works, and seawall modification were performed in July 2016 reporting month. As no project related exceedance were recorded during the reporting period, cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was considered as insignificant.
- 7.0.4. According to the construction programme of Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects, the major construction activities under Wan Chai Development Phase II were tunnel works at Wan Chai East and culvert construction, tunnel construction and ELS works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were road works and ventilation building construction at Central Interchange, temporary reclamation removal works at Ex-PCWAW, ELS works and retaining wall construction at Victoria Park, ELS works and tunnel works at TS3; bridge construction, piling and tunnel works at North Point area in the reporting month. In addition, other non-Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects was observed undertaken at Wan Chai North and North Point area.
- 7.0.5. No significant air quality impact from construction activities was anticipated in the reporting month. Besides, no project related exceedance was recorded during the air quality and noise environmental monitoring events in the reporting month. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.

8.0 ENVIRONMENTAL SITE AUDIT

- 8.0.1. During this reporting month, weekly environmental site audits were conducted for Contracts no. HY/2009/15, HY/2009/18, HY/2009/19, HK/2012/08, HK/2009/01, HK/2009/02, HY/2010/08 and HY/2011/08. No non-conformance was identified during the site audits. The Contractors rectified major observations and recommendations made during the audit sessions. No non-conformance was identified during the site inspections.
- 8.0.2. Site inspections for Contract no. HY/2009/15 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.1**.

Table 8.1 Summary of Environmental Inspections for Contract no. HY/2009/15

Item	Date	Observations	Action taken by Contractor	Completion date
160628_1	28 Jun 2016	Impermeable barrier shall be deployed to surround the working area and silt curtain shall be deployed around the derrick barge (EXPCWA North)	No further concerned marine works was observed	Completion as observed on 4 July 2016
160628_2	28 Jun 2016	Embankment shall be provided along the seawall block to prevent potential surface runoff (EX-PCWA)	Embankment was provided along the seawall to avoid surface runoff	Completion as observed on 4 July 2016
160704_1	04 Jul 2016	Silt curtain shall be deployed around the derrick barge and shall not block the circulation of culvert discharge (EX-PCWA)	Silt curtain was deployed to surround the derrick barge and the location was adjusted	Completion as observed on 11 July 2016
160711_1	11 Jul 2016	Silt curtain shall be properly deploy around the D-wall cutting work area the deployed silt curtain shall be extended to seabed level and free of gap.	No further marine works was observed at concerned location	Completion as observed on 18 July 2016
160718_1	18 Jul 2016	Enclose the seawall opening to avoid potential water quality impact from the works area	The seawall opening was enclosed	Completion as observed on 26 July 2016
160726_1	26 Jul 2016	Impermeable barrier shall be provided to exposed surface to avoid potential muddy dispersion (EX-PCWA)	Impermeable barrier was provided to concerned location to avoid muddy dispersion	Completion as observed on 4 August 2016
160726_2	26 Jul 2016	Embankment shall be provided along the seawall to avoid potential surface runoff (EX-PCWA)	Embankment was provided along the seawall to avoid potential surface runoff	Completion as observed on 4 August 2016

8.0.3. Site inspections for Contract no. HY/2009/18 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.2**.

Table 8.2 Summary of Environmental Inspections for Contract no. HY/2009/18

Item	Date	Observations	Action taken by Contractor	Completion date
160630_1	30 Jun 2016	Watering shall be provide to material handling process and covering shall be provided to stockpile stored on-site	Stockpile stored on-site was covered	Completion as observed on 7 July 2016
160707_1	07 Jul 2016	Stockpile stored on-site shall be covered to avoid potential dust emission	Covering was provided to stockpile stored on-site	Completion as observed on 14 July 2016
160721_1	21 Jul 2016	Protection shall be provided to drainage system to avoid contaminated surface runoff. Contractor shall also keep the pared section clean to reduce the chance of surface runoff.	Protection was provided to drainage system	Completion as observed on 28 July 2016

8.0.4. Site inspections for Contract no. HY/2009/19 were carried out during this reporting period. No observation was found in the reporting month. The results of these inspections and outcomes are summarized in **Table 8.3**.

Table 8.3 Summary of Environmental Inspections for Contract no. HY/2009/19

Item	Date	Observations	Action taken by Contractor	Completion date
160706_1	06 Jul 2016	Construction effluent shall be collected to water treatment plant and reinforce the embankment to avoid surface overflow which cause contamination to nearby water.	Construction effluent was divert to waste water treatment plant	Completion as observed on 13 July 2016

8.0.5. Site inspections for Contract no. HK/2009/01 was carried out during this reporting period. No observation was found in the reporting month.

8.0.6. Site inspections for Contract no. HK/2009/02 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.5**.

Table 8.5 Summary of Environmental Inspections for Contract no. HK/2009/02

Item	Date	Observations	Action taken by Contractor	Completion date
160707_01	07 Jul 2016	Drip tray shall be provided for air compressor at Portion 3&4	Air compressor was removed at Portion 3&4.	Completion as observed on 14 July 2016

8.0.7. Site inspection for Contract no. HK/2012/08 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.6**.

Table 8.6 Summary of Environmental Inspections for Contract no. HK/2012/08

Item	Date	Observations	Action taken by Contractor	Completion date
160628_01	28 Jun 2016	Drip tray shall be provided for oil container at Zone A2	Oil container at Zone A2 was observed removed.	Completion as observed on 5 July 2016
160628_02	28 Jun 2016	Protection measure shall be implemented on the exposed slope at the water channel of Culvert J to prevent potential surface runoff to waterbody	The exposed slope at the water channel of Culvert J was protected and covered by impermeable sheet.	Completion as observed on 5 July 2016

8.0.8. Site inspections for Contract no. HY/2010/08 were carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.7**

Table 8.7 Summary of Environmental Inspections for Contract no. HY/2010/08

Item	Date	Observations	Action taken by Contractor	Completion date
160629_3	29 Jun 2016	Silt curtain shall be provided to enclose the working area or derrick barge to avoid potential contamination to nearby water (TS3 North)	Silt curtain was deployed to enclose the working area at concerned location	Completion as observed on 5 July 2016
160705_1	5 Jul 2016	Leaked oil shall be cleaned as chemical waste and drip tray shall be provided to oil container	Leaked oil was cleaned and oil container was removed	Completion as observed on 13 July 2016
160705_2	5 Jul 2016	Mud sitting on the edge of seawall and on top of embankment shall be cleaned regularly to avoid drop off (TS3)	Mud sitting on the edge of seawall was cleaned	Completion as observed on 13 July 2016
160705_3	5 Jul 2016	Provide protection to exposed soil slope to avoid potential seepage of muddy runoff (TS3 North East)	Protection was provided to exposed soil	Completion as observed on 13 July 2016
160713_1	13 Jul 2016	Construction effluent shall be direct to waste water treatment plant prior to discharge (TS3 North)	Construction effluent was divert to waste water treatment plant	Completion as observed on 20 July 2016
160720_2	20 Jul 2016	PME without NRMM shall not be used and operated (TS3)	NRMM label was provided for concerned PME	Completion as observed on 27 July 2016



Item	Date	Observations	Action taken by Contractor	Completion date
167020_3	20 Jul 2016	Backfill with rock material to form rock mount shall be carried out according to method statement (TS3 East)	No more marine works was observed at concerned location	Completion as observed on 27 July 2016

8.0.9. Site inspections for Contract no. HY/2011/08 were carried out during this reporting period. No observation was found in the reporting month.

9.0 COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

- 9.0.1. One environmental complaint was received in the reporting month.
- 9.0.2. A public complaint referred by EPD was received by ET on 14 July 2016 (Case Ref.: H08/RS/00016213-16). The complainant reported the concern about night time construction noise from construction works between 0200hrs to 0300hrs and construction dust emission from construction site of TS3 near Slip Road 8 section.

ET confirmed with the Resident Site Staff that excavation at TS3 and loading of material onto derrick barge (Shun Tat 28) by crawler crane was undertaken by the Contractor of HY/2010/08 from 19:00hrs to around 02:00hrs on 30 June 2016. Total one crawler crane was in operation. Noise mitigation measures including equipping the crawler crane with noise barrier was implemented by the Contractor of HY/2010/08. Dust mitigation measures including manual spraying of water and mist nozzles are deployed on the ground level and at the cofferdam.

Based on the site records confirmed by RSS, excavation at TS3 and loading of material onto derrick barge (Shun Tat 28) by crawler crane was undertaken by the Contractor of HY/2010/08 from 19:00hrs on 29 June 2016 to around 02:00hrs on 30 June 2016. No construction works was conducted at the concerned location after around 02:00hrs on 30 June 2016. Total one crawler crane was in operation and noise mitigation measures including equipping the crawler crane with noise barrier was implemented by the Contractor of HY/2010/08.

Based on review on relevant record, Construction Noise Permit GW-RS0434-16 for the operation of crawler crane at the concerned location was in place. However, based on relevant site record, it was noted that the crawler crane deployed during the concerned period could not match with the specific PME requirement under condition 3a (Crane, crawler, mounted with noise barrier (Kobelco 7250S)) of the Construction Noise Permit GW-RS0434-16 between 23:00hrs to 07:00hrs on the following day. Dust mitigation measures including manual spraying of water and mist nozzles were deployed on the ground level and at the cofferdam.

Follow up inspection was conducted on 20 July 2016, the potential concerned excavation works at the concerned location was not observed and no particular dust impact was observed around the concerned location.

In view of the above, the Contractor of HY/2010/08 was advised to review the site control system for construction works carried out during restricted hours to check and ensure the model/ specific PMEs deployed are in compliance with relevant Construction Noise Permit. The Contractor of HY/2010/08 was also reminded to maintain regular maintenance of the plant and equipment deployed to avoid potential nuisance to the nearby public. Also, the Contractor of HY/2010/08 was reminded to maintain sufficient watering for excavated material handling to avoid potential dust nuisance to the surroundings.

9.0.3. The details of cumulative complaint log and updated summary of complaints are presented in **Appendix 9.1**

9.0.4. Cumulative statistic on complaints and successful prosecutions are summarized in **Table 9.1** and **Table 9.2** respectively.

Table 9.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
July 2016	1
September 2010 – June 2016	66
Total	67

Table 9.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	-	0	0

10 CONCLUSION

10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

10.0.2. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in **Table 10.1**. The construction programmes of individual contracts are provided in [Appendix 10.1](#).

Table 10.1 Summary of Key Construction Activities of Individual Contract(s) to be commenced in Coming Reporting Month

Contract No.	Key Construction Works	Recommended Mitigation Measures
HY/2009/15	<ul style="list-style-type: none"> Remedial works inside tunnel structure at Mined Tunnel, TS4, TPCWAE and TPCWAW 	<ul style="list-style-type: none"> Dust control during dust generating activities and covering for stockpile stored on site. Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system or the nearby water. Maintain regular cleaning of floating refuses within construction area.
HY/2009/18	<ul style="list-style-type: none"> Drainage works Road works Landscaping works Modification and Construction of Sign Gantries / Traffic Signs Maintenance works 	<ul style="list-style-type: none"> Dust control during dust generating activities Provide protection works to ensure no runoff out of site area or direct discharge into public drainage system.

<p>HY/2009/19</p>	<ul style="list-style-type: none"> • Pier construction for IEC • Construction of EVB • Column modification at F1 to F8 • Approach ramp sheet piling and pre-bored piling works • Bridge construction and segment erection • Hing Fat Street modification works • Hing Fat Street Slip Road Bridge E parapet construction • EVB waterproofing works • Pier 26 to 28 Tie Beam construction continues • Oil Street drainage works • Excavation / Construction of retaining wall 	<ul style="list-style-type: none"> • Noise level shall be controlled by reducing the breaking operation rate. • Noise barrier shall be implemented • Dust control during dust generating works • Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system or the sea.
<p>HK/2009/01</p>	<ul style="list-style-type: none"> • Stage 4 backfilling works • Reinstatement of outfall • Road and Drain works 	<ul style="list-style-type: none"> • Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system or the sea. • Dust control during dust generating works • Noise mitigation measures during breaking works

<p>HK/2009/02</p>	<ul style="list-style-type: none"> • Placing of pre-cast concrete covers • Tunnel OHVD construction • Tunnel wall and top slab construction • Road side barrier construction • ELS S4 removal and king post load transfer • Waterproofing layer at tunnel top slab • Tunnel backfilling • General cleaning of OHVD & tunnel base slab, carrier drain and cross road duct. • Removal of remaining temporary sheet pile seawall • Removal of blockwork seawall near the interface between Portion 2 and Portion 5 • Excavation work • Strut installation • Erection of hoarding for the demolition of ex-WSD Salt Water Pumping Station • Demolition of ex-WSD Salt Water Pumping Station from roof to 1/F 	<ul style="list-style-type: none"> • Dust control during dust generating works • Proper maintenance boundary surface runoff protection and water treatment facilities to avoid potential runoff related impact. • Provision of protection measures to ensure no runoff out of site area or direct discharge into public drainage system.
<p>HK/2012/08</p>	<ul style="list-style-type: none"> • Grouting • Construction of MVB and CWB Tunnel • Construction of concrete plug • Excavation and lateral support installation for CWB tunnel 	<ul style="list-style-type: none"> • Dust control during dust generating works • Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system.

HY/2010/08	<ul style="list-style-type: none"> • Tree protection works next to existing BGO, • Drainage improvement works, • Excavation and Lateral Support for U-structure, • Grouting works, • Utility diversion works, • Retaining wall works • ELS works • Construction works for subway extension 	<ul style="list-style-type: none"> • Dust control during dust generating works and stockpile stored on site. • Appropriate measures should be taken to ensure adequate protections are provided for trees being transplanted and retained on site. • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system.
HY/2011/08	<ul style="list-style-type: none"> • Construction of Ventilation Buildings, inclusive of Administration Building, East Ventilation Shaft/Building, West Ventilation Building • Construction of Tunnel Thermal Barrier • Installation of Electricals and Mechanicals • Installation of Tunnel Features 	<ul style="list-style-type: none"> • Dust control during dust generating works

10.0.3. The construction works of Contract no. 04/HY/2006 – Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street under FEP-04/364/2009/A was completed, and the FEP was surrendered by the Contractor on 11 February 2011.

10.0.4. The construction works of Contract no. HY/2009/17 - Advance piling works at Whitfield Depot under FEP-03/264/2009 was completed, and the FEP was surrendered by the Contractor and found in order by EPD on 25 April 2013.

10.0.5. The construction works of Contract HK/2010/06 was completed, and the FEP-08/364/2009/A was surrendered by the Contractor on 3 October 2014.