CONTRACT NO: HY/2019/18

WANCHAI DEVELOPMENT PHASE II AND CENTRAL WANCHAI BYPASS SAMPLING, FIELD MEASUREMENT AND TESTING WORKS (STAGE 4)

ENVIRONMENTAL PERMIT NO. EP-356/2009, FURTHER EVIRONMENTAL PERMIT NOS. FEP-01/356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-05/356/2009, FEP-06/356/2009, FEP-07/356/2009 AND FEP-08/356/2009

FINAL ENVIRONMENTAL MONITORING & AUDIT REPORT

CLIENTS:

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and

Highways Department

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CERTIFIED BY:

Raymond Dai
Environmental Team Leader

DATE:22Apr 2022

Ref.: AACWBIECEM00_0_13032L.22

22 April 2022

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: Wan Chai Development Phase II - Central-Wan Chai Bypass
Final Environmental Monitoring and Audit Report for EP-356/2009, FEP-01/356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-05/356/2009, FEP-06/356/2009, FEP-07/356/2009 and FEP-08/356/2009

Reference is made to the Environmental Team's submission of the captioned Final Environmental Monitoring and Audit (EM&A) Report received by email on 22 April 2022 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 Section 10.5.3 of the EM&A Manual.

Thank you very much for your kind 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. Enoch Wong	by fax: 2714 5289
CEDD	Attn: Mr. Jimmy Ling	by fax: 2301 1277
AECOM	Attn: Mr. S. K. Lo	by fax: 2587 1877
AECOM	Attn: Ms. Lydia Lee	by fax: 2142 5577
Lam	Attn: Mr. Raymond Dai	by fax: 2882 3331

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EXECUTIVE SUMMARY

i. This is the Final Environmental Monitoring and Audit (EM&A) Review Report prepared by Lam Geotechnics Limited for Wan Chai Development Phase II and Central-Wan Baypass – Sampling, Field Measurement and Testing work under EM&A manual Section 10.5 specific for Environmental Permit no. EP-356/2009. This report presents the environmental monitoring and audit findings during the period of March 2010 to April 2022.

Major construction works under taken during construction phase monitoring programme

ii. The designated project work III (DP3) was awarded to China Harbour – CRBC JV (Contract HY/2009/11) as part of the Project works by the Highways Department (HyD). The Further Environmental Permit FEP-01/356/2009 was issued on 18 February 2010 and surrendered on 22 October 2012. The construction site was handed over to Contract no. HY/2009/19 on 31 December 2011. The major construction activities of Contract no. HY/2009/19 under EP-356/2009 were marine piling works, box culvert construction and seawall reinstatement. According to CWB RSS confirmation, HY/2009/19 works under EP-356/2009 was completed on 09 July 2019.

iii. The designated project work III (DP3) and VI (DP6) were awarded to Chun Wo – Leader JV (Contract HK/2009/01) as part of the Project works by the Civil Engineering and Development Department (CEDD). The Further Environmental Permit FEP-02/356/2009 was issued on 24 March 2010 and surrendered on 19 April 2018.

iv. The designated project work III (DP3) and V (DP5) were awarded to Chun Wo – CRGL JV (Contract HK/2009/02) as part of the Project works by CEDD. The Further Environmental Permit FEP-03/356/2009 was issued on 24 March 2010 and surrendered on 27 March 2020.

v. The designated project work III (DP3) was awarded to China State Construction Engineering (HK) Ltd (Contract HY/2009/15) as part of the Project works by HyD. The Further Environmental Permit FEP-04/356/2009 was issued on 22 November 2010 and surrendered on 12 May 2021.

vi. The designated project work III (DP3) was awarded to Gammon – Leader JV (Contract HK/2010/06) as part of the Project works by CEDD. The Further Environmental Permit FEP-05/356/2009 was issued on 24 March 2011and surrendered on 03 October 2014.

vii. The designated project work III (DP3) was awarded to China State – Leader JV (Contract HK/2012/08) as part of the Project works by CEDD. The Further Environmental Permit FEP-06/356/2009 was issued on 05 March 2013. Contractor China State – Leader JV of Contract HK/2012/08 later renamed as China State – Build King JV. The Further Environmental Permit FEP-08/356/2009 was issued on 1 August 2016 for China State – Build King JV. The Further Environmental Permits FEP-06/356/2009 and FEP-08/356/2009 were surrendered on 15 October 2019.

viii. The designated project work III (DP3) was awarded to China State (Contract HY/2010/08) as part of the Project works by HyD. The Further Environmental Permit FEP-07/356/2009 was issued on 26 July 2013 and surrendered on 17 May 2021.

ix. The principle construction activities undertaken during the monitoring period included as follows:

- Permanent and temporary reclamation works including associated dredging works in Wan Chai Development Phase II (WDII) area (DP3)
- Wan Chai East Sewage Outfall (DP5)
- Dredging for the Cross-harbour Water Mains from Wan Chai to Tsim Sha Tsui (DP6)

x. Contract HY/2009/19 was responsible for marine piling works, box culvert construction and seawall reinstatement in North Point Reclamation area under EP-356/2009.

xi. Summaries of construction works for individual contracts undertaken during the construction period are shown as follows:

Contract HY/2009/11 - Wan Chai Development Phase II and Central – Wan Chai Bypass – North Point Reclamation

- Permanent reclamation works;
- Dredging;
- Seawall construction;
- Stormwater outfall diversion, stormwater drainage modification/improvement; and
- Translocation of corals at Ex-Wan Chai Public Cargoes Working Area (Ex-PCWA) Basin and North Point.

Contract HY/2009/19 - Central-Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

- Marine piling works;
- Box culvert construction; and
- Seawall reinstatement.

Contract HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at Hong Kong Convention and Exhibition Centre

- Permanent reclamation works;
- Dredging; and
- Construction of new cross harbour water mains.

Contract HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

- Permanent and temporary reclamation works;

- Dredging; and
- construction of a new sewage outfall

Contract HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)

- Temporary reclamation works;
- Dredging;
- Construction of the Trunk Road; and
- Reinstatement of the ex-PCWA basin and the Causeway Bay Typhoon Shelter (CBTS).

Contract HK/2010/06 - Wan Chai Development Phase II-Central-Wan Chai Bypass over MTR Tsuen Wan Line

- Installation of marine bored piles; and
- Dredging.

Contract HK/2012/08 - Wan Chai Development Phase II Central-Wan Chai Bypass at Wan Chai West

- Permanent reclamation works;
- Dredging;
- Seawall construction;
- Watermains laying; and
- Demolition of existing Expo Drive West Bridge.

Contract HY/2010/08 - Central- Wanchai Bypass Tunnel – Tunnel (Slip Road 8)

- Temporary reclamation works;
- Dredging;
- Construction of the Trunk Road; and
- Reinstatement of CBTS.

Environmental Monitoring and Audit Works

i. Summary table of the impact monitoring activities is listed below:

Air Quality Monitoring Station ID	Commencement Date	Suspension Date
CMA1b - Harbour Grand Hotel Boundary Wall	11 August 2010	23 May 2019
CMA2a - Causeway Bay Community Centre	11 August 2010	23 May 2019

CMA3a - CWB PRE Site Office	15 March 2011	22 March 2021
CMA4a - Society for the Prevention of Cruelty to Animals	29 December 2010	30 September 2019
CMA5a / CMA5b - Children Playgrounds opposite to Pedestrian Plaza / Pedestrian Plaza	01 April 2011	26 February 2019
CMA6a - WDII PRE Site Office	01 April 2011	26 February 2019
Noise Monitoring Station ID	**Commencement Date**	**Suspension Date**
M1a – Footbridge for Ex-Harbour Road Sports Centre	06 July 2010	30 September 2019
M2b – Noon Gun Area	10 November 2010	22 March 2021
M3a – Tung Lo Wan Fire Station	10 November 2010	22 March 2021
M4b – Victoria Centre	23 March 2010	01 June 2019
M5b – City Garden	23 March 2010	01 June 2019
M6 – HK Baptist Church Henrietta Secondary School	28 February 2012	01 June 2019
RTN1 – FEHD Hong Kong Transport Section Whitefield Depot	05 October 2010	01 November 2012
RTN2 / RTN2a – Oil Street Community Liaison Centre / Electric Centre	05 October 2010	01 January 2016
Water Quality Monitoring Station ID	**Commencement Date**	**Suspension Date**
WSD7 – Kowloon South	28 July 2010	28 April 2012
WSD9 – Tai Wan	19 March 2010	09 September 2014
WSD10 – Cha Kwo Ling	19 March 2010	07 February 2012
WSD15 – Sai Wan Ho	19 March 2010	07 February 2012
WSD17 – Quarry Bay	19 March 2010	09 September 2014
WSD19 – Sheung Wan	28 July 2010	15 February 2019
WSD20 – Kennedy Town	28 July 2010	28 April 2012
WSD21 – Wan Chai	08 July 2010	10 March 2014
C1 – HKCEC Extension	08 July 2010	27 October 2019
C2 – Telecom House	30 July 2010	22 April 2013
C3 – HKCEC Phase I	30 July 2010	22 April 2013

C4e – Wan Chai Tower and Great Eagle Centre (Eastern)	30 July 2010	22 April 2013
C4w – Wan Chai Tower and Great Eagle Centre (Western)	30 July 2010	22 April 2013
C5e – Sun Hung Kai Centre (Eastern)	28 July 2010	26 July 2013
C5w – Sun Hung Kai Centre (Western)	28 July 2010	26 July 2013
C6 – Excelsior Hotel	09 November 2010	26 May 2011
C7 – Windsor House	09 November 2010	20 April 2021
C8 – City Garden	19 March 2010	30 March 2013
C9 – Provident Garden	19 March 2010	30 March 2013
P1 – HKCEC Phase I	24 April 2013	16 February 2019
P3 – The Academy of performing Arts	24 April 2013	16 February 2019
P4 – Shui on Centre	24 April 2013	16 February 2019
P5 – Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	24 April 2013	16 February 2019
Water Quality Monitoring Station ID	**Commencement Date**	**Suspension Date**
RW21-P789 – Great Eagle Centre/ Sun Hung Kai Centre/ WSD Wanchai salt water intake / China Resources Building	01 August 2013	27 October 2019
Ex-PCWA SE - South-eastern corners of ex-Public Cargo Works Area	13 January 2011	07 March 2017
Ex-PCWA SW - South-western corners of ex-Public Cargo Works Area	13 January 2011	07 March 2017

Odour Patrol

ii. Odour patrol was conducted according to EM&A requirement during the reporting.

iii. The construction phase odour patrol was commenced in 2011 and completed in 2017.

iv. The operation phase odour patrol was commenced in 2019 and completed in 2021.

Waste Management

v. Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. Details of waste management data is presented in Section 4.4.

Complaints, Notifications of Summons and Successful Prosecutions

vi. Total 51 environmental complaints were received in the reporting period. No notification of summons and successful prosecutions were received in the reporting period. The summary of complaint received shall refer to Section 6.

Site Inspections and Audit

vii. The weekly site inspections were conducted according to EM&A manual requirement throughout the construction period. No non-compliance from the site audits was recorded throughout the reporting period.

Conclusion

viii. The EM&A programme were found to be effective in monitoring impacts arising from the Project. The findings of the environmental monitoring program suggest that no adverse impacts on sensitive receivers at the designated monitoring locations were brought about the Project.

ix. In conclusion the Project was environmentally acceptable in terms of air, water quality and noise impact.

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-356/2009 and Further Environmental permit nos. FEP-01/356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-05/356/2009, FEP-06/356/2009, FEP-07/356/2009 and FEP-08/356/2009 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 audit findings during the period of March 2010 to April 2022.

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 **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 4 **Monitoring Results** – summarizes the monitoring results and exceedances recorded throughout the monitoring programme.

Section 5 **Environmental Site Audit** – summarizes the findings of site inspections undertaken during the construction period, with a review of any relevant follow-up actions during the construction period.

Section 6 **Complaints, Notification of summons and Prosecution** – summarizes the cumulative statistics on complaints, notification of summons and prosecution.

Section 7 **Comments, Conclusions and Recommendations**

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 Designed 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. The Project is located mainly in Wan Chai North, Causeway Bay and North Point, and is demarcated by Gloucester Road and Victoria Park Road to the south, Fenwick Pier Street to the west and Tong Shui Road Interchange to the east, as shown in **Figure 2.1**.

2.2.2. The study area encompasses existing developments along the Wan Chai, Causeway Bay and North Point shorelines. Major land uses include the Hong Kong Convention & Exhibition Centre (HKCEC) Extension, the Wan Chai Ferry Pier, the ex-Wan Chai Public Cargo Working Area (ex-PCWA), the Royal Hong Kong Yacht Club (RHKYC), the Police Officers' Club, the Causeway Bay Typhoon Shelter (CBTS) and commercial and residential developments.

2.2.3. The scope of the Project comprises:

- Land formation for key transport infrastructure and facilities, including the Trunk Road (i.e. CWB) and the associated slip roads for connection to the Trunk Road and for through traffic from Central to Wan Chai and Causeway Bay. The land formed for the above transport infrastructure will provide opportunities for the development of an attractive waterfront promenade for the enjoyment of the public

- Reprovisioning / protection of the existing facilities and structures affected by the land formation works mentioned above
- Extension, modification, reprovisioning or protection of existing storm water drainage outfalls, sewerage outfalls and watermains affected by the revised land use and land formation works mentioned above
- Upgrading of hinterland storm water drainage system and sewerage system, which would be rendered insufficient by the land formation works mentioned above
- Provision of the ground level roads, flyovers, footbridges, necessary transport facilities and the associated utility services
- Construction of the new waterfront promenade, landscape works and the associated utility services
- The Trunk Road (i.e. CWB) within the study area and the associated slip roads for connection to the Trunk Road.

2.2.4. 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
DP3	Reclamation works including associated dredging works	Schedule 2, Part I, C.1 and C.12
DP5	Wan Chai East Sewage Outfall	Schedule 2, Part I, F.5 and F.6
DP6	Dredging for the Cross-harbour Water Mains from Wan Chai to Tsim Sha Tsui	Schedule 2, Part I, C.12

2.3 Division of the Project Responsibility

2.3.1. Due to the multi-contract nature of the Project, there were a number of contracts sub-dividing the whole works area into different work areas. 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/2009/11	Wan Chai Development Phase II and Central – Wan Chai Bypass – North Point Reclamation	DP3	17 March 2010

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/01	Wan Chai Development Phase II – Central –Wanchai Bypass at Hong Kong Convention and Exhibition Centre	DP3, DP6	23 July 2010
HK/2009/02	Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East	DP3, DP5	5 July 2010
HY/2009/15	Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)	DP3	10 November 2010
HK/2010/06	Wan Chai Development Phase II-Central-Wan Chai Bypass over MTR Tsuen Wan Line	DP3	22 March 2011
HY/2009/19	Central-Wanchai Bypass Tunnel (North Point Section)and Island Eastern Corridor Link	/	28 January 2012
HY/2010/08	Central- Wanchai Bypass Tunnel – Tunnel (Slip Road 8)	DP3	21 March 2013
HK/2012/08	Wan Chai Development Phase II Central-Wan Chai Bypass at Wan Chai West	DP3	10 March 2014

2.4 Major construction works undertaken during the course of the Project

- Permanent and temporary reclamation works including associated dredging works in Wan Chai Development Phase II area
- Construct a new sewage outfall and upgrade the existing Wan Chai East sewage outfall
- Dredging for the Cross-harbour Water Mains from Wan Chai to Tsim Sha Tsui (DP6)

2.5 Project Organization and Contact Personnel

2.5.1. 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.

2.5.2. The proposed project organization and 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	Senior Resident Engineer	Mr. S. K. Lo	3519 9033	2587 1877
	Engineer's Representative for CWB	Chief Resident Engineer	Ms. Lydia Lee	3762 2760	2142 5577
China Harbour-CRBC Joint Venture	Contractor under HY/2009/11	Project Director	Mr. Cho Yu Fun	3157 1086	3157 1085
		Site Agent	Mr. Daniel Cheung	3157 1086	
Chun Wo – Leader Joint Venture	Contractor under HK/2009/01	Project Manager	Mr. Simon Liu	9304 8355	2587 1878
Chun Wo – CRGL Joint Venture	Contractor under HK/2009/02	Project Manager	Mr. David Yan	9106 3890	2827 9996
China State Construction Engineering (HK) Ltd.	Contractor under HY/2009/15	Project Director	Mr. Chris Leung	3557 6393	2566 2192
		Site Agent	Mr. Patrick Ho	3557 6405	
	Contractor under HY/2010/08	Project Director	Mr. Chris Leung	3467 4299	2566 8061
		Site Agent	Mr. Danny Chan	9232 4754	
Chun Wo - CRGL - MBEC Joint Venture	Contractor under Contract no. HY/2009/19	Project Manager	Mr. William Leung	3758 8879	3757 8901
		Site Agent	Mr. William Luk	3758 6868	
Gammon -Leader JV	Contractor under HK/2010/06	Project Manager	Mr. Paul Lui	9095 7922	2529 2880
		Site Agent	Mr. Eric Yip	2529 2068	
China State-Build King Joint Venture	Contractor under HK/2012/08	Project Director	Mr. C. N. Lai	9106 5806	2877 1522
		Site Agent	Mr. George Cheung	9268 1918	
Ramboll 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

3 Monitoring Requirements

3.1 Noise Monitoring

Noise Monitoring Stations

3.1.1. The noise monitoring stations for the Project are listed in **Table 3.1** and shown in **Figure 3.1**. **Appendix 3.1** shows the established Action/Limit Levels for the monitoring works.

Table 3.1 Noise Monitoring Station

Station	Description
M1a[1]	Footbridge for Ex-Harbour Road Sports Centre
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station
M4b	Victoria Centre
M5b	City Garden
M6[4]	HK Baptist Church Henrietta Secondary School
RTN1[2]	FEHD Hong Kong Transport Section Whitefield Depot
RTN2/RTN2a[3]	Electric Centre

Remark 1: With respect to the demolition of Ex-Harbour Road Sports Centre, the respective noise monitoring station M1a – Harbour Road Sports Centre were finely adjusted on 16 and 25 May 2017 and thereafter to the Footbridge for Harbour Road Sports for noise monitoring.

Remark 2: Real-time on-site monitoring systems of the noise level around the works sites at North Point and Tin Hau area were established during the construction period.

Remark 3: Real-time noise monitoring at RTN2-Oil Street Community Liaison Centre had been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which was a representative of noise sensitive receiver- City Garden.

Remark 4: The major work activities under Contract no. HY/2009/11 under EP-356/2009 was substantial completed on 04 January 2012 and the construction site was handed over to Contract no. HY/2009/19 on 31 December 2011. Noise monitoring station M6 was associated with Contract no. HY/2009/19 for the marine piling works, box culvert construction and seawall reinstatement which were inside EP-356/2009 boundary.

Noise Monitoring Parameters, Frequency and Duration

3.1.2. The construction noise level was measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). $L_{eq\ (30\ minutes)}$ was used as the monitoring parameter for the time

period between 0700 and 1900 hours on normal weekdays. For all other time periods, $L_{eq\ (5\ minutes)}$ was employed for comparison with the Noise Control Ordinance (NCO) criteria. Supplementary information for data auditing, statistical results such as L10 and L90 were also obtained for reference.

3.1.3. Noise monitoring was carried out at all the designated monitoring stations. The monitoring frequency depended 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 were underway:

- One set of measurements between 0700 and 1900 hours on normal weekdays.

3.1.4. If construction works were extended to include works during the hours of 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring was carried out during respective restricted hour's periods.

Monitoring Equipment

3.1.5. As referred to the Technical Memorandum ™ 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 were used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements were accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.

3.1.6. Noise measurements was not carried out in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed was checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.2 Air Quality Monitoring

Air Quality Monitoring Stations

3.2.1. The air monitoring stations for the Project are listed in **Table 3.2** and shown in **Figure 3.1**. **Appendix 3.1** shows the established Action/Limit Levels for the monitoring works.

Table 3.2 Air Monitoring Station

Station ID	Monitoring Location	Description
CMA1b[1]	Harbour Grand Hotel Boundary Wall	North Point
CMA2a	Causeway Bay Community Centre	Causeway Bay

Station ID	Monitoring Location	Description
CMA3a[2]	CWB PRE Site Office	Causeway Bay
CMA4a	Society for the Prevention of Cruelty to Animals	Wan Chai
CMA5b[3]	Pedestrian Plaza	Wan Chai
CMA6a	WDII PRE Site Office	Wan Chai

Remarks 1: Due to extension of site boundary by Contractor HY/2009/19, location of CMA1b at Oil Street Community Liaison Centre has been finely adjusted on 21 April 2012 and the ID was updated as Oil Street Site Office from April 2013. CMA1b was adjusted from Oil Street site office to Harbour Grand Hotel Boundary Wall on June 2017 w.r.t demolition of Oil Street Site Office.

Remarks 2: As per the ENPC meeting in March 2011, the monitoring stations CMA3a – Future CWB site office at Wanchai Waterfront Promenade was renamed.

Remarks 3: Station CMA5a at Children Playgrounds opposite to the Pedestrian Plaza was relocated to the Pedestrian Plaza in December 2014. The station reference and location ID CMA5a was updated as CMA5b and Pedestrian Plaza respectively. The proposal for relocation was submitted to EPD by CEDD on 24 November 2014 and approved by EPD on 10 December 2014.

Air Monitoring Parameters, Frequency and Duration

3.2.2. One-hour and 24-hour TSP levels were measured to indicate the impacts of construction dust on air quality. The 24-hour TSP level was 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.

3.2.3. 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., were recorded down in detail.

3.2.4. For regular impact monitoring, the sampling frequency of at least once in every six-days, was 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 was undertaken when the highest dust impact occurred.

Sampling Procedure and Monitoring Equipment

3.2.5. High volume samplers (HVSs) in compliance with the following specifications were 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.

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

Laboratory Measurement / Analysis

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

3.2.8. An alternative non-HOKLAS accredited laboratory was set-up for carrying out the laboratory analysis, the laboratory equipment was approved by the ER on 8 February 2011 and the measurement procedures were witnessed by the IEC. Any measurement performed by the laboratory was demonstrated to the satisfaction of the ER and IEC. IEC was regularly audit to the measurement performed by the laboratory to ensure the accuracy of measurement results.

3.2.9. Filter paper of size 8” x 10” was labelled before sampling. It was a clean filter paper with no pinholes, and conditioned in a humidity-controlled chamber for over 24-hours and pre-weighed before used for the sampling.

3.2.10. After sampling, the filter paper loaded with dust was kept in a clean and tightly sealed plastic bag. The filter paper was then 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 was regularly calibrated against a traceable standard.

3.2.11. All the collected samples were kept in a good condition for 6 months before disposal.

Monitoring for Odour Patrol

3.2.12. Odour patrols along the shorelines of Causeway Bay Typhoon Shelter and ex-Wan Chai Public Cargo Working Area when there was temporary reclamation in Causeway Bay Typhoon Shelter and in the ex-Wan Chai Public Cargo Working Area, or when there was dredging of the odorous sediment and slime at the south-western corner of the Causeway Bay Typhoon Shelter. The operational odour monitoring was carried out for 3 years period.

3.2.13. Odour patrols were carried out at bi-weekly intervals during July, August and September by a qualified person of the ET who was:

- at least 16 years of age;
- free from any respiratory illnesses; and
- not allowed to smoke, eat, drink (except water) or use chewing gum or sweets 30 min before and during odour patrol.

3.2.14. Odour patrol was conducted by independent trained personnel / competent persons patrolling and sniffing around the shore as shown in **Figure 3.1** to detect any odour at the concerned hours.

3.2.15. The qualified person used the nose (olfactory sensor) to sniff odours at different locations. The main odour emission sources and the areas to be affected by the odour nuisance was identified.

3.2.16. The perceived odour intensity was divided into 5 levels which ranked in the descending order as follows:

- 0 – Not detected. No odour perceived or an odour so weak that it cannot be easily characterized or described;
- 1 – Slight Identifiable odour, and slight chance to have odour nuisance;
- 2 – Moderate Identifiable odour, and moderate chance to have odour nuisance;
- 3 – Strong Identifiable, likely to have odour nuisance;
- 4 – Extreme Severe odour, and unacceptable odour level.

3.2.17. The findings including odour intensity, odour nature and possible odour sources, and also the local wind speed and direction at each location were recorded. In addition, some relevant meteorological and tidal data such as daily average temperature, and daily average humidity, on that surveyed day were obtained from the Hong Kong Observatory Station for reference. The Action and Limit levels for odour patrol are shown in **Appendix 3.1**.

3.2.18. The qualified odour patrol member had individual n-butanol thresholds complied with the requirement of European Standard Method of Air Quality – Determination of Odour Concentration by Dynamic Olfactometry (EN13725) in the range of 20 to 80 ppb.

3.3 Water Quality Monitoring

Water Quality Monitoring Stations

3.3.1. The water quality monitoring stations of the Project are listed in **Table 3.3** and shown in **Figure 3.1**. **Appendix 3.1** shows the established Action/Limit Levels for the monitoring works.

Table 3.3 Marine Water Quality Stations for Water Quality Monitoring

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD7	Kowloon South	834150.0	818300.3
WSD9	Tai Wan	837921.0	818330.0
WSD10	Cha Kwo Ling	841900.9	817700.1
WSD15	Sai Wan Ho	841110.4	816450.1
WSD17	Quarry Bay	839790.3	817032.2
WSD19	Sheung Wan	833415.0	816771.0
WSD20	Kennedy Town	830750.6	816030.3
WSD21	Wan Chai	836220.8	815940.1
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0
C2	Telecom House / APA / SOC	835647.9	815864.4
C3	HKCEC Phase I	835836.2	815910.0
C4e	Great Eagle Centre	835932.8	815888.2
C4w	Wan Chai Tower	835629.8	815889.2
C5e	Sun Hung Kai Centre (Eastern)	836250.1	815932.2
C5w	Sun Hung Kai Centre (Western)	836248.1	815933.2
C6	Excelsior Hotel	837009.6	815999.3
C7	Windsor House	837193.7	816150.0
C8	City Garden	837970.6	816957.3
C9	Provident Garden	838355.0	817116.6
P1	HKCEC Phase I	835774.7	816179.4
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2

Station Ref.	Location	Easting	Northing
Cooling Water Intake / WSD Salt Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/ WSD Wanchai salt water intake / China Resources Building	836268.0	816020.0

Remark 1: As per the meeting with the representative of Excelsior Hotel and World Trade Centre on 17 May 2011, they confirmed that the seawater intake for The Excelsior was no longer in use and replaced by the connected permanent water supply from WSD pipelines since 11 January 2011. Thus, the impact water quality monitoring for the cooling intake - C6 was terminated effective from 26 May 2011.

Remark 2: Due to the significant location difference, the previous water quality monitoring stations were considered to be invalid to represent the water quality at relocated cooling water intake. In addition, the site areas at the previous water quality monitoring stations were changed and affected by construction activities and no longer available for water quality monitoring. Under such circumstances, the water quality monitoring stations shall be relocated to the respective relocated intake locations. The summary of relocation of water quality monitoring stations are shown in below table 3.4.

Table 3.4. Summary of relocation of water quality monitoring stations

Previous Water Quality Monitoring stations	Respective relocated water quality monitoring stations	Remarks
C2	P3, P4	After reviewing the cooling intake pump station status with WDII RSS and IEC, the water quality monitoring at related water quality monitoring stations P1, P3, P4 and P5 was commenced from 24 April 2013
C3	P1	
C4w	P5	
C4e	RW21-P789	With respect to the switching over of the cooling water intake to re-provisioned cooling water intake, the water quality monitoring at relocated water quality monitoring station RW21-P789 was commenced from 29 July 2013.
C5e		
C5w		
WSD21		

Water Quality Parameters

3.3.2. Monitoring of dissolved oxygen (DO), turbidity and suspended solids (SS) were carried out at WSD flushing water intakes and cooling water intakes. DO and Turbidity were measured in-situ while SS was determined in laboratory.

3.3.3. In association with the water quality parameters, other relevant data were also measured, such as monitoring location/position, time, sampling depth, water temperature, pH, salinity, dissolved oxygen (DO) saturation, weather conditions, sea conditions, tidal stage, and any special phenomena and work underway at the construction site etc.

Sampling Procedures and Monitoring Equipment

3.3.4. The interval between two sets of monitoring were less than 36 hours except where there were exceedances of Action and/or Limit Levels, in which case the monitoring frequency would be increased. **Table 3.5** shows the proposed monitoring frequency and water quality parameters. Duplicate in-situ measurements and water sampling should be carried out in each sampling event. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides was not less than 0.5 m.

Table 3.5 Marine Water Quality Monitoring Frequency and Parameters

Activities	**Monitoring Frequency[1]**	**Parameters[2]**
During the 4-week baseline monitoring period	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
During marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
After completion of marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity

Notes:

1. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides was not less than 0.5m.
2. Turbidity was measured in situ whereas SS was determined by laboratory.

Enhanced Water Quality Monitoring in the ex-Wan Chai Public Cargo Working Area and the Causeway Bay Typhoon Shelter

3.3.5. The enhanced water quality monitoring and audit programme was to avoid aggravation of odour nuisance from seawater arising from temporary reclamation in the ex-Wan Chai Public Cargo Working Area and the Causeway Bay Typhoon Shelter.

3.3.6. Dissolved oxygen monitoring at the intakes C6 and C7 in Causeway Bay Typhoon Shelter when there was temporary reclamation in Causeway Bay Typhoon Shelter and at the south-western and south-eastern corners of the ex-Wan Chai Public Cargo Working Area. The proposed water quality monitoring stations of the Project are listed in **Table 3.6** and shown in **Figure 3.1**.

Table 3.6 Marine Water Quality Stations for Enhanced Water Quality Monitoring

Station	Location
C6	Proposed Exhibition Station / World Trade Centre
C7	Windsor House
Ex-WPCWA-SW	South-western of the ex-Wan Chai Public Cargo Working Area
Ex-WPCWA-SE	South-eastern of the ex-Wan Chai Public Cargo Working Area

Remarks:

1. Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and was resumed from 1 February 2018 onwards with respect to the completion of removal of temporary reclamation zone.
2. Enhanced DO monitoring at Monitoring station Ex-WPCWA SE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area. The Enhance DO monitoring at Ex-WPCWA SE was resumed on 11 May 2016 due to completed section of seawall reinstatement works at Ex-PCWA.

3.3.7. The monitoring of dissolved oxygen were carried out 3 days per week, at mid-flood and mid-ebb tides for 3 water depths (1m below water surface, mid-depth and 1m above sea bed, except where the water depth less than 6m, the mid-depth may be omitted. If the water depth be equal to or less than 3m, only the mid-depth will be monitored).

4. Monitoring Results

4.0.1. The Event Action Plan for construction noise, air quality and water quality are presented in **Appendix 4.1**.

4.1 Noise Monitoring Results

4.1.1. The noise monitoring limit level exceedances in reporting period is summarized in **Table 4.1** below.

Table 4.1 Summary of noise limit level exceedances

Year	Limit level	M1a	M2b	M3a	M4b	M5b	M6	Total
2010	Non-Project related	0	0	0	2	2	0	4
	Project related	0	0	0	0	0	0	
2011	Non-Project related	0	0	0	0	0	0	0
	Project related	0	0	0	0	0	0	
2012	Non-Project related	0	0	0	0	0	19	19
	Project related	0	0	0	0	0	0	
2013	Non-Project related	2	0	0	0	0	35	39
	Project related	0	0	0	0	0	2	
2014	Non-Project related	0	0	0	0	0	19	22
	Project related	0	2	0	0	0	1	
2015	Non-Project related	5	0	0	0	0	6	13
	Project related	0	0	0	0	0	2	
2016	Non-Project related	17	0	0	0	0	8	25
	Project related	0	0	0	0	0	0	
2017	Non-Project related	14	0	0	0	0	12	31
	Project related	3	0	0	0	1	1	
2018	Non-Project related	4	0	0	0	0	3	9
	Project related	1	0	0	0	0	1	
2019	Non-Project related	0	0	0	2	0	6	8
	Project related	0	0	0	0	0	0	

Year	Limit level	M1a	M2b	M3a	M4b	M5b	M6	Total
2020	Non-Project related	-	0	0	-	-	-	0
	Project related	-	0	0	-	-	-	
2021	Non-Project related	-	0	0	-	-	-	0
	Project related	-	0	0	-	-	-	

4.1.2. The major construction activities involved dredging and reclamation in 2010. Total 4 limit level exceedances were recorded in the reporting period. After the investigation, the exceedances were concluded as non-project related and contributed by nearby non-WDII CWB construction works. Total 7 action level exceedances related to noise complaint were recorded in the reporting period.

4.1.3. The major construction activities involved dredging, reclamation and construction of sewage outfall in 2011. No limit level exceedance was recorded in the reporting period. Total 8 action level exceedances related to noise complaint were recorded in the reporting period.

4.1.4. The major construction activities involved dredging and reclamation in 2012. Total 19 limit level exceedances were recorded in the reporting period. After the investigation, the exceedances were concluded as non-project related and contributed by nearby traffic noise. Total 1 action level exceedance related to noise complaint was recorded in the reporting period.

4.1.5. The major construction activities involved dredging and reclamation in 2013. Total 39 limit level exceedances were recorded in the reporting period. After the investigation, 2 out of the 39 limit level exceedances were concluded as project related, others were concluded as non-project related and contributed by nearby traffic noise or non-WDII CWB construction works. In general, the contractor implemented the remediation measures in according to Event and Action Plan and the cases were closed. No action level exceedance related to noise complaint was recorded in the reporting period.

4.1.6. The major construction activities involved dredging and reclamation in 2014. Total 22 limit level exceedances were recorded in the reporting period. After the investigation, 3 out of the 22 limit level exceedances were concluded as project related, others were concluded as non-project related and contributed by nearby traffic noise or non-WDII CWB construction works. In general, the contractor implemented the remediation measures in according to Event and Action Plan and the cases were closed. Total 3 action level exceedances related to noise complaint were recorded in the reporting period.

4.1.7. The major construction activities involved dredging and reclamation in 2015. Total 13 limit level exceedances were recorded in the reporting period. After the investigation, 2 out of the 13 limit level exceedances were concluded as project related, others were concluded as non-project related and contributed by nearby traffic noise or non-WDII CWB construction works. In

general, the contractor implemented the remediation measures in according to Event and Action Plan and the cases were closed. Total 2 action level exceedances related to noise complaint were recorded in the reporting period.

4.1.8. The major construction activities involved removal of temporary reclamation and seawall construction in 2016. Total 25 limit level exceedances were recorded in the reporting period. After the investigation, the exceedances were concluded as non-project related. No action level exceedance related to noise complaint was recorded in the reporting period.

4.1.9. The major construction activities involved removal of temporary reclamation and seawall construction in 2017. Total 31 limit level exceedances were recorded in the reporting period. After the investigation, 5 out of the 31 limit level exceedances were concluded as project related, others were concluded as non-project related and contributed by nearby traffic noise. In general, the contractor implemented the remediation measures in according to Event and Action Plan and the cases were closed. No action level exceedance related to noise complaint was recorded in the reporting period.

4.1.10. The major construction activities involved removal of temporary reclamation and seawall construction in 2018. Total 9 limit level exceedances were recorded in the reporting period. After the investigation, 2 out of the 9 limit level exceedances were concluded as project related, others were concluded as non-project related and contributed by nearby traffic noise. In general, the contractor implemented the remediation measures in according to Event and Action Plan and the cases were closed. No action level exceedance related to noise complaint was recorded in the reporting period.

4.1.11. The major construction activities involved seabed trimming in 2019. Total 8 limit level exceedances were recorded in the reporting period. After the investigation, the exceedances were concluded as non-project related. No action level exceedance related to noise complaint was recorded in the reporting period.

4.1.12. The complaint investigation shall refer to **Appendix 6.1**. Details of graphical presentation of noise monitoring result can refer to **Appendix 4.2**.

4.1.13. Real-time noise monitoring was commenced in Tin Hau (RTN1 - FEHD Hong Kong Transport Section Whitefield Depot) and North Point (RTN2 - Oil Street Community Liaison Centre; relocated to RTN2a - Electric Centre on 05 October 2012) district from 05 October 2010.

4.1.14. As the land-based piling and filling works under DP3 at Tin Hau had been completed on 03 September 2012 and the marine piling works at North Point had been completed on 04 March 2013 as confirmed by RSS, the reporting of real-time noise monitoring results for RTN1 - FEHD Hong Kong Transport Section Whitfield Depot and RTN2a – Hong Kong Electric Centre was excluded from EP-356/2009 from November 2012 and January 2016 respectively while

the reporting of the real-time noise monitoring result under EP-364/2009/D for the above monitoring stations would be continued.

4.1.15. The major construction activities involved dredging and reclamation in the reporting period at North Point and Tin Hau District. During the monitoring period, limit level exceedance was recorded occasionally. After the investigation, the exceedance recorded was concluded as non-project related and contributed by nearby renovation work, traffic and adverse weather.

4.1.16. Details of graphical presentation of continuous noise monitoring result can referred to **Appendix 4.3**.

4.2 Air Quality Monitoring and Odour Patrol Results

Air Quality Monitoring

4.2.1 The air quality monitoring exceedances in reporting period is summarized in **Table 4.2**.

Table 4.2 Summary of air quality exceedances

Year	CMA1b				CMA2a				CMA3a				CMA4a				CMA5b				CMA6a			
	24hr		1hr		24hr		1hr		24hr		1hr		24hr		1hr		24hr		1hr		24hr		1hr	
	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
2010	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2013	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0
2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2015	2	0	1	0	2	0	2	0	0	0	0	0	1	0	0	0	1	1	2	1	0	0	0	0
2016	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	0	0	0	0	0
2017	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	5	0	9	3	0	0	0	0
2018	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
2019	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
2021	-	-	-	-	-	-	-	-	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Total	2	0	5	3	2	0	3	0	0	0	3	0	1	0	0	0	7	1	17	4	0	0	1	0

4.2.2 The major construction activities involved dredging and reclamation in 2010. Total 1 action level 1hr TSP exceedance was recorded in the reporting period. After the investigation, the exceedance was concluded as non-Project related and contributed by nearby public activities.

4.2.3 The major construction activities involved dredging, reclamation and construction of sewage outfall in 2011. No exceedance was recorded in the reporting period.

4.2.4 The major construction activities involved dredging and reclamation in 2012. No exceedance was recorded in the reporting period.

4.2.5 The major construction activities involved dredging and reclamation in 2013. Total 5 action level of 1hr TSP exceedances were recorded in the reporting period. After the investigation, the exceedances were concluded as non-Project related and contributed ambient air quality.

4.2.6 The major construction activities involved dredging and reclamation in 2014. No exceedance was recorded in the reporting period.

4.2.7 The major construction activities involved dredging and reclamation in 2015. Total 6 action level of 24hr TSP exceedance, 1 limit level of 24hr TSP exceedance, 5 action level of 1hr TSP exceedances and 1 limit level of 24hr TSP exceedances were recorded in the reporting period. After the investigation, the exceedances were concluded as non-Project related and contributed by nearby non-WDII CWB work, traffic emission and ambient air quality.

4.2.8 The major construction activities involved removal of temporary reclamation and seawall construction in 2016. Total 1 action level of 24hr TSP exceedance and 6 action level of 1hr TSP exceedances were recorded in the reporting period. After the investigation, the exceedances were concluded as non-Project related and contributed by nearby non-WDII CWB work, traffic emission and ambient air quality.

4.2.9 The major construction activities involved removal of temporary reclamation and seawall construction in 2017. Total 5 action level 24hr TSP exceedances, 6 limit level 1hr TSP exceedances and 9 action level 1hr TSP exceedances were recorded in the reporting period. After the investigation, the exceedance was concluded as non-Project related and contributed by nearby non-WDII CWB work, traffic emission and ambient air quality.

4.2.10 The major construction activities involved removal of temporary reclamation and seawall construction in 2018.Total 2 action level 1hr TSP exceedances were recorded in the reporting period. After the investigation, the exceedances were concluded as non-Project related and contributed by nearby non-WDII CWB work, traffic emission and ambient air quality.

4.2.11 The major construction activities involved seabed trimming in 2019. Total 1 action level 1ht TSP exceedance was recorded in the reporting period. After the investigation, the exceedance was concluded as non-Project related and contributed by nearby non-WDII CWB work.

4.2.12 Details of graphical presentation of air monitoring result can referred to **Appendix 4.4**.

Odour Patrol

4.2.13 Odour Patrol was commenced from 2011 and suspended in 2017 with respect to the completion of removal of temporary reclamation in Causeway Bay Typhoon Shelter, ex-Wan Chai Public Cargo Working Area and dredging of the odours sediment and slime at the south-western corner of the Causeway Bay Typhoon Shelter.

4.2.14 Annual monitoring of odour impacts during the operational phase was commenced from 2019 and suspended in 2021.

4.2.15 The Odour Patrol monitoring exceedances is summarized in **Table 4.3**.

Table 4.3 Summary of Odour Patrol Exceedance

Monitoring Period	Action Level	Limit Level
July 2011 to September 2011	0	0
July 2012 to September 2012	2	0
July 2013 to September 2013	0	0
July 2014 to September 2014	0	0
July 2015 to September 2015	0	0
July 2016 to September 2016	0	0
July 2017 to September 2017	0	0
July 2019 to September 2019	0	0
July 2020 to September 2020	0	0
July 2021 to September 2021	0	0
Total	2	0

4.2.16 After the investigation, the exceedance was concluded as non-Project related and contributed by nearby culvert discharge.

4.3 Water Quality Monitoring, Enhance Water Quality Monitoring and Suspended Solids and Turbidity Monitoring during Dredging

Water Quality Monitoring

4.3.1 The water quality monitoring programme at WSD7 – Kowloon South was commenced from 28 July 2010 and temporary suspended from 28 April 2012. The exceedances recorded during the monitoring period are summarized in **Table 4.4**.

Table 4.4 Summary of exceedance at WSD7

Year	WSD7 (Flood tide)						WSD7 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	3	7	2	9	1	1	1	5	2	7
2011	0	0	6	8	4	9	0	0	2	1	2	3
2012	0	0	0	1	1	0	0	0	0	2	0	1
Total	0	0	9	16	7	18	1	1	3	8	4	11

4.3.2 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at WSD7 were concluded as non-Project related.

4.3.3 The water quality monitoring programme at WSD9 – Tai Wan was commenced from 19 March 2010 and temporary suspended from 09 September 2014. The exceedances recorded during the monitoring period are summarized in **Table 4.5**.

Table 4.5 Summary of exceedance at WSD9

Year	WSD9 (Flood tide)						WSD9 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	2	2	0	0	0	1	3	7	0	0	0	1
2011	0	0	0	0	0	0	0	0	0	0	0	0
2012	0	0	1	0	1	1	2	1	0	0	0	0
2013	1	0	4	0	0	2	0	0	2	2	0	2
2014	0	0	0	0	0	0	0	0	0	0	0	1
Total	3	2	5	0	1	4	5	8	2	2	0	4

4.3.4 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at WSD9 were concluded as non-Project related.

4.3.5 The water quality monitoring programme at WSD10 – Cho Kwo Ling was commenced from 19 March 2010 and temporary suspended from 07 February 2012. The exceedances recorded during the monitoring period are summarized in **Table 4.6**.

Table 4.6 Summary of exceedance at WSD10

Year	WSD10 (Flood tide)						WSD10 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	3	3	0	0	4	2	3	7	0	0	2	0
2011	0	0	2	1	0	1	0	0	0	1	0	1
2012	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	3	2	1	4	3	3	7	0	1	2	1

4.3.6 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at WSD10 were concluded as non-Project related.

4.3.7 The water quality monitoring programme at WSD15 – Sai Wan Ho was commenced from 19 March 2010 and temporary suspended from 07 February 2012. The exceedances recorded during the monitoring period are summarized in **Table 4.7**.

Table 4.7 Summary of exceedance at WSD15

Year	WSD15 (Flood tide)						WSD15 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	3	4	0	0	2	3	4	9	0	0	1	4
2011	0	0	1	3	0	8	0	0	4	1	2	7
2012	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	4	1	3	2	11	4	9	4	1	3	11

4.3.8 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at WSD15 were concluded as non-Project related.

4.3.9 The water quality monitoring programme at WSD17 – Quarry Bay was commenced from 19 March 2010 and temporary suspended from 09 September 2014. The exceedances recorded during the monitoring period are summarized in **Table 4.8**.

Table 4.8 Summary of exceedance at WSD17

Year	WSD17 (Flood tide)						WSD17 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	3	3	0	3	2	8	7	10	1	1	2	7

Year	WSD17 (Flood tide)						WSD17 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2011	0	0	5	3	2	7	0	0	2	0	1	1
2012	0	0	5	9	1	9	0	1	2	2	0	3
2013	0	0	8	7	4	1	2	2	2	2	1	1
2014	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	3	18	22	9	25	9	13	7	5	4	12

4.3.10 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at WSD17 were concluded as non-Project related.

4.3.11 The water quality monitoring programme at WSD19 – Sheung Wan was commenced from 28 July 2010 and temporary suspended from 15 February 2019. The exceedances recorded during the monitoring period are summarized in **Table 4.9**.

Table 4.9 Summary of exceedance at WSD19

Year	WSD19 (Flood tide)						WSD19 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	1	0	1	2	0	2	3	2	3	1
2011	0	0	1	4	6	4	0	0	4	2	6	5
2012	0	0	3	8	2	8	1	0	6	5	1	7
2013	1	0	6	15	2	6	1	0	7	15	1	8
2014	0	0	2	7	0	1	0	0	4	4	0	1
2015	0	0	10	11	2	1	0	0	9	9	2	0
2016	0	0	6	7	0	0	0	0	3	6	0	2
2017	0	0	8	6	4	0	0	0	9	5	1	2
2018	0	0	1	6	1	3	1	0	5	6	1	2
2019	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	38	64	18	25	3	2	50	54	15	28

4.3.12 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at WSD19 were concluded as non-Project related.

4.3.13 The water quality monitoring programme at WSD20 – Kennedy Town was commenced from 28 July 2010 and temporary suspended from 28 April 2012 during flood tide. The exceedances recorded during the monitoring period are summarized in **Table 4.10**.

Table 4.10 Summary of exceedance at WSD20

Year	WSD20 (Flood tide)						WSD20 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	3	7	2	9	1	1	1	5	2	7
2011	0	0	6	8	4	9	0	0	2	1	2	3
2012	0	0	0	1	1	0	0	0	0	2	0	1
Total	0	0	9	16	7	18	1	1	3	8	4	11

4.3.14 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at WSD20 were concluded as non-Project related.

4.3.15 The water quality monitoring programme at WSD21 – Wan Chai was commenced from 08 July 2010 and temporary suspended from 10 March 2014. The exceedances recorded during the monitoring period are summarized in **Table 4.11**.

Table 4.11 Summary of exceedance at WSD21

Year	WSD21 (Flood tide)						WSD21 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	1	2	2	0	0	5	2	0	2	0	3	4
2011	0	0	1	0	1	3	0	0	2	0	1	0
2012	4	4	2	5	6	8	7	3	4	2	3	3
2013	8	4	3	2	6	9	18	6	3	2	2	11
2014	0	0	0	0	0	0	0	0	2	3	0	1
Total	13	10	8	7	13	25	27	9	13	7	9	19

4.3.16 The major construction during the monitoring period were dredging and reclamation. Amount all the exceedances recorded at WSD21, 1 action level of turbidity exceedance and 1 action level of Suspended Solids exceedance were concluded as Project related. Review and Implementation of mitigation measure were conducted after the exceedances recorded. The water quality resumed to normal condition after the implementation of mitigation measure and cases closed.

4.3.17 As advised by WDII RSS, the pump station for WSD21 pump house relocation was implemented with respect to HK/2009/02 since 6 March 2014, according to the EM&A Manual the monitoring station WSD21 was relocated to RW21-P789 from 12 March 2014 accordingly.

4.3.18 The water quality monitoring programme at C1 – HKCEC Extension was commenced from 08 July 2010 and temporary suspended from 26 October 2019. The exceedances recorded during the monitoring period are summarized in **Table 4.12**.

Table 4.12 Summary of exceedance at C1

Year	C1 (Flood tide)						C1 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	0	0	0	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0	0	1	0	0	0
2012	1	0	1	1	0	0	0	0	0	0	0	0
2013	0	0	1	0	0	1	3	0	1	0	0	0
2014	0	0	0	0	0	0	0	0	0	1	0	1
2015	0	0	4	7	1	0	0	0	2	4	0	0
2016	0	0	8	3	1	0	0	0	2	0	0	0
2017	0	0	5	12	0	0	0	0	2	0	0	0
2018	0	0	1	1	0	0	0	0	0	0	1	1
2019	0	0	0	0	2	0	0	0	0	1	2	0
Total	1	0	20	24	4	1	3	0	8	6	3	2

4.3.19 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at C1 were concluded as non-Project related.

4.3.20 The water quality monitoring programme at C2 – Telecom House / HK Academcy of Performing Arts / Shui On Centre was commenced from 30 July 2010 and temporary suspended from 22 April 2013. The exceedances recorded during the monitoring period are summarized in **Table 4.13**.

Table 4.13 Summary of exceedance at C2

Year	C2 (Flood tide)						C2 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	1	0	0	0	1	0	0	0	0	0	0	0
2011	0	0	0	1	2	0	0	0	0	0	0	0
2012	0	0	0	2	2	0	0	2	0	0	0	0
2013	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	3	5	0	0	2	0	0	0	0

4.3.21 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at C2 were concluded as non-Project related.

4.3.22 Under the relocation of cooling water intake programme, the water quality at cooling water intake APA and SOC should refer to relocated WQM stations P3 and P4 commenced from 24 April 2013.

4.3.23 The water quality monitoring programme at C3 – HKCEC Phase I was commenced from 30 July 2010 and temporary suspended on from 22 April 2013. The exceedances recorded during the monitoring period are summarized in **Table 4.14**.

Table 4.14 Summary of exceedance at C3

Year	C3 (Flood tide)						C3 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	0	0	5	0	0	0	1	2	3	2
2011	0	0	3	7	8	3	0	0	2	14	7	6
2012	5	1	0	0	5	0	1	1	0	0	0	0
2013	3	8	0	0	1	0	1	6	0	0	0	0
Total	8	9	3	7	19	3	2	7	3	16	10	8

4.3.24 The major construction during the monitoring period were dredging and reclamation. Amount all the exceedance recorded at C3, 6 limit level of Dissolved Oxygen exceedances, 1 limit level of Turbidity exceedance and 1 action level of Suspended Solids exceedance were concluded as Project related. Review and Implementation of mitigation measure were conducted after the exceedances recorded. The water quality resumed to normal condition after the implementation of mitigation measure and cases closed.

4.3.25 Under the relocation of cooling water intake programme, the water quality at cooling water intake HKCEC Phase I should refer to relocated WQM stations P1 commenced from 24 April 2013.

4.3.26 The water quality monitoring programme at C4e – Great Eagle Centre was commenced from 30 July 2010 and temporary suspended from 22 April 2013. The exceedances recorded during the monitoring period are summarized in **Table 4.15**.

Table 4.15 Summary of exceedance at C4e

Year	C4e (Flood tide)						C4e (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	1	0	1	1	2	0	0	1	1	1
2011	0	0	0	0	0	0	0	0	0	0	1	1
2012	2	0	0	1	1	0	5	0	0	0	1	0
2013	1	6	0	0	2	0	0	5	0	1	0	0
Total	3	6	1	1	4	1	7	5	0	2	3	2

4.3.27 The major construction during the monitoring period were dredging and reclamation. Amount all the exceedance recorded at C4e, 5 limit level of Dissolved Oxygen exceedances were concluded as Project related. Review and Implementation of mitigation measure were conducted after the exceedances recorded. The water quality resumed to normal condition after the implementation of mitigation measure and cases closed.

4.3.28 With respect to the switching over of the cooling water intake to re-provisioned cooling water, the water quality monitoring at C4e was switch to RW21-P789 from 26 July 2013.

4.3.29 The water quality monitoring programme at C4w – Wan Chai Tower was commenced from 30 July 2010 and temporary suspended from 22 April 2013. The exceedances recorded during the monitoring period are summarized in **Table 4.16**.

Table 4.16 Summary of exceedance at C4w

Year	C4w (Flood tide)						C4w (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	0	0	1	0	0	0	1	0	2	0
2011	0	0	0	2	1	1	0	0	0	0	0	1

Year	C4w (Flood tide)						C4w (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2012	7	1	0	0	1	0	7	0	0	0	2	0
2013	3	3	1	0	1	0	2	4	0	0	0	1
Total	10	4	1	2	4	1	9	4	1	0	4	2

4.3.30 The major construction during the monitoring period were dredging and reclamation. Amount all the exceedance recorded at C4w, 4 limit level of Dissolved Oxygen exceedances and 2 action level of Dissolved Oxygen exceedances were concluded as Project related. Review and Implementation of mitigation measure were conducted after the exceedances recorded. The water quality resumed to normal condition after the implementation of mitigation measure and cases closed.

4.3.31 Under the relocation of cooling water intake programme, the water quality at cooling water intake Wan Chai Tower should refer to relocated WQM stations RW21-P789 commenced from 29 July 2013.

4.3.32 The water quality monitoring programme at C5e – Sun Hung Kai Centre (Eastern) was commenced from 28 July 2010 and temporary suspended from 26 July 2013. The exceedances recorded during the monitoring period are summarized in **Table 4.17**.

Table 4.17 Summary of exceedance at C5e

Year	C5e (Flood tide)						C5e (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	0	0	0	0	1	0	0	0	0	0
2011	0	0	0	2	3	0	0	0	1	0	1	1
2012	1	0	0	3	4	1	0	0	1	2	2	3
2013	0	0	0	0	0	0	0	0	1	1	1	1
Total	1	0	0	5	7	1	1	0	3	3	4	5

4.3.33 The major construction during the monitoring period were dredging and reclamation. Amount all the exceedances recorded at C5e, 3 limit level of Turbidity exceedances, 1 action level of Suspended Solids exceedance and 2 limit level of Suspended Solids exceedances were concluded as Project related. Review and Implementation of mitigation measure were conducted after the exceedances recorded. The water quality resumed to normal condition after the implementation of mitigation measure and cases closed.

4.3.34 With respect to the switching over of the cooling water intake to re-provisioned cooling water, the water quality monitoring at C5e was switch to RW21-P789 from 26 July 2013.

4.3.35 The water quality monitoring programme at C5w – Sun Hung Kai Centre (Western) was commenced from 28 July 2010 and temporary suspended from 26 July 2013. The exceedances recorded during the monitoring period are summarized in **Table 4.18**.

Table 4.18 Summary of exceedance at C5w

Year	C5w (Flood tide)						C5w (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	0	0	0	0	0	0	0	1	2	1
2011	0	0	1	2	2	3	0	0	1	0	4	0
2012	0	0	2	3	3	4	0	0	1	5	2	3
2013	0	0	2	0	0	0	0	0	0	0	0	0
Total	0	0	5	5	5	7	0	0	2	6	8	4

4.3.36 The major construction during the monitoring period were dredging and reclamation. Amount all the exceedances recorded at C5w, 3 limit level of Turbidity exceedances and 2 limit level of Suspended Solids exceedances were concluded as Project related. Review and Implementation of mitigation measure were conducted after the exceedances recorded. The water quality resumed to normal condition after the implementation of mitigation measure and cases closed.

4.3.37 With respect to the switching over of the cooling water intake to re-provisioned cooling water, the water quality monitoring at C5w was switch to RW21-P789 since 26 July 2013.

4.3.38 The water quality monitoring programme at C6 – Excelsior hotel was commenced from 09 November 2010 and temporary suspended from 26 May 2011. The exceedances recorded during the monitoring period are summarized in **Table 4.19**.

Table 4.19 Summary of exceedance at C6

Year	C6 (Flood tide)						C6 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	2	1	1	0	0	0	0	0	0	0
2011	0	0	0	2	0	2	1	0	0	2	2	0
Total	0	0	2	3	1	2	1	0	0	2	2	0

4.3.39 The major construction during the monitoring period are dredging and reclamation. After the investigation, the exceedances recorded at C6 were concluded as non-Project related.

4.3.40 As per the meeting with the representative of Excelsior Hotel and World Trade Centre on 17 May 2011, they confirmed that the seawater intake for The Excelsior was no longer in use and replaced by the connected permanent water supply from WSD pipelines since 11 January 2011. Thus, the impact water quality monitoring for the cooling intake - C6 was terminated effective from 26 May 2011.

4.3.41 The water quality monitoring programme at C7 – Windsor House Cooling Water Intake was commenced from 09 November 2010 and temporary suspended from 20 April 2021. The exceedances recorded during the monitoring period are summarized in **Table 4.20**.

Table 4.20 Summary of exceedance at C7

Year	C7 (Flood tide)						C7 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	0	0	0	0	0	0	0	0	0	0	0	0
2011	3	0	2	2	4	0	7	0	1	1	2	0
2012	4	2	0	2	0	0	7	2	0	1	1	0
2013	8	0	0	2	0	2	2	0	1	2	0	0
2014	0	0	2	1	0	0	0	0	0	1	0	0
2015	0	0	0	6	0	0	0	0	1	5	0	2
2016	0	0	2	3	3	0	0	0	4	3	4	0
2017	0	0	3	12	3	4	0	0	2	6	3	1
2018	0	0	0	2	0	1	0	0	0	1	1	0
2019	0	0	0	0	1	0	0	0	0	0	2	1
2020	0	0	1	2	1	1	0	0	1	2	0	2
2021	0	0	0	0	0	0	0	0	0	0	0	0
Total	15	2	10	32	12	8	16	2	10	22	13	6

4.3.42 The major construction during the monitoring period were dredging, reclamation, removal of temporary reclamation and seabed trimming. Amount all the exceedances recorded at C7, 14 limit level of Turbidity exceedances, 2 action level of Turbidity exceedances, 6 limit level of Suspended Solids exceedances and 2 action level of Suspended Solids exceedances were concluded as Project related. Review and Implementation of mitigation measure were

conducted after the exceedances recorded. The water quality resumed to normal condition after the implementation of mitigation measure and cases closed.

4.3.43 The water quality monitoring programme at C8 – City Garden was commenced from 19 March 2010 and temporary suspended from 30 March 2013. The exceedances recorded during the monitoring period are summarized in **Table 4.21**.

Table 4.21 Summary of exceedance at C8

Year	C8 (Flood tide)						C8 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	6	2	7	12	24	6	4	2	4	11	15	9
2011	0	0	7	9	8	1	0	0	8	7	4	1
2012	0	0	6	8	3	0	2	0	4	7	3	1
2013	0	0	1	0	0	0	0	0	1	2	0	0
Total	6	2	21	29	35	7	6	2	17	27	22	11

4.3.44 The major construction during the monitoring period were dredging and reclamation. Amount all the exceedances recorded at C8, 2 limit level of Turbidity exceedances and 2 limit level of Suspended Solids exceedances were concluded as Project related. Review and Implementation of mitigation measure were conducted after the exceedances recorded. The water quality resumed to normal condition after the implementation of mitigation measure and cases closed.

4.3.45 The water quality monitoring programme at C9 – Provident Garden was commenced from 19 March 2010 and temporary suspended from 30 March 2013. The exceedances recorded during the monitoring period are summarized in **Table 4.21**.

Table 4.21 Summary of exceedance at C9

Year	C9 (Flood tide)						C9 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2010	4	1	4	10	23	8	7	0	6	5	18	6
2011	0	0	5	5	7	0	0	0	1	2	2	0
2012	1	0	9	13	10	1	1	0	4	1	2	0
2013	0	0	2	1	1	0	0	0	0	0	0	0
Total	5	1	20	29	41	9	8	0	11	8	22	6

4.3.46 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at C9 were concluded as non-Project related.

4.3.47 The water quality monitoring programme at P1 – HKCEC Phase I was commenced from 24 April 2013 and temporary suspended from 16 February 2019. The exceedances recorded during the monitoring period are summarized in **Table 4.22**.

Table 4.22 Summary of exceedance at P1

Year	P1 (Flood tide)						P1 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2013	0	0	0	0	0	0	0	0	1	0	0	0
2014	0	0	0	0	0	0	1	0	0	3	0	1
2015	0	0	2	2	0	0	0	0	4	1	1	0
2016	0	0	5	1	0	0	1	0	0	0	1	0
2017	0	0	3	4	1	0	0	0	2	2	0	1
2018	0	0	0	1	1	0	0	0	1	0	2	0
2019	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	10	8	2	0	2	0	8	6	4	2

4.3.48 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at P1 were concluded as non-Project related.

4.3.49 The water quality monitoring programme at P3 – The Academy of Performing Arts was commenced from 24 April 2013 and temporary suspended from 16 February 2019. The exceedances recorded during the monitoring period are summarized in **Table 4.23**.

Table 4.23 Summary of exceedance at P3

Year	P3 (Flood tide)						P3 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2013	1	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	1	0	0	2	1	0
2015	0	0	4	1	0	0	0	0	2	1	0	0
2016	0	0	2	1	0	0	0	0	1	0	0	0

Year	P3 (Flood tide)						P3 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2017	0	0	3	7	0	0	0	0	1	2	1	0
2018	0	0	0	1	0	0	0	0	1	0	1	0
2019	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	9	10	0	0	1	0	5	5	3	0

4.3.50 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at P3 were concluded as non-Project related.

4.3.51 The water quality monitoring programme at P4 – Shui On Centre was commenced from 24 April 2013 and temporary suspended from 16 February 2019. The exceedances recorded during the monitoring period are summarized in **Table 4.24**.

Table 4.24 Summary of exceedance at P4

Year	P4 (Flood tide)						P4 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2013	0	0	0	0	0	0	0	0	0	0	0	0
2014	0	0	1	0	1	0	0	0	0	0	0	0
2015	0	0	1	9	1	0	0	0	3	3	0	0
2016	0	0	1	6	0	0	0	0	1	0	1	1
2017	0	0	2	11	3	0	0	0	1	1	1	0
2018	0	0	1	0	0	0	0	0	1	0	0	1
2019	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	6	26	5	0	0	0	6	4	2	2

4.3.52 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at P4 were concluded as non-Project related.

4.3.53 The water quality monitoring programme at P5 – Government Building (Wan Chai Tower 8 Revenue Tower / Immigration Tower) was commenced from 24 April 2013 and temporary suspended from 13 February 2019. The exceedances recorded during the monitoring period are summarized in **Table 4.25**.

Table 4.25 Summary of exceedance at P5

Year	P5 (Flood tide)						P5 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2013	0	0	1	1	0	0	0	0	0	0	0	0
2014	0	0	0	0	0	0	0	0	0	1	0	0
2015	0	0	1	10	1	0	0	0	1	5	1	0
2016	0	0	5	3	0	0	0	0	1	0	1	0
2017	0	0	8	8	0	0	0	0	2	1	1	0
2018	0	0	0	0	0	0	0	0	1	0	0	1
2019	0	0	0	0	1	0	0	0	0	0	0	0
Total	0	0	15	22	2	0	0	0	5	7	3	1

4.3.54 The major construction during the monitoring period were dredging and reclamation. After the investigation, the exceedances recorded at P5 were concluded as non-Project related.

4.3.55 The water quality monitoring programme at RW21-P789 – Great Eagle Centre / Sun Hung Kai Centre / WSD Wan Chai Salt Water Intake / China Resources Building was commenced from 01 August 2013 and temporary suspended from 26 October 2019. During the monitoring period, water quality monitoring station RW21-P789 was adjusted to RW21-P798W and RW21-P789E with respect to removal of silt screen from 28 November 2016 to 23 January 2017. The exceedances recorded during the monitoring period are summarized in **Table 4.26**.

Table 4.26 Summary of exceedance at RW21-P789

Year	RW21-P789 (Flood tide)						RW21-P789 (Ebb tide)					
	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)	DO (AL)	DO (LL)	Turb. (AL)	Turb. (LL)	SS (AL)	SS (LL)
2013	0	0	1	3	0	0	0	0	1	1	0	0
2014	0	0	2	2	1	0	0	0	0	0	0	0
2015	0	0	3	9	0	0	0	0	2	3	0	0
2016	0	0	7	1	2	0	0	0	0	1	0	0
2017	0	0	3	8	0	0	0	0	2	3	0	0
2018	0	0	3	1	3	0	0	0	0	1	3	0
2019	0	0	0	1	0	0	0	0	0	0	2	0
Total	0	0	19	25	6	0	0	0	5	9	5	0

4.3.56 The major construction during the monitoring period were dredging, reclamation, removal of temporary reclamation and seabed trimming. Amount all the exceedances recorded at RW21-P789, 3 limit level of Turbidity exceedances were concluded as Project related. Review and Implementation of mitigation measure were conducted after the exceedances recorded. The water quality resumed to normal condition after the implementation of mitigation measure and cases closed.

Enhanced Water Quality Monitoring

4.3.57 Enhanced water quality monitoring was commenced from 13 January 2011.

4.3.58 Enhance DO Monitoring within Ex-PCWA for monitoring station Ex-PCWA SE and Ex-PCWA SW was temporarily suspended from 07 March 2017.

4.3.59 Enhance DO monitoring at Station C6 and C7 were temporarily suspended from 05 March 2018.

4.3.60 The exceedances recorded during the monitoring period are summarized in **Table 4.27**.

Table 4.27 Summary of exceedance at Enhanced DO monitoring Stations

Year	C6				C7				EX-PCWA-SW				EX-PCWA-SW			
	Flood tide		Ebb Tide		Flood tide		Ebb Tide		Flood tide		Ebb Tide		Flood tide		Ebb Tide	
	DO (AL)	DO (LL)	DO (AL)	DO (LL)	DO (AL)	DO (LL)	DO (AL)	DO (LL)	DO (AL)	DO (LL)	DO (AL)	DO (LL)	DO (AL)	DO (LL)	DO (AL)	DO (LL)
2011	3	2	7	1	8	1	10	3	0	12	0	28	6	7	14	10
2012	1	0	5	1	8	4	7	5	0	35	0	53	21	21	23	29
2013	1	0	1	0	18	2	10	1	0	53	0	48	25	33	8	28
2014	0	0	0	0	2	0	1	0	0	42	0	38	7	31	6	21
2015	0	0	2	0	0	0	0	0	0	39	0	61	2	2	3	4
2016	1	0	0	0	0	0	0	0	0	25	0	48	4	9	4	8
2017	0	0	0	0	0	0	0	0	0	4	0	5	1	2	0	0
2018	0	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-
Total	6	2	15	2	36	7	28	9	0	210	0	281	66	105	58	100

4.3.61 The major construction during the monitoring period were dredging, reclamation and removal of temporary reclamation. After the investigation, the exceedance was concluded as non-Project related and contributed by nearby culvert discharge and natural variation.

Suspended Solids and Turbidity Monitoring during Dredging

4.3.62 Daily Suspended Solids and 24 hour Turbidity monitoring was commenced during dredging of the sediment at the south-western concern of the Causeway Bay Typhoon Shelter.

4.3.63 The Daily Suspended Solids monitoring and 24 hour Turbidity monitoring was commenced at C7 – Windsor House Cooling Water Intake from 7 June 2011 to 28 June 2011. No project related exceedance was recorded in the monitoring period.

4.3.64 The Daily Suspended Solids monitoring and 24 hour Turbidity monitoring was commenced on 26 October 2011. Daily Suspended Solids monitoring was temporary suspended on 23 December 2011 and 24 hour Turbidity monitoring was temporary suspended on 27 January 2012. No project related exceedance was recorded in the monitoring period.

4.3.65 The exceedances recorded during the monitoring period are summarized in **Table 4.28**.

Table 4.28 Summary of exceedance at Daily Suspended Solids and 24hr Turbidity monitoring station

Period	C7			
	Daily Suspended Solids		24hr Turbidity	
	Action Level	Limit Level	Action Level	Limit Level
7 June 2011 to 28 June 2011	0	0	0	0
26 October 2011 to 27 January 2011	0	0	21	8
Total	0	0	21	8

4.3.66 After the investigation, the exceedance was concluded as non-Project related and contributed by nearby floating refuses.

4.4 Waste Monitoring Results

4.4.1 The quantities of different types of waste generated in the construction under different contracts are summarized in below tables:

Table 4.29 Details of Waste Disposal for Contract HY/2009/11

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	NIL	N/A
Inert C&D materials recycled, m^3	NIL	N/A
Non-inert C&D materials disposed, m^3	692.255	SENT Landfill
Non-inert C&D materials recycled, m^3	NIL	N/A
Chemical waste disposed, kg	N/A	N/A

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
Marine Sediment (Type 1 – Open Sea Disposal), m^3	89,500 (Bulk Volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	129,200 (Bulk Volume)	East of Sha Chau

Table 4.30 Details of Waste Disposal for Contract HK/2009/01

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	62116.405	TKO137, TM38
Inert C&D materials recycled, m^3	5856.5	N/A
Non-inert C&D materials disposed, m^3	1673.69	SENT Landfill
Non-inert C&D materials recycled, kg	203993	N/A
Chemical waste disposed, kg	10250	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3	97428.2 (Bulk Volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	52250 (Bulk Volume)	East of Cha Chau
Dredged Sediment Requiring Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers, m^3	6773 (Bulk Volume)	East of Cha Chau

Table 4.31 Details of Waste Disposal for Contract HK/2009/02

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	313695.5	TKO137 / TM 38
Inert C&D materials recycled, m^3	18161	N/A
Non-inert C&D materials disposed, m^3	1515.103	SENT Landfill
Non-inert C&D materials recycled, m^3	N/A	N/A
Chemical waste disposed, kg	13860	SENT Landfill
Marine Sediment (Type 1 – Open Sea Disposal), m^3	240222 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	146445 (Bulk volume)	East of Sha Chau

Table 4.32 Details of Waste Disposal for Contract HY/2009/15

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	141579.2	Tuen Mun Area 38
	65216	TKO137 FB
Inert C&D materials recycled, m^3	8127.21	HY/2010/08
	304	Ex-PCWA

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
	111.9	TS4
Non-inert C&D materials disposed, m^3	252.2	SENT Landfill
Non-inert C&D materials recycled, kg	299361.5	N/A
Chemical waste disposed, kg	8,200	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3	156909 (Bulk Volume)	Cheung Chau South
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	327746 (Bulk Volume)	East of Sha Chau / South of the Brothers
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers) m^3	12640 (Bulk Volume)	East of Sha Chau / South of the Brothers

Table 4.33 Details of Waste Disposal for Contract HK/2010/06

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	12567.88	TM38
Inert C&D materials recycled, m^3	267	HK/2009/01
Non-inert C&D materials disposed, m^3	369.48	SENT/TKO137SF
Non-inert C&D materials recycled, T	60.58	Recyclers
Chemical waste disposed, L	2600	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3	3,891 (Bulk Volume)	South Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	12,586 (Bulk Volume)	East Sha Chau

Table 4.34 Details of Waste Disposal for Contract HK/2012/08

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	4131 273	TM38 TKO137
Inert C&D materials recycled, m^3	NIL	N/A
Non-inert C&D materials disposed, m^3	400	SENT
Non-inert C&D materials recycled, m^3	NIL	N/A
Chemical waste disposed, kg	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3	31759 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	108542 (Bulk volume)	South of The Brothers (from 27 Aug 2013 onwards)

Table 4.35 Details of Waste Disposal for Contract HY/2010/08

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	95973.148 33381.84	TM 38 TKO137
Inert C&D materials recycled, m^3	NIL	N/A
Non-inert C&D materials disposed, m^3	NIL	N/A
Non-inert C&D materials recycled, kg	NIL	N/A
Chemical waste disposed, kg	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3	62559.4	South Cheung Chau / Brothers Island *
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	28309.2	Brothers Island
Marine Sediment (Type 3 – Special Treatment), m^3	7780	Brothers Island

Table 4.36 Details of Waste Disposal for Contract HY/2009/19

Waste Type	Cumulative Quantity	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	355921.04	TM38
Inert C&D materials recycled, m^3	59367	N/A
Non-inert C&D materials disposed, m^3	1068.6	N/A
Non-inert C&D materials recycled, kg	333.14	N/A
Chemical waste disposed, L	2.12	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3	162	South Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	681	East Sha Chau
Marine Sediment (Type 3 – Special Treatment), m^3	4976.00	East Sha Chau

5. Environmental Site Audit

5.0.1 Site audit was carried out by representatives of the Contractor, Engineer and ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The representative of the IEC joined the site inspections once per month.

5.0.2 No non-compliance was recorded during the site inspections throughout the construction period. Observations and recommendations recorded during the site inspections were summarized in each of the EM&A reports.

5.0.3 According to EIA Study Report, Environmental Permit and EM&A Manual of the Project, the mitigation measures detailed in the documents were recommended to be implemented during the construction phase. A summary of the Environmental Mitigation Implementation Schedule (EMIS) is provided in **Appendix 5.1.**

6. Complaints, Notification of Summons and Prosecution

6.0.1. Total 51 complaints were recorded in the reporting period. No remedial and preventative action shall be follow-up by the Contractors as all the complaint cases received were closed.

6.0.2. No summons and successful prosecutions were recorded in the reporting period.

6.0.3. The details of cumulative complaint log and updated summary of complaints are presented in **Appendix 6.1.**

6.0.4. Cumulative statistic on complaints and successful prosecutions are summarized in **Table 6.1** and **Table 6.2** respectively.

Table 6.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
Commencement works (Mar 2010) to April 2022	51
Total	**51**

Table 6.2 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**

7. Comments, Conclusions and Recommendations

7.1 Construction of the Project

7.1.1 The Project was implemented in accordance with the conditions stipulated in the Environmental Permits.

7.1.2 The construction works of all the contracts under the Project were substantially completed. The details of individual contacts are summarized in **Table 7.1**.

Table 7.1 Details of Individual Contracts under the Project

Contract No.	Associated DP(s)	Substantial Completion Date
HY/2009/11	DP3	16 January 2010 (Section V) 24 February 2010 (Section VIII) 02 April 2010 (Section VII) 06 April 2010 (Section IV) 16 April 2010 (Section VI) 05 August 2010 (Section IA) 06 October 2010 (Section I) 11 April 2011 (Section II) 07 November 2011 (Section III)
HK/2009/01	DP3, DP6	19 January 2019
HK/2009/02	DP3, DP5	31 December 2018
HY/2009/15	DP3	22 March 2021
HK/2010/06	DP3	27 September 2014
HY/2009/19	/	09 July 2019
HY/2010/08	DP3	22 March 2021
HK/2012/08	DP3	23 November 2019

7.2 EM&A Programme

Validity of EIA Predictions

7.2.1 It is predicted in the EIA reports that with the implementation of the recommended mitigation measures, there would be no unacceptable or residual air, water quality and noise impacts arising from the Project-related construction works.

Comments on Overall EM&A programme

7.2.2 The mitigation measures detailed in the Environmental Permit, the EM&A Manual and the EIA report were implemented throughout the whole project period. With the environmental monitoring and site inspection to directly ensure the timely implementation of mitigation measures during the Project, the environmental performance of the Project was acceptable. Analysis of all EM&A data collected throughout the construction periods also demonstrated the environmental acceptability of the Project.

7.2.3 The overall performance of the monitoring methodology adopted and environmental management system in this Project was effective.

Overall EM&A Data

7.2.4 Baseline and impact air, water quality and noise monitoring were carried out according to the requirements in the EM&A Manual. The monitoring data analysis shown that the environmental conditions generally return to baseline condition.

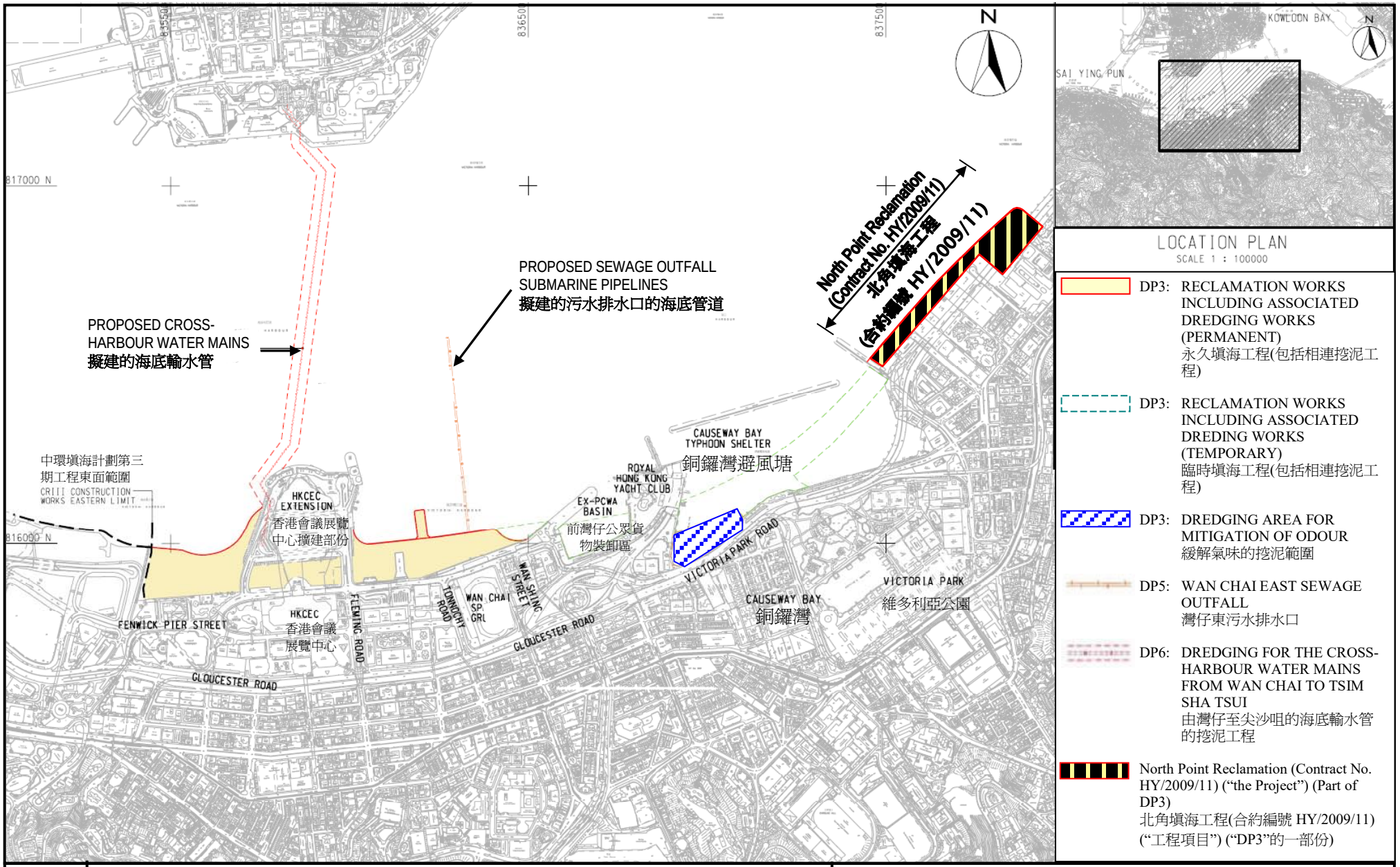
Recommendations and Conclusions

7.2.5 The EM&A programme was found to be effective in monitoring impacts arising from the Project. The findings of the environmental monitoring programme suggest that no adverse impacts on sensitive receivers were brought about by the Project. In conclusion the Project was environmentally acceptable in terms of air, water quality and noise.

7.2.6 With the success of the overall EM&A programme, the deterioration of the environment caused by the Project was cost-effectively identified and necessary prompt effective mitigation measures were implemented to avoid any unacceptable impacts.

Figure 2.1

Project Layout

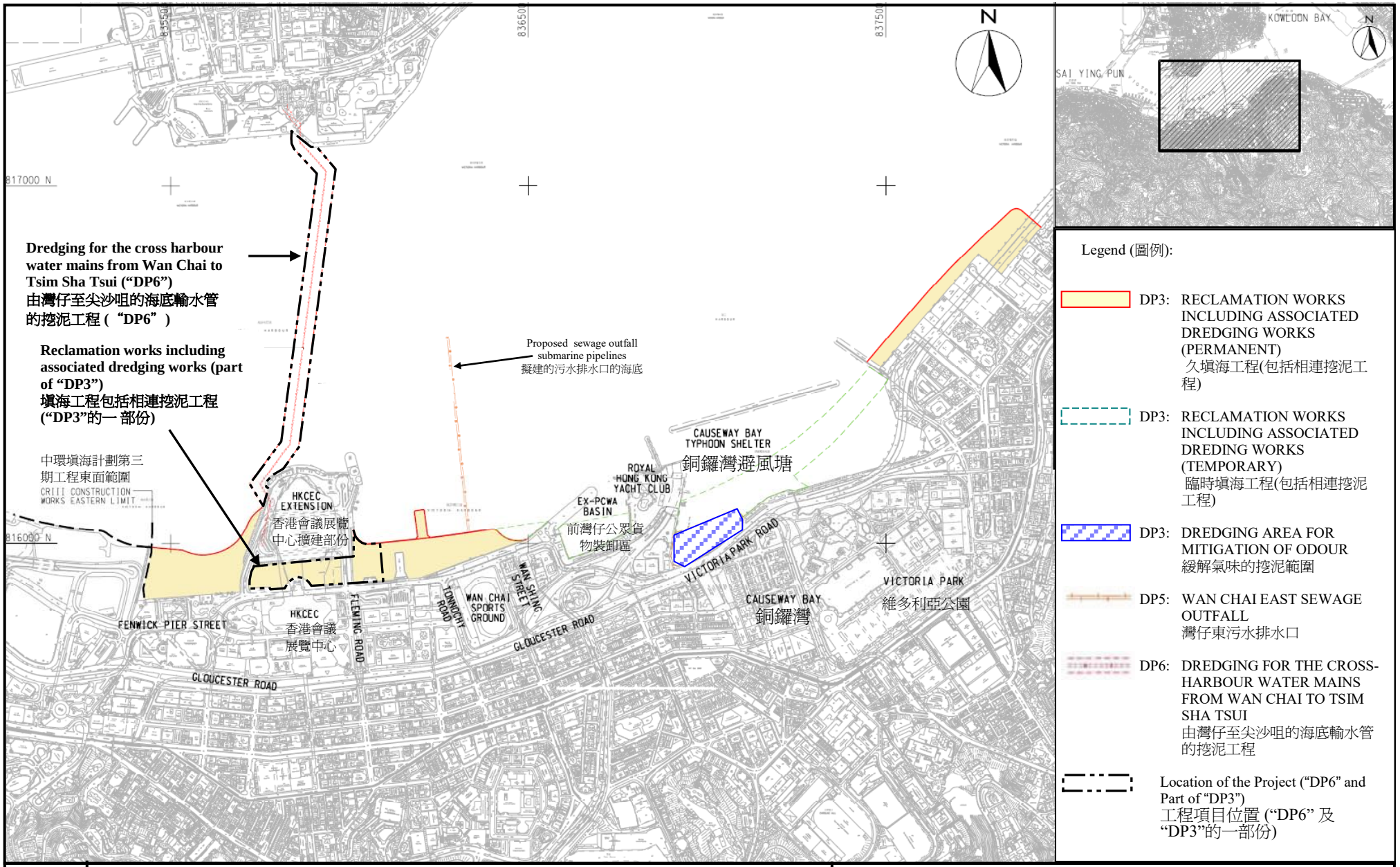


Project Title: Wan Chai Development Phase II and Central -Wan Chai Bypass - North Point Reclamation (Contract No. HY/2009/11)
工程項目名稱: 灣仔發展計劃第二期及中環灣仔繞道-北角填海工程(合約編號 HY/2009/11)

Environmental Permit No. : FEP-01/356/2009
環境許可證編號 : FEP-01/356/2009

Figure 2.1 (Sheet 1 of 8): Project Layout

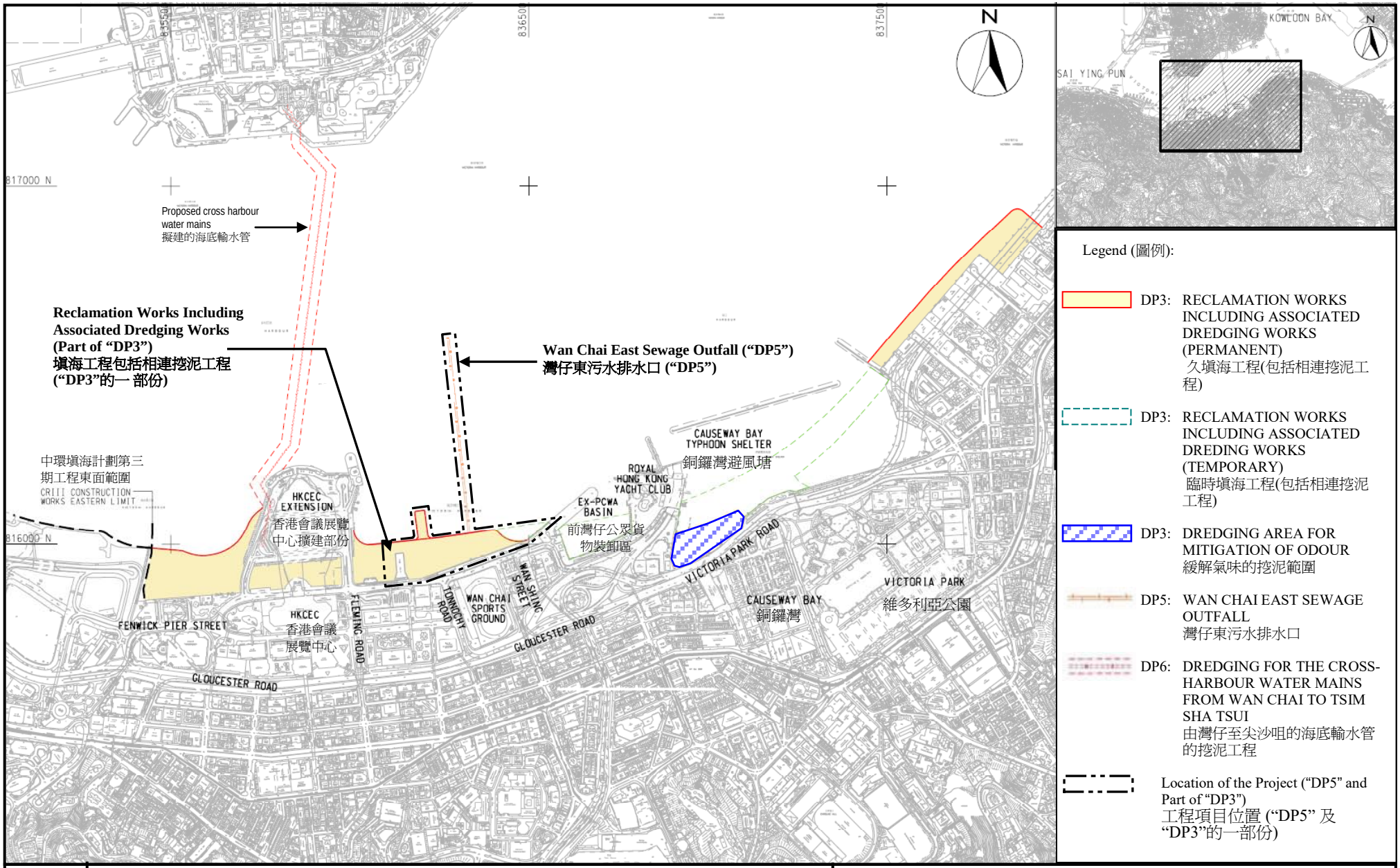
(This figure was prepared based on Figure 1 Application for Environmental Permit and attachments (Application No.: AEP-356/2009))
(本圖是根據環境許可證申請文件(申請書編號: AEP-356/2009)圖 1 編製)



Project Title: Wan Chai Development Phase II and Central -Wan Chai Bypass at Hong Kong Convention and Exhibition Centre (Contract No. HK/2009/01) - Marine Works
工程項目名稱 : 灣仔發展計劃第二期及中環灣仔繞道 - 香港會議展覽中心段 (合約編號 HK/2009/01) - 海事工程
Environmental Permit No. : FEP-02/356/2009
環境許可證編號 : FEP-02/356/2009

Figure 2.1 (Sheet 2 of 8): Project Layout

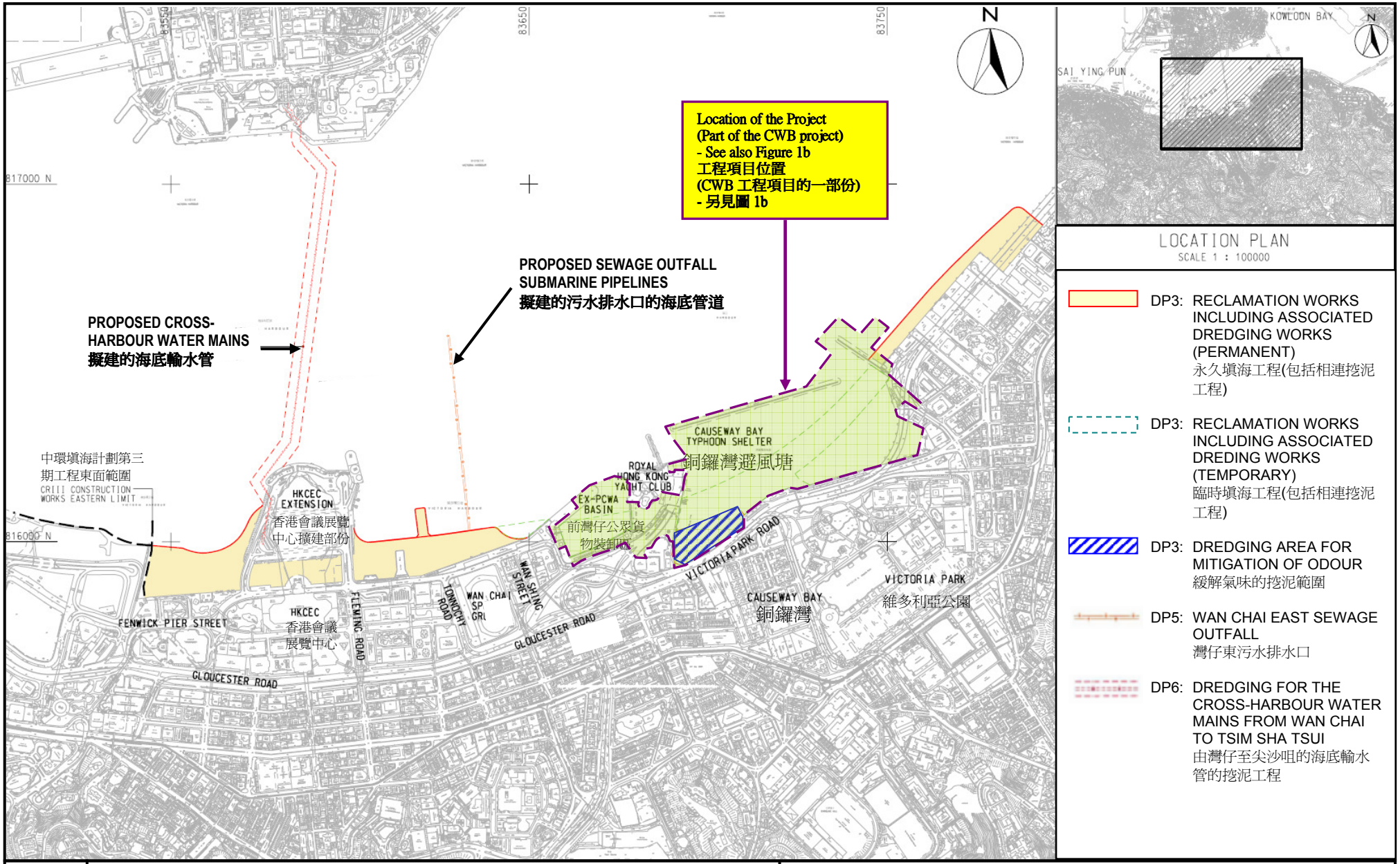
(This figure was prepared based on the drawings in Application for Further Environmental Permit No. FEP-103/2010 and Figure 1 of Application for Environmental Permit and attachments (Application No.: AEP-356/2009))
(本圖是根據申請新的環境許可證申請書編號 FEP-103/2010 內的佈局圖及環境許可證申請文件(申請書編號 : AEP-356/2009)圖 1 編製)



Project Title: Wan Chai Development Phase II and Central -Wan Chai Bypass at Wan Chai East (Contract No. HK/2009/02) - Marine Works
工程項目名稱: 灣仔發展計劃第二期及中環灣仔繞道 - 灣仔東段 (合約編號 HK/2009/02) - 海事工程
Environmental Permit No. : FEP-03/356/2009
環境許可證編號 : FEP-03/356/2009

Figure 2.1 (Sheet 3 of 8): Project Layout

(This figure was prepared based on Drawing No. 60041297/C2/100/1000B in Application for Further Environmental Permit No. FEP-105/2010)
(本圖是根據申請新的環境許可證申請書編號 FEP-105/2010 內的圖 60041297/C2/100/1000B 編製)



Project Title: Central - Wan Chai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section) (Contract No. HY/2009/15) - Marine Works
工程項目名稱: 中環灣仔繞道- 隧道工程(銅鑼灣避風塘段)(合約編號: HY/2009/15) - 海事工程

Environmental Permit No. : FEP- 04-356/2009
環境許可證編號 : FEP-04-356/2009

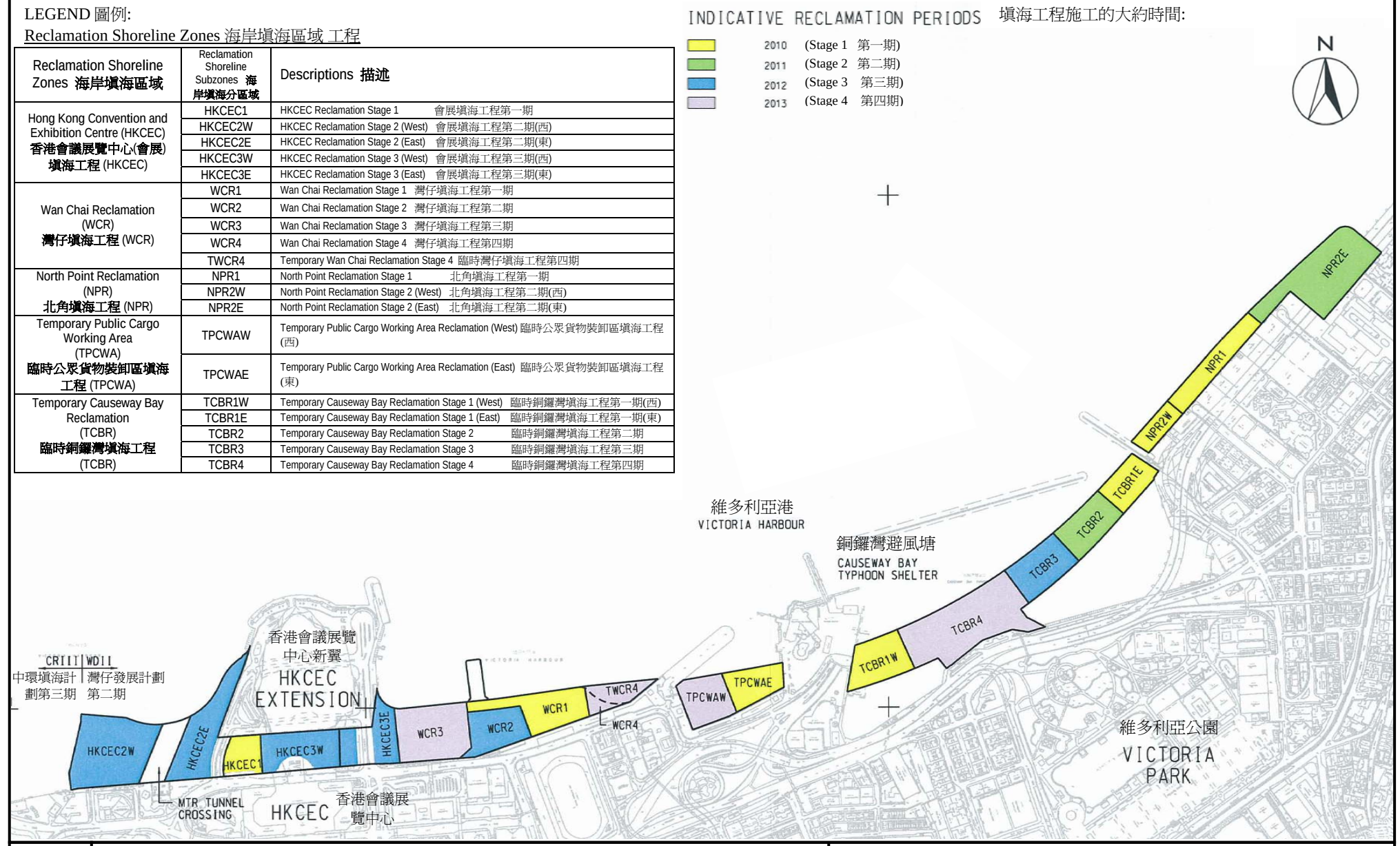
Figure 2.1 (Sheet 4 of 8): Project Layout

(This figure was prepared based on Figure 1 of Application for Further Environmental Permit (Application No.: FEP-117/2010))
(本圖是根據申請新的環境許可證 (申請書編號 FEP-117/2010) 圖 1 編製)

LEGEND 圖例:

Reclamation Shoreline Zones 海岸填海區域 工程

Reclamation Shoreline Zones 海岸填海區域	Reclamation Shoreline Subzones 海岸填海分區域	Descriptions 描述
Hong Kong Convention and Exhibition Centre (HKCEC) 香港會議展覽中心(會展)填海工程 (HKCEC)	HKCEC1	HKCEC Reclamation Stage 1 會展填海工程第一期
	HKCEC2W	HKCEC Reclamation Stage 2 (West) 會展填海工程第二期(西)
	HKCEC2E	HKCEC Reclamation Stage 2 (East) 會展填海工程第二期(東)
	HKCEC3W	HKCEC Reclamation Stage 3 (West) 會展填海工程第三期(西)
	HKCEC3E	HKCEC Reclamation Stage 3 (East) 會展填海工程第三期(東)
Wan Chai Reclamation (WCR) 灣仔填海工程 (WCR)	WCR1	Wan Chai Reclamation Stage 1 灣仔填海工程第一期
	WCR2	Wan Chai Reclamation Stage 2 灣仔填海工程第二期
	WCR3	Wan Chai Reclamation Stage 3 灣仔填海工程第三期
	WCR4	Wan Chai Reclamation Stage 4 灣仔填海工程第四期
	TWCR4	Temporary Wan Chai Reclamation Stage 4 臨時灣仔填海工程第四期
North Point Reclamation (NPR) 北角填海工程 (NPR)	NPR1	North Point Reclamation Stage 1 北角填海工程第一期
	NPR2W	North Point Reclamation Stage 2 (West) 北角填海工程第二期(西)
	NPR2E	North Point Reclamation Stage 2 (East) 北角填海工程第二期(東)
Temporary Public Cargo Working Area (TPCWA) 臨時公眾貨物裝卸區填海工程 (TPCWA)	TPCWAW	Temporary Public Cargo Working Area Reclamation (West) 臨時公眾貨物裝卸區填海工程(西)
	TPCWAE	Temporary Public Cargo Working Area Reclamation (East) 臨時公眾貨物裝卸區填海工程(東)
Temporary Causeway Bay Reclamation (TCBR) 臨時銅鑼灣填海工程 (TCBR)	TCBR1W	Temporary Causeway Bay Reclamation Stage 1 (West) 臨時銅鑼灣填海工程第一期(西)
	TCBR1E	Temporary Causeway Bay Reclamation Stage 1 (East) 臨時銅鑼灣填海工程第一期(東)
	TCBR2	Temporary Causeway Bay Reclamation Stage 2 臨時銅鑼灣填海工程第二期
	TCBR3	Temporary Causeway Bay Reclamation Stage 3 臨時銅鑼灣填海工程第三期
	TCBR4	Temporary Causeway Bay Reclamation Stage 4 臨時銅鑼灣填海工程第四期



Project Title: Wan Chai Development Phase II - Central-Wan Chai Bypass over MTR Tsuen Wan Line (Contract no. HK/2010/06) - Marine Work

工程項目名稱: 灣仔發展計劃第二期 - 橫跨港鐵荃灣線段的中環灣仔繞道 (合約號碼 HK/2010/06) - 海事工程

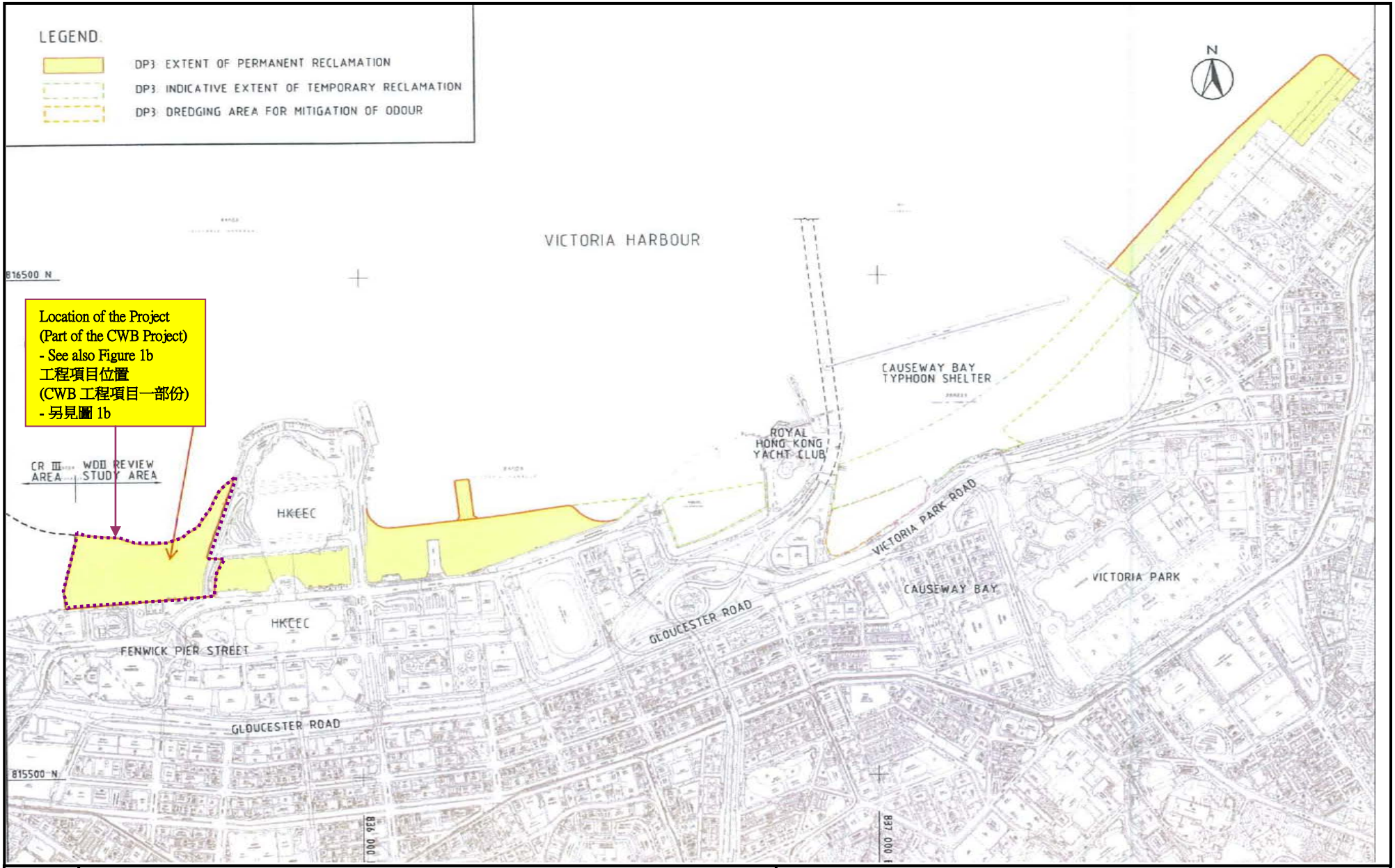
Environmental Permit No. : FEP-05/ 356/2009

環境許可證編號 : FEP-05/356/2009

Figure 2.1 (Sheet 5 of 8): Project Layout

(This figure was prepared based on Figure 2 Application for Environmental Permit and attachments (Application No.: AEP-356/2009))

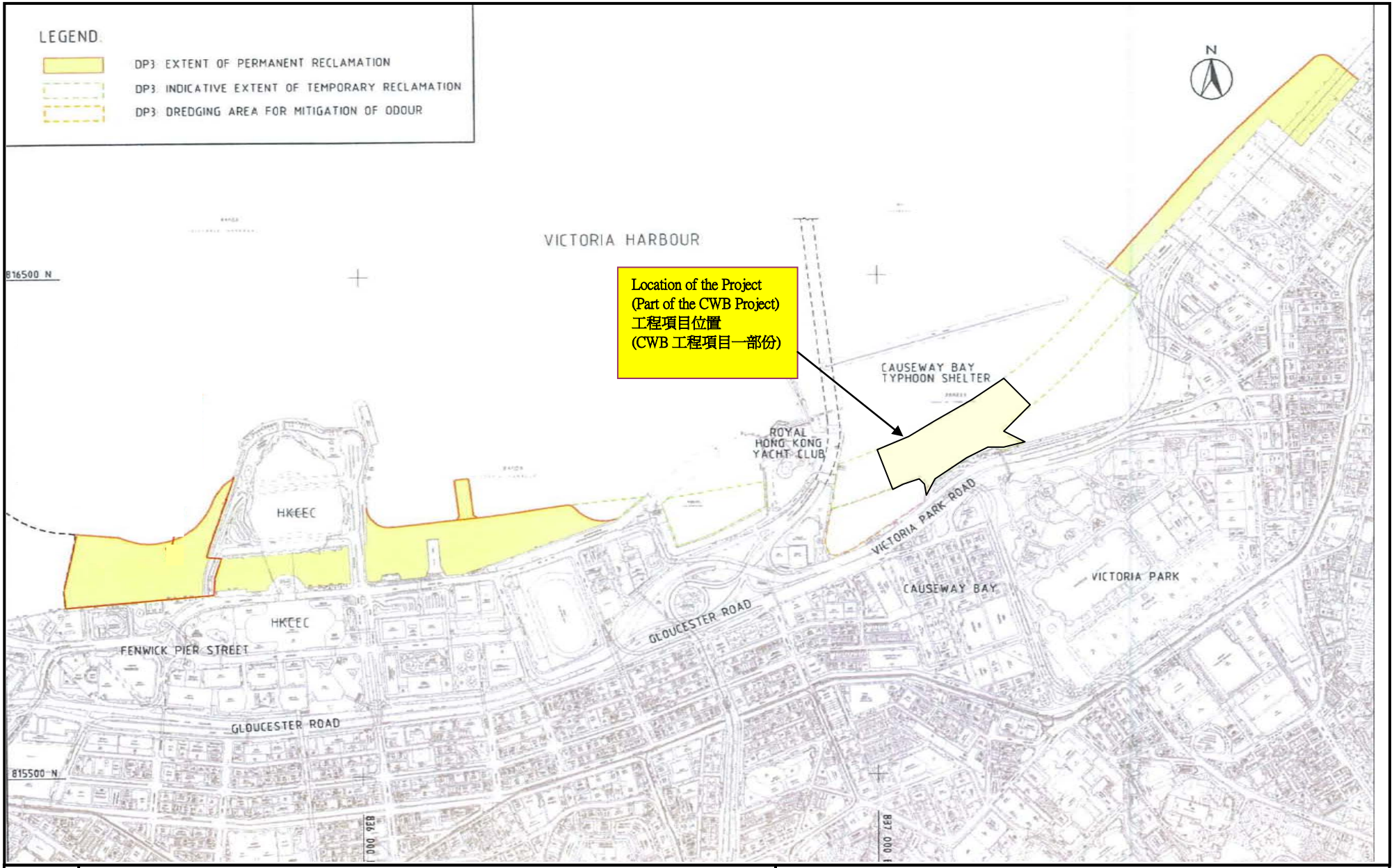
(本圖是根環境許可證申請文件(申請書編: AEP-356/2009)圖 2 編製)



Project Title: Wan Chai Development Phase II – Central Wan Chai Bypass at Wan Chai West (Contract No. HK/2012/08) – Marine Works
工程項目名稱: 灣仔發展計劃第二期 - 中環灣仔繞道-灣仔西段(合約編號:HK/2012/08)-海事工程
Environmental Permit No. : FEP-06/356/2009
環境許可證編號 : FEP-06/356/2009

Figure 2.1 (Sheet 6 of 8): Project Layout

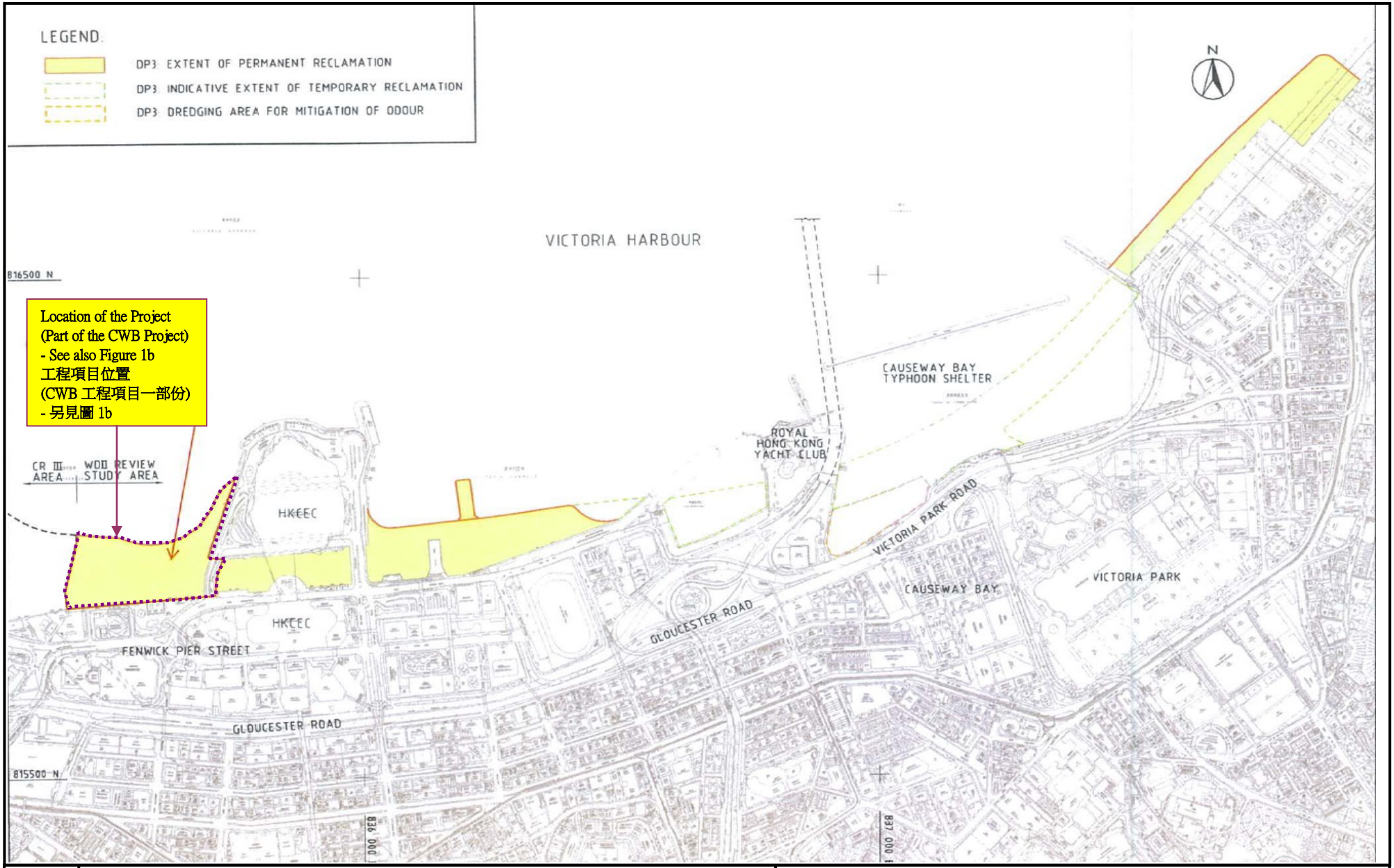
(This figure was prepared based on Figure 1a of Application for Further Environmental Permit (Application No.: FEP-145/2013)
(本圖是根據申請新的環境許可證 (申請書編號 FEP-145/2013) 圖 1a 編製)



Project Title: Wan Chai Development Phase II – Central Wan Chai Bypass - Tunnel (Slip Road 8 Section) (Contract No. HY/2010/08) – Marine Works
工程項目名稱: 灣仔發展計劃第二期 - 中環灣仔繞道-八號連接路段隧道工程（合約編號：HY/2010/08）- 海事工程
Environmental Permit No. : FEP- 07/356/2009
環境許可證編號 : FEP-07/356/2009

Figure 2.1 (Sheet 7 of 8): Project Layout

(This figure was prepared based on Figure 1 of Application for Environmental Permit (Application No.: AEP-356/2009)
(本圖是根據申請新的環境許可證 (申請書編號 AEP-356/2009) 圖 1 編製)



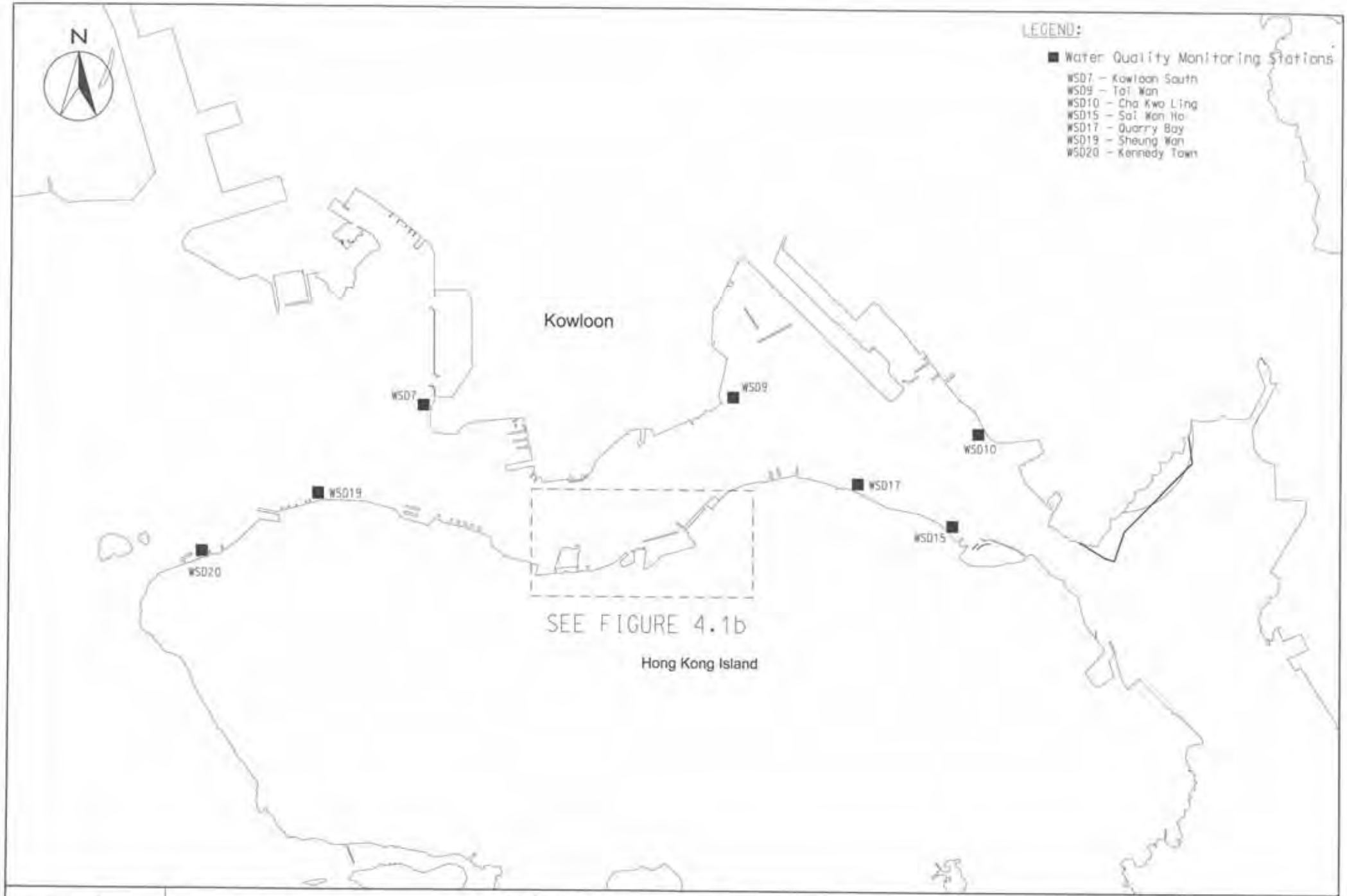
Project Title: Wan Chai Development Phase II – Central Wan Chai Bypass at Wan Chai West (Contract No. HK/2012/08) – Marine Works
工程項目名稱: 灣仔發展計劃第二期 - 中環灣仔繞道-灣仔西段(合約編號:HK/2012/08)-海事工程
Environmental Permit No. : FEP-08/356/2009
環境許可證編號 : FEP-08/356/2009

Figure 2.1 (Sheet 8 of 8): Project Layout

(This figure was prepared based on Figure 1a of Application for Further Environmental Permit (Application No.: FEP-172/2016)
(本圖是根據申請新的環境許可證 (申請書編號 FEP-172/2016) 圖 1a 編製)

Figure 3.1

Locations of Monitoring Stations



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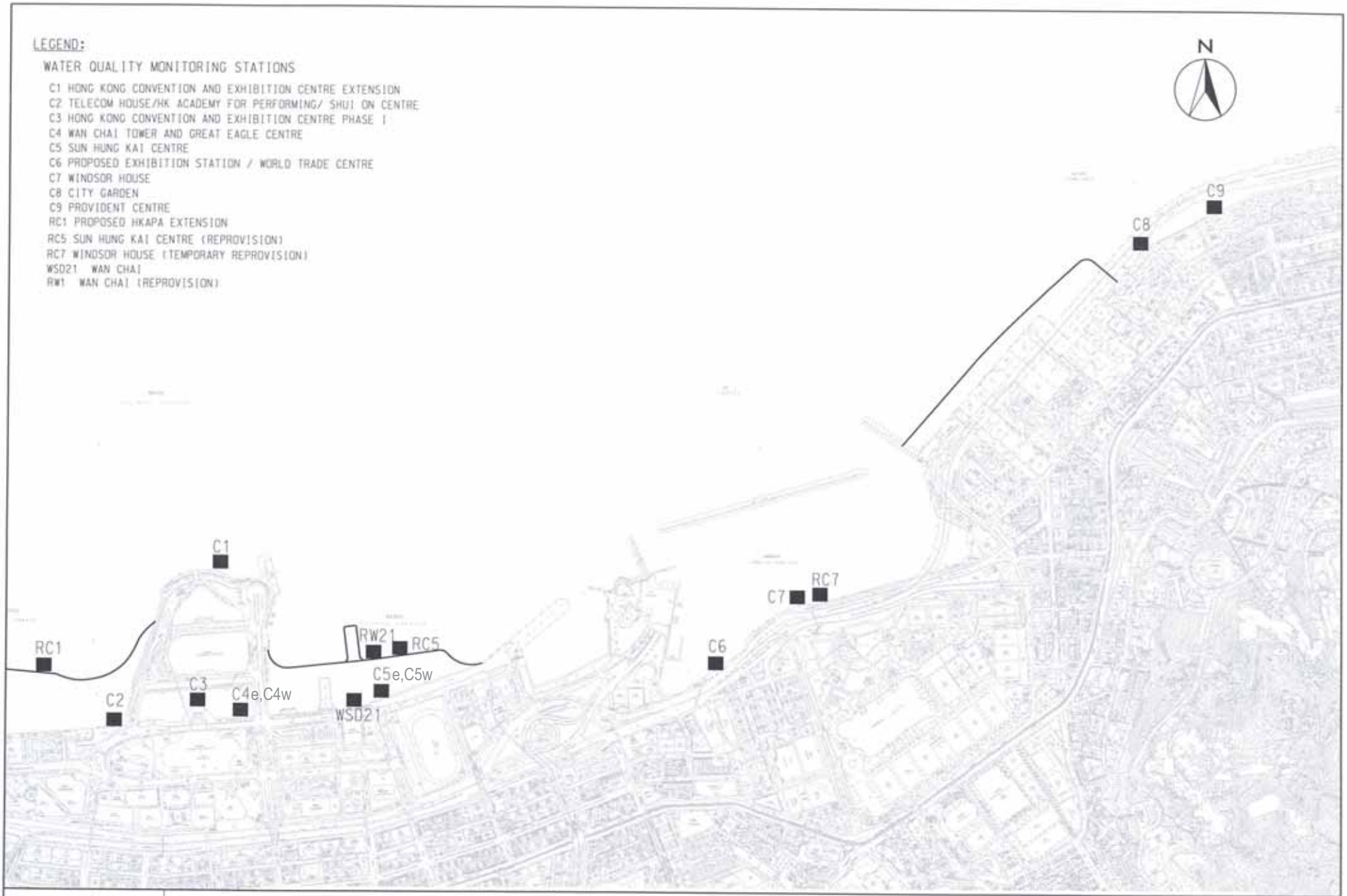
WAN CHAI DEVELOPMENT PHASE II - PLANNING AND ENGINEERING REVIEW

LOCATIONS OF WATER QUALITY MONITORING STATIONS

(SHEET 1 OF 2)

FIGURE 4.1a

P:/60017193/REPORT/DRAWINGS/EM&A-0708/WQ/4.1A.DGN SCALE: N.T.S. (A3)



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WAN CHAI DEVELOPMENT PHASE II - PLANNING AND ENGINEERING REVIEW

LOCATIONS OF WATER QUALITY MONITORING STATIONS

(SHEET 2 OF 2)

FIGURE 4.1b

P:/60017193/REPORT/DRAWINGS/EM&A-0708/WQ/4.1B.DGN SCALE 1:8000 (A3)

Legend

Enhance DO Monitoring Stations

Ex-PCWA SE Ex-Public Cargo Wanchai Area SouthEast Station

Ex-PCWA SW Ex-Public Cargo Wanchai Area Southwest Station

C6 Proposed Exhibition Station/ World Trade Centre

C7 Windsor House

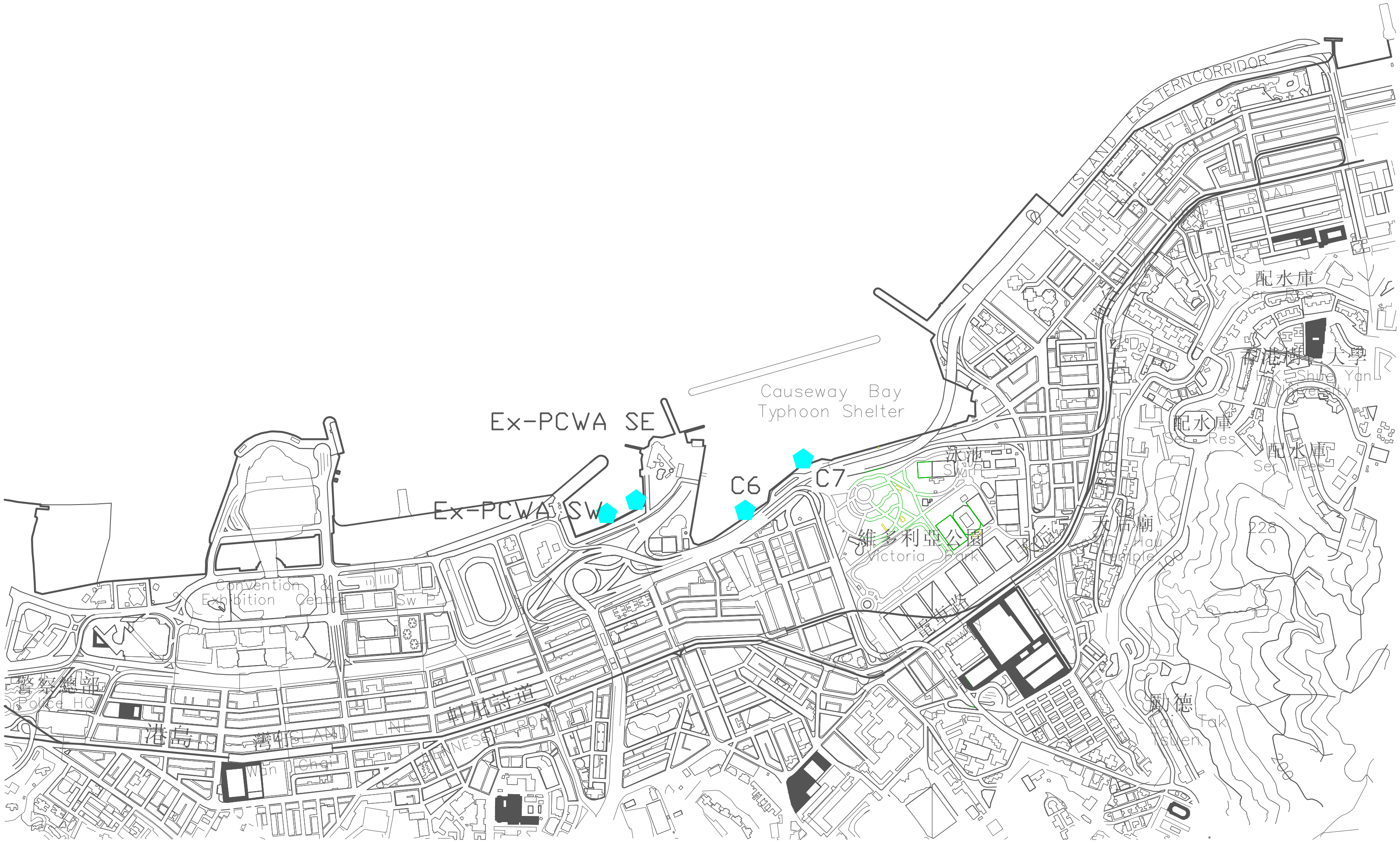


FIGURE	**LOCATIONS OF ENHANCE DO MONITORING STATIONS**

Legend

Water Quality Monitoring Stations

RW21-P789 (Wanchai WSD intake/ Great Eagle Centre/ China Resources Centre/ Sun Hung Kai Centre)

C1 Hong Kong Convention and Exhibition Centre Extension

P1 Hong Kong Convention and Exhibition Centre Phase 1

P3 HK Academy For Performing Art

P4 Shui On Centre

P5 Government buildings (Wanchai Tower/ Revenue Tower/ Immigration Tower)

C6 Proposed Exhibition Station/ World Trade Centre

C7 Windsor House

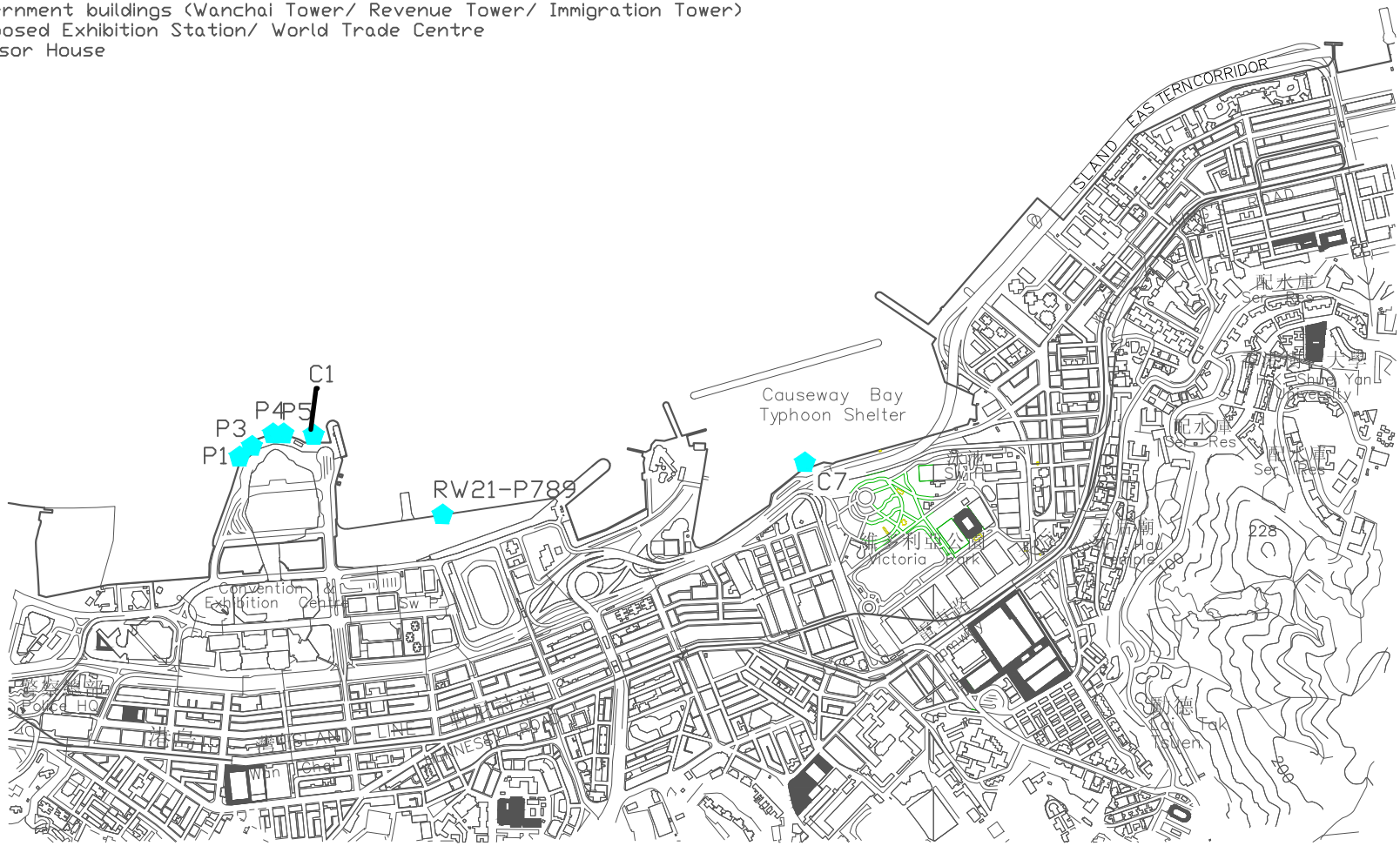
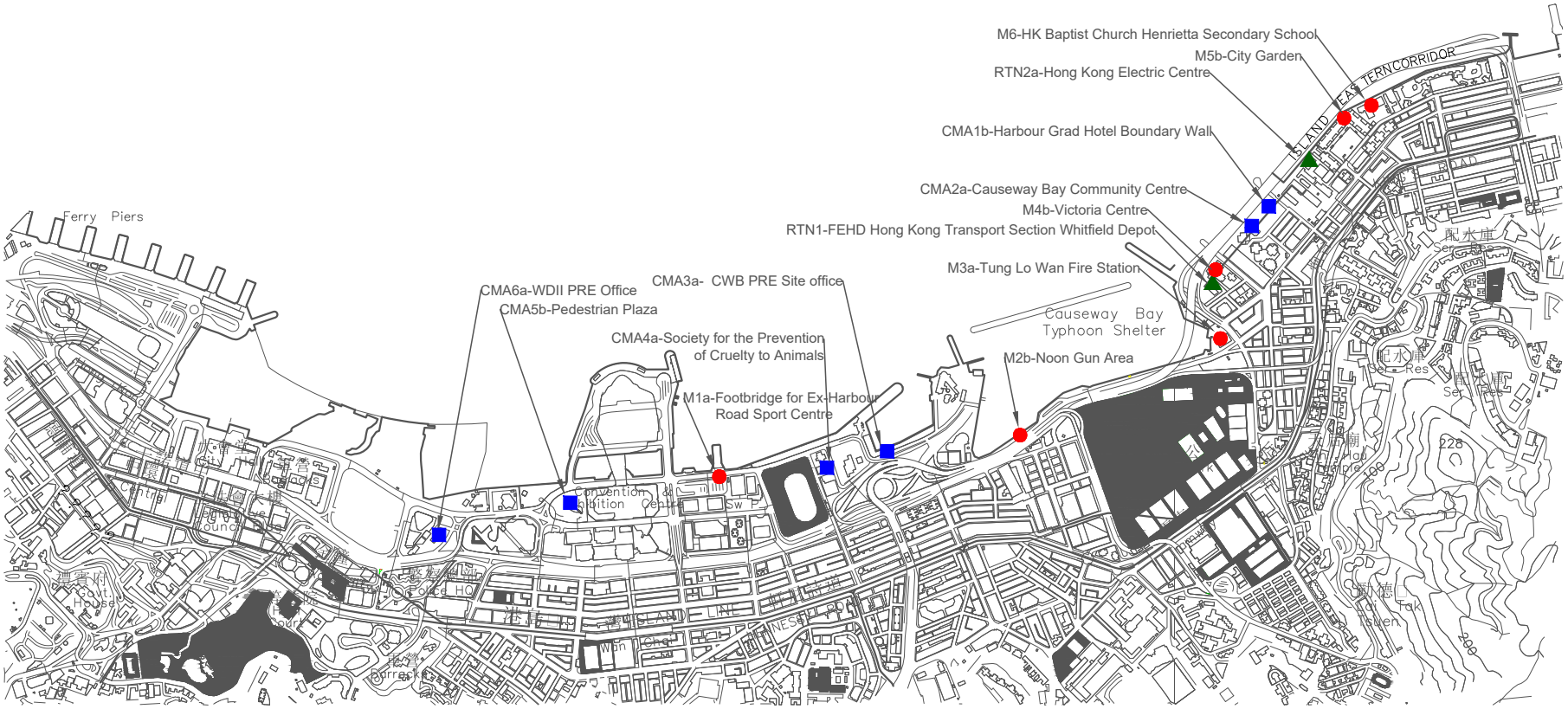
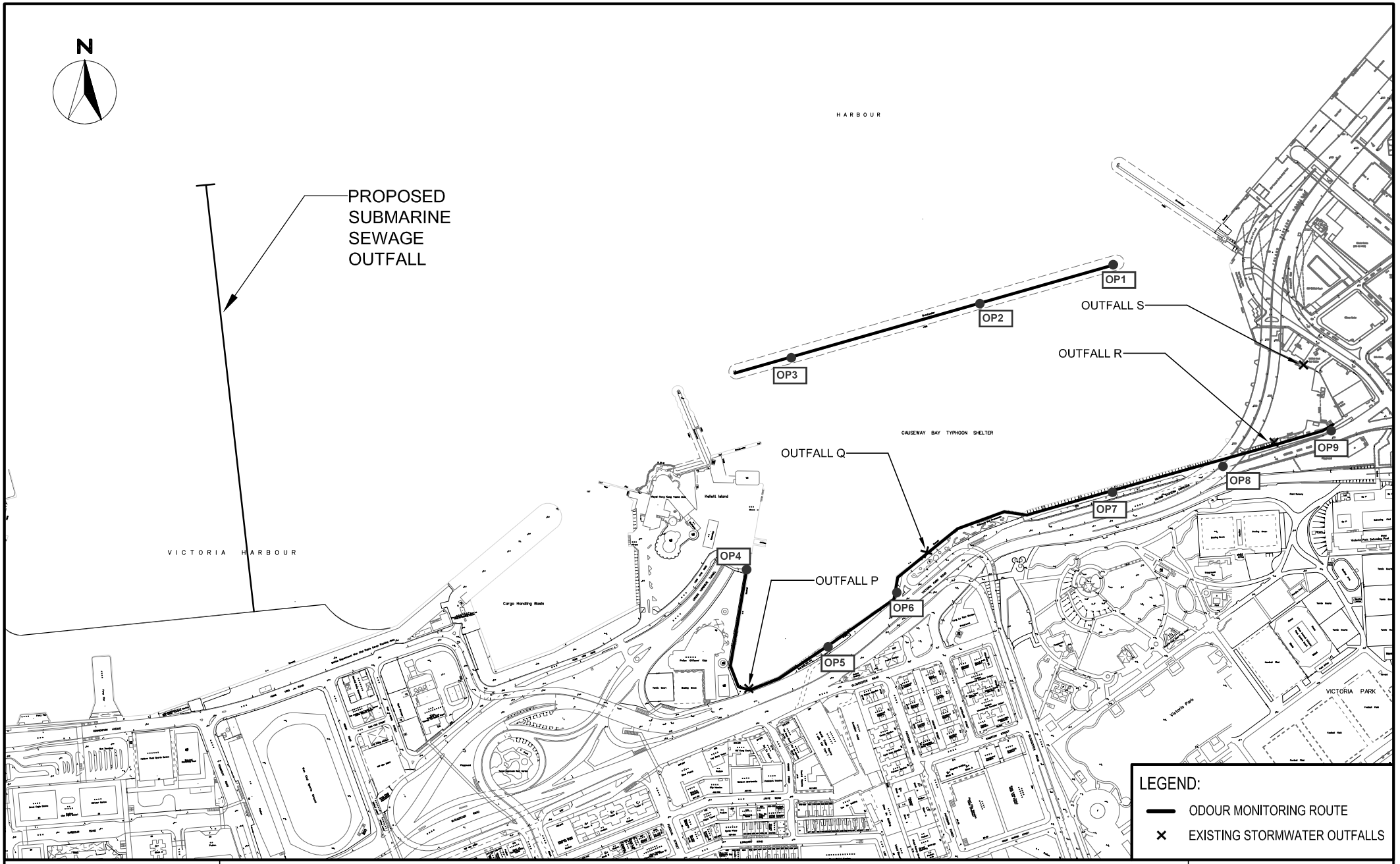


FIGURE	LOCATIONS OF WATER QUALITY MONITORING STATIONS



LOCATIONS OF AIR QUALITY AND NOISE MONITORING STATIONS



Location Plan for Odour Monitoring Station

Figure 3.1

Appendix 3.1

Action and Limit Level

Action and Limit Level

Action and Limit Level for Noise Monitoring

Time Period	Action Level	Limit Level
07:00 – 19:00 hours on normal weekdays	When one documented complaint is received.	75 dB(A)[Note 1]

Note 1:
- 70dB(A) and 65 dB(A) for schools during normal teaching periods and school examination periods, respectively.
- If works are to be carried out during the restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

Action and Limit Level for Air Quality Monitoring

Monitoring Location	1-hour TSP Level in $\mu g/m^3$		24-hour TSP Level in $\mu g/m^3$	
	Action Level	Limit Level	Action Level	Limit Level
CMA1b	320.1	500	176.7	260
CMA2a	323.4	500	169.5	260
CMA3a	311.3	500	171.0	260
CMA4a	312.5	500	171.2	260
CMA5b	332.0	500	181.0	260
CMA6a	300.1	500	187.3	260

Action and Limit Level for Water Quality Monitoring

Parameters	Dry Season		Wet Season	
	Action	Limit	Action	Limit
WSD Salt Water Intake				
SS in mg L^{-1}	13.00	14.43	16.26	19.74
Turbidity in NTU	8.04	9.49	10.01	11.54
DO in mg/L	3.66	3.28	3.17	2.63
Cooling Water Intake				
SS in mg L^{-1}	15.00	22.13	18.42	27.54
Turbidity in NTU	9.10	10.25	11.35	12.71
DO in mg/L	3.36	2.73	3.02	2.44

Remarks:
- Action and Limit Level for the wet season are applied after the EPD approval of Updated EM&A Manual on 29 April 2011.

Action and Limit Level for Enhance DO Monitoring

Parameters	Depth	Dry Season		Wet Season	
		Action	Limit	Action	Limit
C6	Surface and Middle	3.13	2.00	2.60	2.00
	Bottom	4.14	3.33	2.91	2.34
C7	Surface and Middle	3.87	3.09	3.31	2.57
	Bottom	3.91	3.53	2.75	2.48
Ex-WPCWA SW	Surface and Middle	3.84	3.73	3.19	3.10
	Bottom	4.71	4.63	3.31	3.25
Ex-WPCWA SE	Surface and Middle	4.26	3.61	3.55	3.00
	Bottom	5.36	5.35	3.76	3.76

Action and Limit Levels for Odour Patrol

Parameters	Action	Limit
Odour Nuisance (from odour intensity analysis or odour patrol)	• When two documented complaint are received; or • Odour Intensity of 2 is measured from odour intensity analysis.	• Five or more consecutive genuine documented complaints within a week; or • Odour Intensity of 3 or above is measured from odour intensity analysis.

Appendix 4.1

Event and Action Plan

Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Action Level being exceeded	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals. (The above actions should be taken within 2 working days after the exceedance is identified)

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Limit Level being exceeded	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. 4. Identify source and investigate the cause of exceedance; 5. 5. Carry out analysis of Contractor's working procedures; 6. 6. Discuss with the IEC, Contractor and ER on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)

Event / Action Plan for Construction Air Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Notify Contractor. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)

Event and Action Plan for Marine Water Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Action level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next working day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Limit level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET , IEC and ER and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Limit level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures; Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3working days; Implement the agreed mitigation measures; As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities. (The above actions should be taken within 1 working day after the exceedance is identified)

Event and Action Plan for Odour Patrol

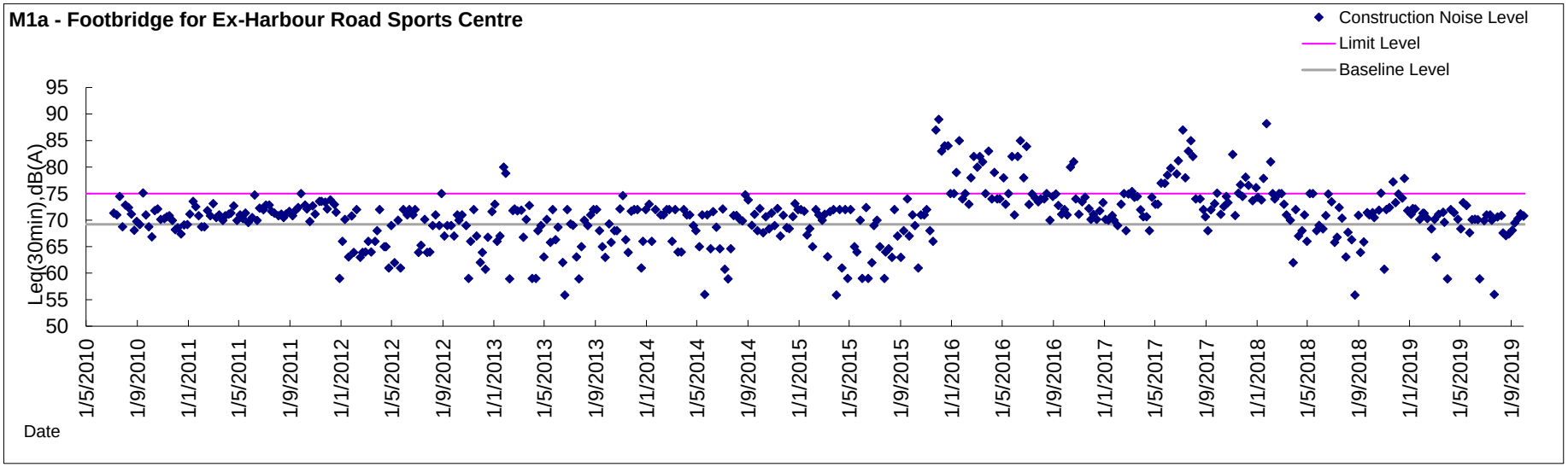
Event	ACTION	
	Person-in-charge of Odour Monitoring	**Implementation Agent Identified by CEDD**
Action Level		
Exceedance of Action Level	1. Identify source/reason of exceedance; 2. Repeat odour patrol to confirm finding.	1. Carry out investigation to identify the source/reason of exceedance; 2. Rectify any unacceptable practice 3. Implement more mitigation measures if necessary; 4. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.
Limit Level		
Exceedance of Limit Level	1. Identify source / reason of exceedance; 2. Repeat odour patrol to confirm findings; 3. Increase odour patrol frequency; 4. If exceedance stops, cease additional odour patrol.	1. Carry out investigation to identify the source/reason of exceedance. Investigation shall be completed within 2 weeks; 2. Rectify any unacceptable practice; 3. Formulate remedial actions; 4. Ensure remedial actions properly implemented; 5. If exceedance continues, consider what more/enhanced mitigation measures shall be implemented; 6. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.

Appendix 4.2

Graphical Presentations of Noise Monitoring Data

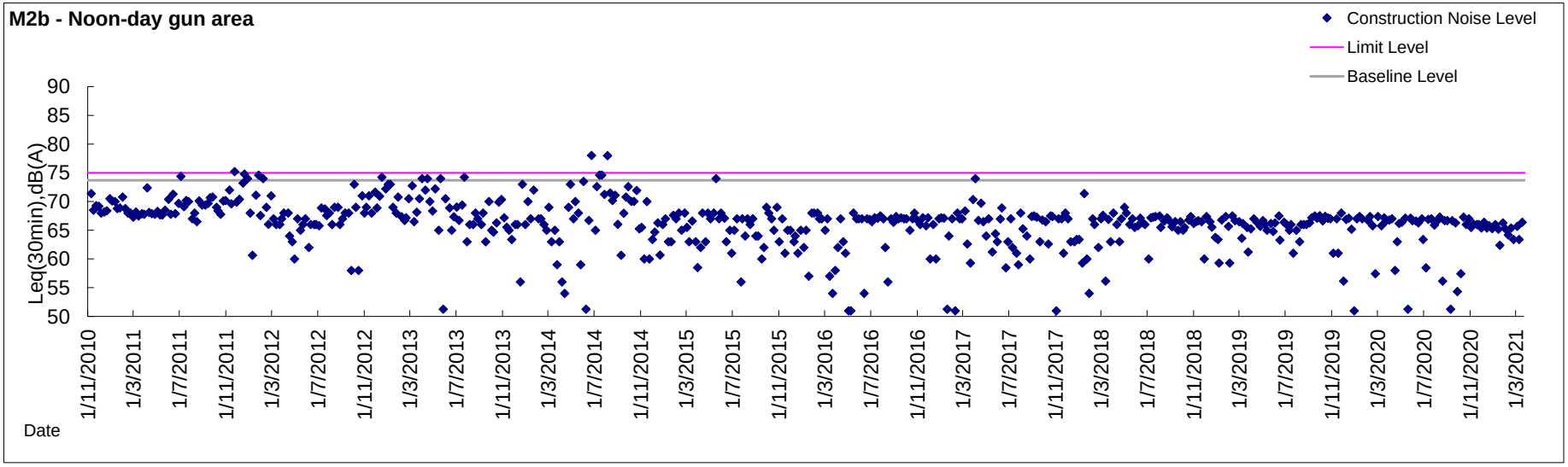
Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)



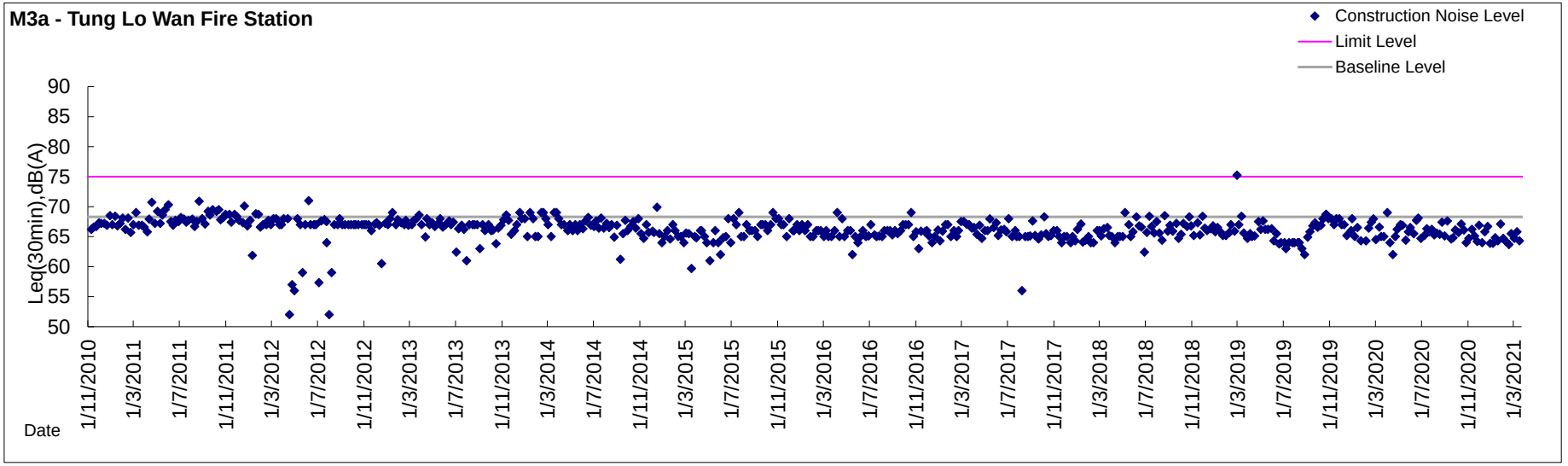
Remark:

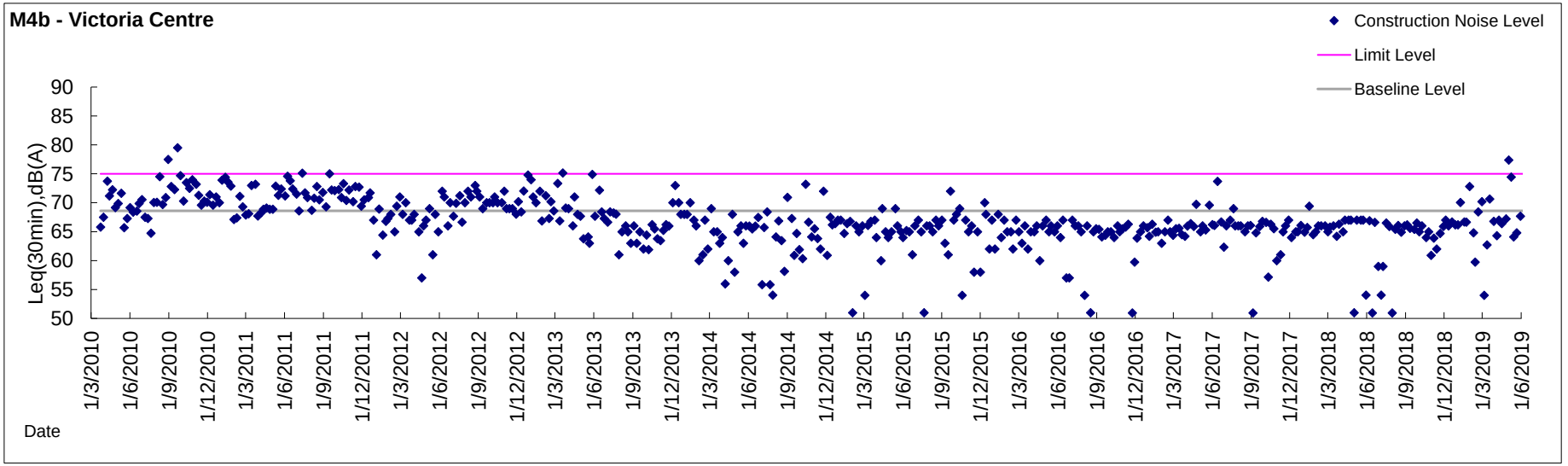
With respect to the demolition of Ex-Harbour Road Sports Centre, the respective noise monitoring station M1a – Harbour Road Sports Centre were finely adjusted on 16 and 25 May 2017 and thereafter to the Footbridge for Harbour Road Sports for noise monitoring



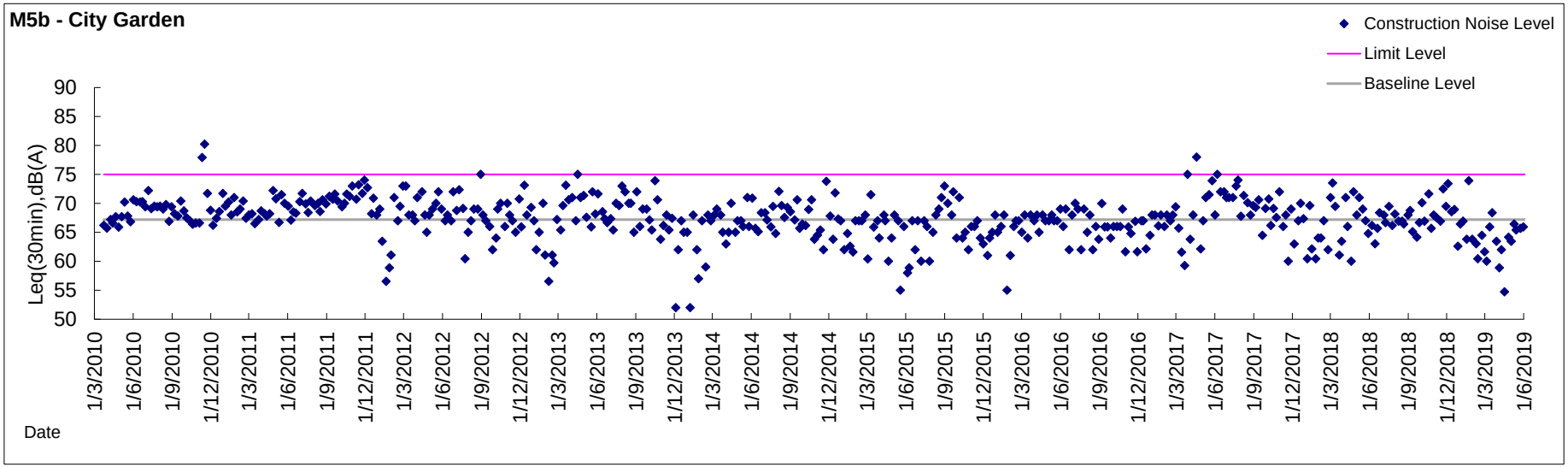
Graphic Presentation of Noise Monitoring Result

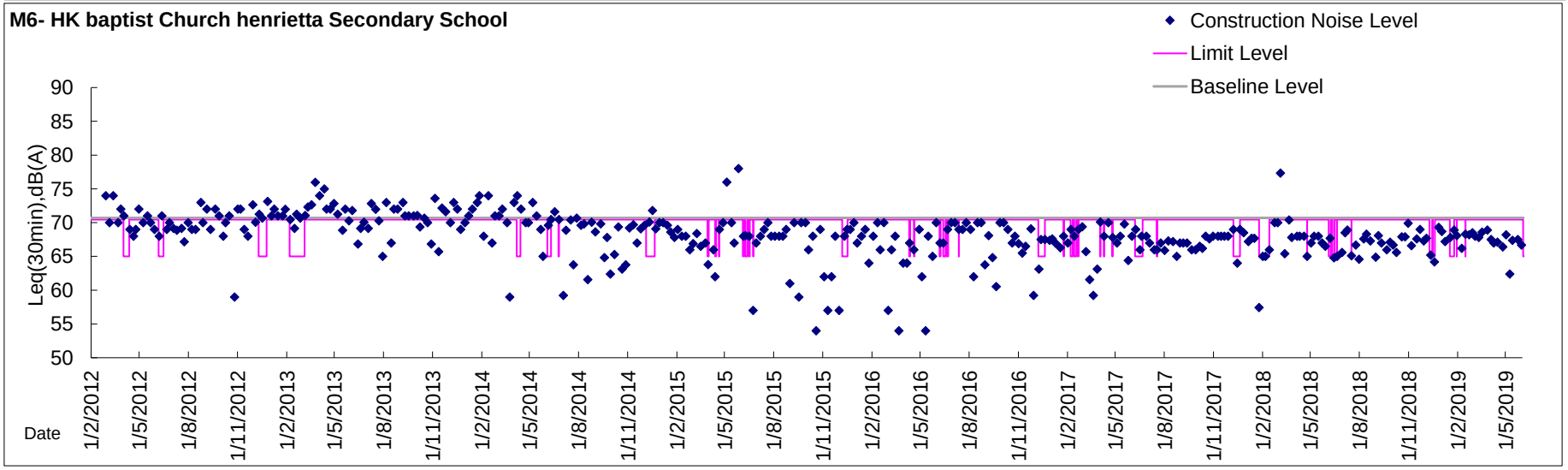
Day Time (0700 - 1900hrs on normal weekdays)





Graphic Presentation of Noise Monitoring Result
Day Time (0700 - 1900hrs on normal weekdays)

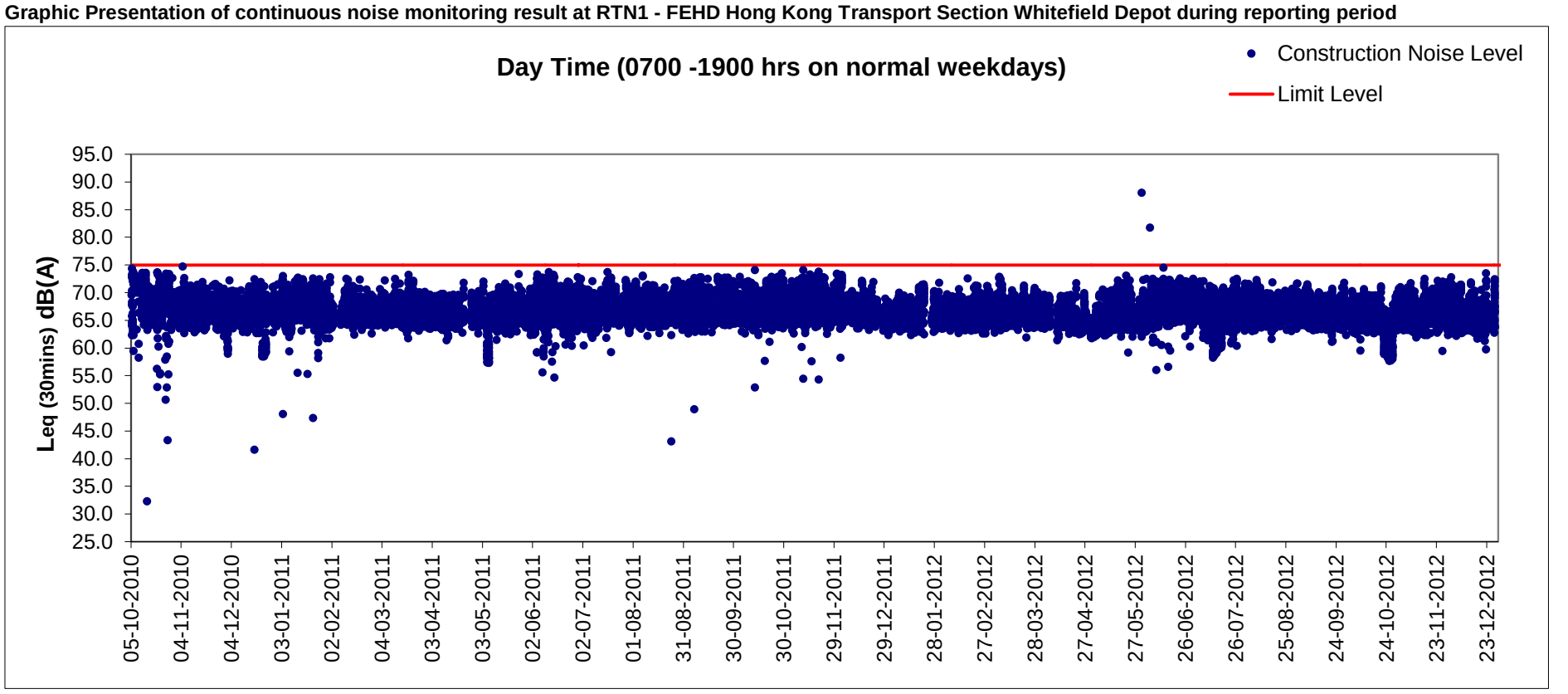


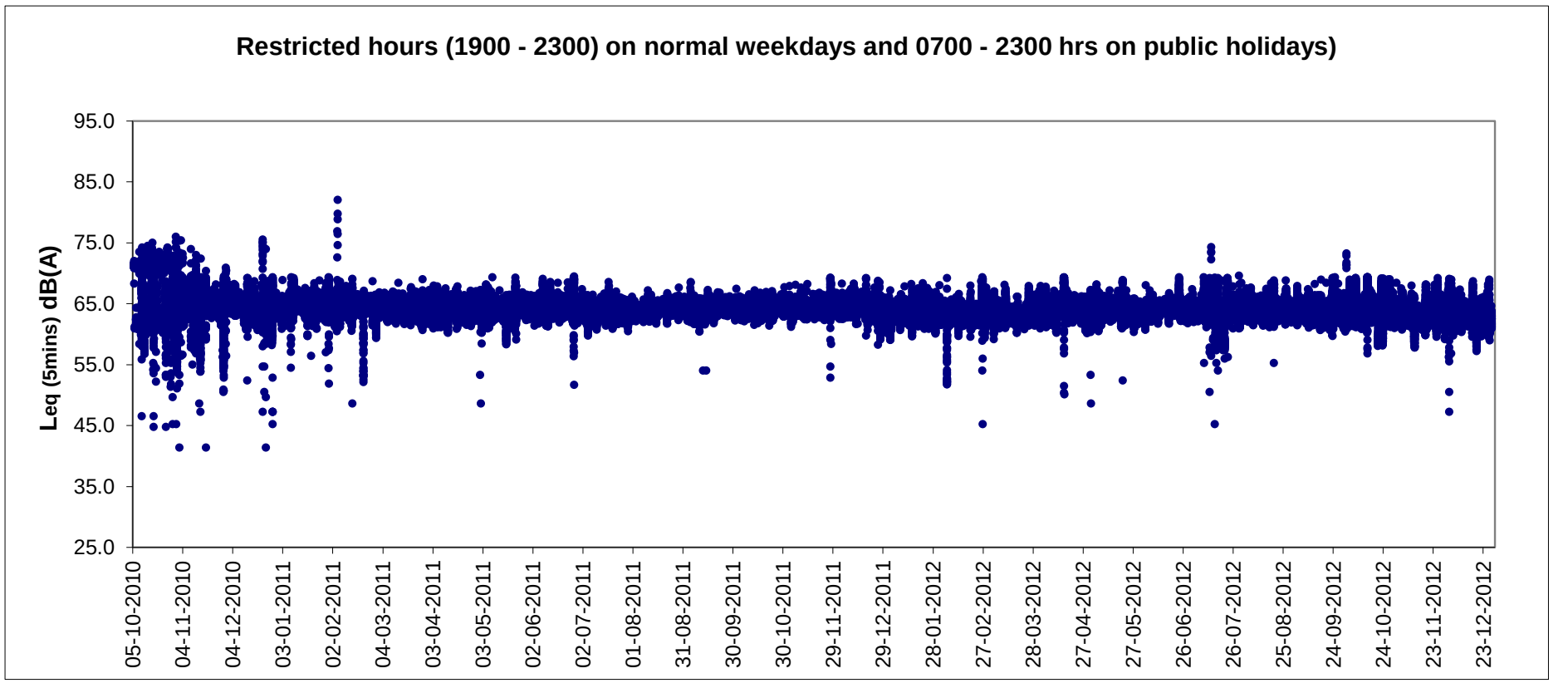


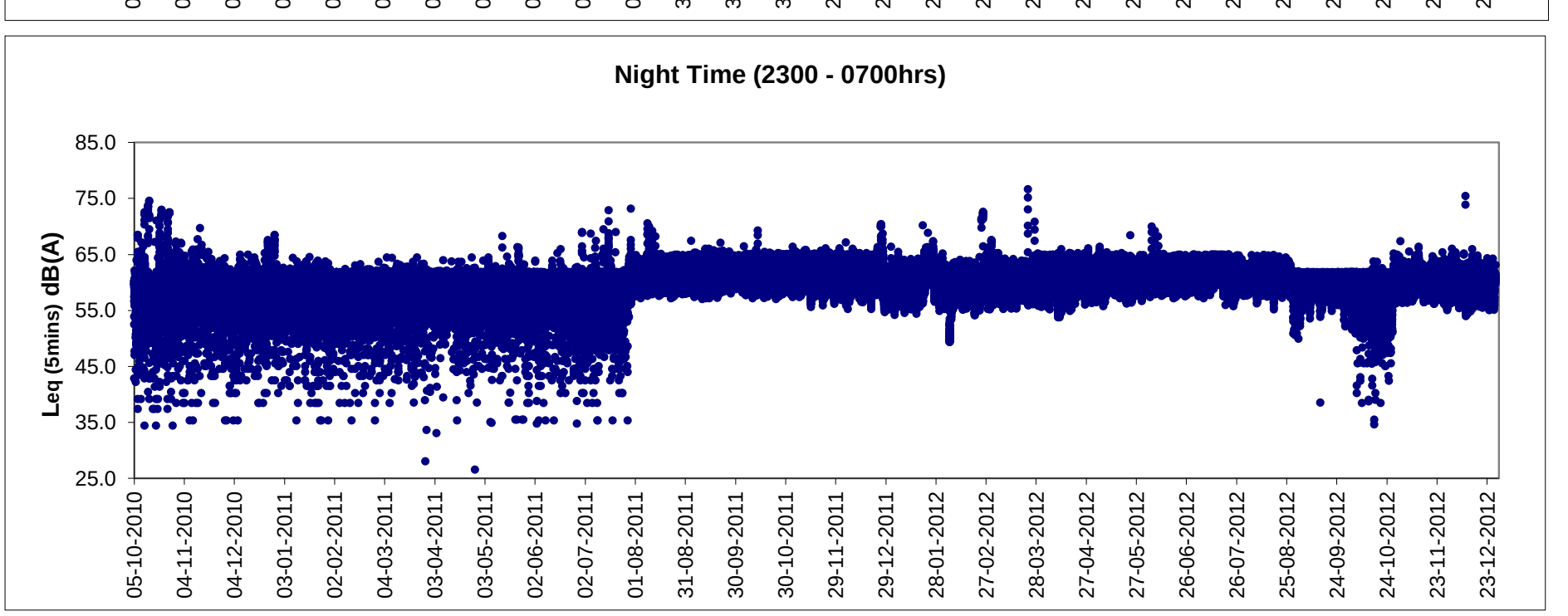
Appendix 4.3

Graphical Presentations of Continuous Noise Monitoring Data

Graphic Presentation of continuous noise monitoring result at RTN1 - FEHD Hong Kong Transport Section Whitefield Depot during reporting period



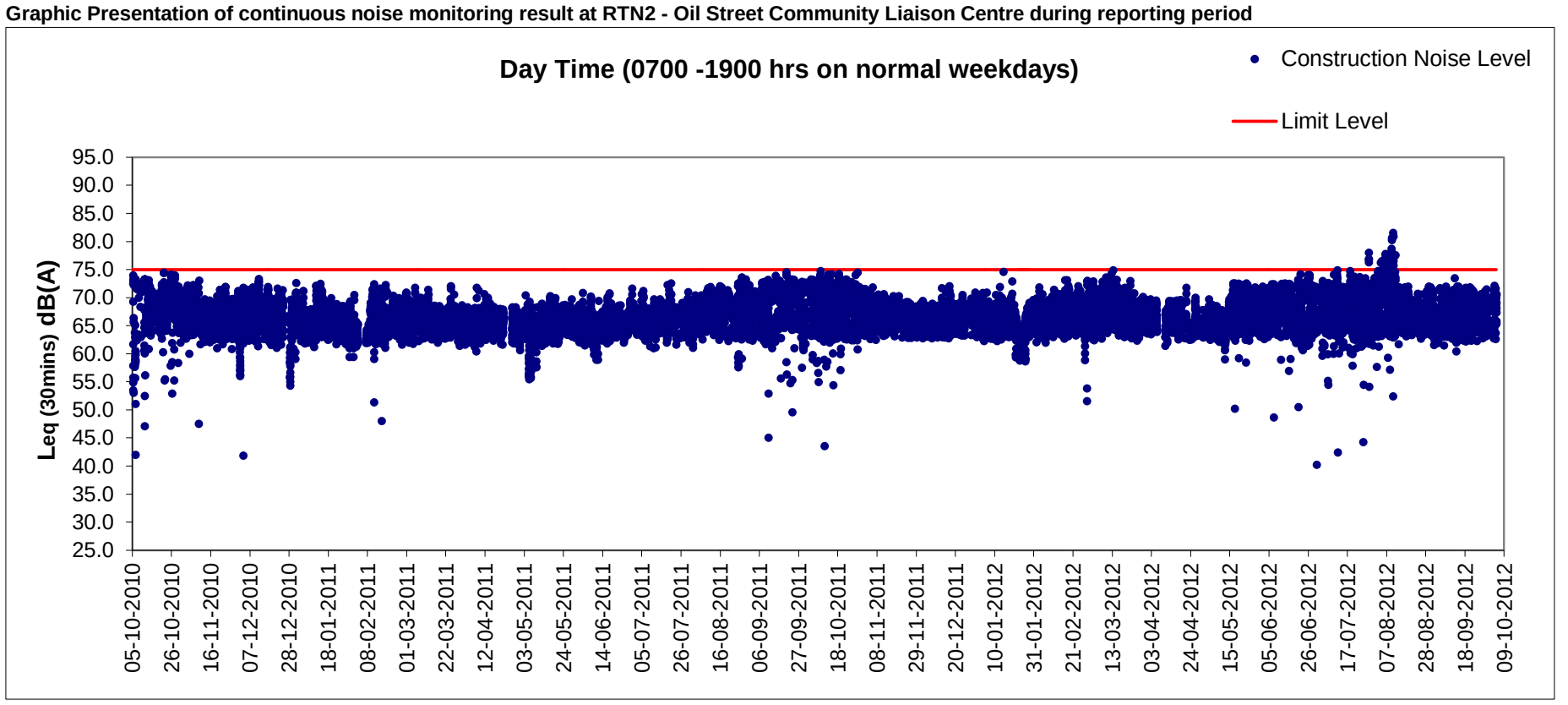


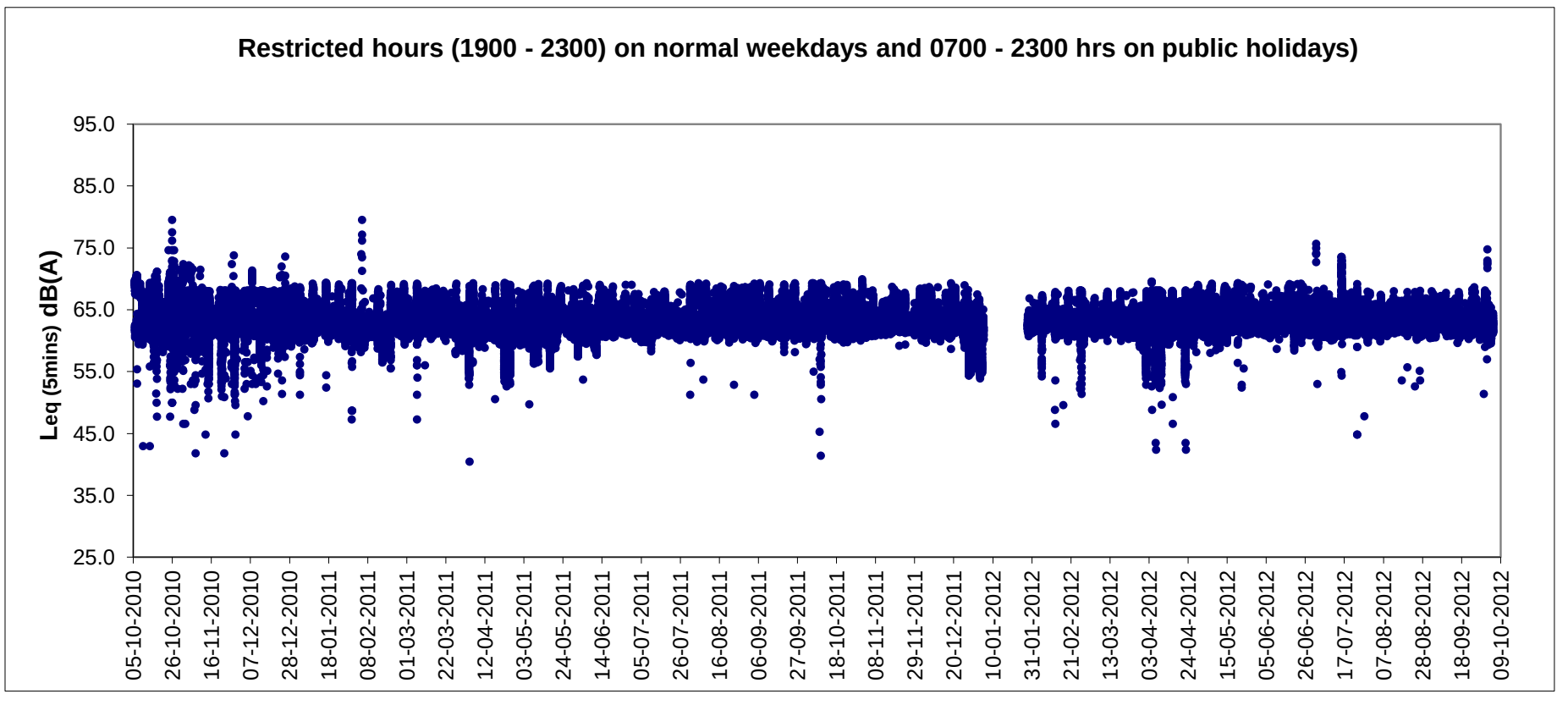


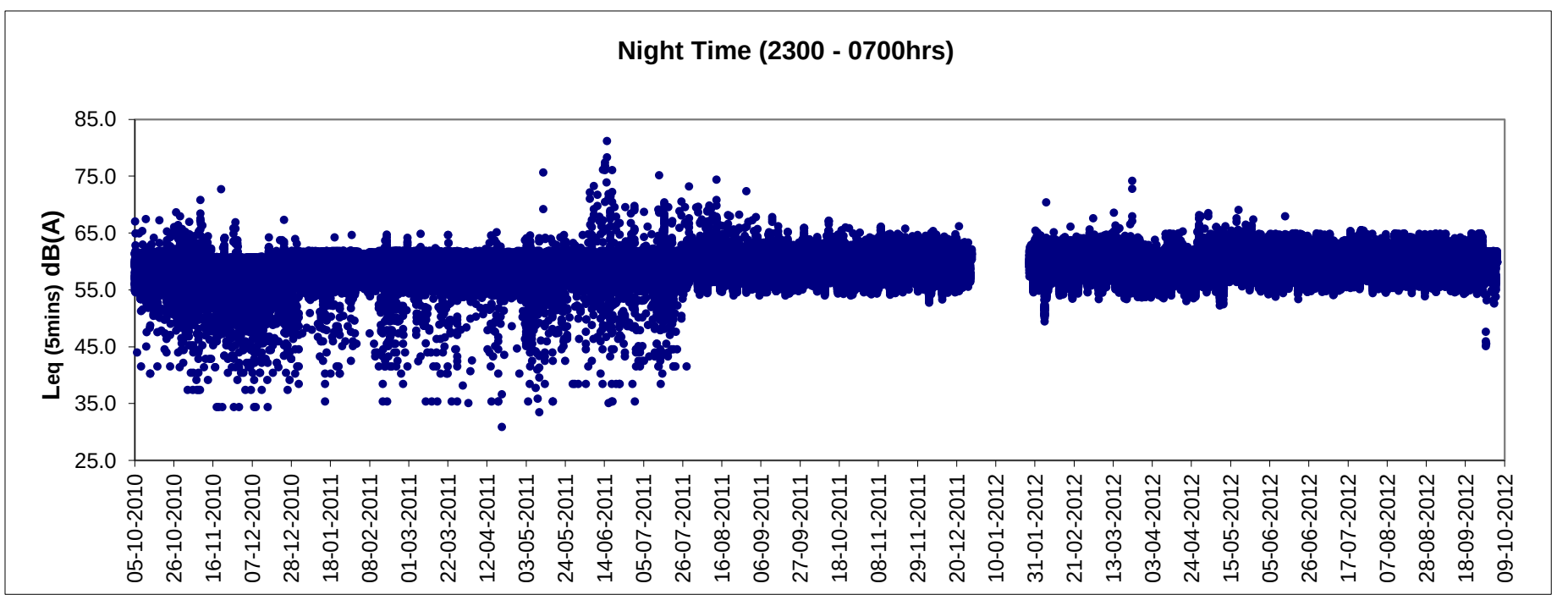
Remark:

As the land-based piling and filling works under DP3 at Tin Hau had been completed on 3 September 2012 and the marine piling works at North Point has been completed on 4 March 2013 as confirmed by RSS, the reporting of real-time noise monitoring results for RTN1 - FEHD Hong Kong Transport Section Whitfield Depot and RTN2a – Hong Kong Electric Centre was excluded from EP-356/2009 from November 2012 and January 2016 respectively while the reporting of the real-time noise monitoring result under EP-364/2009/D for the above monitoring stations would be continued.

Graphic Presentation of continuous noise monitoring result at RTN2 - Oil Street Community Liaison Centre during reporting period



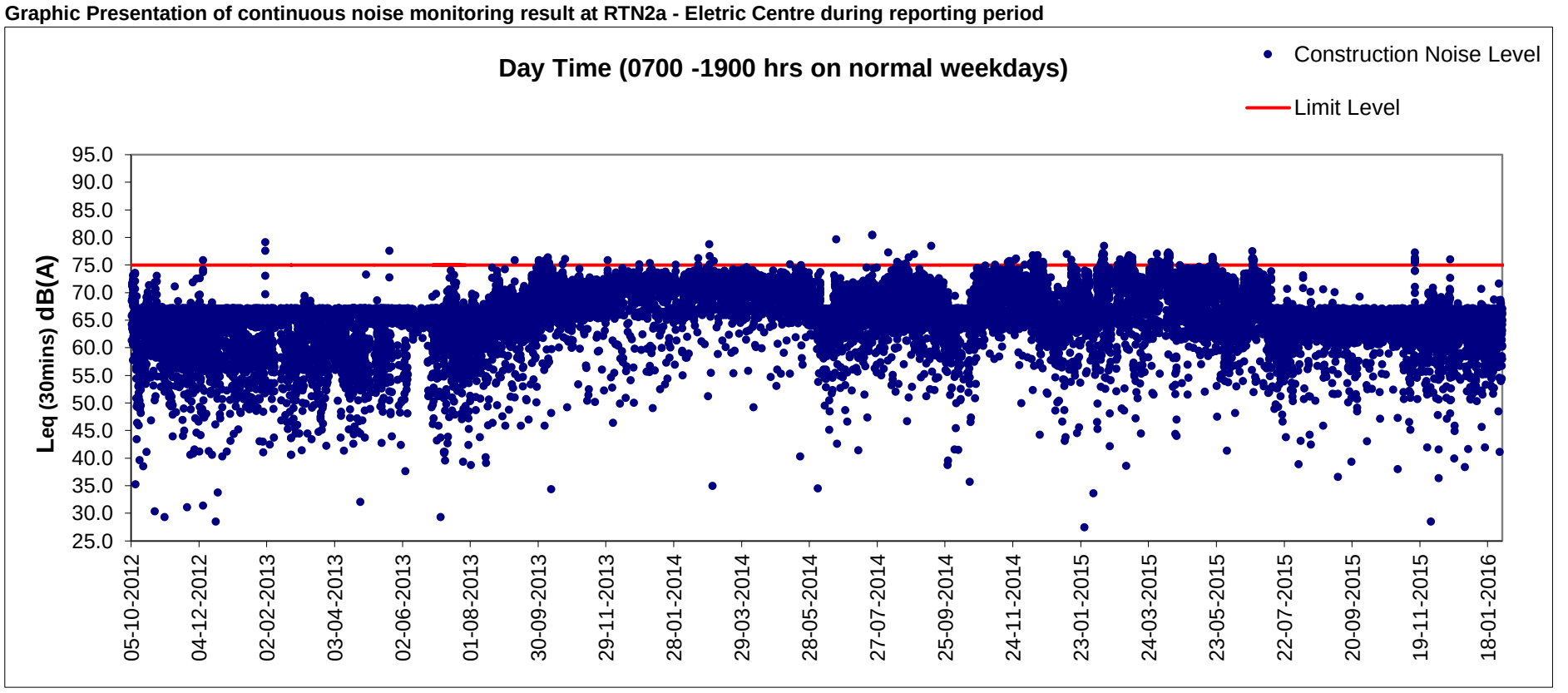


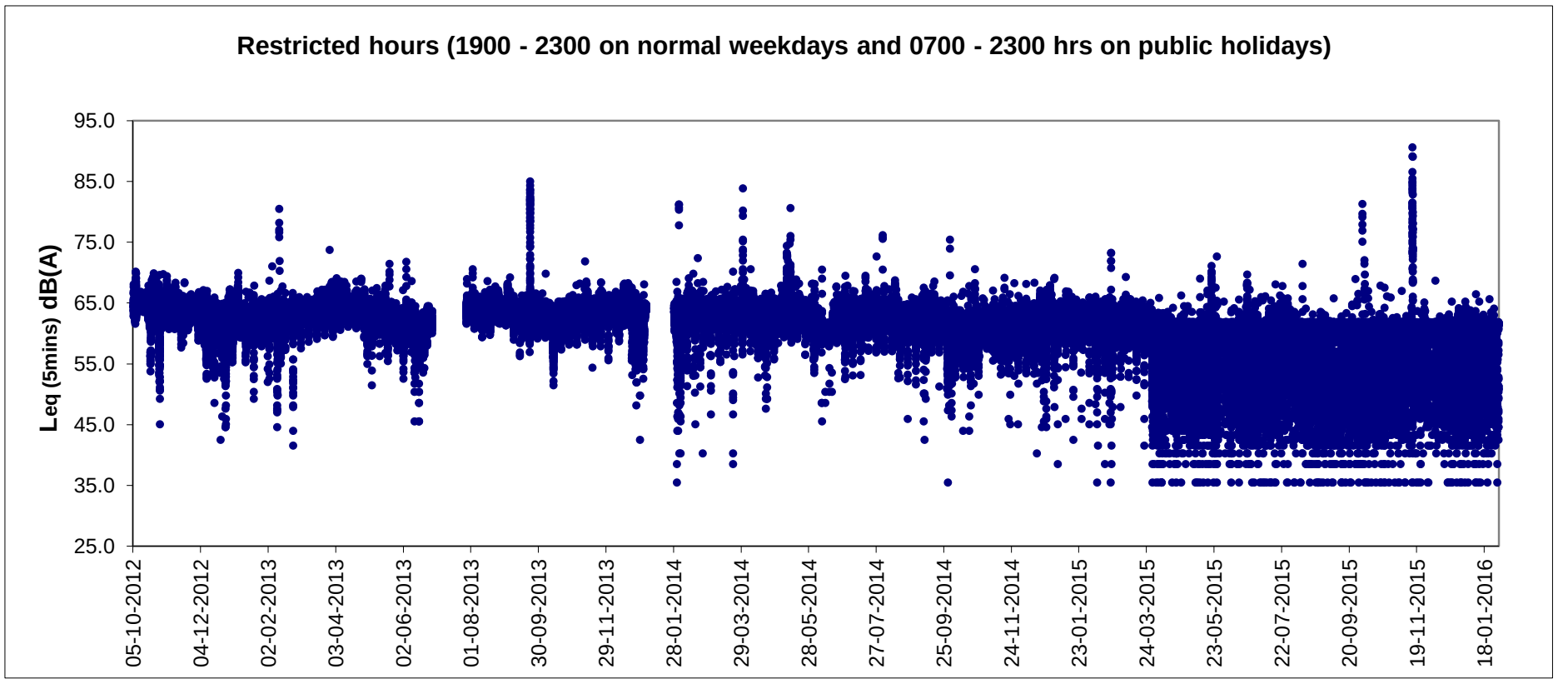


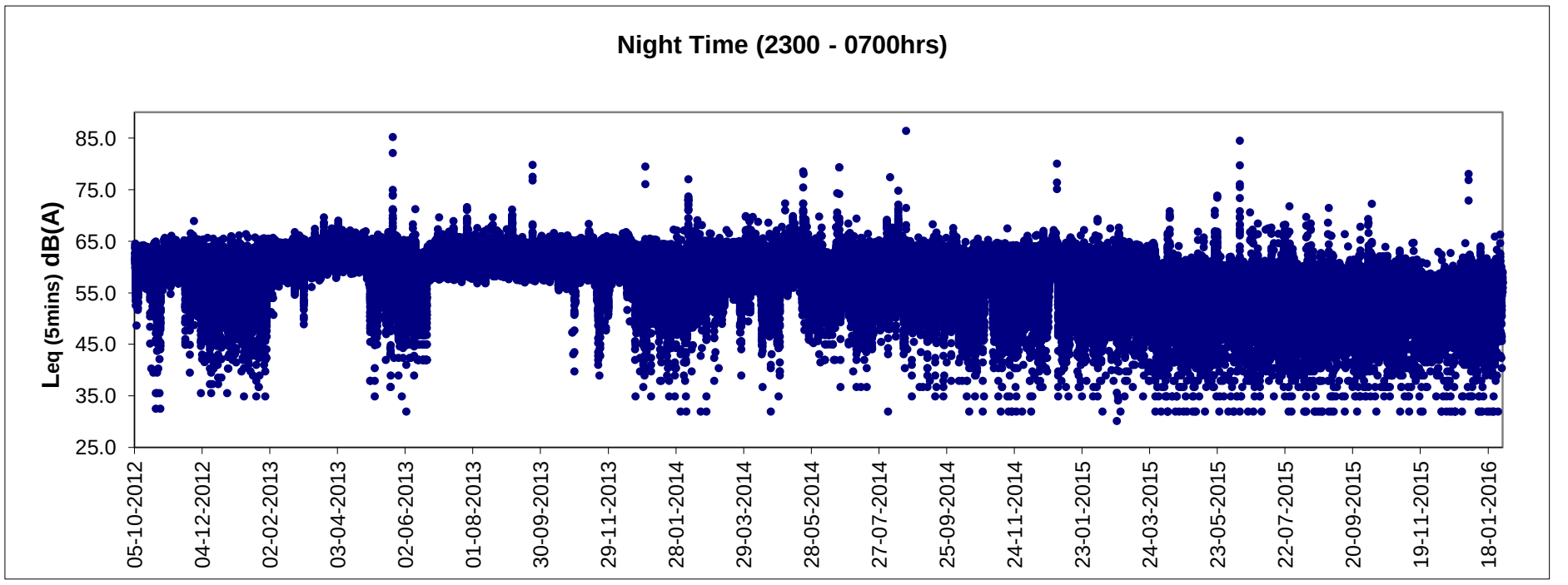
Remark:

Real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden.

Graphic Presentation of continuous noise monitoring result at RTN2a - Eletric Centre during reporting period







Remark:

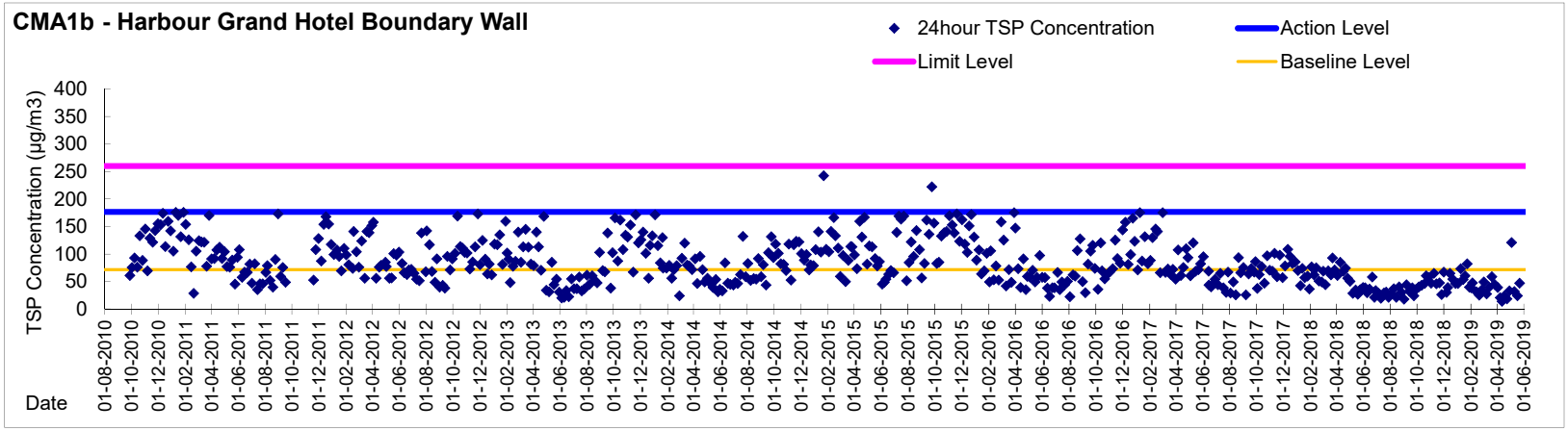
Real-time noise monitoring according to EM&A manual requirement was commenced in Tin Hau (RTN1 - FEHD Hong Kong Transport Section Whitefield Depot) and North Point (RTN2 - Oil Street Community Liaison Centre; Relocated to RTN2a - Electric Centre on 5 October 2012) district since 5 October 2010.

As the land-based piling and filling works under DP3 at Tin Hau had been completed on 3 September 2012 and the marine piling works at North Point has been completed on 4 March 2013 as confirmed by RSS, the reporting of real-time noise monitoring results for RTN1 - FEHD Hong Kong Transport Section Whitfield Depot and RTN2a – Hong Kong Electric Centre was excluded from EP-356/2009 from November 2012 and January 2016 respectively while the reporting of the real-time noise monitoring result under EP-364/2009/D for the above monitoring stations would be continued.

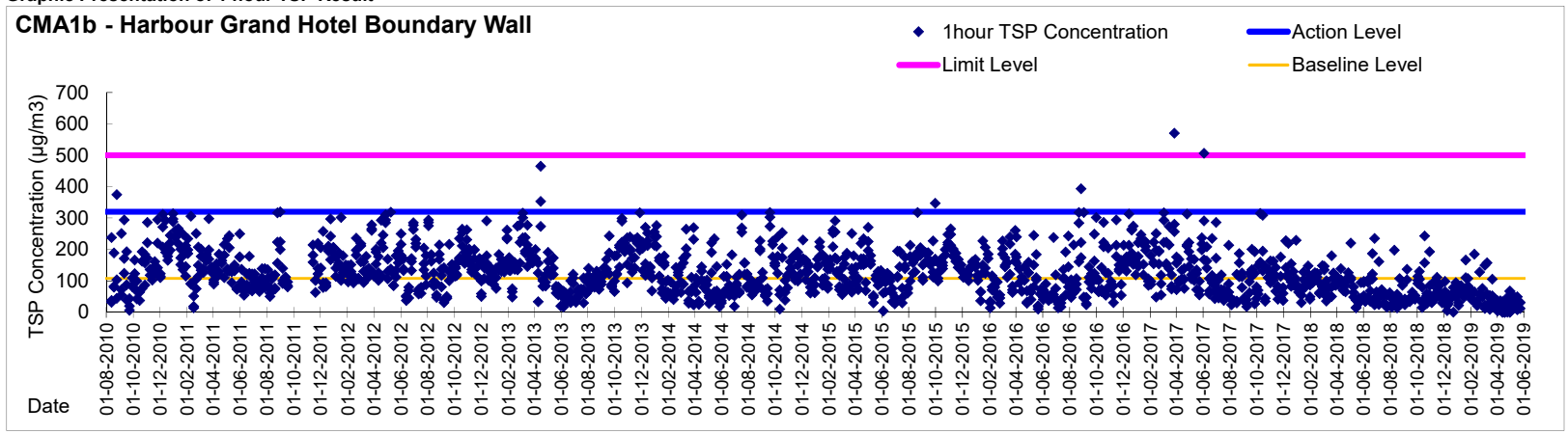
Appendix 4.4

Graphical Presentations of Air Quality Monitoring Data

Graphic Presentation of 24 hour TSP Result



Graphic Presentation of 1 hour TSP Result



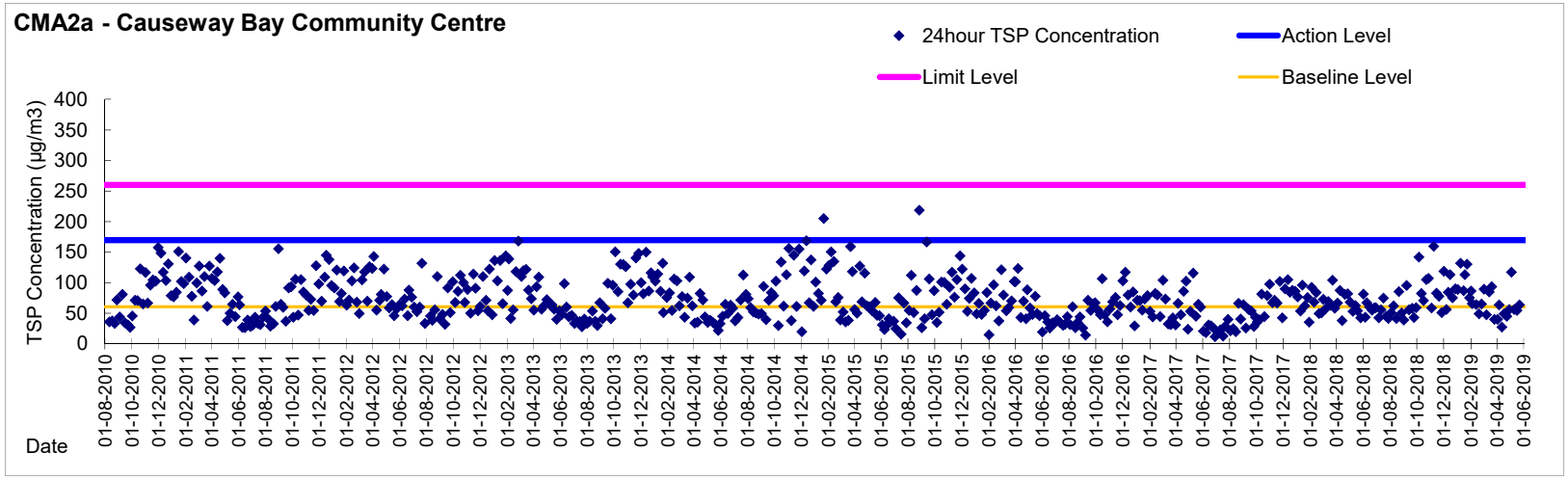
Remark

Due to extension of site boundary by contractor of HY/2009/19, location of air monitoring station CMA1b – Oil Street Community Liaison Centre has been finely adjusted to East podium of the Oil Street Site Office on 21 April 2012.

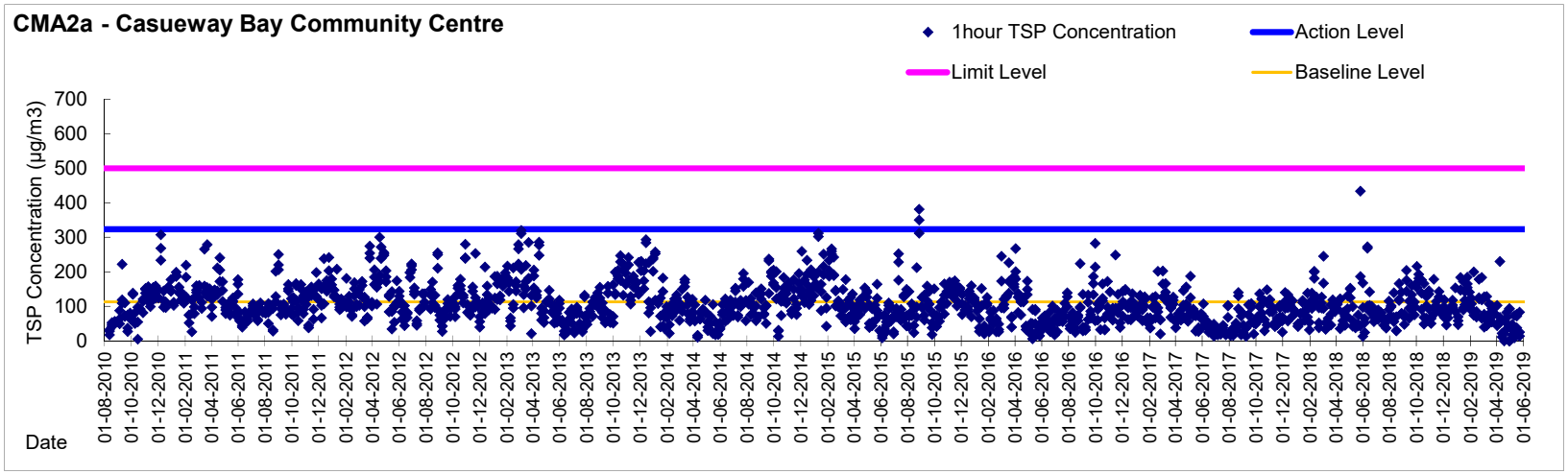
With respect to the proposed demolition of eastern podium of Oil Street Site Office, the respective air quality monitoring station CMA1b Oil Street Site Office was finely adjusted from East podium of the Oil Street Site Office to the West podium of the Oil Street Site Office on 21 December 2016

With respect to the proposed demolition of the Oil Street Site Office, the respective air quality monitoring station CMA1b Oil Street Site Office was finely adjusted from the Oil Street Site Office to Harbour Grand Hotel Boundary Wall from 05 June 2017 onwards.

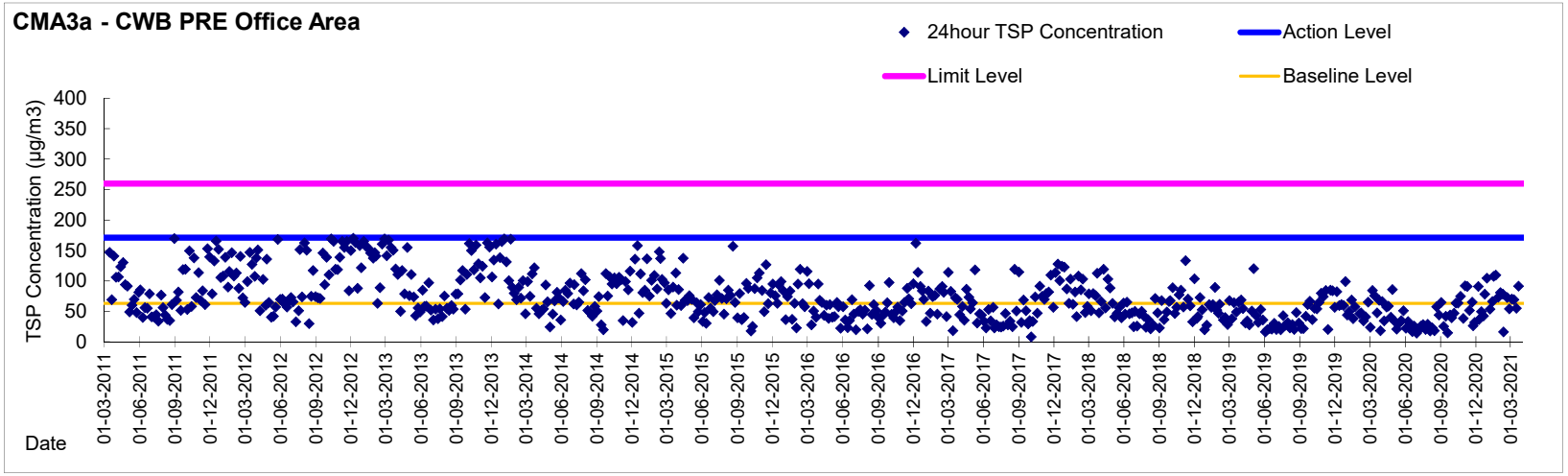
Graphic Presentation of 24 hour TSP Result



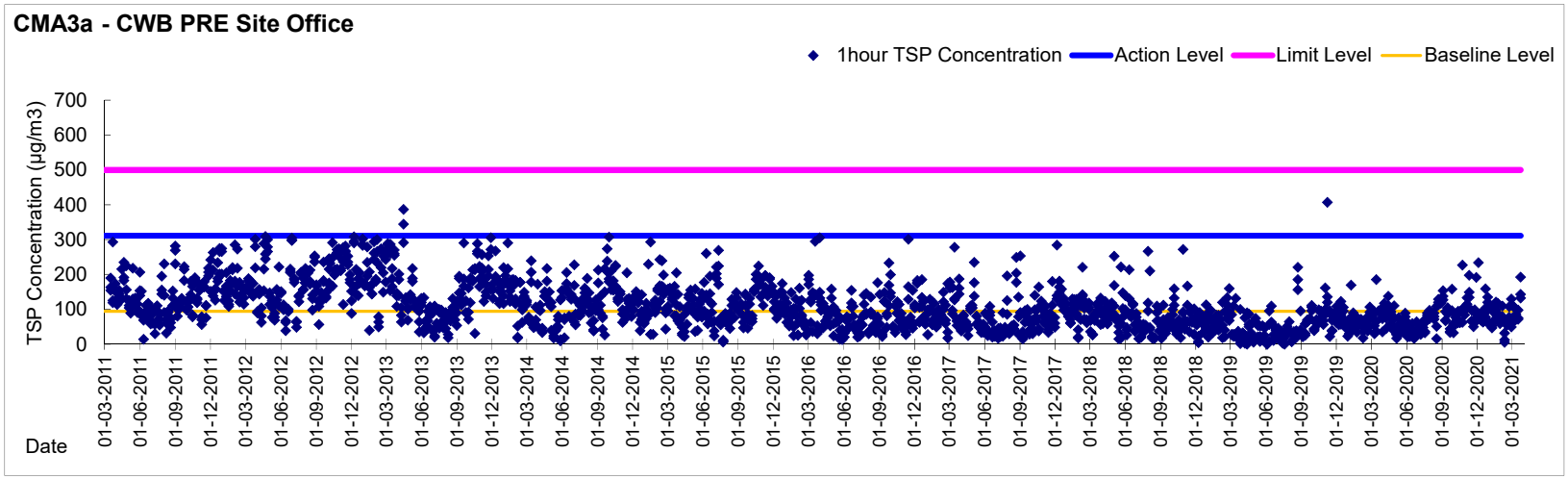
Graphic Presentation of 1 hour TSP Result



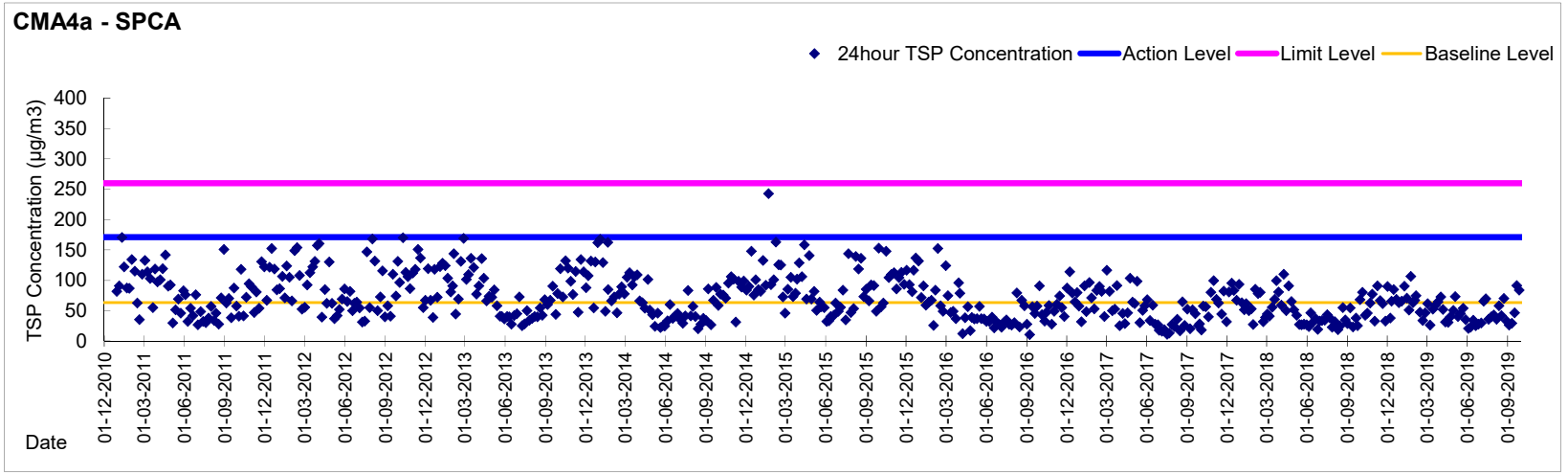
Graphic Presentation of 24 hour TSP Result



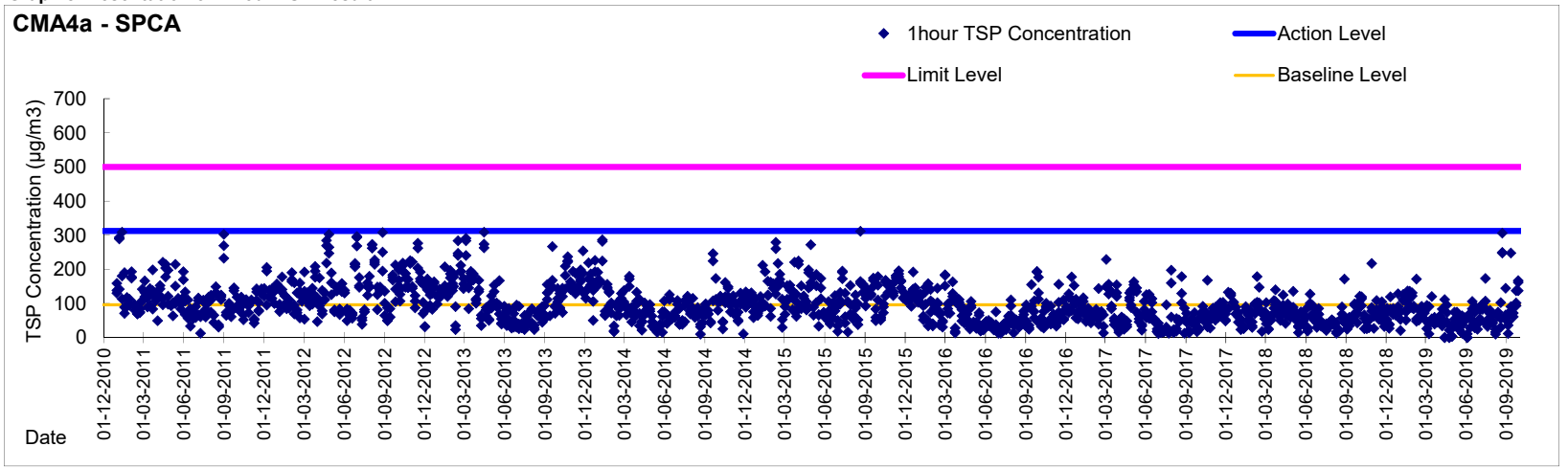
Graphic Presentation of 1 hour TSP Result



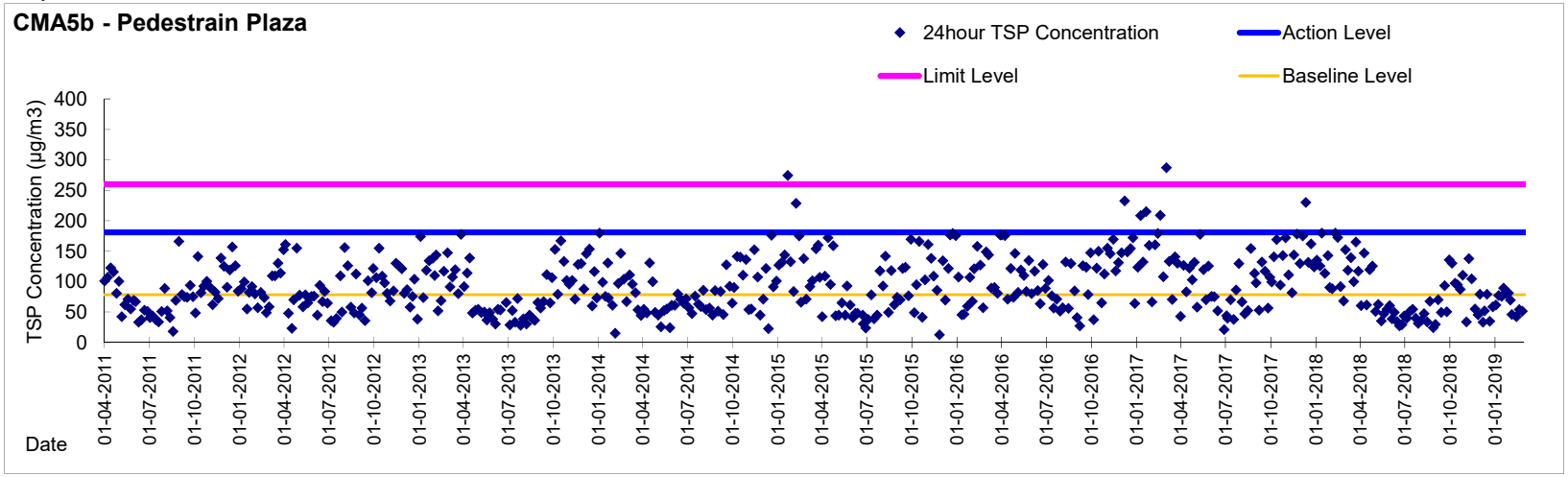
Graphic Presentation of 24 hour TSP Result



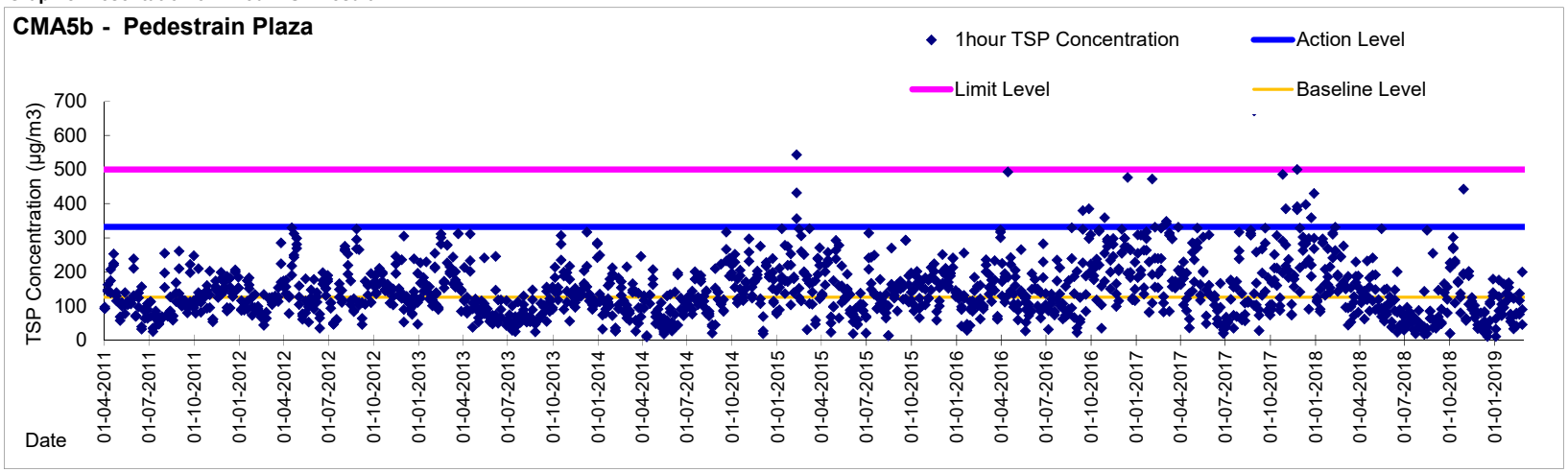
Graphic Presentation of 1 hour TSP Result



Graphic Presentation of 24 hour TSP Result



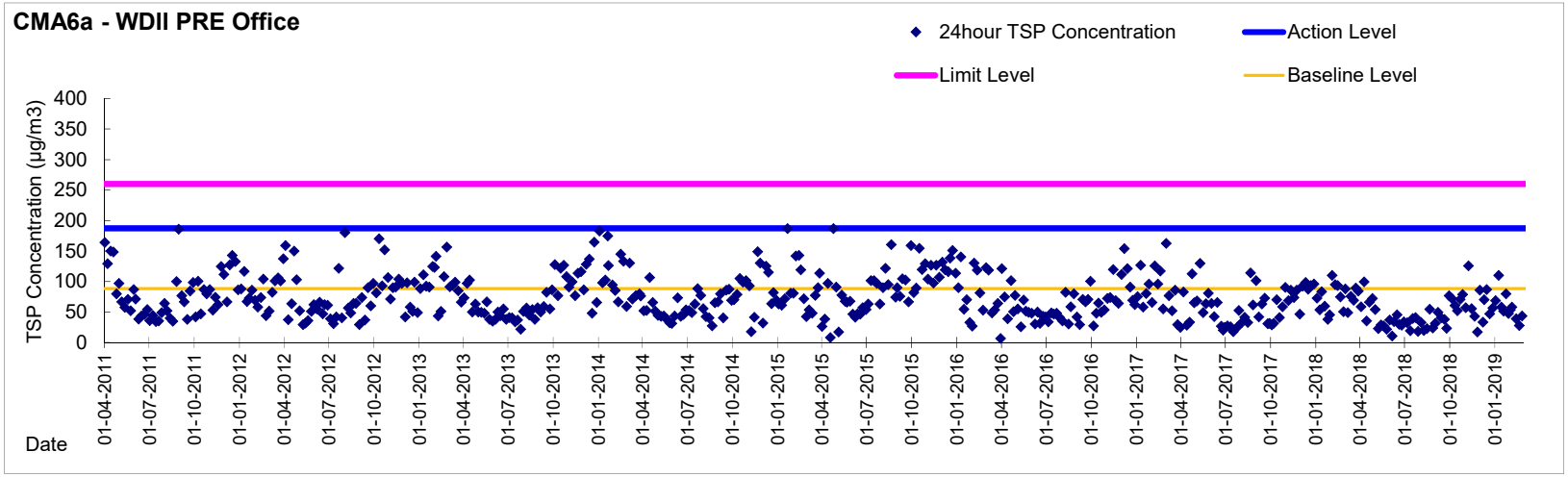
Graphic Presentation of 1 hour TSP Result



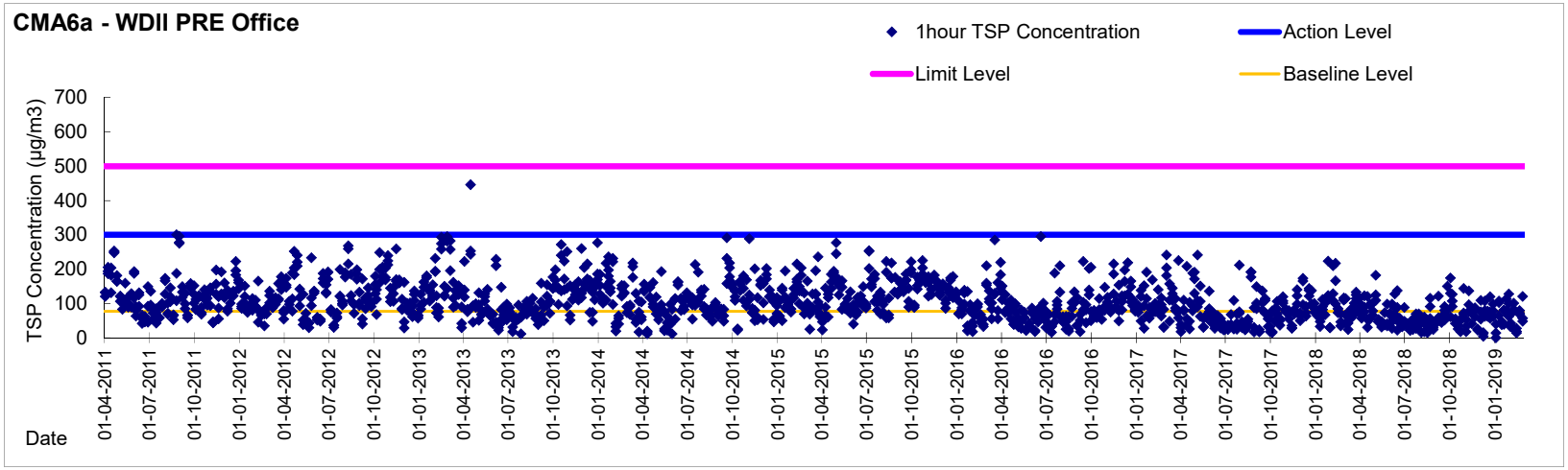
Remark

With respect to the area handover, the air quality monitoring station CMA5a at Children Playgrounds opposite to the Pedestrian Plaza was relocated to the Pedestrian Plaza on 3 December 2014

Graphic Presentation of 24 hour TSP Result



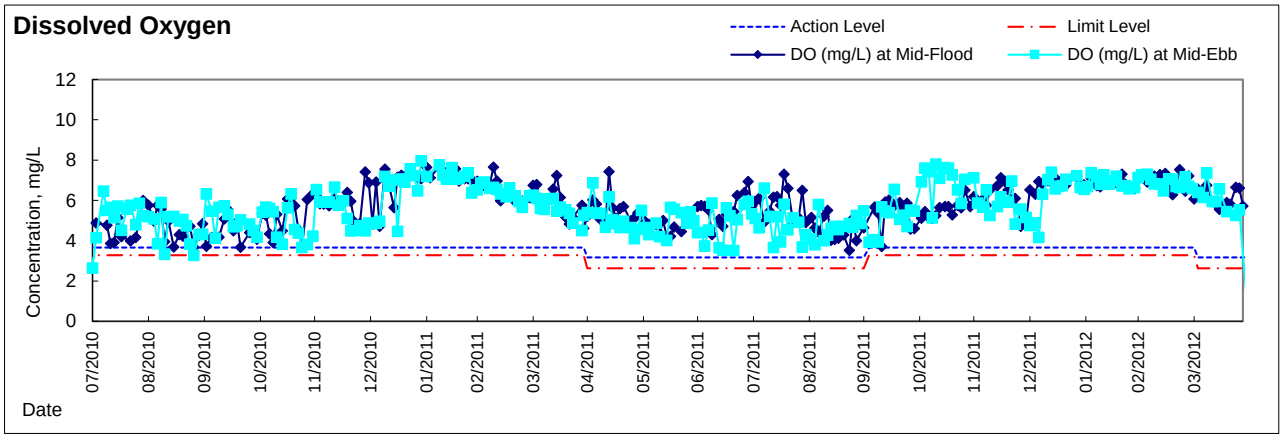
Graphic Presentation of 1 hour TSP Result

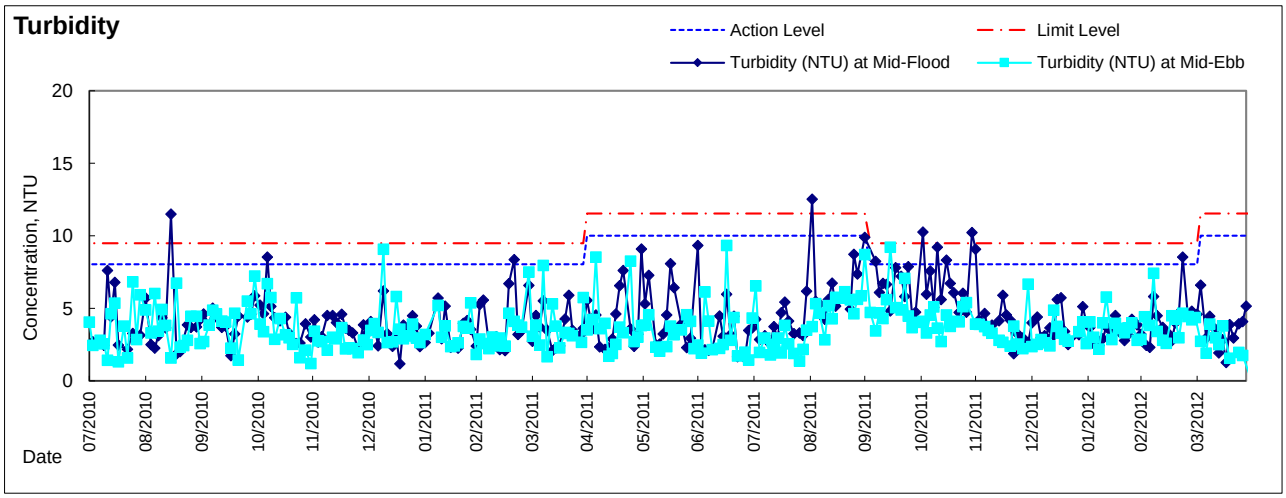


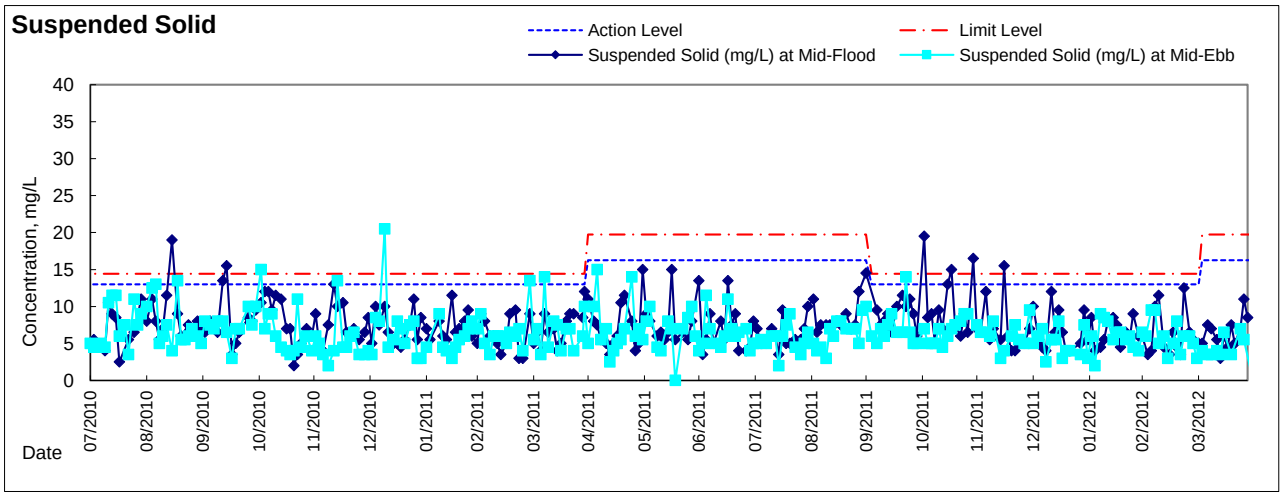
Appendix 4.5

Graphical Presentations of Water Quality Monitoring Data

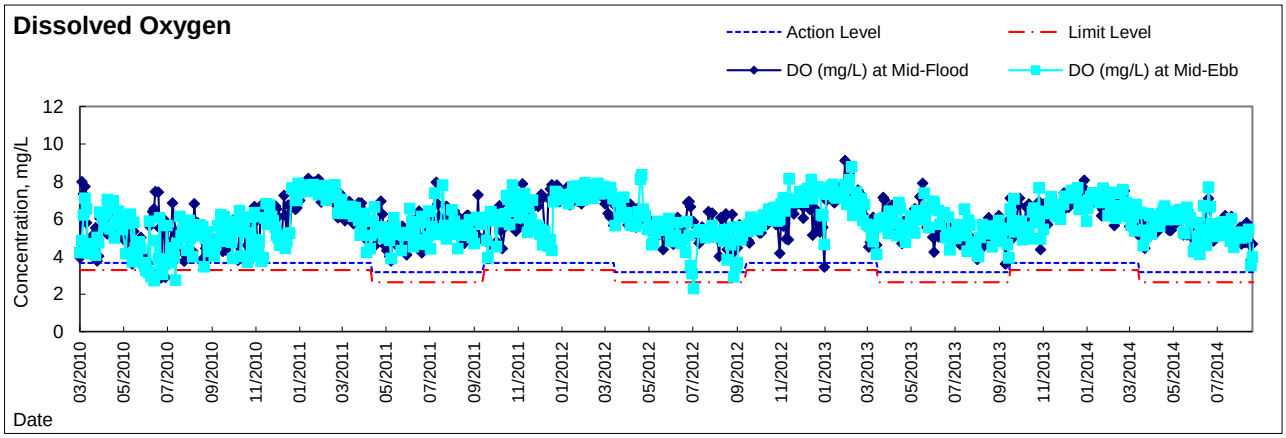
Graphic Presentation of Water Quality Result of WSD7 - Kowloon South

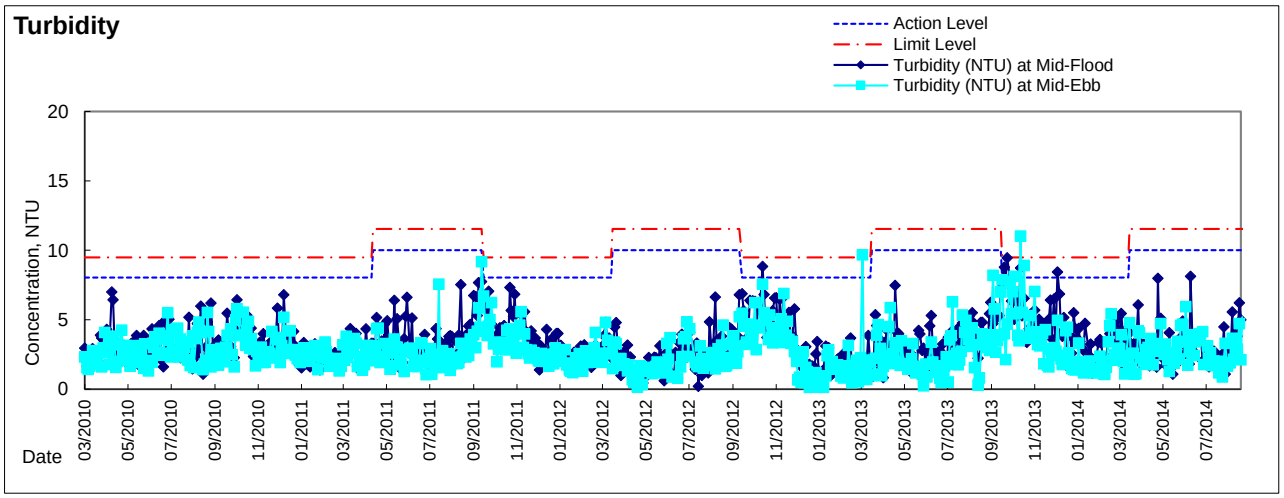


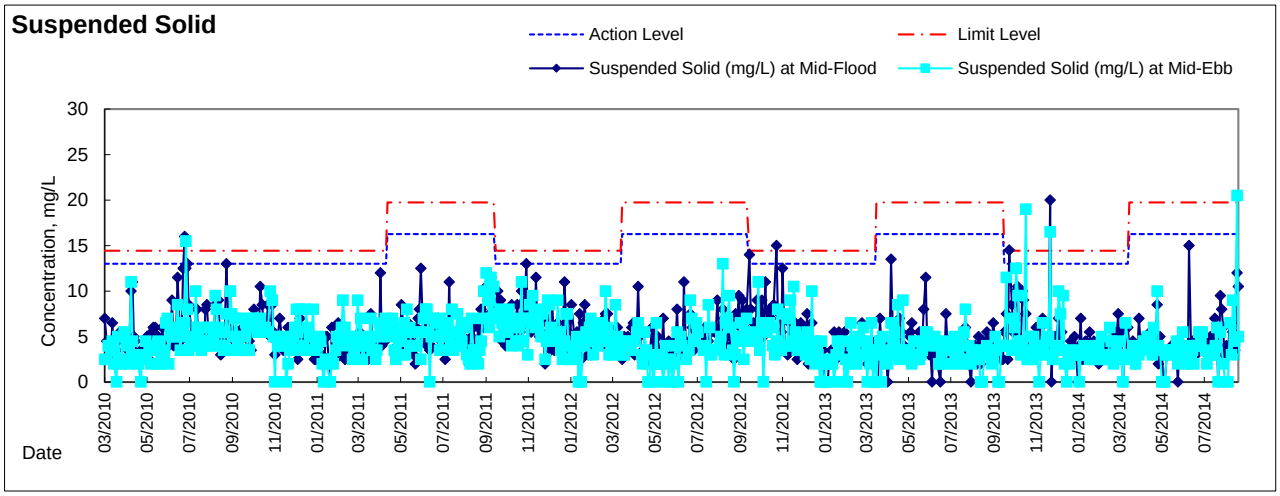




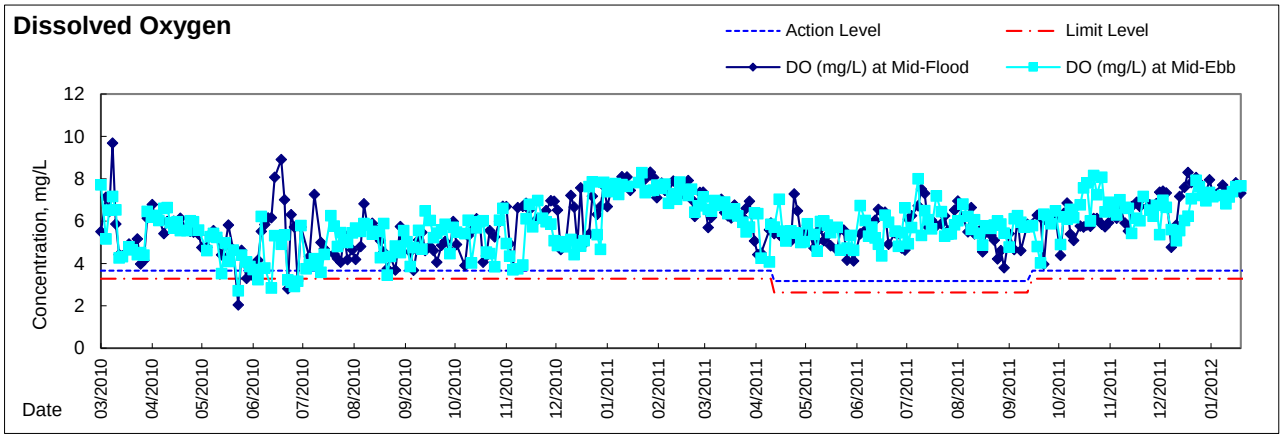
Graphic Presentation of Water Quality Result of WSD9 - Tai Wan

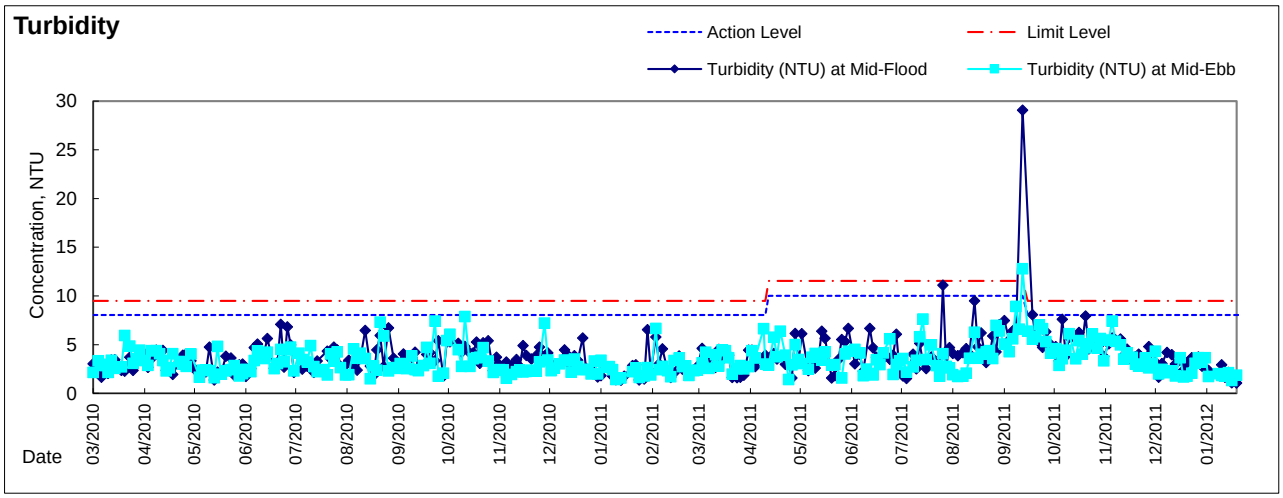


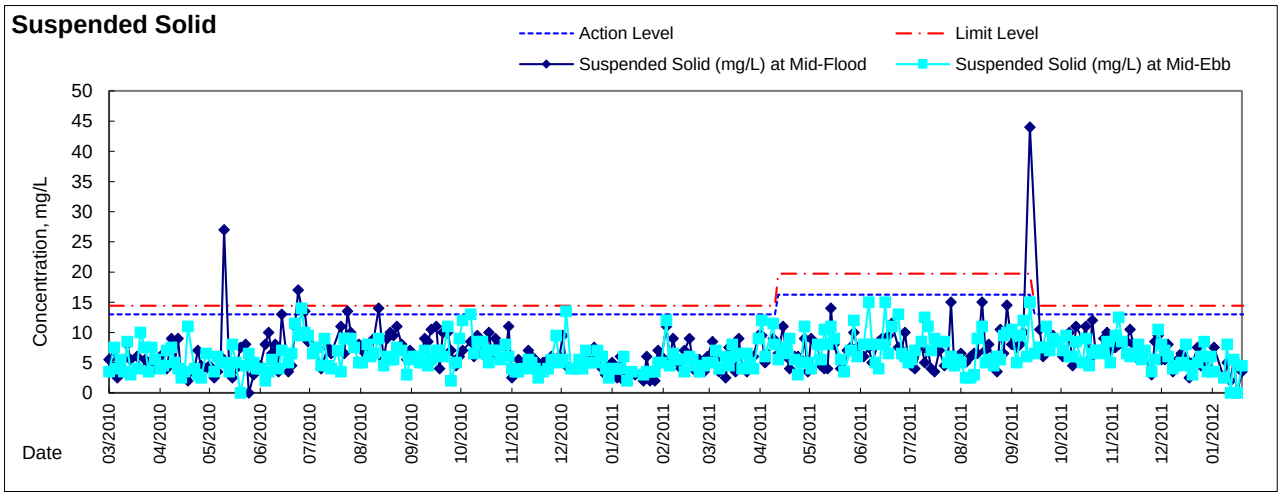




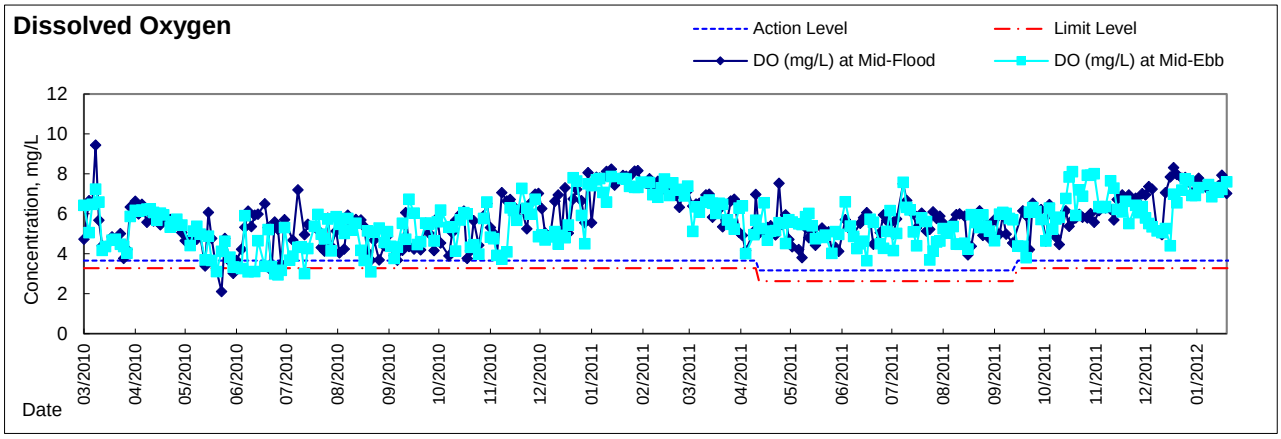
Graphic Presentation of Water Quality Result of WSD10 - Cha Kwo Ling

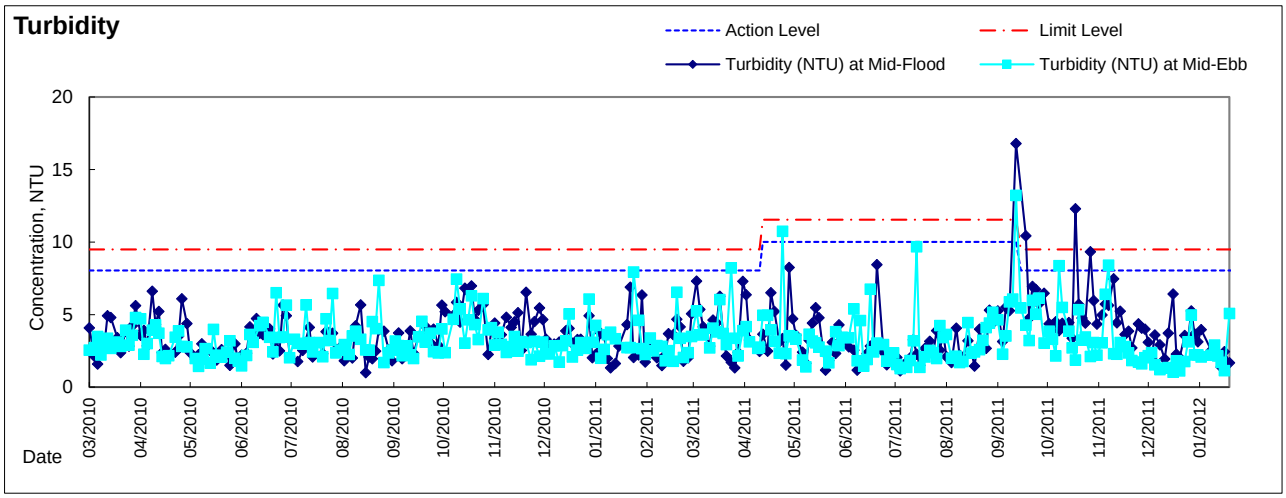


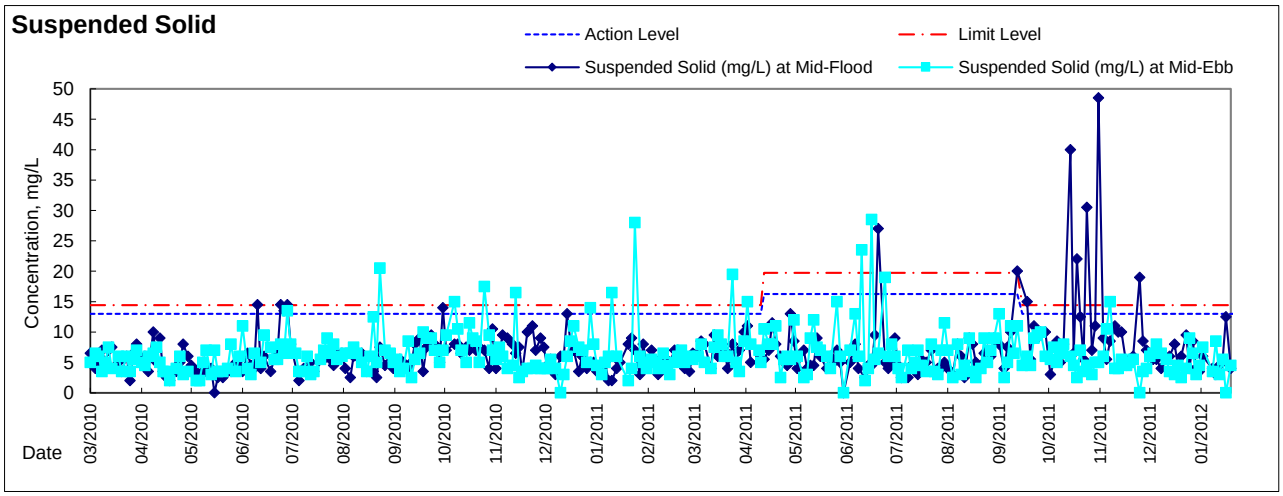




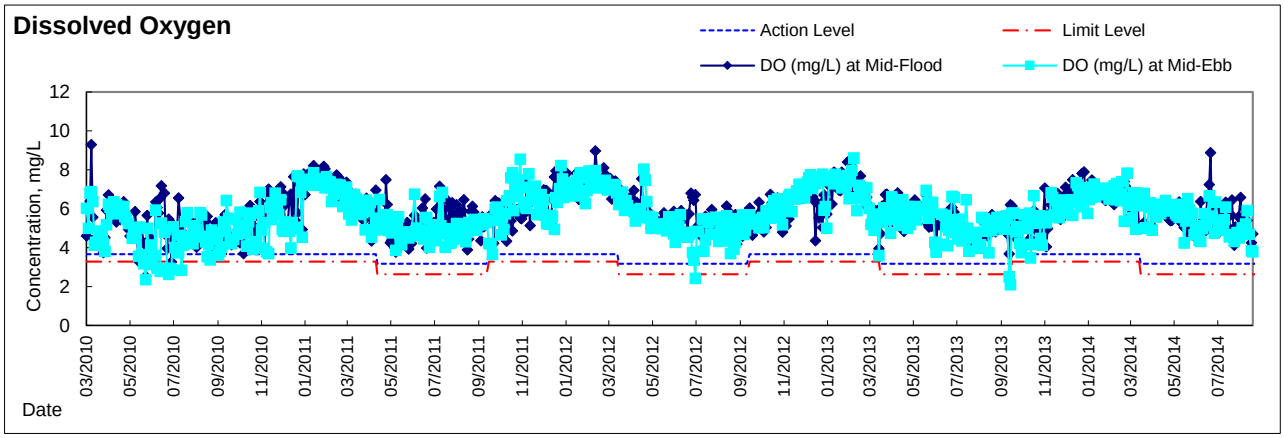
Graphic Presentation of Water Quality Result of WSD15 - Sai Wan Ho

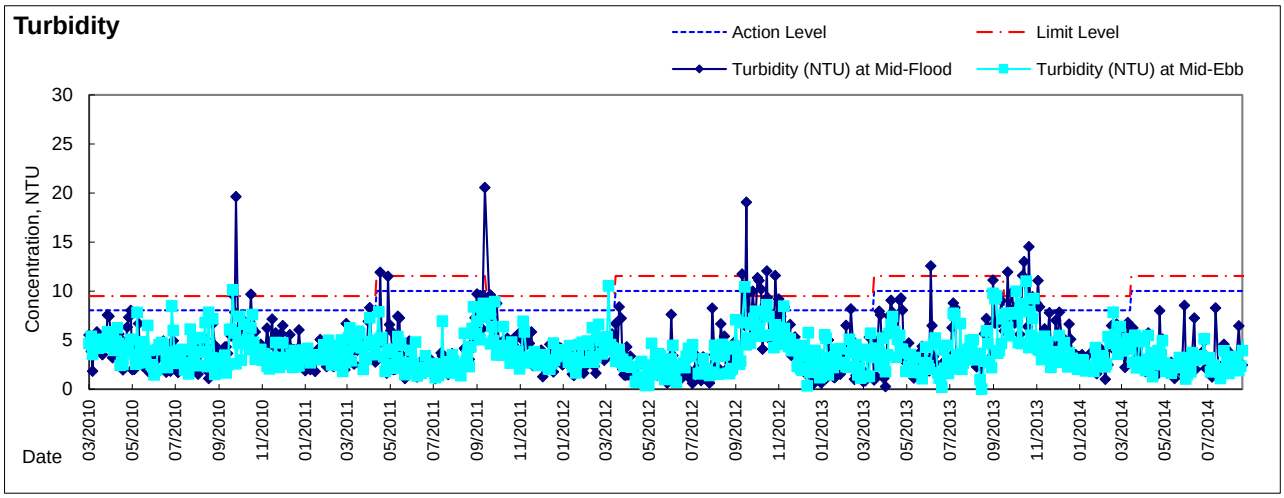


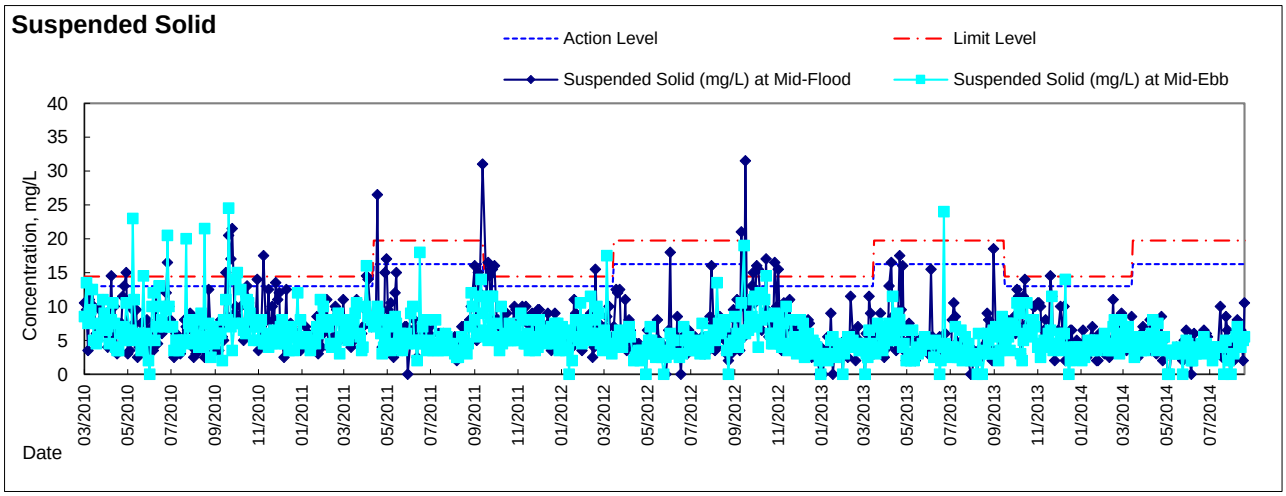




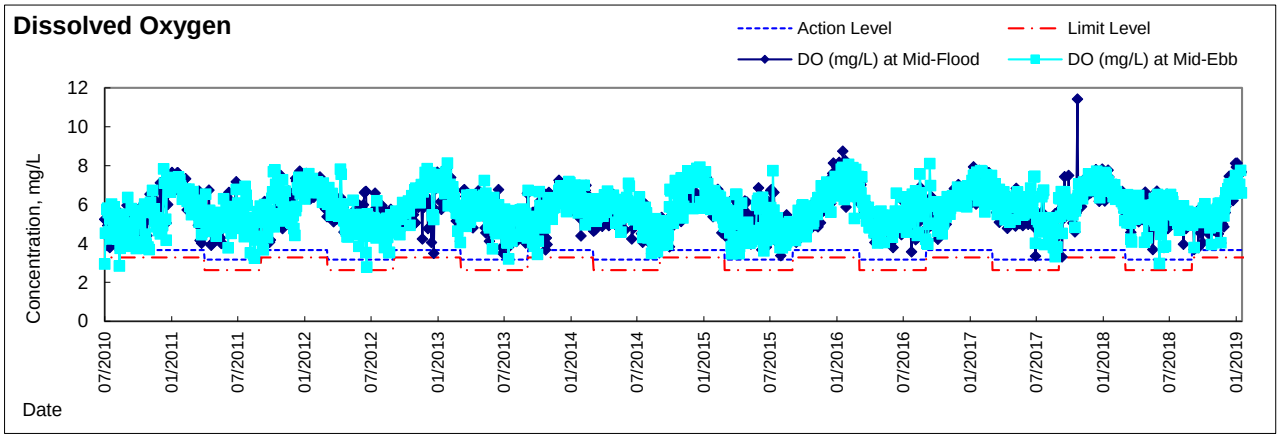
Graphic Presentation of Water Quality Result of WSD17 - Quarry Bay

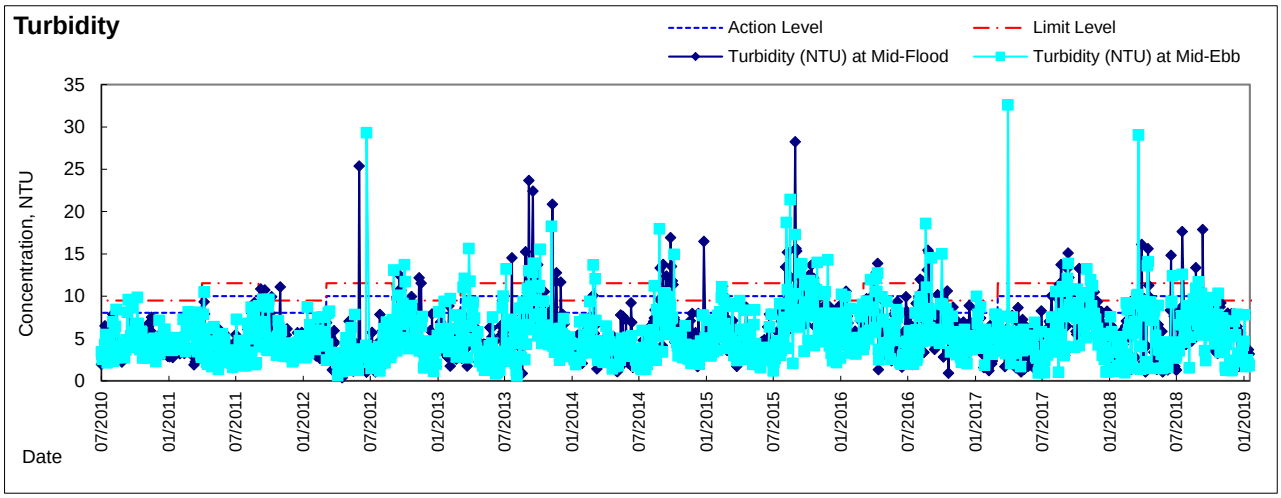


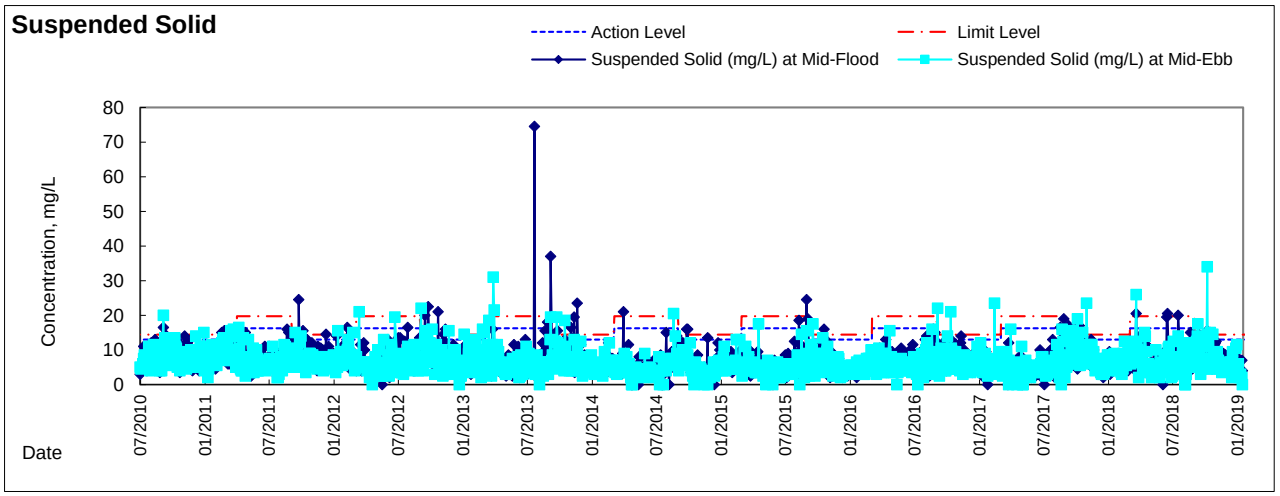




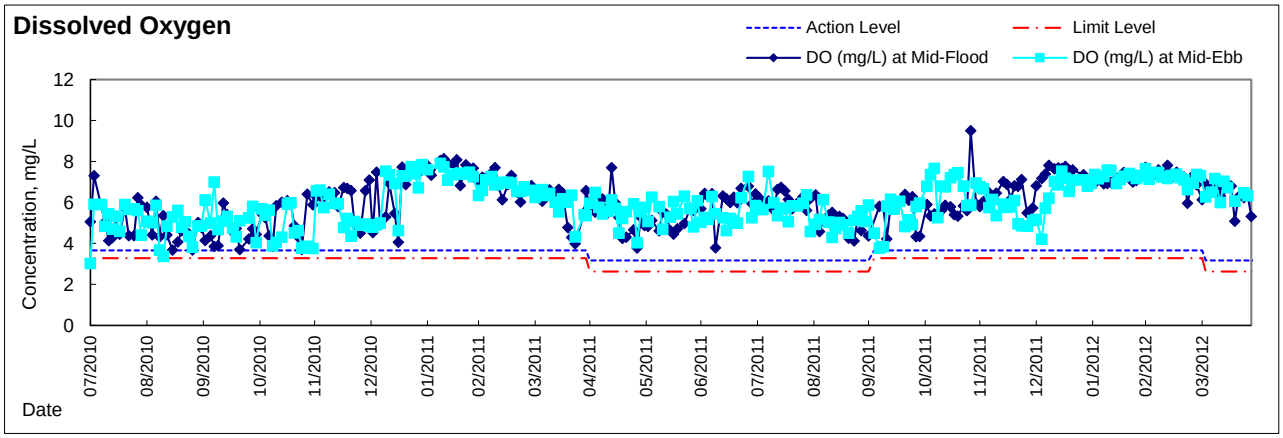
Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan

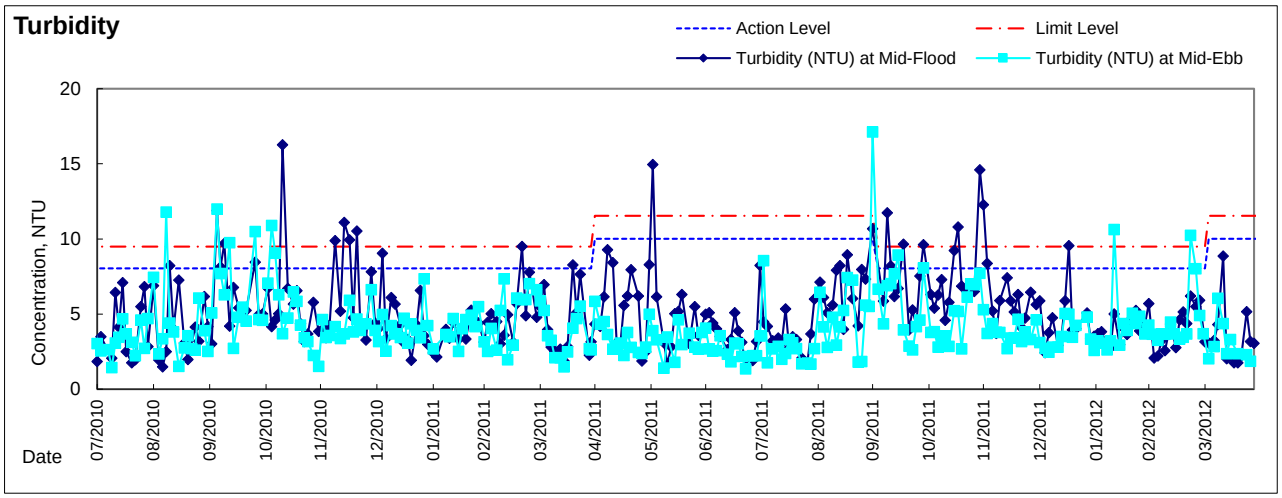


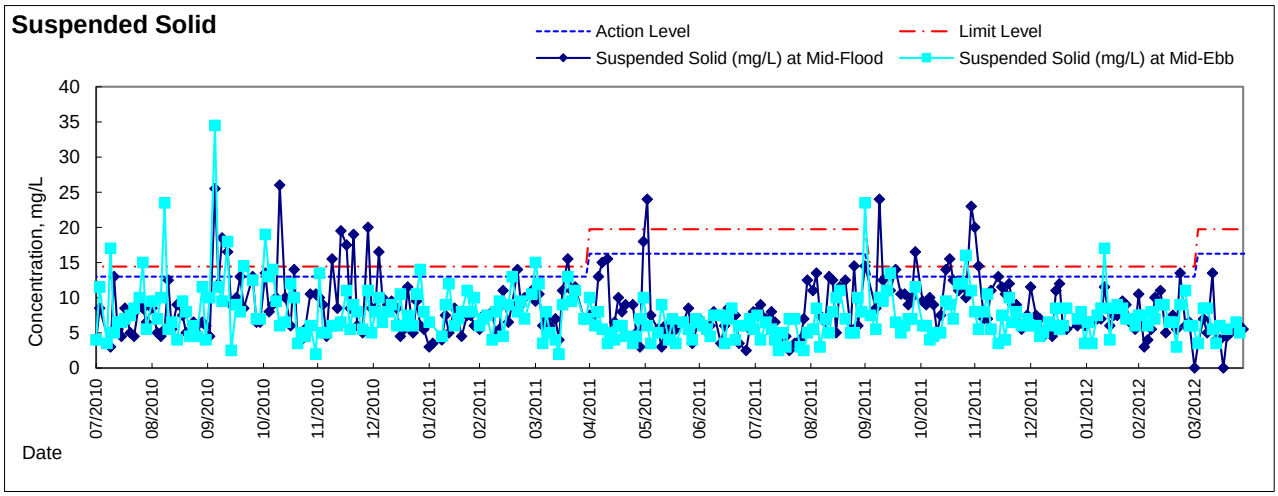




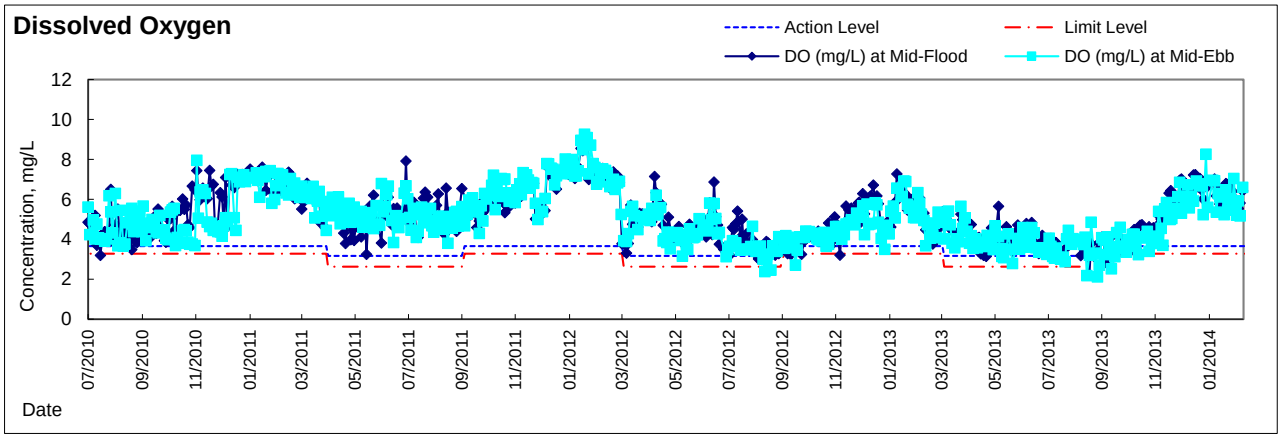
Graphic Presentation of Water Quality Result of WSD20 - Kennedy Town

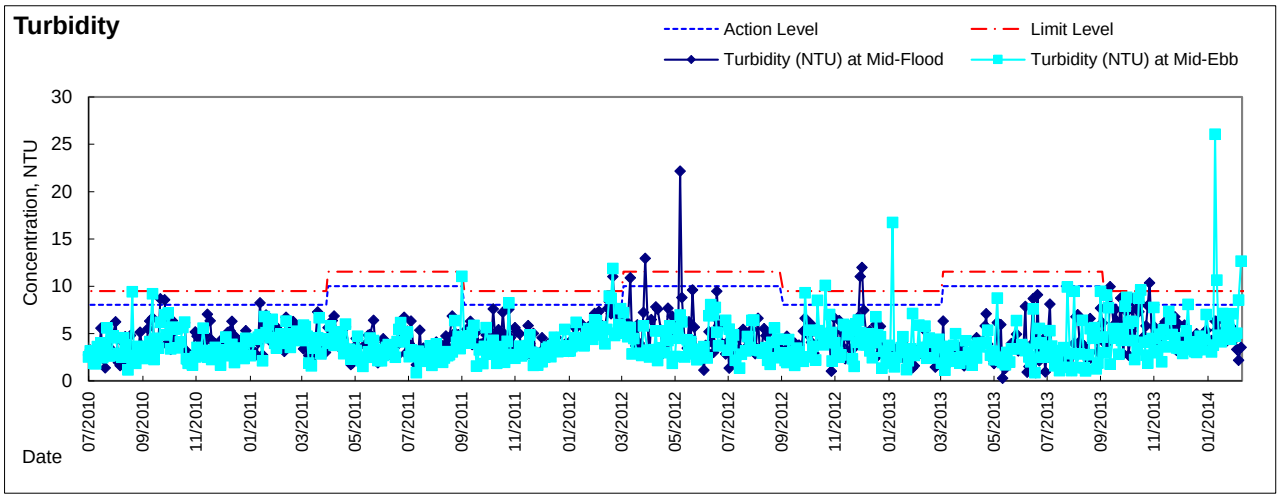


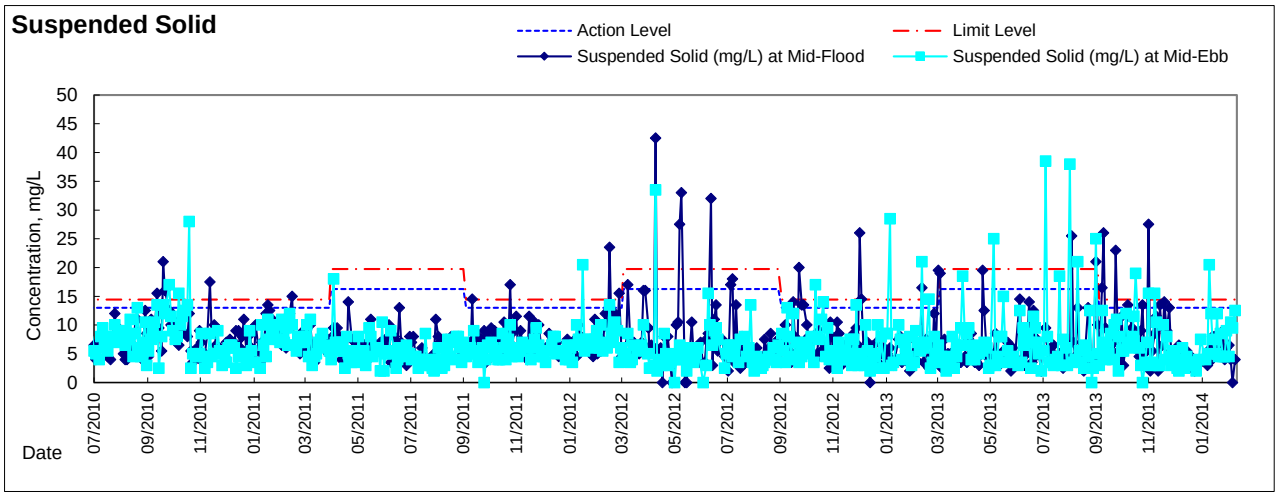




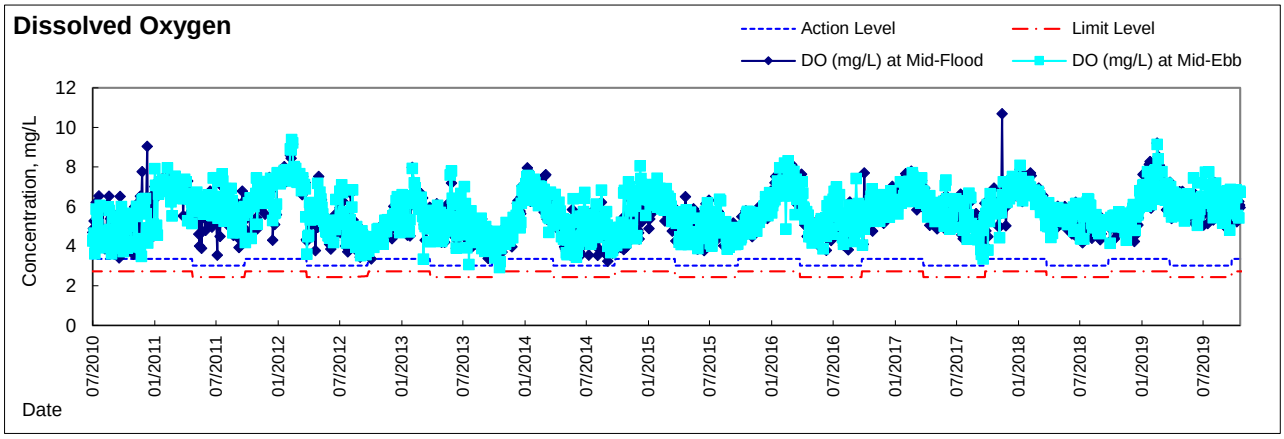
Graphic Presentation of Water Quality Result of WSD21 - Wan Chai

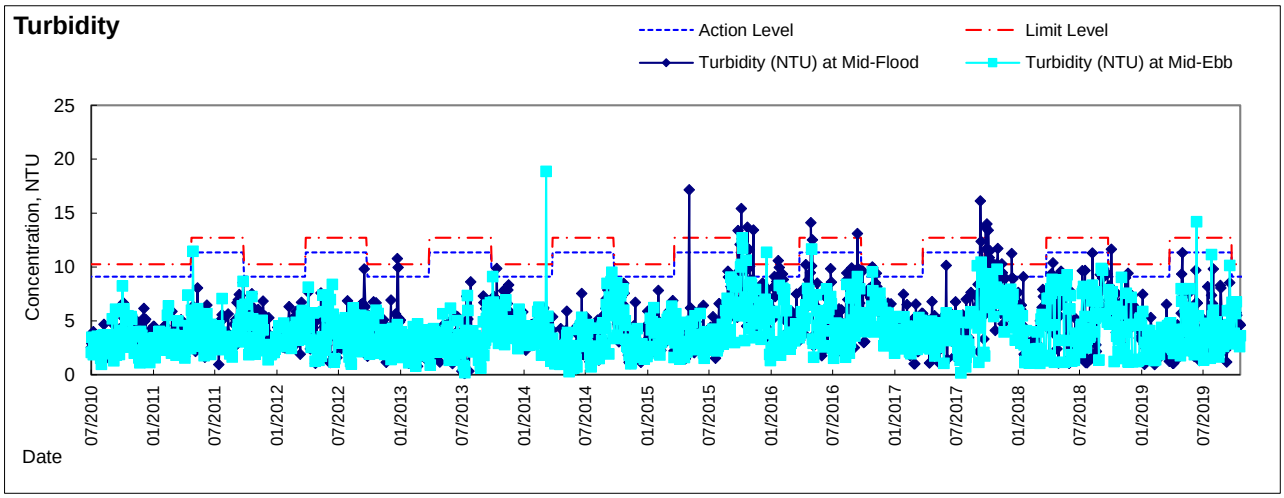


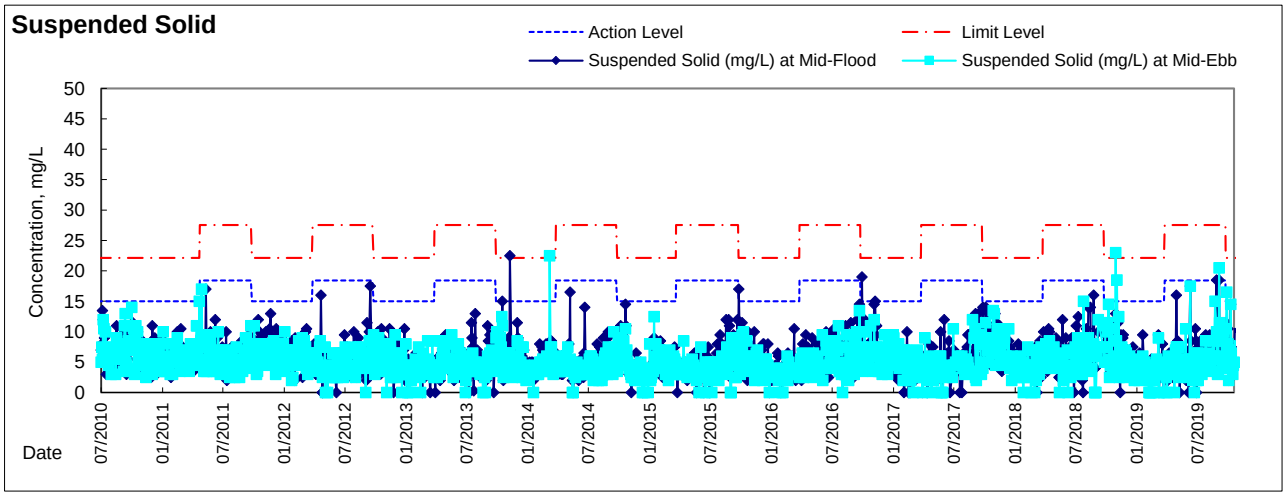




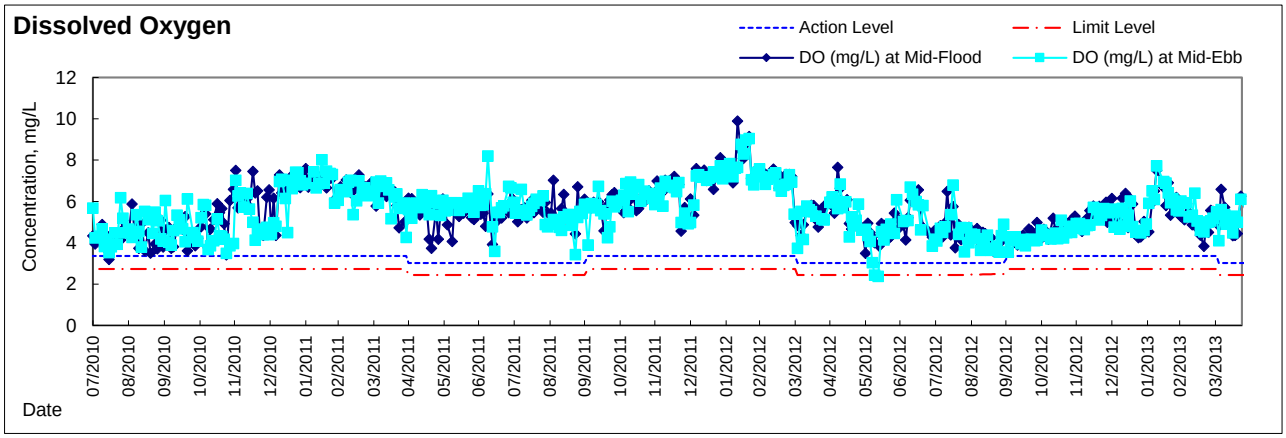
Graphic Presentation of Water Quality Result of C1 - HKCEC Extension

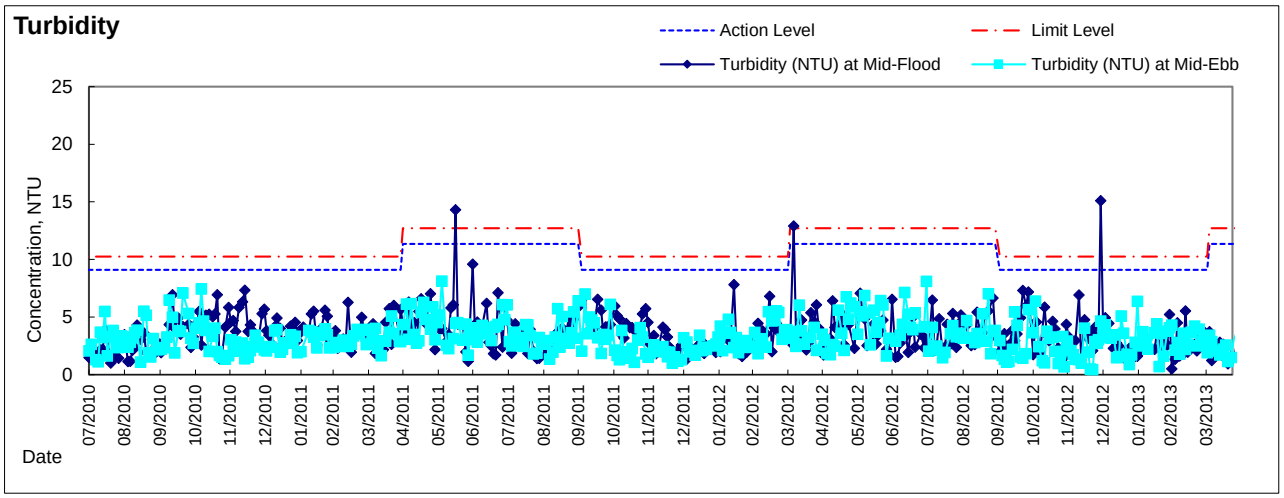


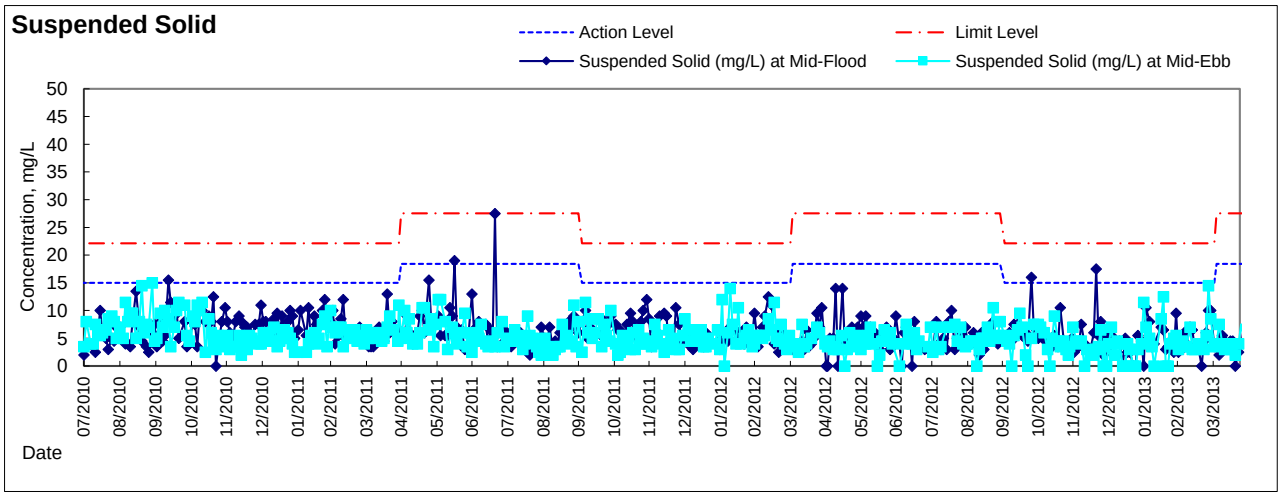




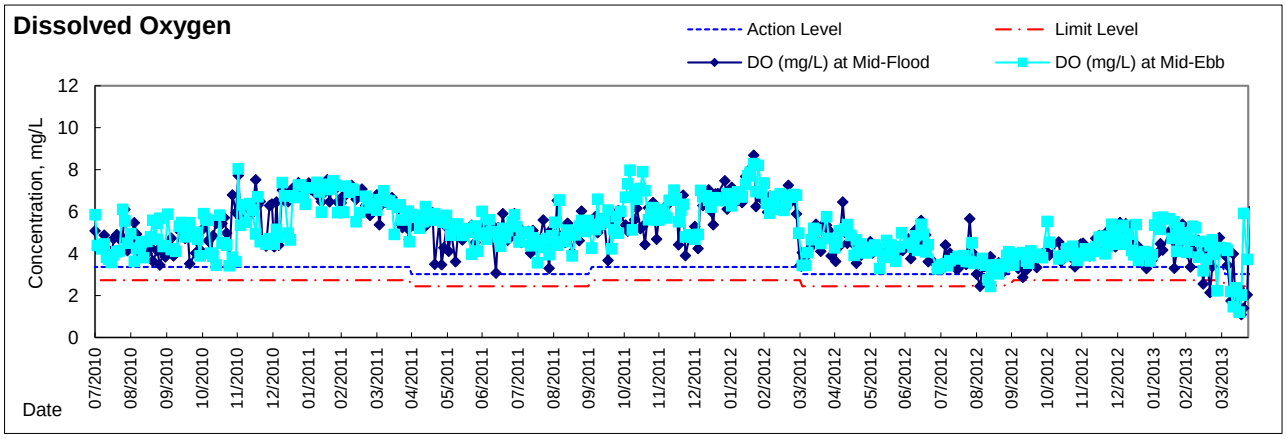
Graphic Presentation of Water Quality Result of C2 - TH / APA / SOC

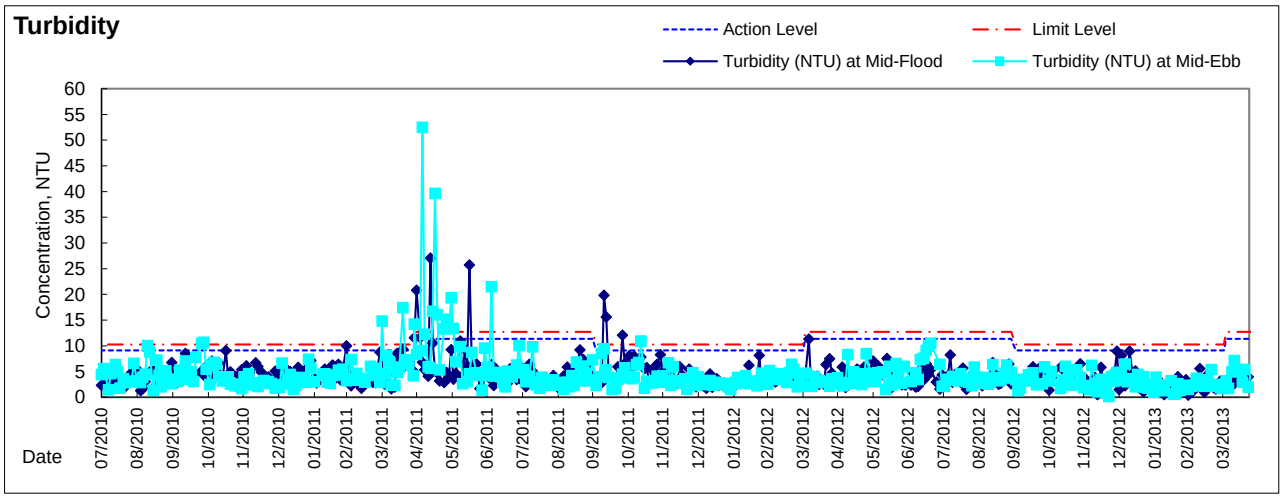


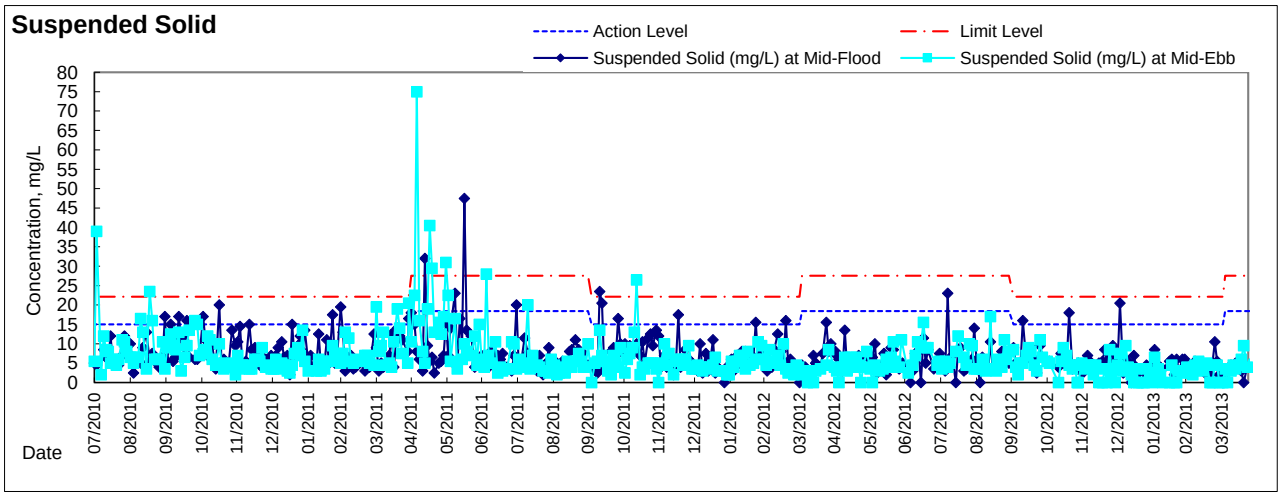




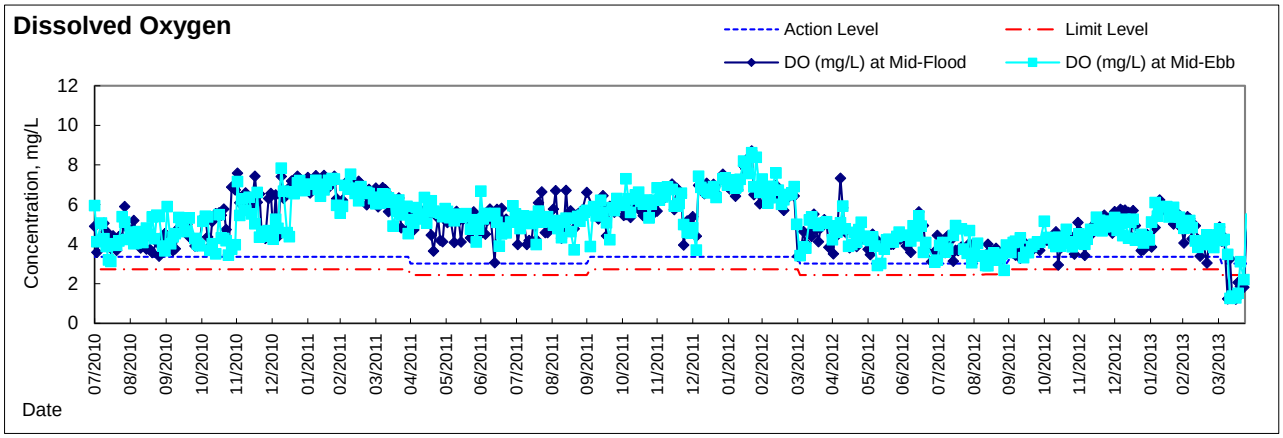
Graphic Presentation of Water Quality Result of C3 - HKCEC Phase I

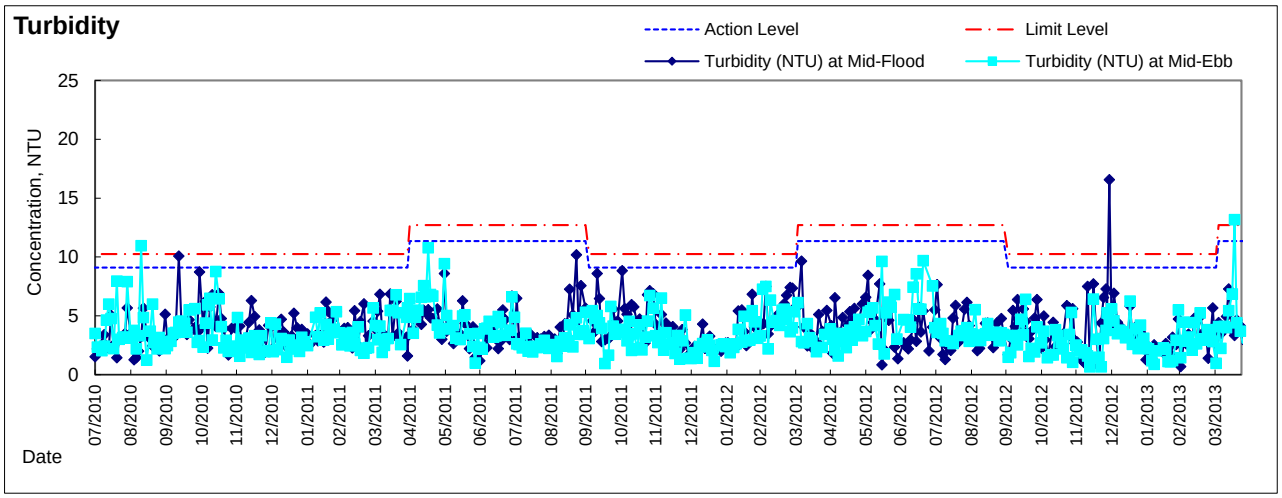


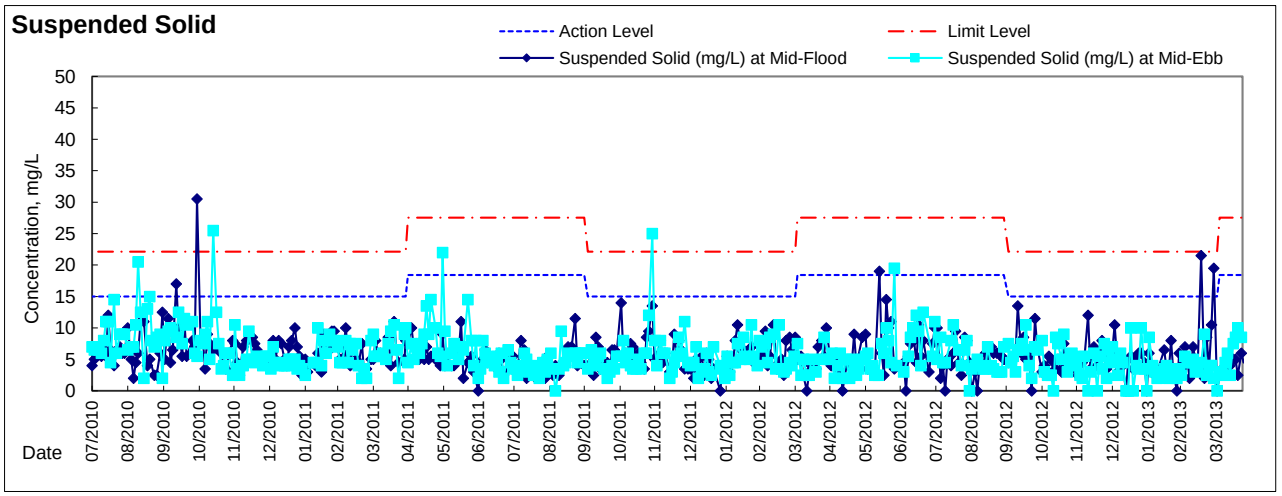




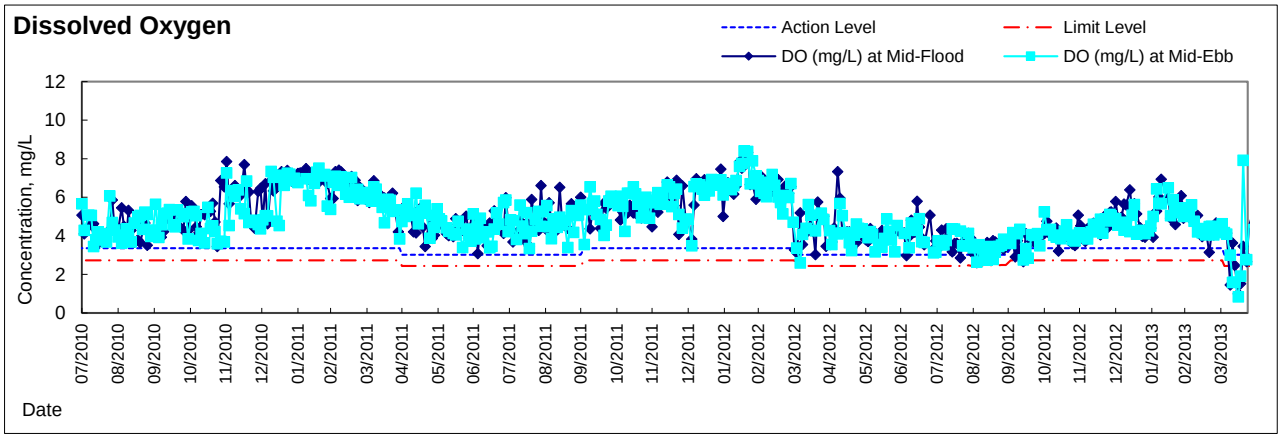
Graphic Presentation of Water Quality Result of C4e - WCT / GEC

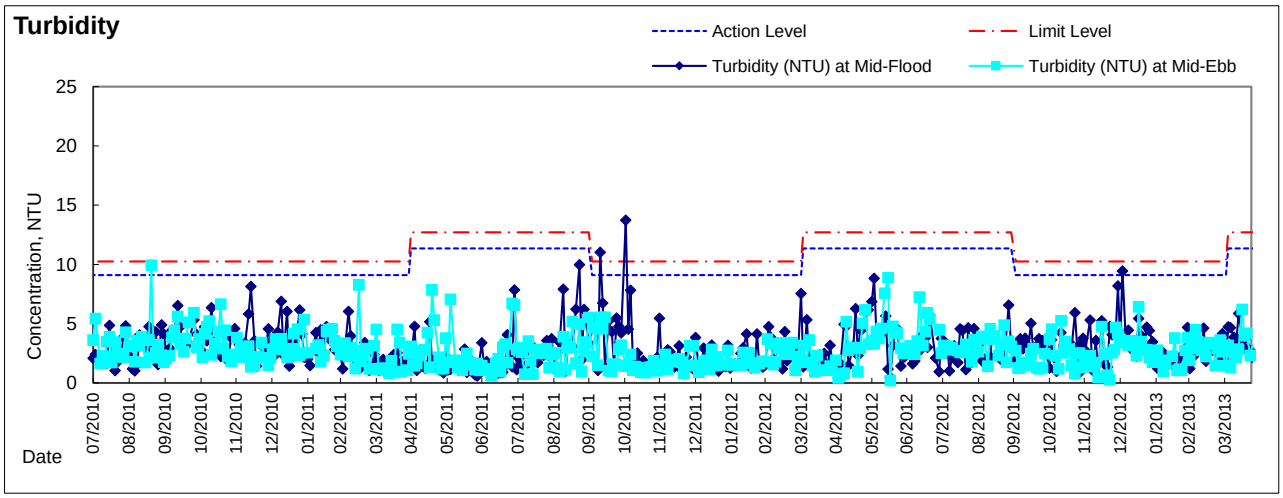


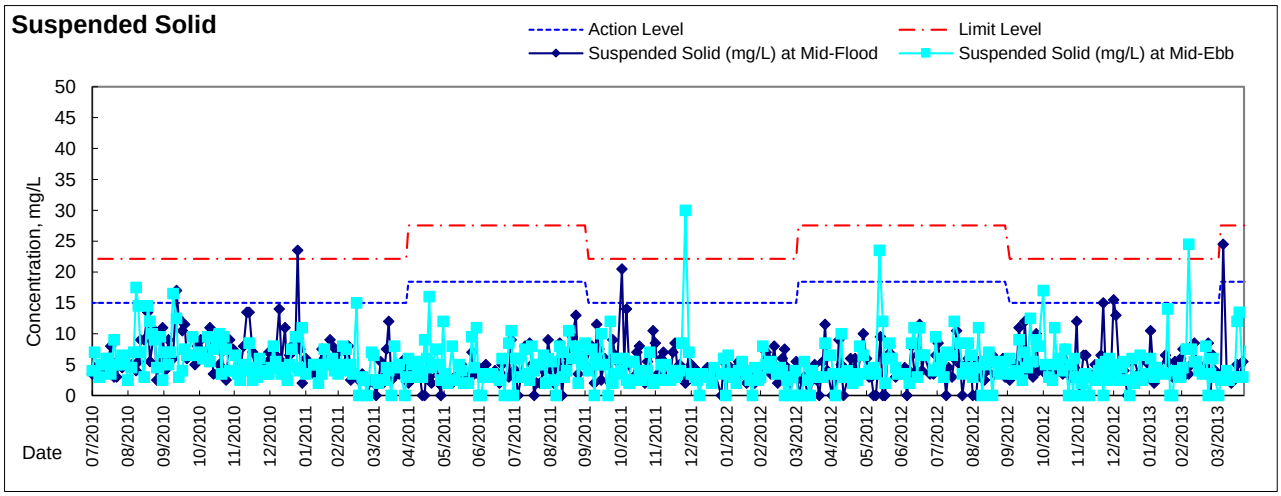




Graphic Presentation of Water Quality Result of C4w - WCT / GEC







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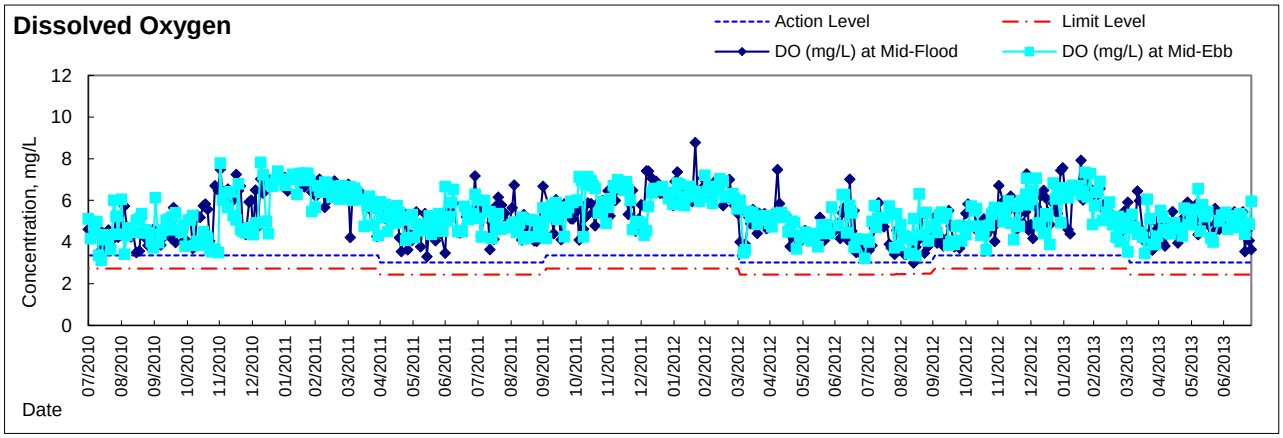
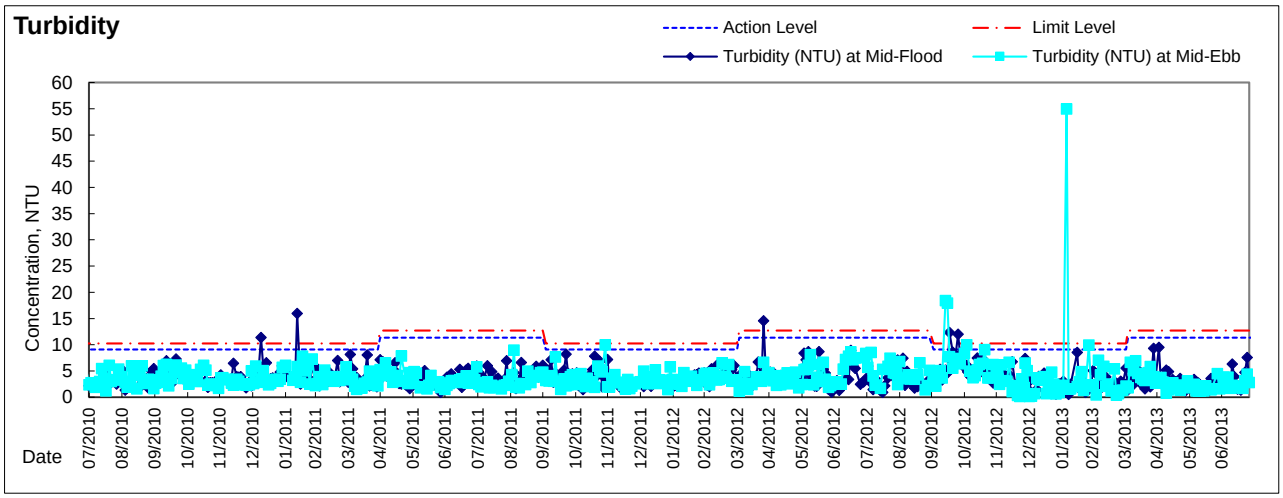
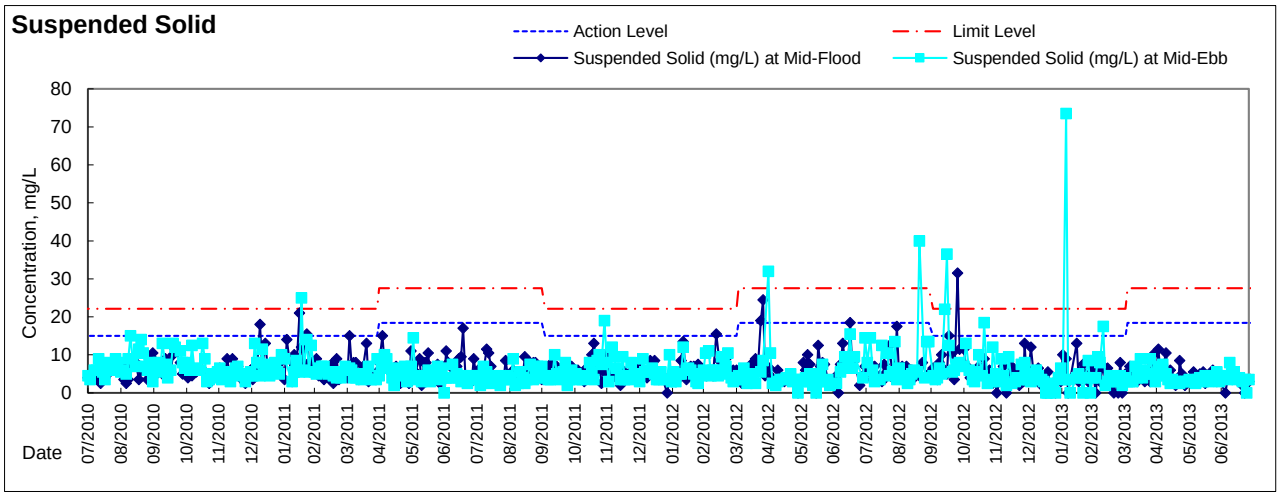
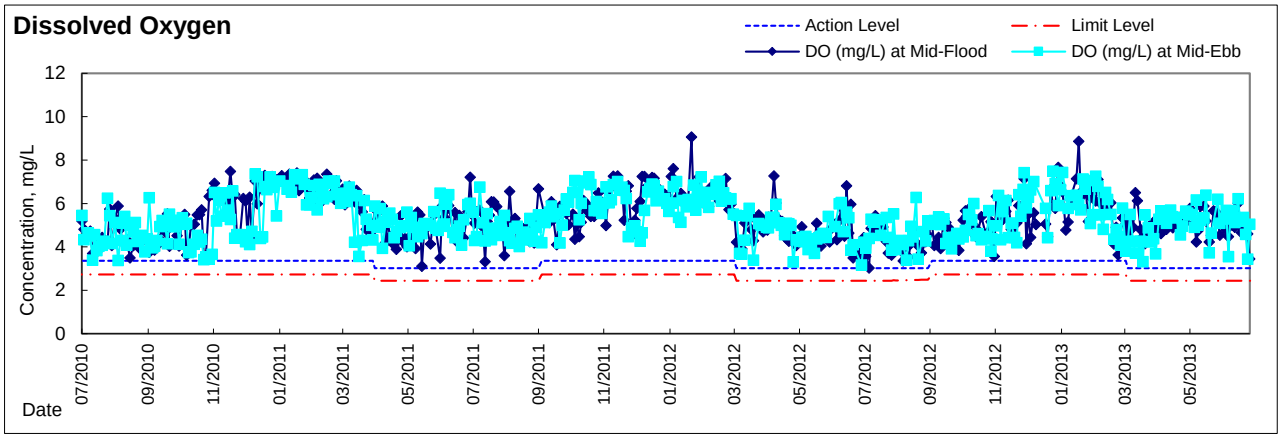
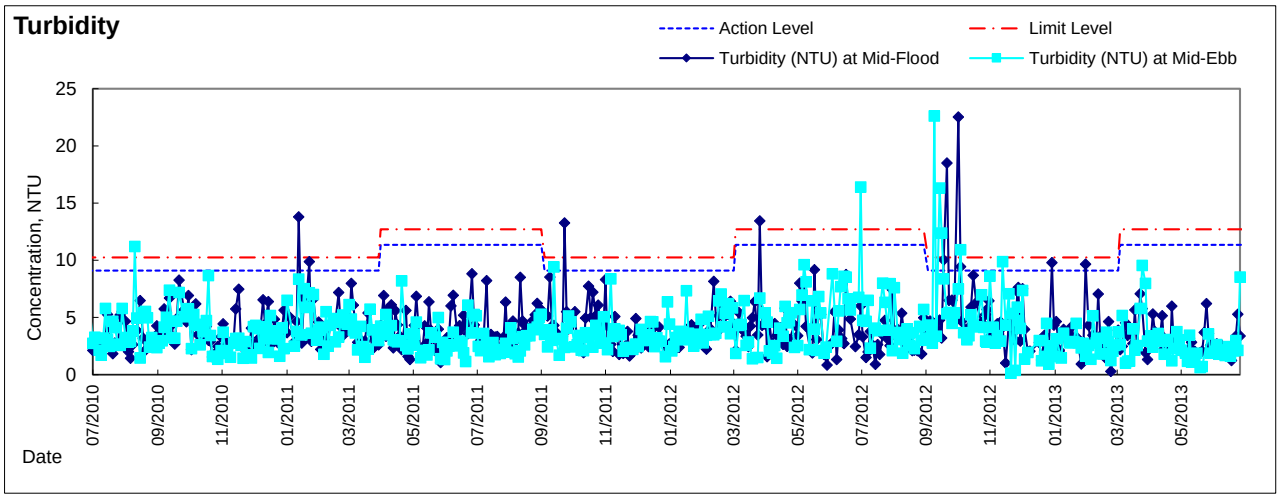


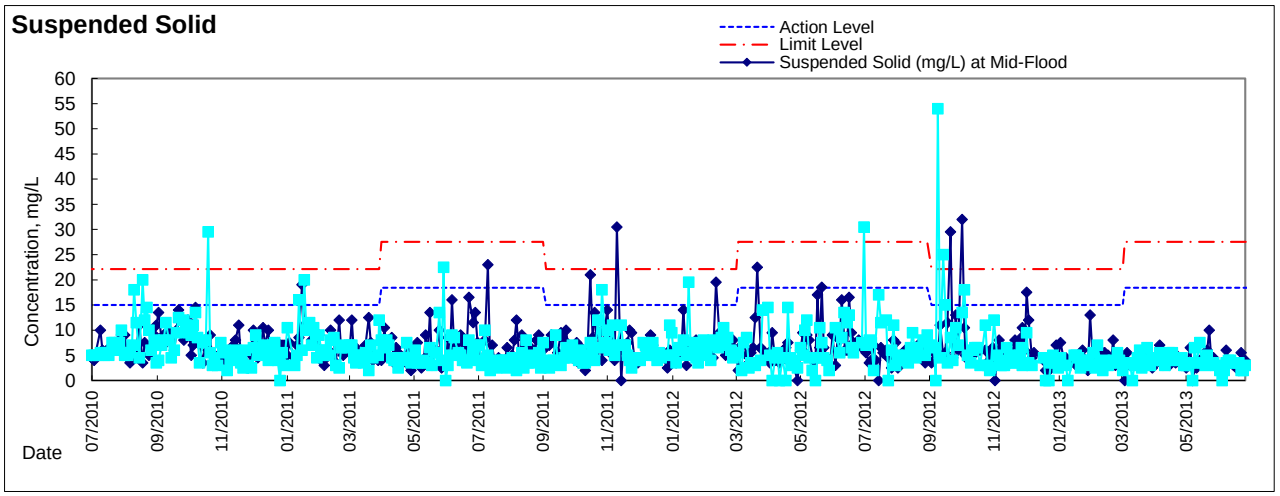




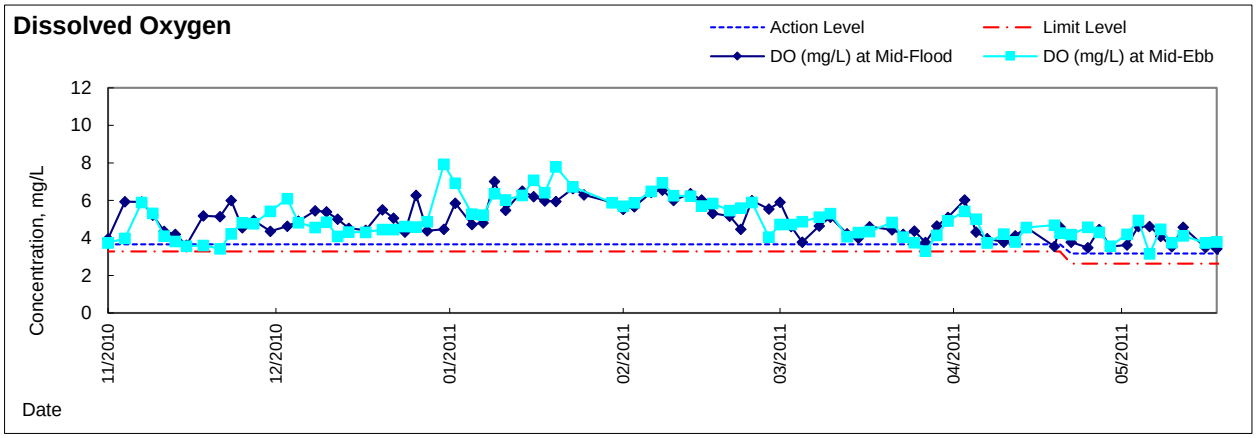
Graphic Presentation of Water Quality Result of C5w - Sun Hung Kai Centre

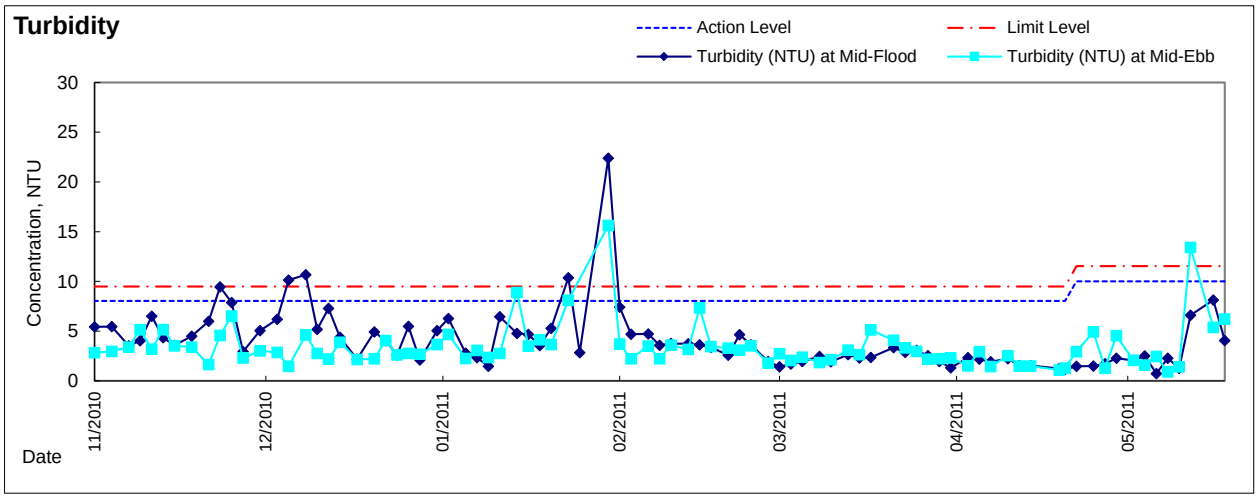


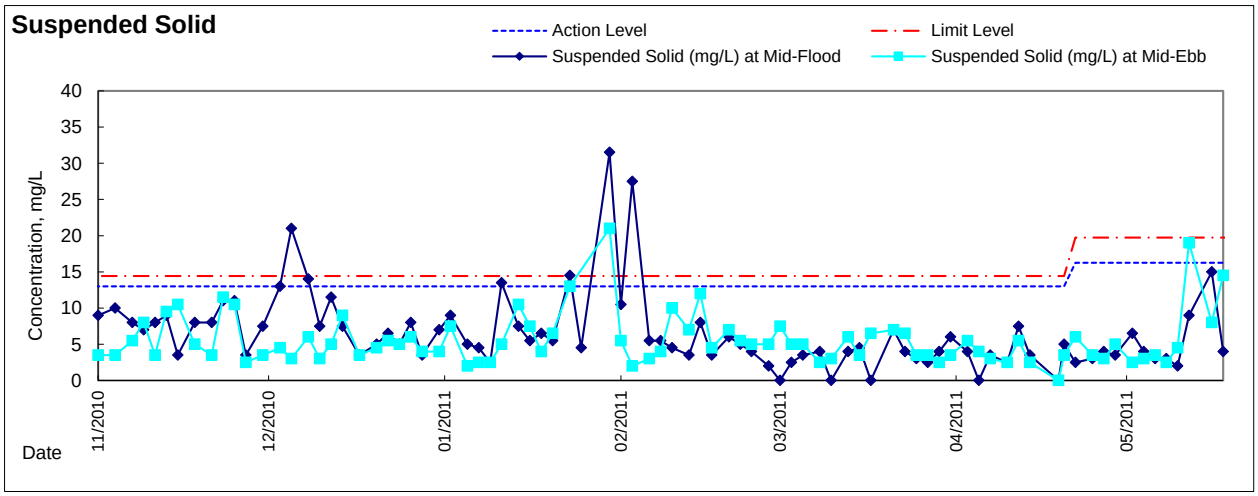




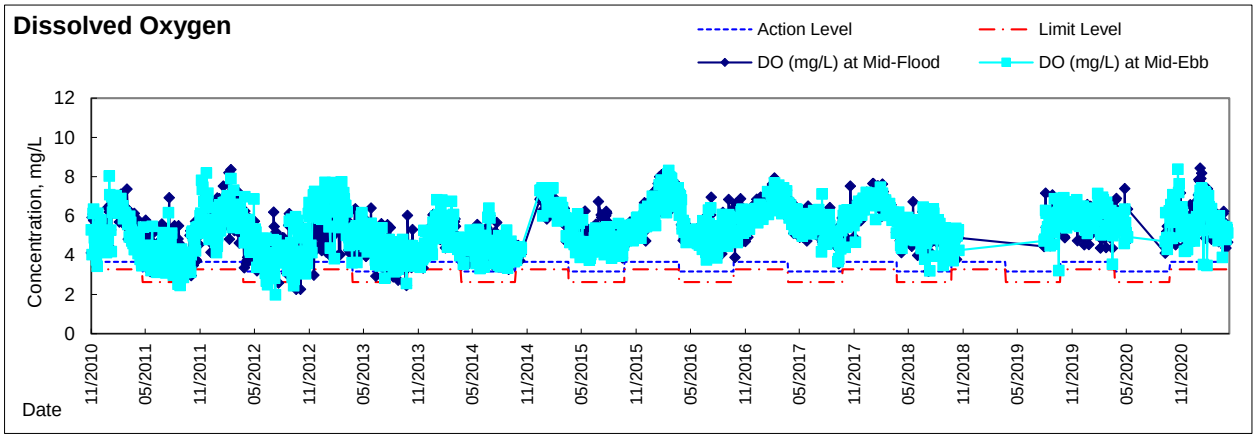
Graphic Presentation of Water Quality Result of C6 - Excelsior Hotel

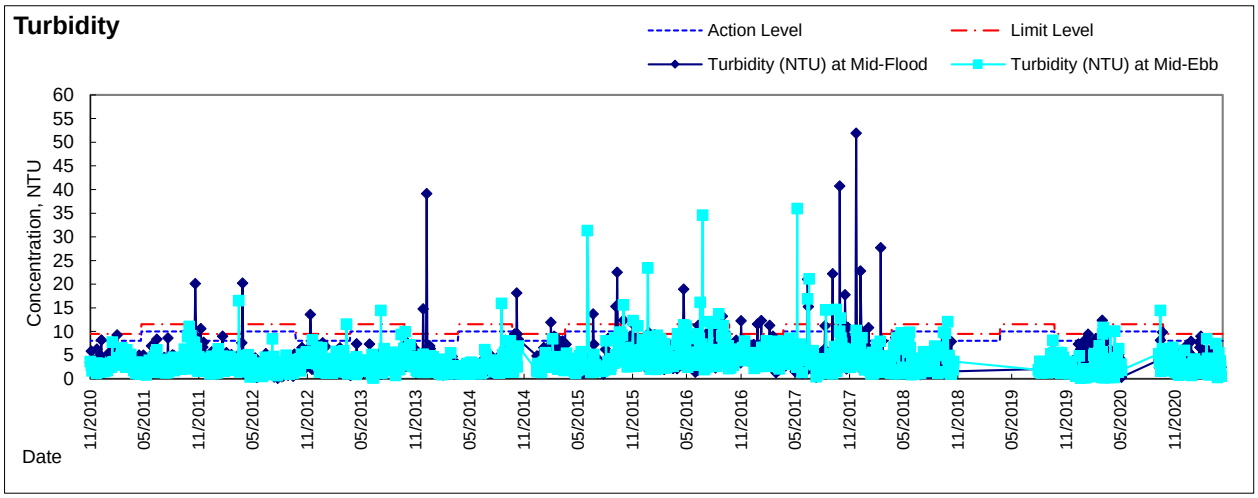


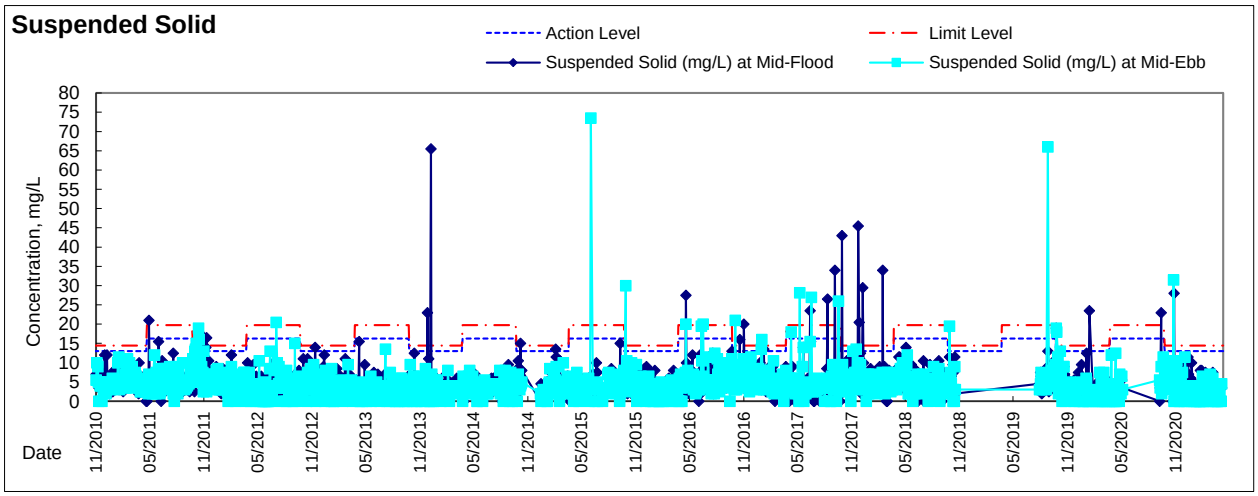




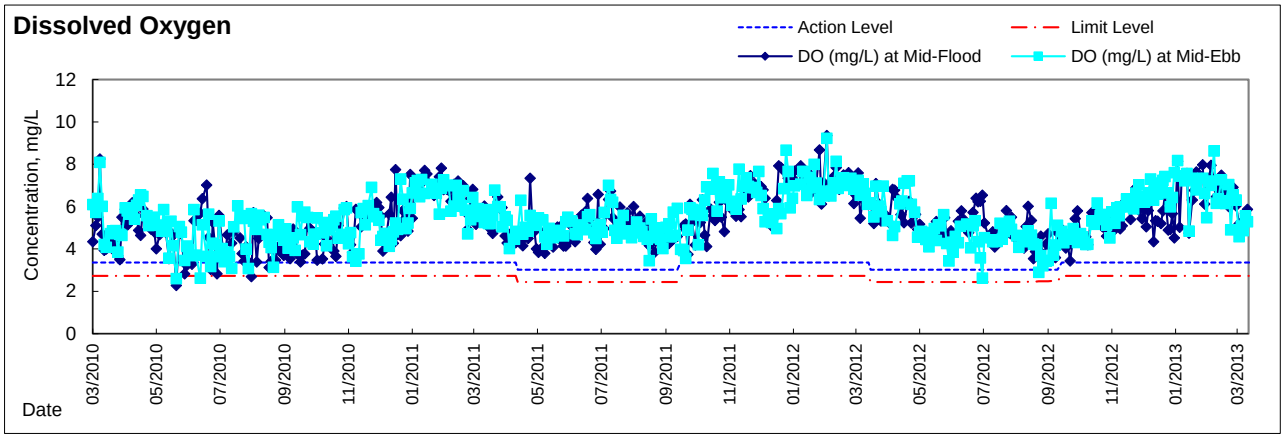
Graphic Presentation of Water Quality Result of C7 - Windsor House

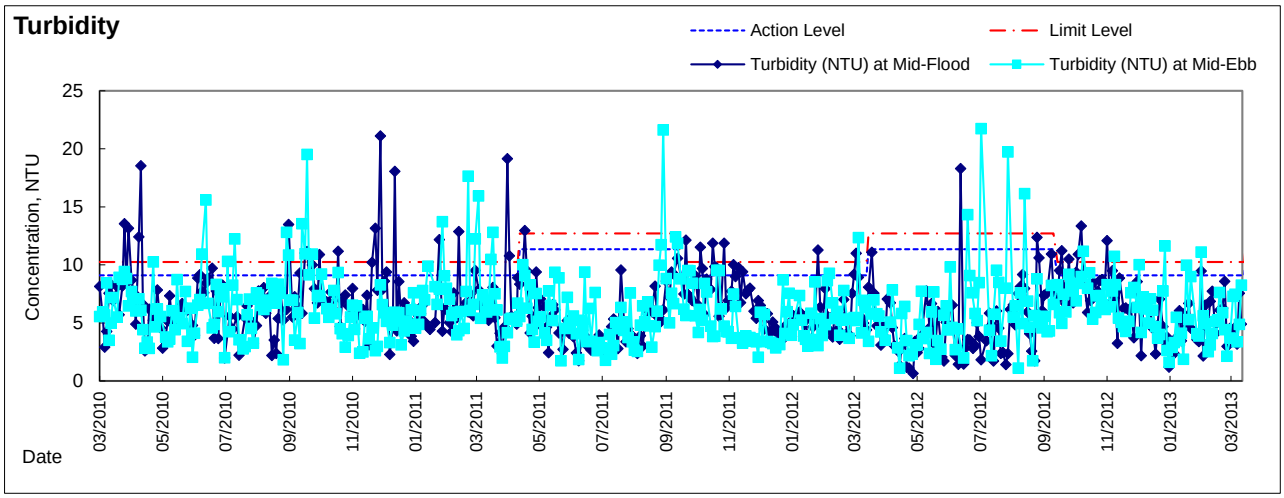


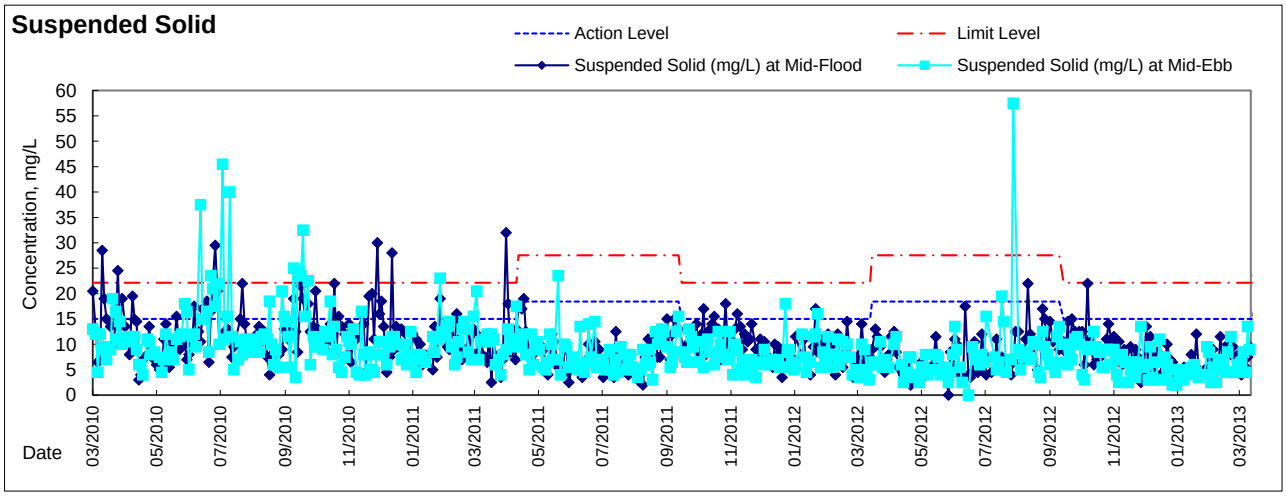




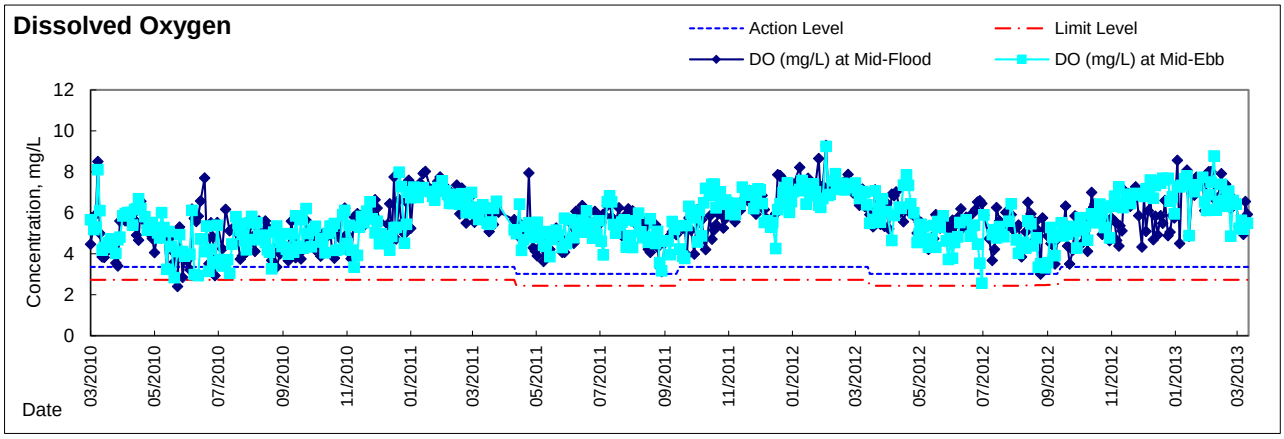
Graphic Presentation of Water Quality Result of C8 - City Garden

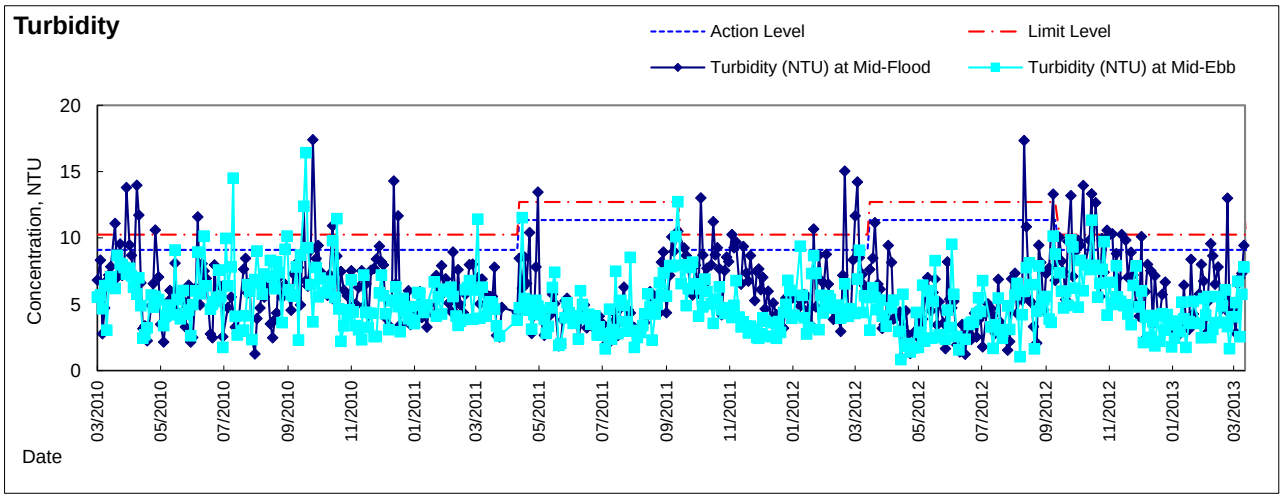


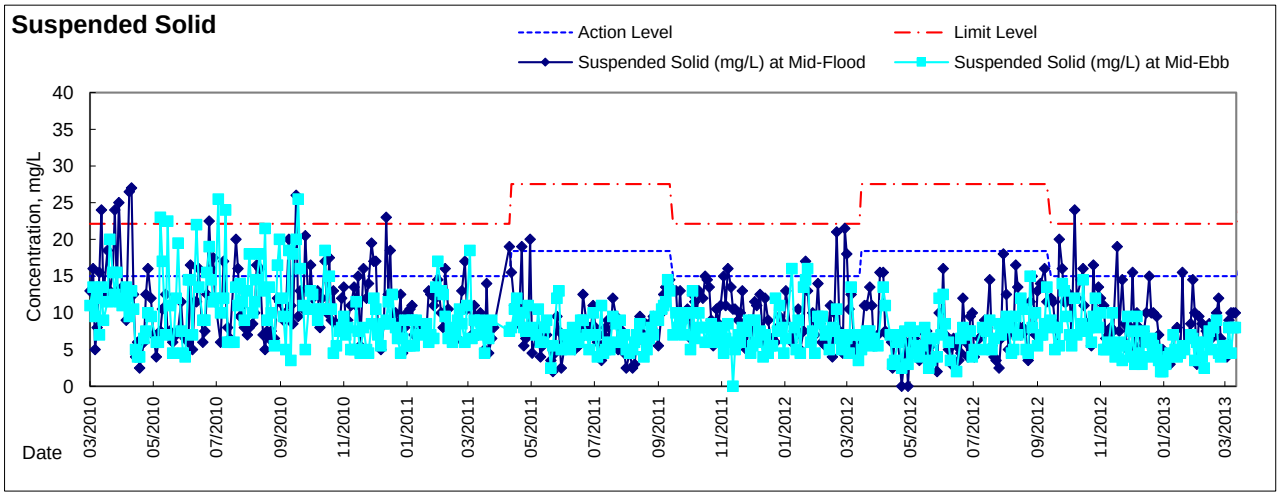




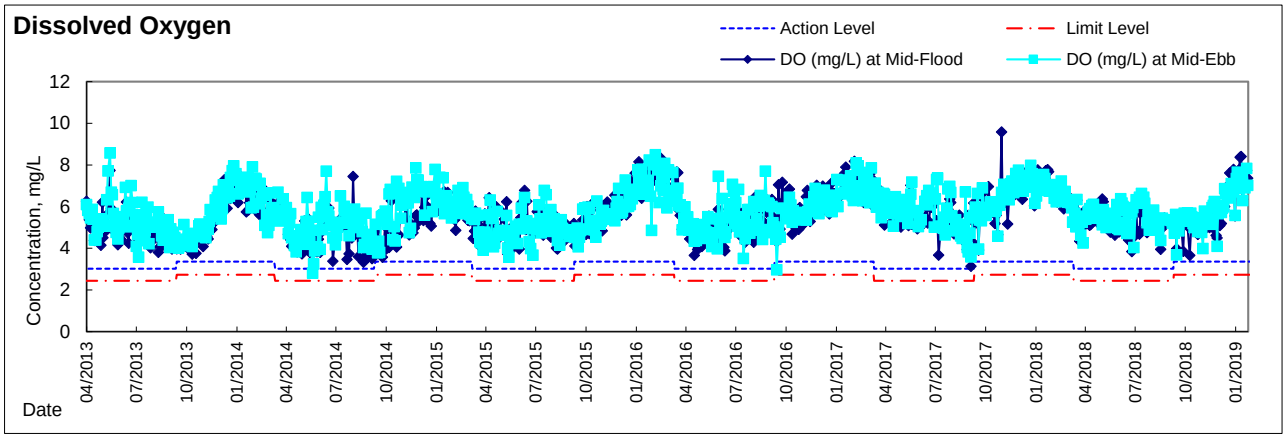
Graphic Presentation of Water Quality Result of C9 - Provident Garden

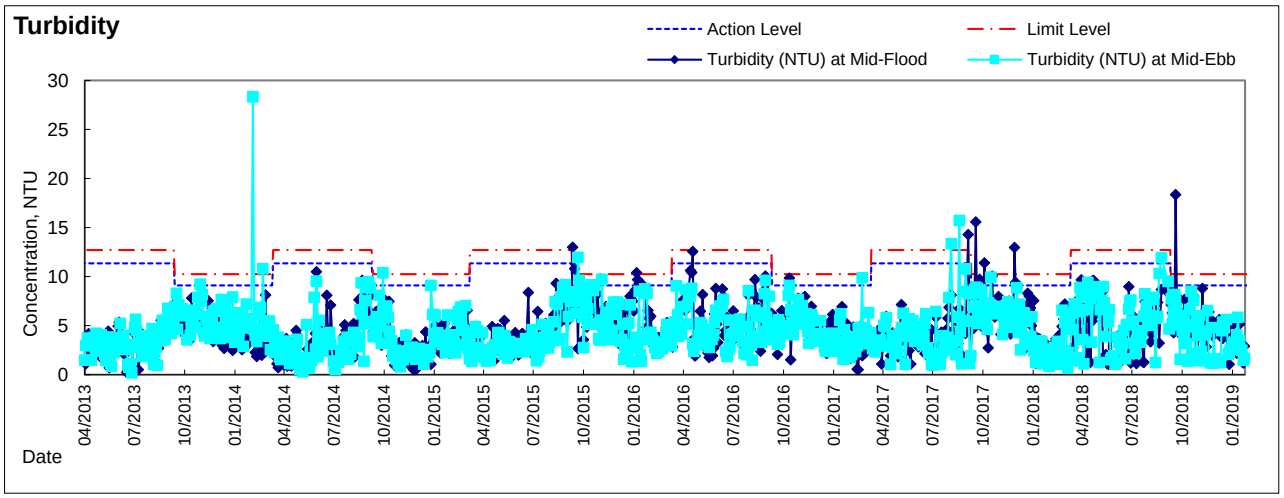


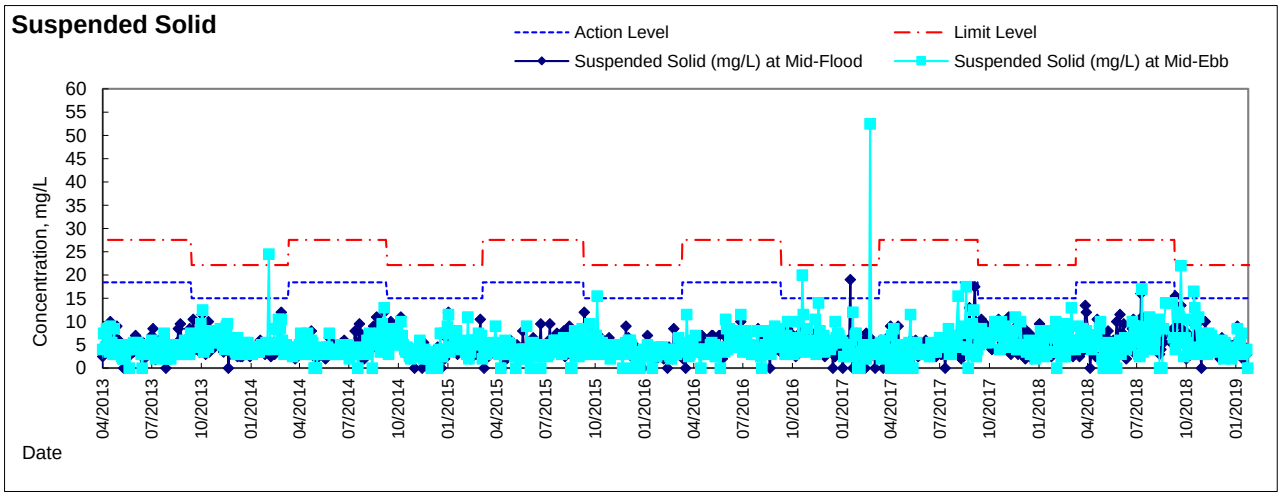




Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I







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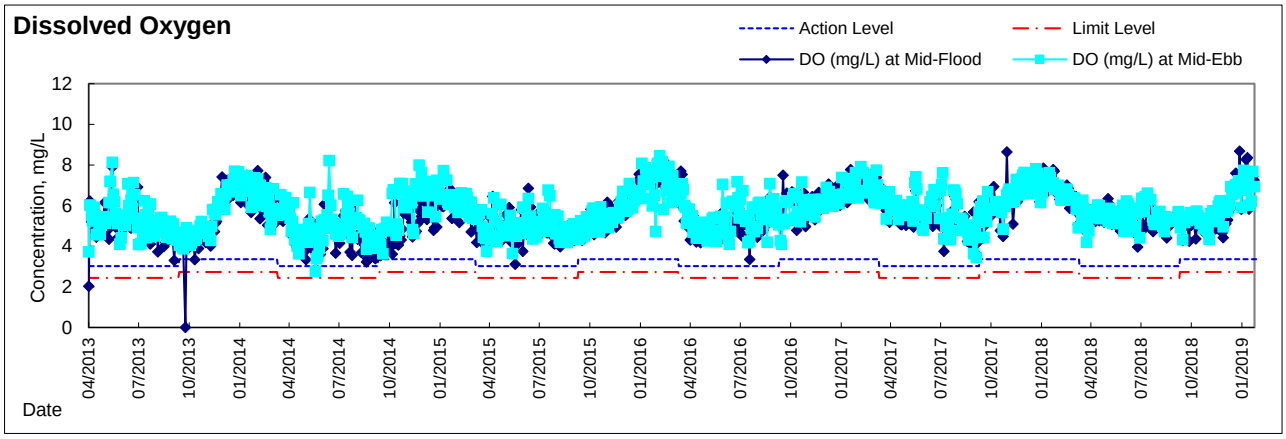
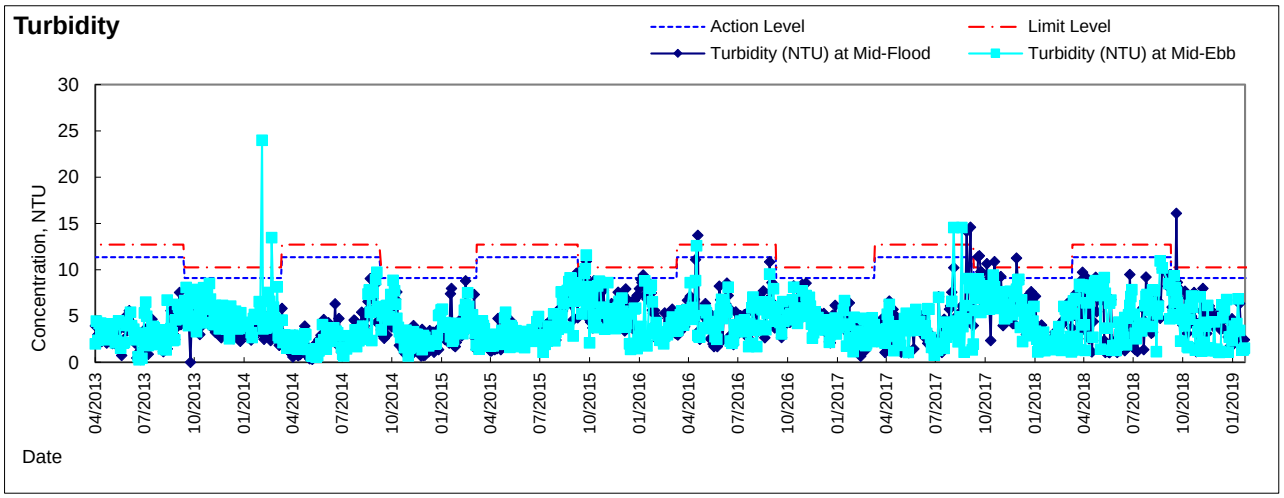
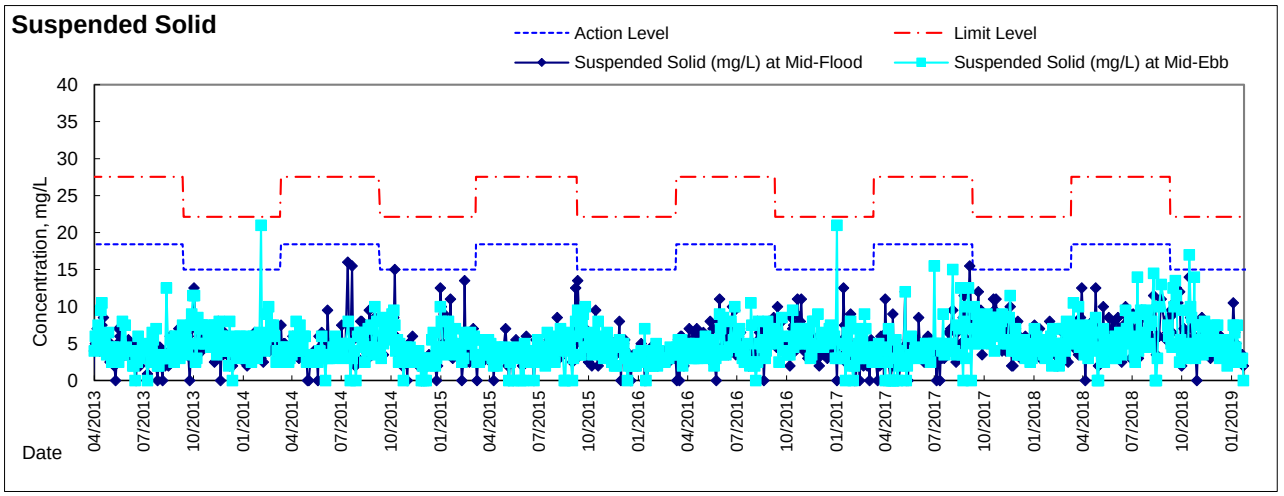
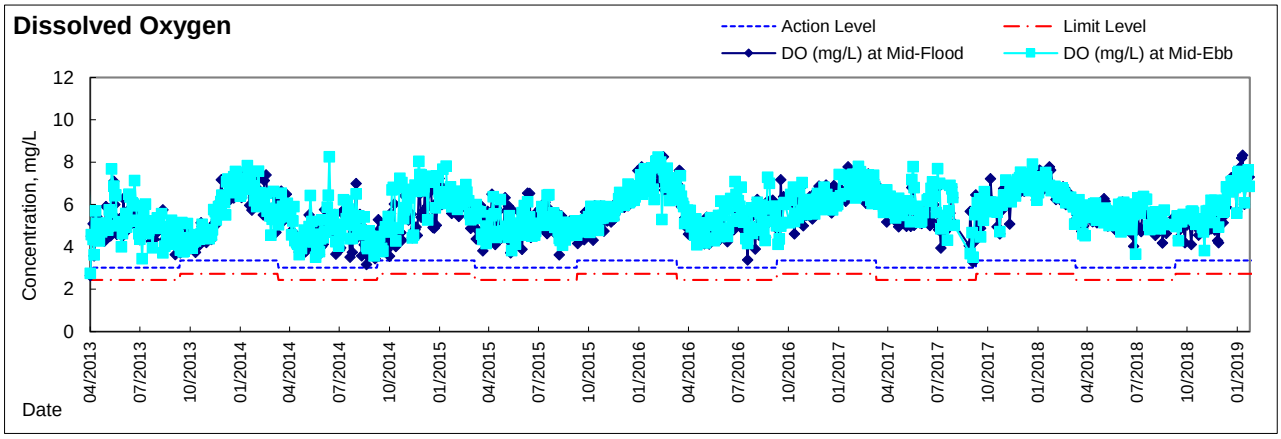
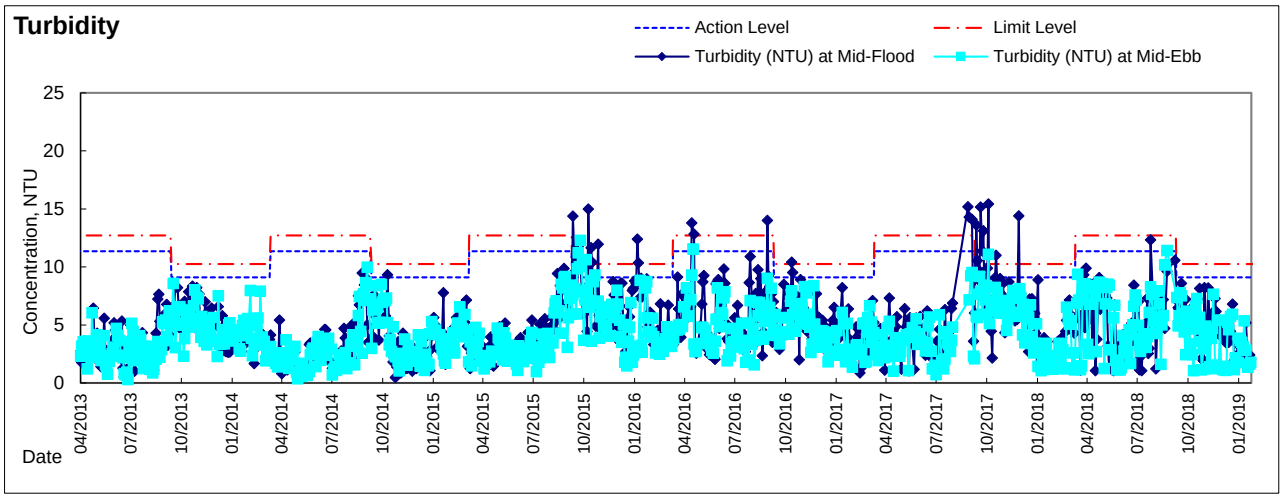


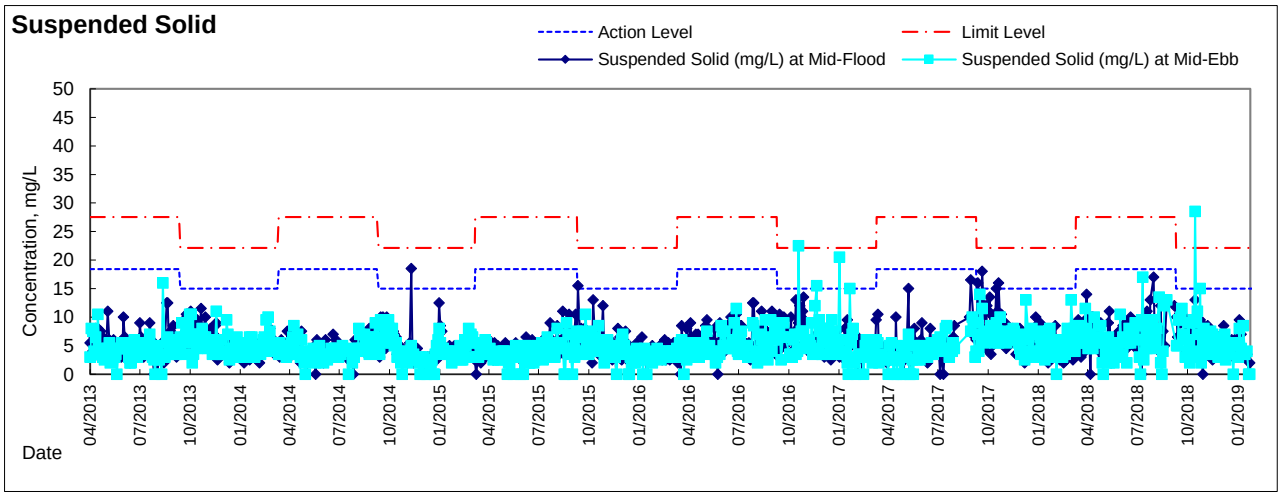




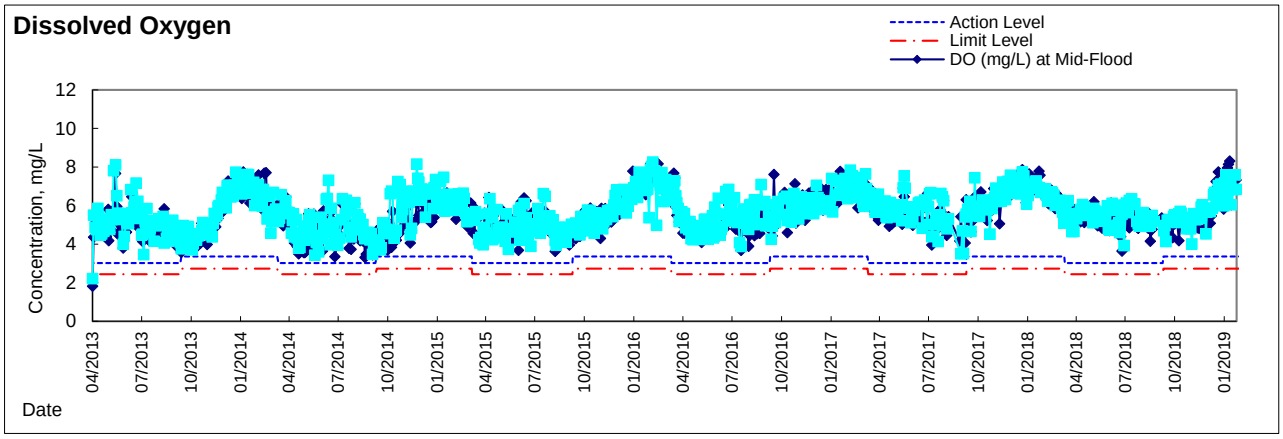
Graphic Presentation of Water Quality Result of P4 - SOC

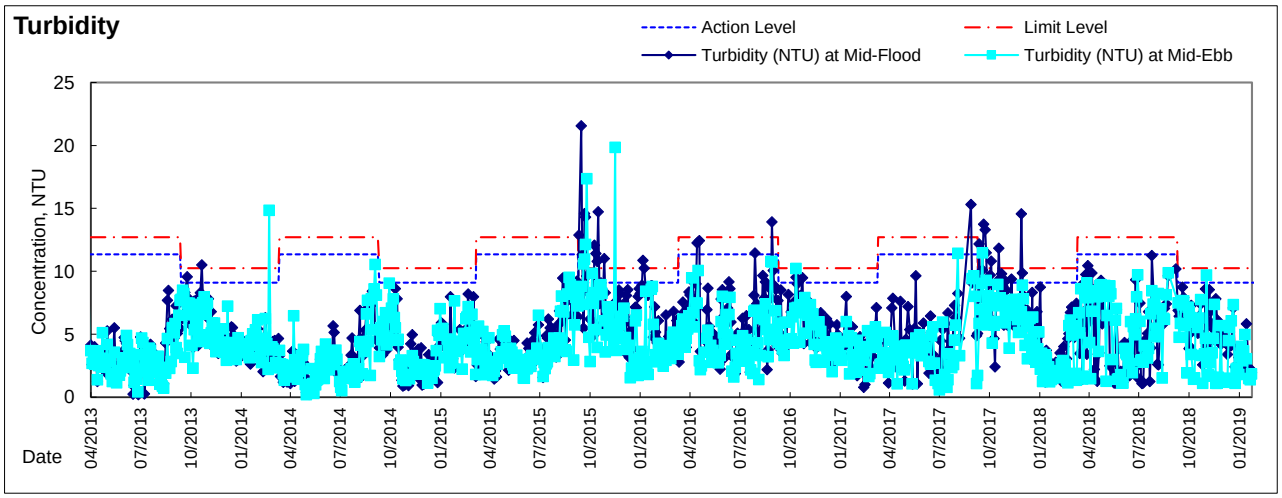


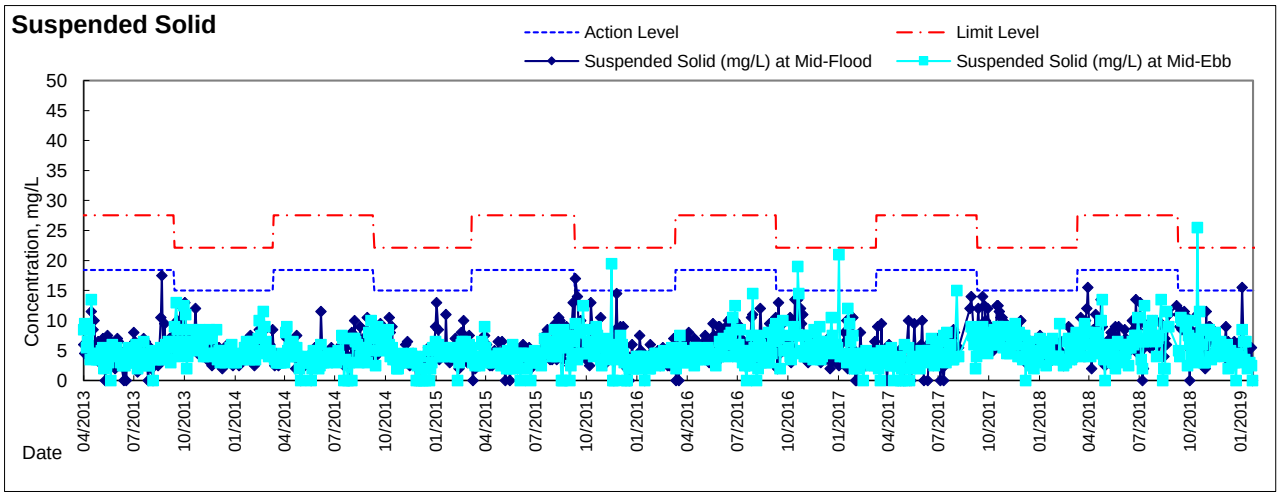




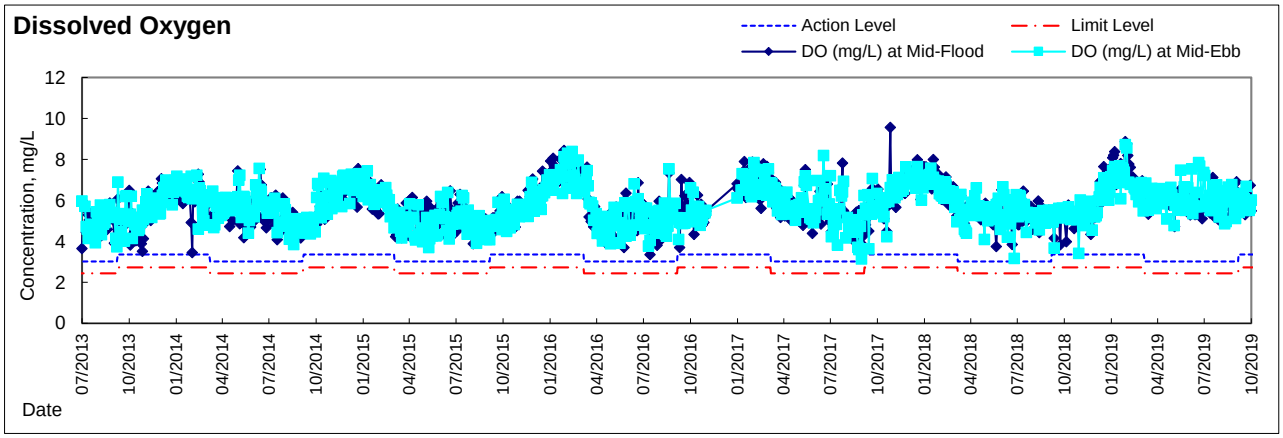
Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT

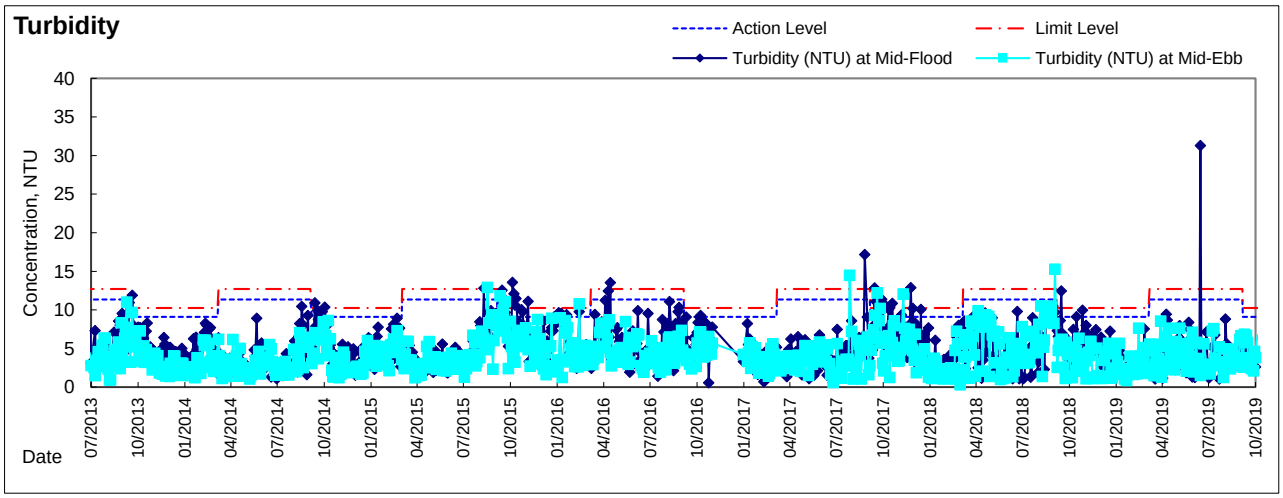


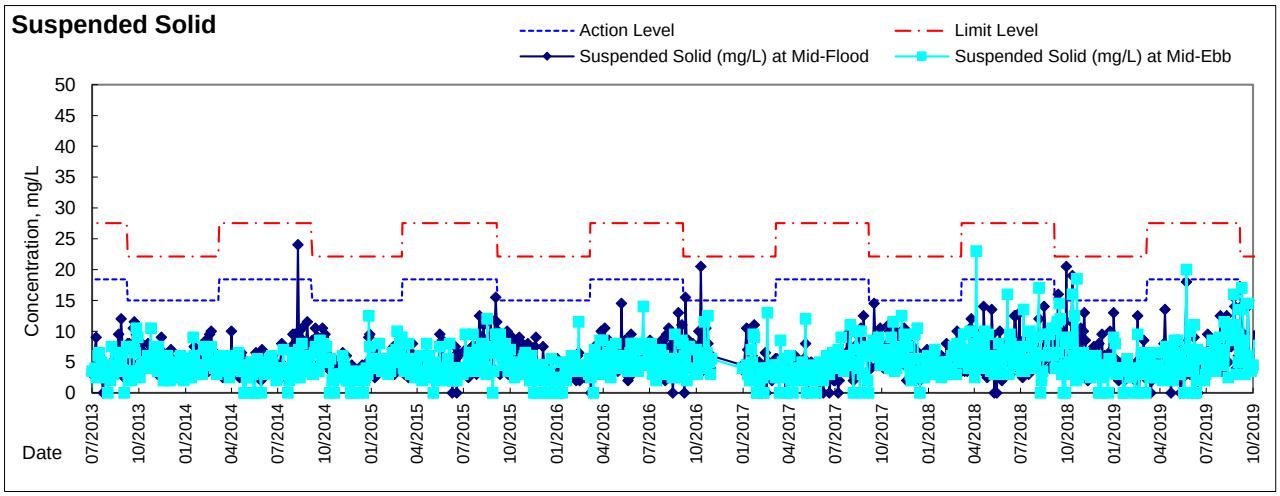




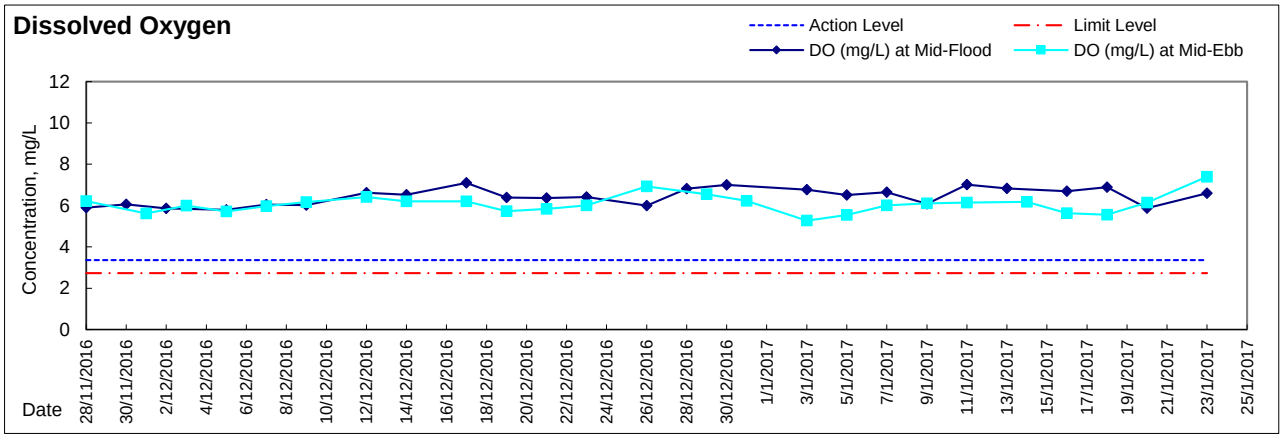
Graphic Presentation of Water Quality Result of RW21-P789 - GCE / CRB / SHK

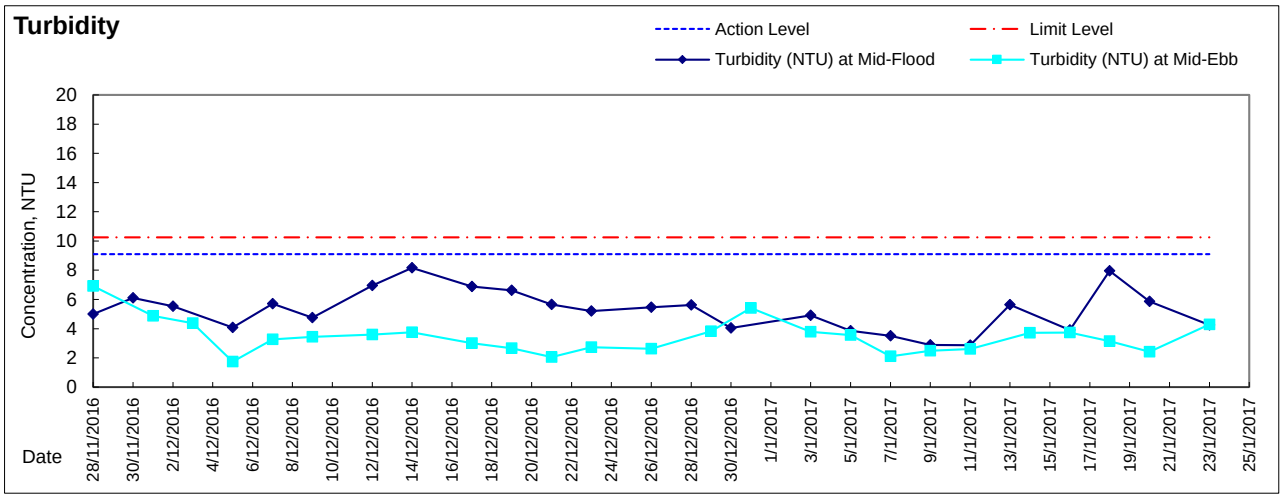


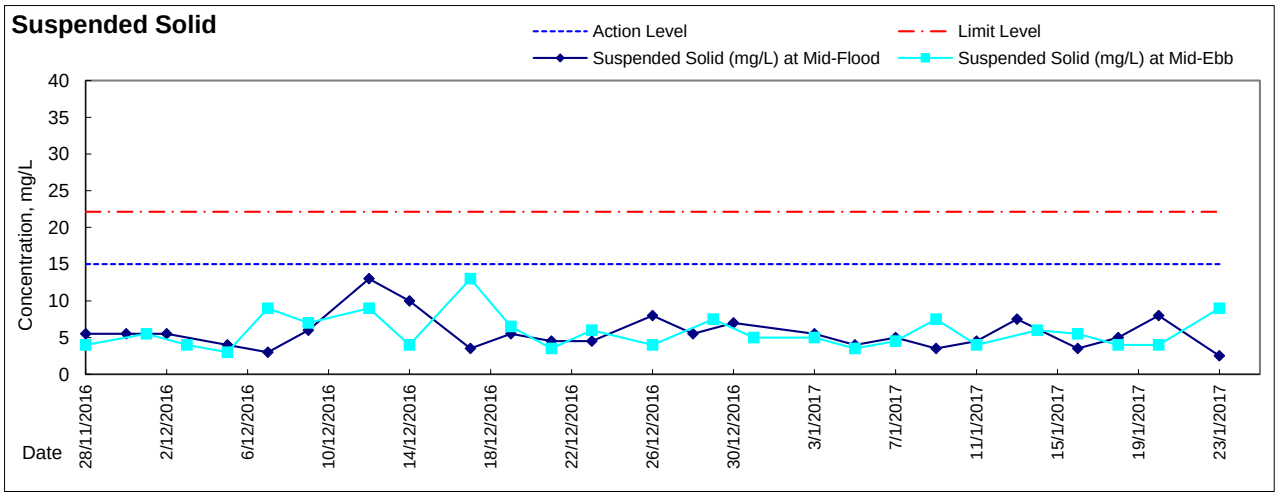




Graphic Presentation of Water Quality Result of RW21-P789W - GCE / CRB / SHK





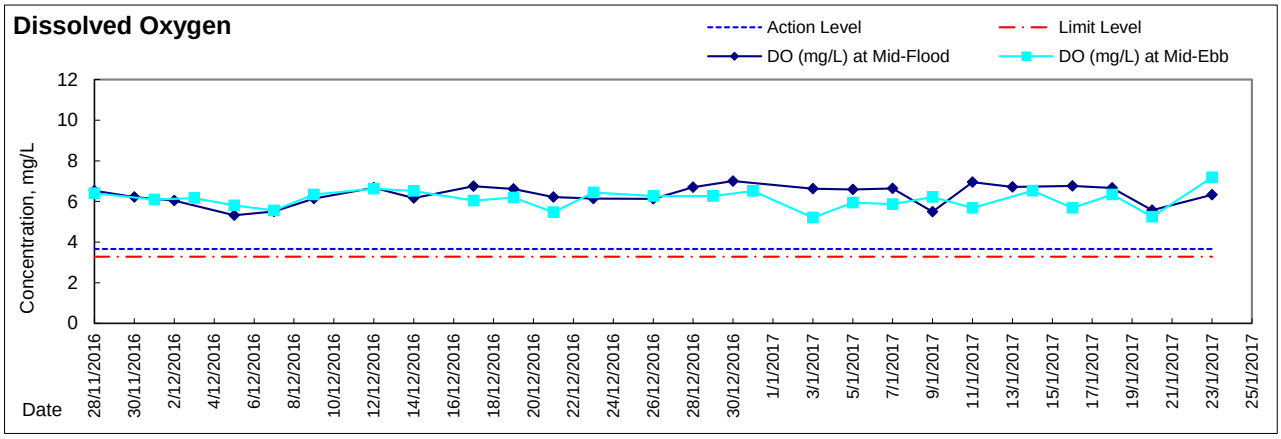


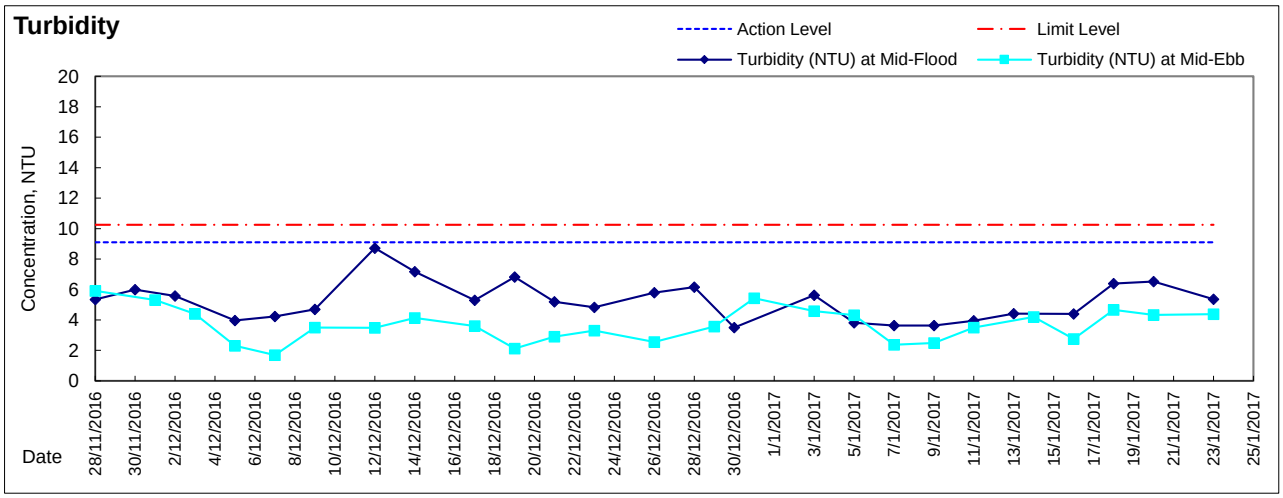
Remark

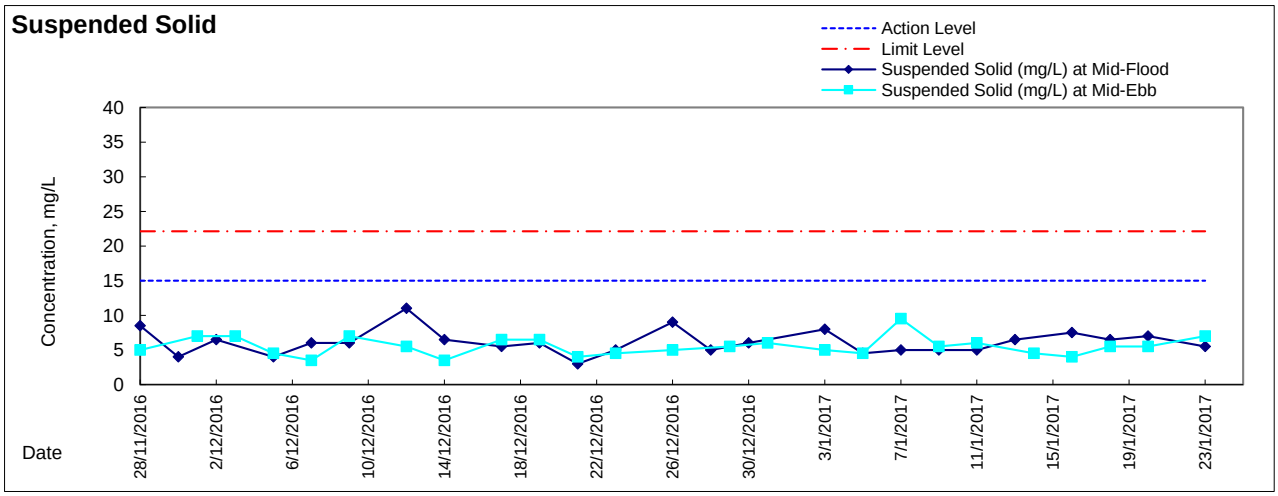
With respect to the removal of silt screen at WQM station RW21-P789 on 26 November 2016, the respective water quality monitoring at RW21-P789 was adjusted to RW21-P789E and RW21-P789W since 28 November 2016 ebb-tide.

With respect to the reinstatement of the silt screen system for Cooling Water Intakes P7, P8, P9 and WSD Water Intake RW21, the respective water quality monitoring was reverted to the previous monitoring location for Water Quality Monitoring Station RW21-P789 from water quality stations RW21-P789 East (RW21-P789E) and RW21-P789 West (RW21-P789W) from 25 January 2017 onwards.

Graphic Presentation of Water Quality Result of RW21-P789E - GCE / CRB / SHK



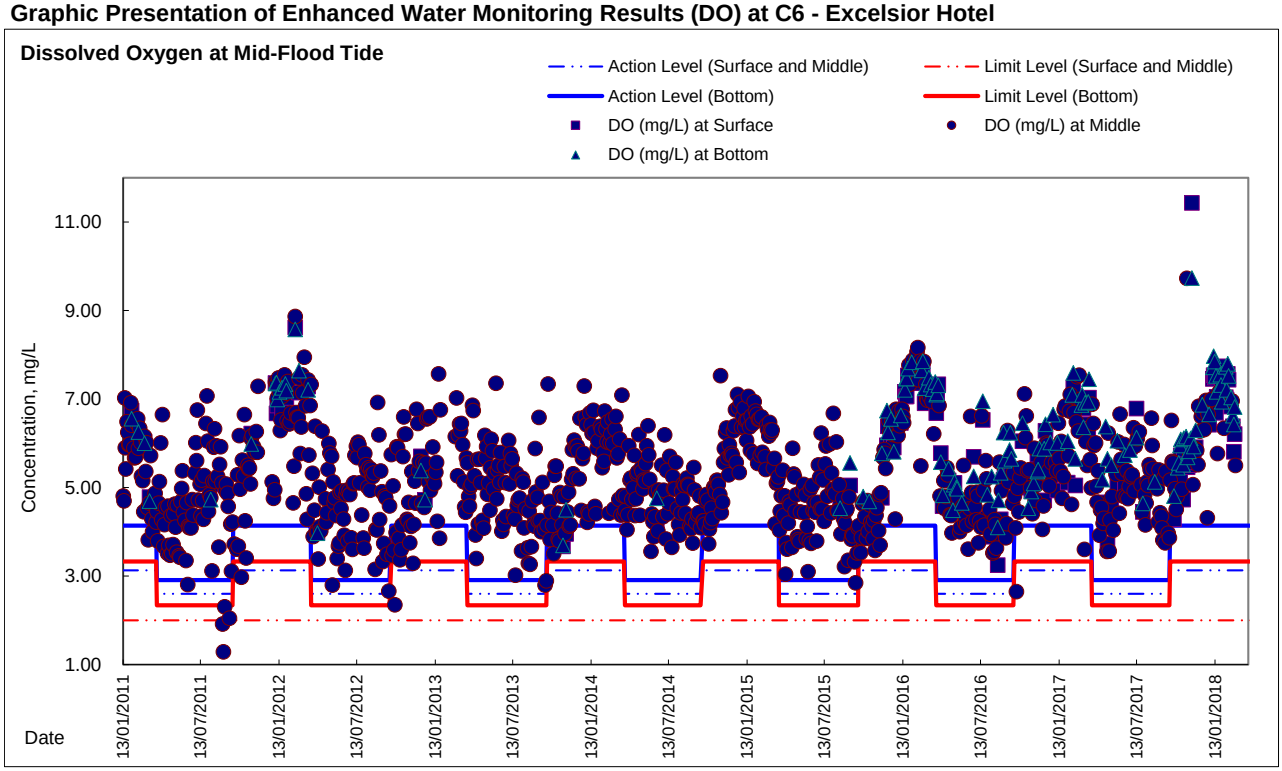


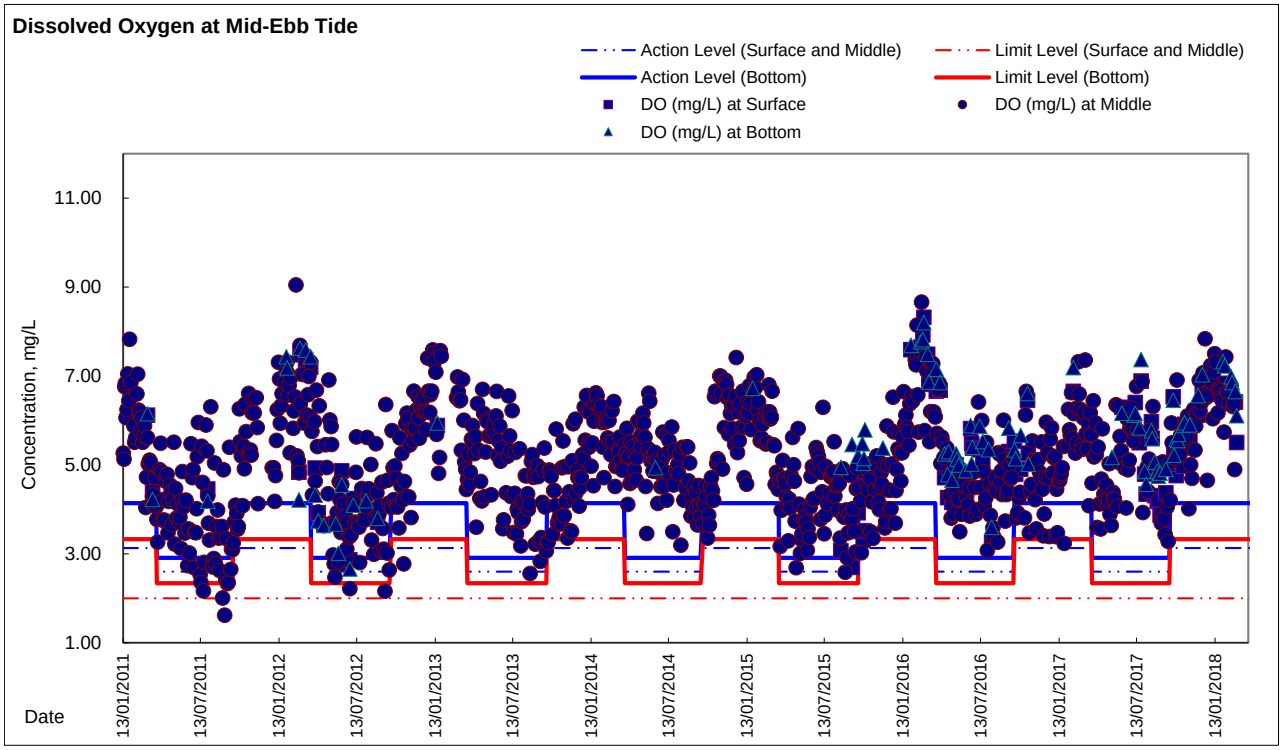


Remark:
With respect to the removal of silt screen at WQM station RW21-P789 on 26 November 2016, the respective water quality monitoring at RW21-P789 was adjusted to RW21-P789E and RW21-P789W since 28 November 2016 ebb-tide.

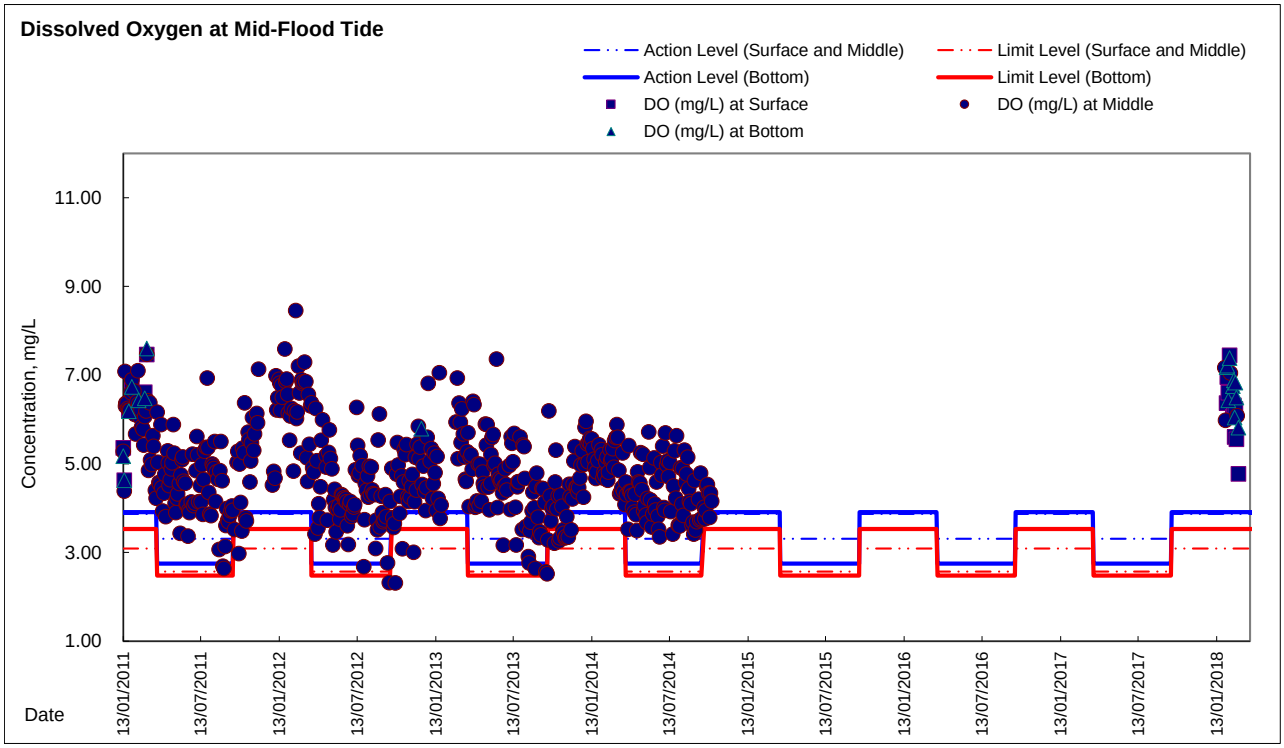
With respect to the reinstatement of the silt screen system for Cooling Water Intakes P7, P8, P9 and WSD Water Intake RW21, the respective water quality monitoring was reverted to the previous monitoring location for Water Quality Monitoring Station RW21-P789 from water quality stations RW21-P789 East (RW21-P789E) and RW21-P789 West (RW21-P789W) from 25 January 2017 onwards.

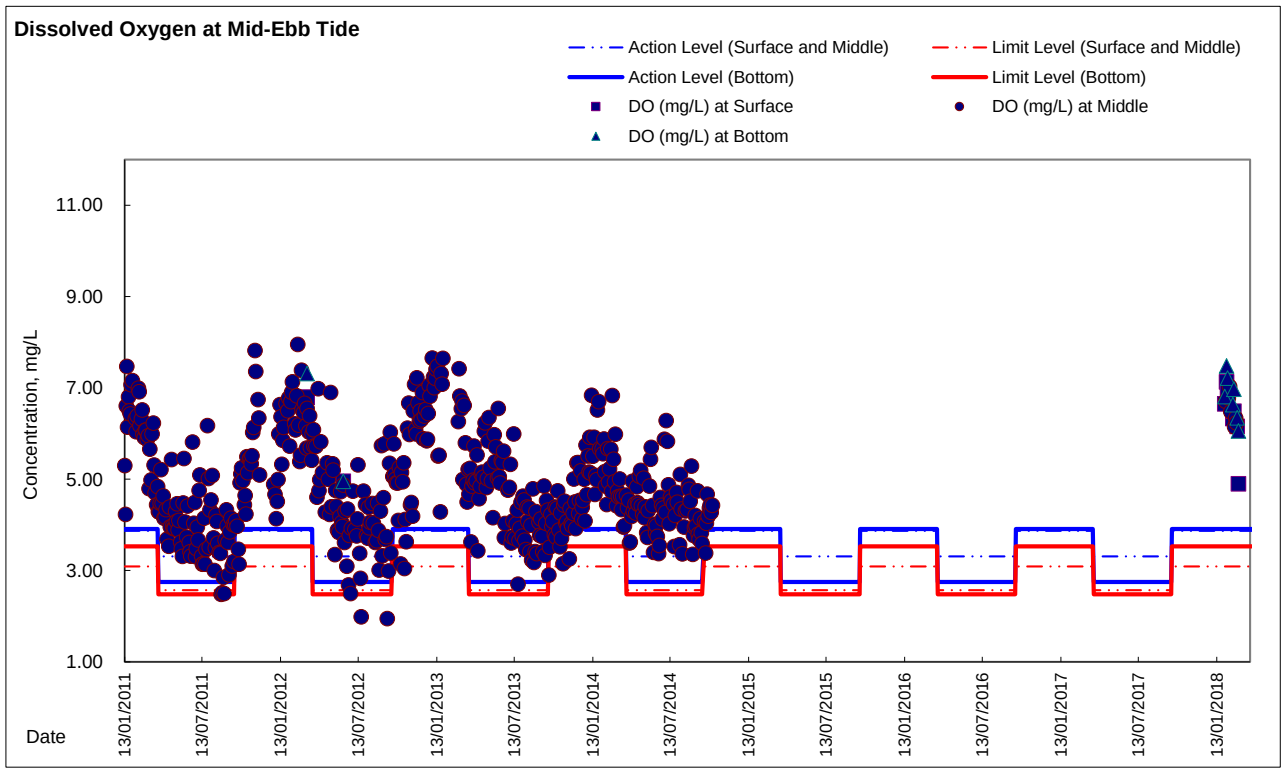
Graphic Presentation of Enhanced Water Monitoring Results (DO) at C6 - Excelsior Hotel



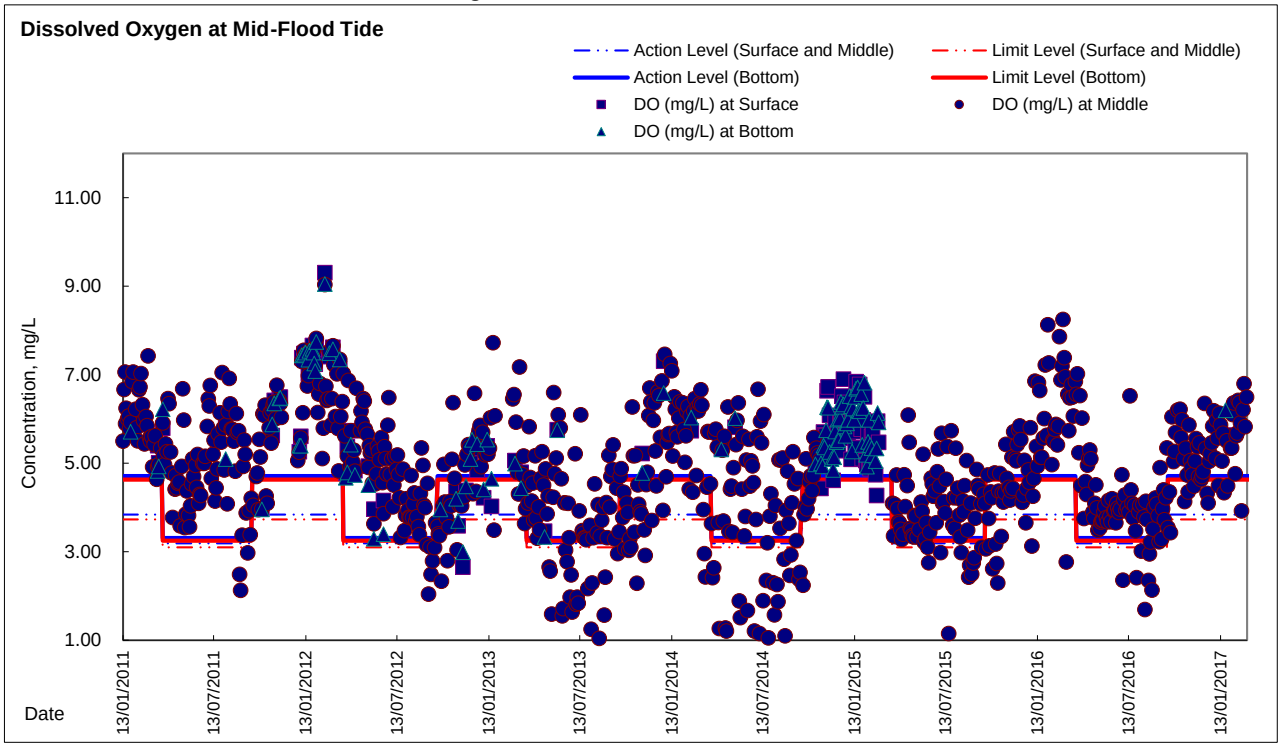


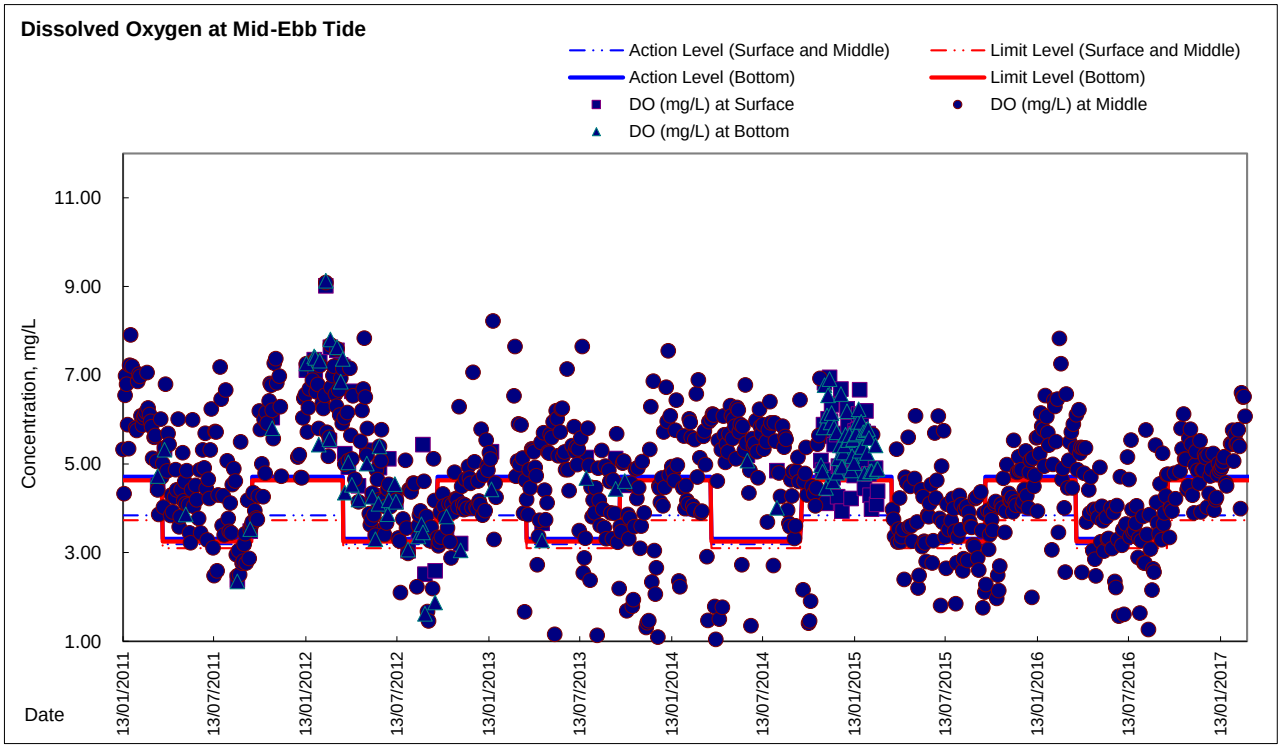
Graphic Presentation of Enhanced Water Monitoring Results (DO) at C7 - Windsor House



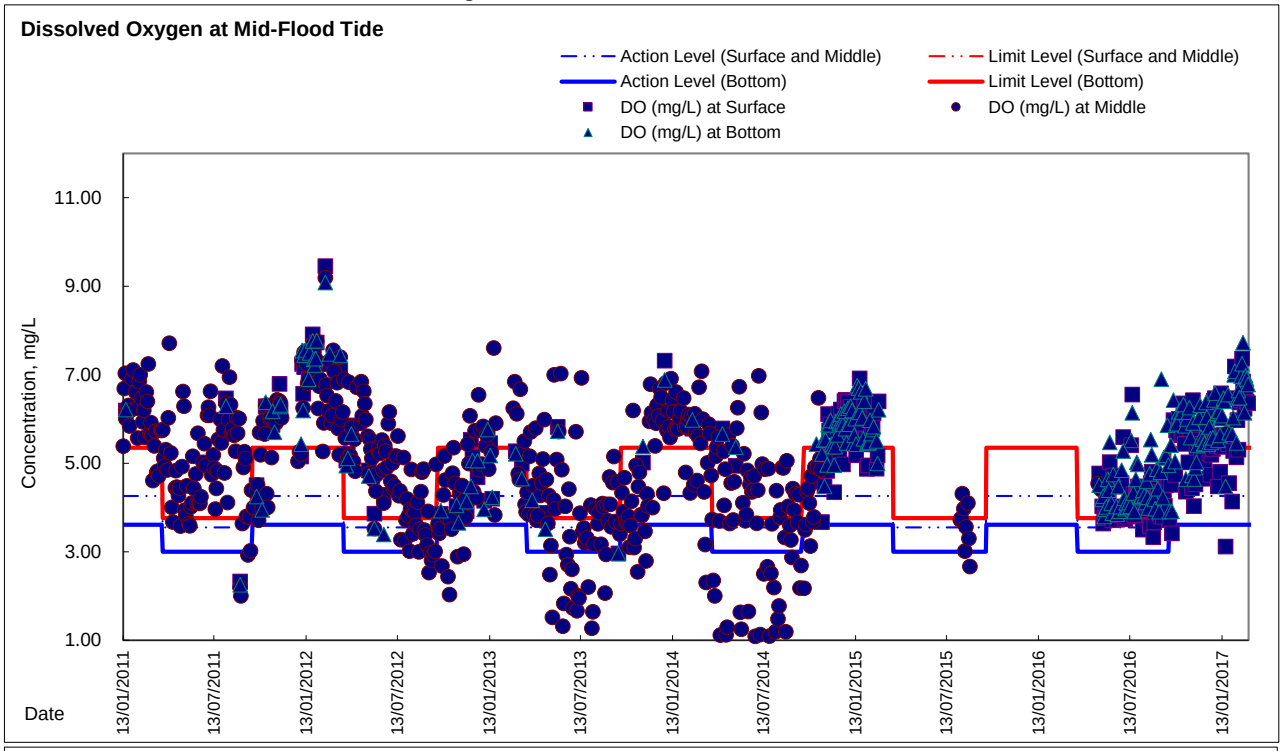


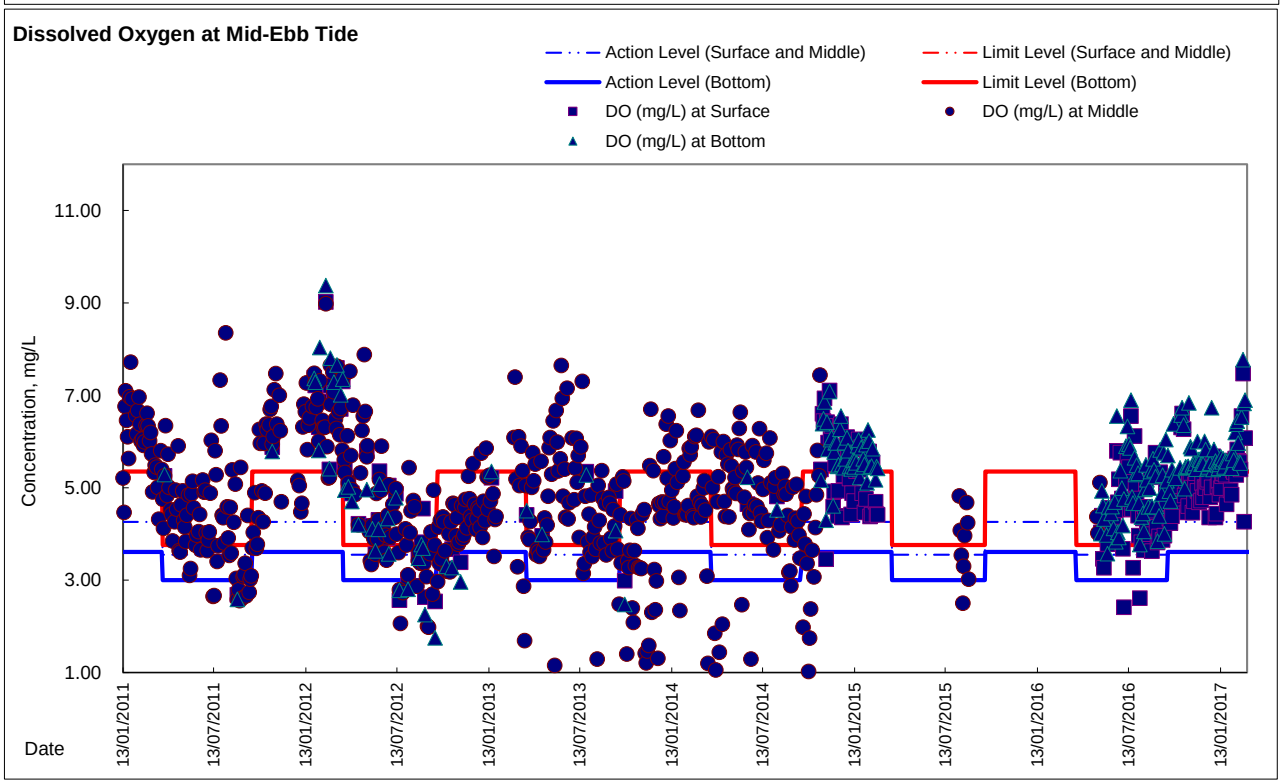
Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW
- South-western corners of ex-Public Cargo Works Area





Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SE
- South-eastern corners of ex-Public Cargo Works Area





Appendix 5.1

Environmental Mitigation Implementation Schedule

Environmental Mitigation Implementation Schedule

Implementation Schedule for Air Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
S3.6.5	Four times a day watering of the work site with active operations.	Work site / during construction	Contractor		√			EIAO-TM
S3.8.1	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimise cumulative dust impacts. • Strictly limit the truck speed on site to below 10 km per hour and water spraying to keep the haul roads in wet condition; • Watering during excavation and material handling; • Provision of vehicle wheel and body washing facilities at the exit points of the site, combined with cleaning of public roads where necessary; and • Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.	Work site / during construction	Contractor		√			

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S3.5.6	For the dredging activities carried out in the vicinity of Police Officers' Club, the dredging operation will be restricted to only 1 small close grab dredger to minimise the odour impact during the dredging activity. The dredging rate should be reduced as much as practicable for the area in close proximity to the Police Officers' Club. The sediments contain highly contaminated mud which may be disposed with the use of geosynthetic containers (details shall refer to Section 6), grab dredger has to be used for filling up the geosynthetic containers on barges. the dredging rate for the removal of the sediments at the south-west corner of the typhoon shelter shall be slowed down or restricted to specific non-popular hours in weekdays when it is necessary during construction.	Corner of CBTS/implementation of harbour-front enhancement	CEDD[1]		√			EIAO-TM
S3.8.8	Carry out dredging at the corner of CBTS to remove the sediment and clean the slime attached on the CBTS shoreline seawall	Corner of CBTS & CBTS shoreline seawall/implementation of harbour-front enhancement	CEDD[2]		√			EIAO-TM
Operation Phase								
For the Whole Project								

[1] CEDD will identify an implementation agent.

[2] CEDD will identify an implementation agent.

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S3.10.2	Monthly (from July to September) monitoring of odour impacts, for a period of 5 years, is proposed during the operational phase of the Project to ascertain the effectiveness of the Enhancement Package over time, and to monitor any on-going odour impacts at the ASRs.	Planned ASRs (CBTS Breakwater)/First 5-year period of operation phase	CEDD[1]			√		EIAO-TM
For DP1 – CWB (Within the Project Boundary)								
S3.6.53 – S3.6.54	The design parameters of the East and Central Ventilation Buildings as set in Tables 3.10 and 3.11	East and Central Ventilation Buildings / During operation of the Trunk Road	HyD			√		
S3.10.2	Air quality monitoring for the operation performance of the East Ventilation Building and associated East Vent Shaft will be conducted.	East Vent Shaft / During operation of the East Ventilation Building and associated East Vent Shaft	HyD			√		EIAO-TM

- Des - Design, C - Construction, O – Operation, and Dec – Decommissioning

Table A13.2 Implementation Schedule for Noise Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.9.4	Good Site Practice: • Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program. • Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program. • Mobile plant, if any, shall be sited as far away from NSRs as possible. • Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum. • Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. • Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP1 – CWB (Within the Project Boundary)								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.3 – S4.8.5	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: • Slip road 8 tunnel • Construction of diaphragm wall and substructures of the tunnel approach ramp • Excavation • Construction of slabs • Backfill • Demolition and construction of substructures for the IEC • Demolition works of existing piers and crossheads of the marine section of the existing IEC Use of PME grouping for the following tasks: • At-grade road construction • Substructure for IECL connection	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP2 – WDII Major Roads (Road P2)								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: • Temporary road diversion • Resurfacing • At-grade roadwork	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP3 – Reclamation Works								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following task: • Filling behind seawall • Seawall construction	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
For DP5 – Wan Chai East Sewage Outfall								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: • Submarine pipelines (marine section) Use of quiet powered mechanical equipment and movable noise barrier for the following tasks: • Installation of a new pipeline (land section)	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: • Submarine pipelines (marine section) •	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Operation Phase								
For DP1 – CWB (Within the Project Boundary)								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.14 – S4.8.18	• For Existing NSRs • about 235m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC • about 230m length of noise semi-enclosure with transparent panel covering the main carriageways (eastbound and westbound) of the CWB and IEC • about 135m length of 5.5m high cantilevered noise barrier with 3m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC • about 95m length of 5.5m high cantilevered noise barrier with 1m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC • about 350m length of 3.5m high vertical noise barrier with transparent panel on the eastbound slip road to the IEC • low noise road surfacing for the trunk road (except tunnel section and beneath the landscaped deck at the eastern portal area) with speed limit of 70 km/hour	Near North Point / Before commencement of operation of road project	HyD	√	√	√		EIAO-TM
	For Future/Planned NSRs • about 265m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC	In between the Electric Centre (next to City Garden) and CDA(1) site / Before occupation of Planned NSRs in CDA and CDA(1) sites.	HyD	√	√ #			

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	• The openable windows of the temple, if any, should be orientated so as to avoid direct line of sight to the existing Victoria Park Road as far as practicable.	Near Causeway Bay Fire Station / During detailed design of the re-provisioned Tin Hau Temple	Project Proponent for the re-provisioned Tin Hau Temple	√				

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Only the steel frame for this section of noise semi-enclosure would be erected in advance during the construction of the westbound slip road.

Table A13.3 Implementation Schedule for Water Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For DP3 – Reclamation Works, DP5 (Wan Chai East Sewage Outfall), DP6 (Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui), DP1 – CWB (within the Project Boundary)								
S5.8	A phased reclamation approach is planned for the WDII. Containment of fill within each of the reclamation phases by seawalls is proposed, with the seawall constructed first (above high water mark) with filling carried out behind the completed seawalls. Any gaps that may need to be provided for marine access will be shielded by silt curtains to control sediment plume dispersion away from the site. Filling for seawall construction should be carried out behind the silt curtain	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8	Dredging shall be carried out by closed grab dredger for the following works: • Seawall construction in all the reclamation areas; • Construction of the CWB Tunnel • Construction of the proposed WSD water mains; and • Construction of the proposed Wan Chai East sewage outfall pipelines.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Dredging for the Wan Chai East sewage outfall pipelines shall not be carried out concurrently with the following activities: • Dredging along the proposed cross-harbour water mains; • Dredging along the seawall in the Wan Chai Reclamation (WCR) zone (area between HKCEC Extension and PCWA).	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	The water body behind the temporary reclamations within the Causeway Bay typhoon shelter shall not be fully enclosed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8	As a mitigation measure, to avoid the accumulation of water borne pollutants within the temporary embayment between CRIII and HKCEC1, an impermeable barrier, suspended from a floating boom on the water surface and extending down to the seabed, will be erected by the contractor before the HKCEC1 commences. The barrier will channel the stormwater discharge flows from Culvert L to the outside of the embayment. The contractor will maintain this barrier until the reclamation works in HKCEC2W are carried out and the new Culvert L extension is constructed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	The total dredging rates in each of the marine works zones shall not be more than the maximum production rates stated in the table below. These are the production rates without considering the effect of silt curtain.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Reclamation Area		Maximum Dredging Rate		Maximum Dredging Rate (m^3 per week)
		m^3 per day	m^3 per hour (for 16 hrs per day)	
Dredging along seawall or breakwater				
North Point Shoreline Zone (NPR)		6,000	375	42,000
Causeway Bay Shoreline Zone	TBW	1,500	94	10,500
	TCBR	6,000	375	42,000
PCWA Zone		5,000	313	35,000

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<table><tr><td colspan="2">Wan Chai Shoreline Zone (WCR)</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td rowspan="2">HKCEC Shoreline Zone (HKCEC)</td><td>HKCEC Stage 1 & 3</td><td>1,500</td><td>94</td><td>10,500</td></tr><tr><td>HKCEC Stage 2</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td colspan="2">Cross Harbour Water Mains</td><td>1,500</td><td>94</td><td>10,500</td></tr><tr><td colspan="2">Wan Chai East Submarine Sewage Pipeline</td><td>1,500</td><td>94</td><td>10,500</td></tr></table> Note: 1,500 m^3 per day shall be applied for construction of the western seawall of WCR1.							
S5.8, Figure 5.3	Dredging along the seawall at WCR1 shall be undertaken initially at 1,500m^3 per day for construction of the western seawall (which is in close proximity of the WSD intake), followed by partial seawall construction at the western seawall (above high water mark) to protect the adjacent intakes as much as possible from further dredging activities.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	For dredging within the Causeway Bay typhoon shelter, seawall shall be partially constructed to protect the nearby seawater intakes from further dredging activities. For example, at TCBR1W, the southern and eastern seawalls shall be constructed first (above high water mark) so that the seawater intakes at the inner water would be protected from the impacts from the remaining dredging activities along the northern boundary.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Silt curtains shall be deployed around the closed grab dredgers during seawall dredging and seawall trench filling in the areas of HKCEC, WCR, TCBR and NP.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Silt screens shall be applied to seawater intakes at interim construction stages as stated below: <table><tr><th>Interim Construction Stage</th><th>Location of Applications</th></tr><tr><td>**Scenario 2A** in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA, TBW, NP and Water Mains Zone</td><td>**WSD saltwater intakes** at Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai, Kowloon South **Cooling water intakes** for Hong Kong Convention and Exhibition Centre Extension, Hong Kong Convention and Exhibition Centre Phase I, Telecom House / HK Academy for Performing Arts / Shun On Centre, Wan Chai Tower / Revenue Tower / Immigration Tower and Sun Hung Kai Centre</td></tr><tr><td>**Scenario 2B** in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.</td><td>**WSD saltwater intakes** at Sheung Wan, Wan Chai **Cooling water intakes** for Queensway Government Offices, Excelsior Hotel, World Trade Centre and Windsor House.</td></tr><tr><td>**Scenario 2C** in 2011 with concurrent dredging activities at HKCEC and TCBR.</td><td>**WSD saltwater intakes** at Sheung Wan and Reprovisioned WSD Wan Chai saltwater intake. **Cooling water intakes** for MTR South, Excelsior Hotel & World Trade Centre and reprovisioned Windsor House.</td></tr></table>	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	Other mitigation measures include: • mechanical grabs, if used, shall be designed and maintained to avoid spillage and sealed tightly while being lifted. For dredging of any contaminated mud, closed watertight grabs must be used; • all vessels shall be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; • all hopper barges and dredgers shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material; • construction activities shall not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds; • loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water. Barges or hoppers shall not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; and	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	• before commencement of the reclamation works, the holder of Environmental Permit has to submit plans showing the phased construction of the reclamation, design and operation of the silt curtain.							
S5.8	Silt screens are recommended to be deployed at the seawater intakes during the reclamation works period. Installation of silt screens at the seawater intake points may cause a potential for accumulation and trapping of pollutants, floating debris and refuse behind the silt screens and may lead to potential water quality deterioration at the seawater intake points. Major sources of pollutants and floating refuse include the runoff and storm water discharges from the nearby coastal areas. As a mitigation measure to avoid the pollutant and refuse entrapment problems and to ensure that the impact monitoring results are representative, regular maintenance of the silt screens and refuse collection shall be performed at the monitoring stations at regular intervals on a daily basis. The Contractor shall be responsible for keeping the water behind the silt screen free from floating rubbish and debris during the impact monitoring period.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	Dredging of contaminated mud is recommended as a mitigation measures for control of operational odour impact from the Causeway Bay typhoon shelter. In recognition of the potential impacts caused by dredging activities close to the seawater intakes, only 1 small close grab dredger shall be operated within the typhoon shelter (for the dredging to mitigate odour impact) at any time to minimize the potential impact. Double silt curtains shall be deployed to fully enclose the closed grab dredger during the dredging operation. In addition, an impermeable barrier, suspended from a floating boom on the water surface and extended down to the seabed, shall be erected to isolate the adjacent intakes as much as possible from dredging activities. For example, if dredging is to be carried out at the southwest corner of the typhoon shelter, physical barriers shall be erected to west of the cooling water intake for Excelsior Hotel so that the intake would be shielded from most of the SS generated from the dredging operation to the west of the intake. For area in close proximity of the cooling water intake point, the dredging rate shall be reduced as much as practicable. Site audit and water quality monitoring shall be carried out at the seawater intakes during the dredging operations. Daily monitoring of SS at the cooling water intake shall be carried out, and 24 hour monitoring of turbidity at the intakes shall be implemented during the dredging activities. If the monitoring results indicate that the dredging operation has caused significant changes in water quality conditions at the seawater intakes, appropriate actions shall be taken to stop the dredging and mitigation measures such as slowing down the dredging rate shall be implemented.	Causeway Bay typhoon shelter/Implementation of harbour-front enhancement.	CEDD[3]		√			WPCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
For the Whole Project								
S5.8	• Construction Runoff and Drainage • use of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow; • Permanent drainage channels shall incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities shall be based on the guidelines in Appendix A1 of ProPECC PN 1/94; • a sediment tank constructed from pre-formed individual cells of approximately 6 - 8 m3 capacity can be used for settling ground water prior to disposal; • oil interceptors shall be provided in the drainage system for the tunnels and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor shall have a bypass to prevent flushing during periods of heavy rain; • precautions and actions to be taken when a rainstorm is imminent or forecast, and during or after rainstorms. Particular attention shall be paid to the control of any silty surface runoff during storm events; • on-site drainage system shall be installed prior to the commencement of other construction activities. Sediment traps shall be installed in order to minimise the sediment loading of the effluent prior to discharge; • All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge shall be adequately designed for the controlled release of storm flows. All sediment control measures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage shall be reinstated to its original condition when the construction work is finished or the temporary diversion is no longer	• Work site / During the constructi on period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)

[3] CEDD will identify an implementation agent.

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- Sampling, Field Measurement and Testing Works (Stage 4)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	required. • All fuel tanks and store areas shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity.							
	• Minimum distances of 100 m shall be maintained between the storm water discharges and the existing or planned WSD flushing water intakes during construction phase.							
S5.8	*Sewage from Construction Work Force* Construction work force sewage discharges on site shall be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage shall be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor shall also be responsible for waste disposal and maintenance practices.	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)
S5.8	*Floating Debris and Refuse* Collection and removal of floating refuse shall be performed at regular intervals on a daily basis. The contractor shall be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish.	Work site and adjacent water / During the construction period.	Contractor		√			WPCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	*Storm Water Discharges* Minimum distances of 100 m shall be maintained between the existing or planned stormwater discharges and the existing or planned WSD flushing water intakes.	Work site and adjacent water / During the design and construction period.	Contractor	√	√			WPCO
Operation Phase								
DP1 – CWB (within the Project Boundary)								
S5.8	For the operation of CWB, a surface water drainage system would be provided to collect road runoff. The following operation stage mitigation measures are recommended to ensure road runoff would comply with the TM under the WPCO: • The drainage from tunnel sections shall be directed through petrol interceptors to remove oil and grease before being discharged to the nearby foul water manholes. • Petrol interceptors shall be regularly cleaned and maintained in good working condition. • Oily contents of the petrol interceptors shall be properly handled and disposed of, in compliance with the requirements of the Waste Disposal Ordinance. • Sewage arising from ancillary facilities of CWB (for examples, car park,	CWB/During design and operational period	HyD/TD[3]	√		√		WPCO

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- Sampling, Field Measurement and Testing Works (Stage 4)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	control room, ventilation and administration buildings and tunnel portals) shall be connected to public sewerage system. Sufficient capacity in public sewerage shall be made available to the proposed facilities. • Road drainage shall also be provided with adequately designed silt trap to minimize discharge of silty runoff. • The design of the operational stage mitigation measures for CWB shall take into account the guidelines published in ProPECC PN 5/93 "Drainage Plans subject to Comment by the EPD." All operational discharges from the CWB into drainage or sewerage systems are required to be licensed by EPD under the WPCO.							

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

[3] if employ Management, Operation and Maintenance (MOM) Contract

Table A13.4 Implementation Schedule for Waste Management

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For DP3 – Reclamation Works								
S6.7.2	***Marine Sediments*** The dredged marine sediments would be loaded onto barges, transported to and disposed of at the designated disposal sites at South of Cheung Chau, East of Ninepin, East of Tung Lung Chau, South of Tsing Yi or East of Sha Chau to be allocated by the MFC depending on their level of contamination or at other disposal sites after consultation with the MFC and EPD. In accordance with the ETWB TCW No. 34/2002, the contaminated material must be dredged and transported with great care. The mitigation measures recommended in Section 5 of the EIA Report shall be incorporated. The dredged contaminated sediment must be effectively isolated from the environment upon final disposal and shall be disposed of at the Type 2 confined marine disposal contaminated mud pit.	Work site / During the construction period	Contractor		√			ETWB TCW No. 34/2002
S6.7.3	Based on the biological screening results, the Category H (>10xLCEL) sediment which failed the biological testing would require Type 3 special disposal. The volume of Category H sediment from the Causeway Bay typhoon shelter which would require special disposal arrangements is estimated to be approximately 0.05 Mm^3. A feasible containment method is proposed whereby the dredged sediments are sealed in geosynthetic containers and, at the disposal site, the containers would be dropped into the designated contaminated mud pit where they would be covered by further mud disposal and later by the mud pit capping, thereby meeting the requirements for fully confined mud disposal.							

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.5	It will be the responsibility of the Contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, at least 3 months prior to the dredging contract being tendered							
S6.7.6	During transportation and disposal of the dredged marine sediments requiring Type 1 and Type 2 disposal, the following measures shall be taken to minimise potential impacts on water quality: • Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.							

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	• Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP. • Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.							
S6.6.12	***Floating Refuse*** During the construction phase, the project proponent's contractor will be responsible for the collection of any refuse within their works area. Floating booms will be provided on the water surface to confine the refuse from the working barges as well as to avoid the accumulation of pollutants within temporary embayment as mentioned in Table 13.3.	Work site / During the construction period	Contractor		√			
For the Whole Project								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.7	*Good Site Practices* Recommendations for good site practices during the construction activities include: • nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; • training of site personnel in proper waste management and chemical waste handling procedures; • provision of sufficient waste disposal points and regular collection for disposal; • appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and • a recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	Work site / During the construction period	Contractor		√			Waste Disposal Ordinance (Cap.354)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.8	*Waste Reduction Measures* Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: • segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • to encourage collection of aluminium cans, PET bottles and paper, separate labelled bins shall be provided to segregate these wastes from other general refuse generated by the work force; • any unused chemicals or those with remaining functional capacity shall be recycled; • use of reusable non-timber formwork, such as in casting the tunnel box sections, to reduce the amount of C&D material. • prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill; • proper storage and site practices to minimise the potential for damage or contamination of construction materials; and • plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	Work site / During planning and design stage, and construction stage	Contractor	√	√			

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.10	*General Refuse* General refuse shall be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D material. A collection area shall be provided where wastes can be stored and loaded prior to removal from site. An enclosed and covered area is recommended to reduce the occurrence of 'wind blow' light material.	Work site / During the construction period	Contractor		√			Public Health and Municipal Services Ordinance (Cap. 132)
S6.7.11	*Chemical Wastes* After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) shall be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals shall be collected by a licensed collector for disposal at the CWTF or other licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Work site / During the construction period	Contractor		√			Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
S6.7.12	*Construction and Demolition Material* C&D material shall be sorted on-site into inert C&D material (that is, public fill) and C&D waste. All the suitable inert C&D material shall be broken down to 250 mm in size for reuse as public fill in the WDII reclamation. C&D waste, such as wood, glass, plastic, steel and other metals shall be reused or recycled and, as a last resort, disposed of to landfill. A suitable area shall be designated to facilitate the sorting process and a temporary stockpiling area will be required for the separated materials.	Work site / During the construction period	Contractor		√			ETWB TCW No. 33/2002, 31/2004, 19/2005

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.13	In order to monitor the disposal of public fill and C&D waste at public filling facilities and landfills, respectively, and to control fly tipping, a trip-ticket system shall be included as one of the contractual requirements and implemented by the Environmental Team undertaking the environmental monitoring and audit work. An Independent Environment Checker shall be responsible for auditing the results of the system.	Work site / During the construction period	Contractor and Independent Environmental Checker		√			ETWB TCW No. 31/2004
S6.7.14	*Bentonite Slurry* The disposal of residual used bentonite slurry shall follow the good practice guidelines stated in ProPECC PN 1/94 "Construction Site Drainage" and listed as follows: • If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis. • If the used bentonite slurry is intended to be disposed of through the public drainage system, it shall be treated to the respective effluent standards applicable to foul sewers, storm drains or the receiving waters as set out in the Technical Memorandum of Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters. • If the used bentonite slurry is intended to be disposed to public fill reception facilities, it will be mixed with dry soil on site before disposal.	Work site / During the construction period	Contractor		√			ProPECC PN 1/94

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Contract no. HY/2019/18
Wan Chai Development Phase II and Central-Wanchai Bypass
- Sampling, Field Measurement and Testing Works (Stage 4)

Table A13.5 Implementation Schedule for Land Contamination

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
S.12.6	• The contaminated site shall be cleaned up before commencement of site clearance and construction work at the concerned area which may disturb the ground.	A King Marine / Before commencement of construction activities at A King Marine.	Project proponent for the re-provisioned Tin Hau Temple	√				*"Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair/Dismantling Workshops"* published by EPD, HKSAR EPD ProPECC Note No. 3/94
S7.10	During soil remediation works, the Contractor for the excavation works shall take note of the following points for excavation: • Excavation profiles must be properly designed and executed; • In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means; • Quantities of soil to be excavated must be estimated; • It maybe necessary to split quantities of soil according to soil type, degree and nature of contamination. • Temporary storage of soil at intermediate depot or on-site	A King Marine / During soil remediation works	Contractor	√				Air Pollution Control Ordinance Noise Control Ordinance Waste Disposal Ordinance Waste Disposal (Chemical Waste) (General) Regulation

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	maybe required. The storage site shall include protection facilities for leaching into the ground. eg. Liner maybe required.							
	• Supply of suitable clean backfill materials is needed after excavation. • Care must be taken of existing buildings and utilities. • Precautions must be taken to control of ground settlement • Speed controls for vehicles shall be imposed on dusty site areas. • Vehicle wheel and body washing facilities at the site's exit points shall be established and used. The following environmental mitigation measures shall be strictly followed during the operation and/or maintenance of the CS/S facilities:							Water Pollution Control Ordinance

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	Air Quality Mitigation Measures • The loading, unloading, handling, transfer or storage of cement shall be carried out in an enclosed system. • The loading, unloading, handling, transfer or storage of other materials which may generate airborne dust emissions such as untreated soil and oversize materials sorted out from the screening plant and stabilized soil stockpiled in the designated handling area, shall be carried out in such a manner to prevent or minimise dust emissions. These materials shall be adequately wetted prior to and during the loading, unloading and handling operations. • All practicable measures, including speed controls for vehicles, shall be taken to prevent or minimize the dust emission caused by vehicle movement. • Tarpaulin or low permeable sheet shall be put on dusty vehicle loads transported between site locations.							
	Noise Mitigation Measures • The mixing facilities shall be sited as far as practicable to the nearby noise sensitive receivers. • Simultaneous operation of mixing facilities and other equipment shall be avoided. • Mixing process and other associated material handling activities shall be properly scheduled to minimise potential cumulative noise impact on the nearby noise sensitive receivers. • Construction Noise Permit shall be applied for the operation of powered mechanical equipment during restricted hours (if any).							

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	Water Quality Mitigation Measures • Stockpile of untreated soil shall be covered as far as practicable to prevent the contaminated material from leaching out. The leachate shall be discharged following the requirements of WPCO. *Waste Mitigation Measures* • Treated oversize materials will be used as filling material for backfilling within the site. Sorted materials of size smaller than 5 cm will be collected and transferred to the mixing plant for further decontamination treatment. • Stabilized soils shall be broken into suitable size for backfilling or reuse on site. • A high standard of housekeeping shall be maintained within the mixing plant area. • If necessary, there shall be clear and separated areas for stockpiling of untreated and treated materials.							

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Table A13.6 Implementation Schedule for Marine Ecology

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project - Schedule 3 DP								
S.9.7.2	Alternative design of the Trunk Road constructed in tunnel shall be adopted to avoid permanent reclamation in CBTS and ex-PWCA Basin.	-	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
For DP3 – Reclamation Works								
S.9.7.3	Translocation of those potentially affected coral colonies to the nearby suitable habitats such as Junk Bay is recommended. A detailed translocation plan (including translocation methodology, monitoring of transplanted corals, etc.) should be drafted and approval by AFCD during the detailed design stage of the Project.	Ex-PCWA Basin and along seawall next to a public pier which is about 250 m away from the CBTS	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.4	During dredging and filling operations, a number of mitigation measures to control water quality shall be adopted to confine sediment plume within reclamation area and protect marine fauna in proximity to the reclamation. The mitigation measures include the following: • Installation of silt curtains during dredging activities • Use of tightly-closed grab dredger • Reduction of dredging rate • Control of grab descending speed • Construction of leading edges of seawall in the early stages of the reclamation works	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
	• Adoption of multiple-phase construction schedule							

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.6	To minimize potential disturbance impacts on the foraging ardeid population in the CBTS, particularly in the area near the A King Shipyard, appropriate mitigation measures shall be adopted particularly during the construction phase. The following measures are recommended: • Use of Quiet Mechanical Plant during the construction phase shall be adopted wherever possible. • Adoption of multiple-phase construction schedule. • General measures to reduce noise generated during the construction phase (see noise impact assessment) shall be effectively implemented.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.7	Seawalls shall be constructed in advance around the reclamation areas within the area of the CBTS to screen adjacent feeding ground from construction phase activities, reduce noise disturbance to the associated seabirds and also to restrict access to this habitat adjacent to works areas by ship traffic.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.8	Loss of artificial seawall habitats shall be reinstated by the construction of about 1 km vertical wave absorbing seawall along the coastlines of the new reclamation around the HKCEC and at North Point. The new seawalls are expected to provide large area of hard substrata for settlement and recruitment of intertidal fauna similar to those previously recorded from existing intertidal habitats.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

*Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Table A13.7 Implementation Schedule for Landscape and Visual

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP1 – CWB (Within the Project Boundary)								
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP2 – WDII Major Roads (Road P2)								
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP3 – Reclamation Works								
Table 10.5	CM5 Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP5 – Wan Chai East Sewage Outfall								
Refer to EIA-058/2001 Table 10.13	CM2 Minimisation of works areas.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM3 Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		√			EIAO TM

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Refer to EIA-058/2001 Table 10.13	CM4 Control night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM5 Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui								
Refer to EIA-058/2001 Table 10.13	CM2 Minimisation of works areas.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM3 Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM4 Control night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM5 Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
Operation Phase								
For the Whole Project - Schedule 3 DP								
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM2 Shrub and Climbing Plants to soften proposed structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD/	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM4 Aesthetic design of proposed waterfront promenade.	Work site / During Design Stage and Operation Phases	CEDD[4]	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004
For DP1 – CWB (Within the Project Boundary)								
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM2 Shrub and Climbing Plants to soften proposed structures	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
For DP2 – WDII Major Roads (Road P2)								

[4] CEDD will identify an implementation agent

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.6, Figure 10.5.1-10.5.5	OM1 Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM3 Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5 Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6 Aesthetic design of roadside amenity areas	Work site / During Design Stage and Operation Phases	CEDD/HyD		√	√		ETWB TCW 2/2004
For DP3 – Reclamation Works								
Table 10.6, Figure 10.5.1-10.5.5	OM4 Aesthetic design of proposed waterfront promenade.	Work site / During Design Stage and Operation Phases	CEDD[5]	√	√	√		ETWB TCW 2/2004

*Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

[5] CEDD will identify an implementation agent

Appendix 6.1

Complaint Log

Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100321a	21/3/2010	ICC Case no. 1-224618029, Ms. Tsang	Location near Tin Hau	Complaint regarding the loud noise and dark smoke in the course of dredging works on 21 March 2010 (Sunday).	1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works which carry out at area for North Point Reclamation. 2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation. 3) The Contractor (CHEC-CRBC JV) strictly comply all the conditions in CNP and take all mitigation measures in order to minimize the potential impacts to surrounding sensitive receivers. A formal letter was issued out by CHEC-CRBC JV and to explain the status of the recent construction activities. 4) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring. 5) No further complaints were received from Mr. Tsang in the reporting month. The complaint is considered closed.	Closed
100321b	21/3/2010	Unknown	Near the eastern breakwater of the Causeway Bay Typhoon Shelter	A public complaint and enquiry regarding loud noises emanated from dredging activities on 21/3/2010 (Sunday) until 2220 hours and between 1920-1946 hours in the evening of 22 March 2010(Monday).	1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works at area for North Point Reclamation during general holidays including Sunday between 0700-2300 hours and any day not being a general holiday between 1900-2300hours. It is complied with the condition of CNP. 2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation. 3) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring. 4) No further complaints were received in the reporting month. The complaint is considered closed.	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100504	4/5/2010	Public complainant received by ICC (ICC case: 1-233384048)	Watson Road	Complaint on the noise nuisance due to the large scale of dredging machine (face to Island East Corridor) in particular the hours 1900 to 0800 and request to reduce the noise level.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0119-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) According to RSS 's record, no more daytime and night time dredging since the departure of the split hopper barge from the workplace on 29 April 2010 at 1900 hrs to 5 May 2010. 3) No further complaints were received in the reporting month. The complaint is considered closed.	Closed
100731	31/7/2010	Mr. Lee received by ICC (CC Case: 1-250702681)	Oil Street to Watson Road	Complaint on the noise nuisance due to the dredging works. Three construction plants were operated concurrently.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. 2) There was only 1 grab dredger operated by Contractor within NPR project site area for dredging works. 3) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 27 July and 3 August 2010 during daytime and evening time period. 4) It is considered as invalid from the EP and CNP point of view.	Closed
100812	12/8/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the dredging works at the marine works area adjacent to the Harbour Height during the period from 0700 to 2200.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 10 and 17 August 2010 during daytime and evening time period. 3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
101108	8/11/2010	Mr. Nip received by ICC (CC Case)	Sai Wan Ho	Visual concern around the seaside silt screen outside the WSD freshwater intake pump at Sai Wan Ho (Monitoring station ref no.. WSD15)	1) Contractor for HY/2009/11has been regular checked of condition and removal of trapped rubbish before the dismantling of the floating silt screen to be replaced by wall mount silt screen. 2) Follow-up action had been immediately carried out to check and clear the floating refuse around the seaside silt screen after receipt of the complaint. 3) Removal of seaside silt screen outside the WSD freshwater intake (WSD15) by contractor HY/2009/11 was checked and confirmed dated 9 November 2010. Silt screen has been deployed into the existing steel frame at WSD15 for the protection of WSD salt water intake.	Closed
101110	10/11/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the power mechanical equipment during the 0700 to 2200hrs	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0870-10 for their dredging works during evening time. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 4 and 10 November 2010 during daytime and evening time period. 3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	Closed
101203	3/12/2010, 01:45a.m.	The resident of Block 11, City Garden by ICC referral from Marine Department	North Point	Bad odour was generated from the dredging plant off North Point	1) The first investigation was carried out by Marine Department patrol in the morning on 3 Dec 2010 at around 10:00 and revealed that a few working barges were anchoring in the vicinity without carrying out dredging work. 2) A further specific investigation inspection on contractor's backhoe barge in the vicinity of City Garden was jointly conducted with Engineer Representatives (AECOM/RSS), and ET on 8 Dec 2010 at 11:30. No bad odour was noted during the investigation. 3) Routine dredging operation of the backhoe barge was performed during the jointed investigation inspection and it was revealed that no bad odour was attributed by the dredged materials inspected.	Closed
101206	6/12/2010	Ms Lui, the resident of 27/F, Block 10, City	City Garden, North Point	Two barges were generating noise at 22:00 on 6 December 2010 in which the noise from	1) ET confirmed the following information with resident site staff on the complaint: • It was referred to the filling operation at North Point	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		Garden by ICC (ICC case: 1-266039336)		filling operation was louder than the traffic noise & visual impact was generated due to the spot-light pointing directly to the complainant flat, suspected the filling operation was part of Wanchai Development Phase II; Complainant also raised the same complaint to District Councillor, Mr. Hui on 7 Dec 2010 regarding the night-time noise and suspected earlier start of work at 06:30. Complaint also requested for limiting the plant operating hours from 09:00-21:00.	Reclamation of Central Wan Chai Bypass site area instead of part of Wanchai Development Phase II; • Two derrick barges were in operation at the time of complaint for placing 400 rockfill onto the excavation trench and for levelling the formation level to receive the pre-cast caisson seawall; • Flood light on the control mast of derrick barge have no lighting shields for the prevention of glare of flood lights; • No starting work on 7 Dec 2010 at 0630hours. 2) PME used in restricted hours were checked and confirmed compliant with valid CNP no. GW-RS0870-10. The noise level recorded on 6 Dec 2010 was complied with the noise criteria during restricted hour; 3) It was found that the occasional noise nuisance might be caused by the hitting or scratching onto the rock surface during loading down the grab onto the Grade 400 rockfill; 4) The absence of the lighting shields at flood light results in visual glare to the complainant at night-time. 5) Contractor was advised to minimize the finishing time of placing Grade 400 rockfill at 2100hrs and switch off all unnecessary flood lights apart from the light for the safety and security purpose; 6) No further complaint was received after implementation of proposed measures	
110415	15/04/2011	The resident, Mr Law at Victoria Centre by ICC (ICC#1-281451236)	North Point	A dust generation and a concern of mosquitoes breeding complaint in which suspected the filling operation was part of North Point Reclamation.	1) The concerned stockpile was a working stockpile under Contract HY/209/15 and was covered at night time after work. 2) Water spraying on the haul road and potential dust generating material at least 4 times a day was conducted by contractor that complies with the requirement. 3) It is considered invalid but preventive actions can be taken because the stockpile is relatively large and easily visible by complainant. 4) It was recommended that increasing the frequency of water spraying shall be conducted to all potential dust generating materials and activities. Besides, Contractor should consider to cover the idle part of the stockpile 5) The concern of mosquitoes breeding is out the scope of EM&A, the follow-up action is not reported in this monthly EM&A report.	Closed

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110419	19/04/2011	Ms Chiu at Victoria Centre at Victoria Centre by ICC (ICC# 1-272874759)	North Point	The episode of night noise on 19/4/11 and 20/4/11 at 2:50 am and the noise lasted for 30 minutes per night.	1) According to the RSS's record, there was no construction works undertaken under the EP-356/2009 during the concern time period. 2) There was no abnormal real-time noise monitoring data recorded in RTN1 - FEHD Hong Kong Transport Section Whitefield Depot which is next to the Victoria Centre. 3) It is considered as invalid complaint under this Project.	Closed
110617	9/06/2011	Mr. Law from Victoria Centre Management Office	North Point	An odour nuisance suspected generating from the discharge point – Channel T at Watson Road in part of the site area was related to CWB under Contract no. HY/2009/11	1) The complaint was received by ET on 13 Jun 2011. During the weekly site inspection on 7 and 17 June 2011, there was no any odour impact detected in the site area. 2) According to the site record, there was muddy water discharged from the unknown source at upstream of Channel T during heavy rainstorm. No any site surface runoff to the Channel T and out of site boundary was observed in the inspection. 3) In order to prevent muddy water washing out to the water body under heavy rainstorm, a silt curtain was installed at the outfall of the channel by Contractor. ET confirmed with the Resident Site Staff that a silt curtain was installed at the outfall of the channel to prevent muddy water washing out to the water body under heavy rainstorm. Besides, regular cleaning of refuse in the channel has been conducted by Contractor. 4) A further site investigation on 28 June 2011 revealed that no odour nuisance was detected at the upstream of the Channel T and no source of odour nuisance was identified at site. As such, it was concluded that the source of odour nuisance was not related to the Project works. 5) Although no source of odour nuisance was identified at site, the muddy water and dirt from the unknown source at upstream of Channel T may cause a potential smell during low tide and low water flow. Contractor was reminded to remove the silt curtain at the channel on non-rainy day so as to avoid the accumulation of the sediment and dirt in the water channel.	Closed

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110709	09/07/2011	Mr. Au from City Garden Management Office	North Point	A complaint letter to Contractor HY/2009/11 was raised by Cayley Property Management Limit on 9 July 2011 regarding a series of pump breakdown events at seawater intake of City Garden on 4, 6, 7 and 8 July 2011. A lot of rubbish such as plastic bags, nylon bags, nylon-wire mesh was observed sucking from the seawater intake at the seawater front of Block 7 of City Garden affecting the operation of seawater pump plant.	1) Contractor conducted formation works for installation of caisson seawall at C27, C28, C29 and C30 on 4, 6, 7 and 8 July 2011 and no dredging work was conducted during this time period 2) Water mitigation measures of an 80m long silt curtain at the site boundary in front of City Garden Relocation of silt curtain and silt curtain at the outfall of the channel were provided and maintained to accommodate the site works. All vessels are equipped with rubbish collection facilities and disposed the rubbish regularly. Also, daily cleaning actions had been taken by contractor to minimize floating refuse within the site boundary. 3) Moreover, it has been reported several times that discharged from outfall pipeline outside the site boundary near the intake of the pump maybe considered as another source of rubbish generation. 4) Referring to the record provided by Cayley Property Management Limit, the trapped rubbish was unlikely generated from the construction works. It was considered that complaint is invalid and not related to project.	Closed
110710	09/07/2011	Complainant by ICC (ICC no. 1-301520309	North Point	It was received at 00:56 on 10 July 2011. There was complained a derrick barge unloading rockfill material off the shore facing the Harbour Grant HK Hotel causing noise nuisance.	1) ET confirmed with the Resident Site Staff that the complaint was referred to Contract HY/2009/15 for the loading and unloading of fill material at two barges operation in the sea at around 300m adjacent to Island Eastern Corridor (Oil Street Chainage) where is outside the Site of HY/2009/15 in the period of around 19:45 on 9 July to 1:00 on 10 July 2011. 2) The material loading and unloading operation processed in restricted hours was checked without a valid CNP. It was found that the operation was due to an unexpected water leakage of the hopper barge and considered an incident. 3) According to the incident report provided from RSS on 20 July 2011, around 7:30 pm the barge S22 was inclined slightly and slightly water leakage might occur. Due to marine safety concern, the hopper barge would open the hopper to release the contained materials in order to reduce the weight and stabilize the barge. In consider of slight water leakage, the operator decided to use the nearby Derrick Barge ST32 to help for unload the general fill materials first and the unloading operation was started at around 7:45pm, and end at around 1:00 am. Contractor was reminder to provide frequent check of vessel condition	Closed

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					so as to prevent recurrent by barge defect	
110723a	23/07/2011	Ms. Law at Victoria Centre by ICC no. 1-303887687	North Point	She concerned that Highways Department published a notice in their Management Office about construction works will be conducted from 0700 hours to 2300 hours during July to December 2011 including Saturday, Sunday and public holiday.	1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed that the notice was prepared by Victoria Centre's Management office to their resident and the advice was only given on the extension construction works (for Contract HY/2009/15) to 7am-9pm from Monday to Saturday except Public Holidays and Sundays. 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011. 4) No noise exceedance was recorded at construction noise monitoring station at Victoria Centre on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring. 5) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures.	Closed
110723b	23/07/2011	Ms. Yau at Block 2, Victoria Centre by ICC no. 1-304013959	North Point	Reclamation work was conducted at Causeway Bay Typhoon Shelter at 7am on 23 July 2011. She complained that the works shall be started later to minimize the noise nuisance to the vicinity of the residents in early morning	1) It was referred by AECOM to ET on 8 August 2011 2) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011. 4) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures.	Closed
110727a	27/07/2011	Mr. Law from Victoria Centre Management Office by ICC no. 1-304616162	North Point	It was complained by Mr. Law from Victoria Centre Management Office on 27 July 2011 regarding construction noise generated by the construction operations of	1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed to start the rock breaking activities for Contract HY/2009/15 at 8am as a mitigation measure to minimize the noise nuisance in the vicinity of the residents. 3) No noise exceedance was recorded at construction noise	Closed

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				Central-Wanchai Bypass at noon rather than in morning at 7am.	monitoring station at Victoria Centre on 25 July and 4 August 2011 during daytime while breaking and excavation works were undertaken during monitoring. 4) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. No further complaint from complainant was received after proposed the mitigation measure.	
110727b	27/07/2011	Ms. Chiu by ICC no.1-304615409	North Point	Noise nuisance from the excavation works for the Highways Department adjacent to the Victoria Centre was conducted from 7am	1) It was referred by AECOM to ET on 28 July 2011 2) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 25 July and 4 and 10 August 2011 during daytime while breaking and excavation works were undertaken during monitoring. 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am.	Closed
	08/08/2011				4) However, complainant did not satisfy with the response on the noise nuisance from the rock-breaking during morning in front of Victoria Centre and then further complaint via 1823 on 7 August 2011. 5) Highways contacted the complainant on 15 August 2011 that the noisy rock breaking operation had been completed. *Remarks: There will be counted as two complaints in this complaint log.*	
110810	10/08/2011	Mr. Yip by ICC no. 1 – 306740207	North Point	Muddy water was discharged from work site to the seafront near Oil Street during heavy rain. The environmental protection measures were not good enough and are needed to rectify.	1) It was referred by AECOM to ET on 17 August 2011. 2) Confirmed with RE, Muddy water was caused by a heap of earth being washed to the sea by heavy rain. The heap of earth was referred as a small stockpile placed close to the seafront in front of Oil Street within the site area under handover transition period from contract HY/2009/11 to contract HY/2009/19. The necessary mitigation measures to protect the small stockpile against rainfall were missing at the time of complaint. 3) Due to the missing of mitigation measures to protect the small stockpile during handover transition period, loose material was washed into the harbour when heavy rain came. Muddy water was formed and dispersed in the sea that caused the water quality and visual concern to the public. The complaint was considered as valid. 4) Contractors were advised to relocate the loose materials	Closed

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					away from the coastline as far as practicable. Any loose material placed which needed to be placed near the coastline shall be properly compacted or covered as appropriate. To avoid any further environmental deficiency, Contractors shall ensure all necessary environmental mitigation measures will not be missing during site area handover.	
110826	26/08/2011	Grand Hyatt and a complainant by ICC	Wan Chai	Construction noise and vibration nuisance generated from the works at Convention Avenue and inside the HKCEC1 reclamation area.	1) Confirmed with the Resident Site Staff that the construction works were referred to the Contractor HK/2009/01. 2) The Excavator mounted breaker at Convention Avenue and Drilling rig at HKCEC1 reclamation area were the dominant construction noise source during this period. 3) The drilling rig at HKCEC1 reclamation area and excavator mounted breaker at Convention Avenue were then temporary suspended after received the complaint. 4) Investigation revealed that the erected noise barrier (4m cantilevered movable noise barrier for the drilling rig and 1m movable noise barrier for the excavator mounted breaker) were not located close to the plants to provide adequate noise screening. 5) Contractor was advised to avoid concurrent operation of construction plants at site. Further enhancement of movable noise barriers at HKCEC1 and providing noise enclosure for the excavator mounted breaker at Convention Avenue are needed. 6) Further site investigation and checking on 31 August and 7 September 2011 revealed that the implemented noise mitigation measures were in proper and minimize the noise impact.	Closed
110826A	26/08/2011	A complaint letter from Mr. Au of Cayley Property of City Garden	North Point	Harbor front adjacent to their cooling water intake suction which caused 3 times of system breakdown of the sea water pump on 9, 22 and 25 August 2011.	1) It was referred by AECOM to ET on 29 August 2011. Confirmed with the Resident Site Staff that the • construction works were referred to the Contractors HY/2009/11 and HY/2009/19. • The pump is located on the site area of HY/2009/19 • A temporary garbage defender was installed on 23 July 2011 by HY/2009/11 and the shape of the defender was adjusted on 8 August 2011 in order to excluse the outfall. • An ad hoc inspection of the effectiveness of garbage defender was conducted with RSS (CWB project	Closed

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					team), contractor of HY/200911 and HY/2009/19 and IECon 29 August 2011. Inspection report of it was submitted to RSS on 19 September 2011. • Daily cleaning near the water intake was conducted twice a day by contractor HY/2009/19. • In response to City Garden request, the contractors have set up the temporary garbage defender in function and collect the floating refuses, but cannot eliminate all refuses, in particular the refuse coming from the seabed 2) According to the complaint letter from Cayley Property, the outcomes of the preventive measures were not complying wih their expectation. 3) During on-site inspection, floating refuses observed occasionally outside the garbage defender. No conclusion could be made for the source of these floating refuses. On the other hand, some of the refuses were observed floating behind the garbage defender during investigation. 4) All daily cleaning actions had been taken by contractor to minimize floating refuse inside the construction site. 5) It was noted that the cooling water intake was accessible to the public. As such, fish breeding and fishing activities were observed even though a notice has already hoisted. Also, tripping of rubbish by the passers-by could result in a lot of rubbish accumulated around the intake point. 6) Referring to the record provided by CPML, there were a lot of nylon/ plastic bags and nylon wire mesh that matched those rubbishes generated from the public activities. 7) Contractors have fulfilled the requirement of site cleanness and no exceedance was recorded during Water Quality Monitoring. It is consider the cause of this complaint is not related to project and environmental issue in this project as well. No more complaint received after ad-hoc inspection	
111014	14/10/2011	The complainant, Ms. Tam complained via hotline 1823	Wan Chai	The polluted fumes and exhaust from the excavation by sub-contractor of CEDD on pedestrian way outside no.25 Harbour Road (in front of the Harbour Centre)	1) RSS notified ET to carry out investigation on 17 October 2011. 2) ET confirmed with the Resident Site Staff that the location of the excavator was within site area of Contract no. HK/2009/02 undertaking the water cooling main reprovision works along the Harbour Road. The plants including the excavator have been checked before using	Closed

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					at the site. However, the polluted fumes and exhausted from the excavator was caused due to insufficient maintenance of the plant after using at site. 3) After receiving the complaint, the excavator was then removal off-site for checking and maintenance works on 17 October 2011. 4) Contractor was reminded to enhance regular checking and maintenance to all plants at site. 5) RSS has replied to the complainant on the arrangement of the measures taken on 17 October 2011. Complainant was satisfied with the response and follow-up action taken by the Contractor.	
111104	04/11/2011	Mr. Liu from LCSD complained via Contractor Complaint Hotline	Wan Chai	Complain about a tree near the site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road, the status is not healthy and roof ball of two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue were half cut.	1) ET confirmed with the Resident Site Staff that • A tree near the site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road is the Tree no. TA1122 under Contract no. HK/2009/02. Leaves of a branch of this tree were shrivelled. • Two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue are the tree nos. A160 and A161 under Contract no. HK/2009/01. Part of roof ball of these two trees was covered by the metal plate. 2) Independent Tree Specialists for these two inspected the trees. Contractor HK/2009/01 has taken the measure as recommend downgrading the soil level around the trunk base. Reinstating of the ground works will be conducted in mid-December 2011. For the tree no. TA1122 under Contract no. HK/2009/02, the brown leaves were removed and fenced the tree with orange net is provided to prevent damage of tree trunk by construction works. The distance between the tree and the edge of the trench is kept approximate 2m. Two Contractors were reminded to carry out regular watering to the trees within their site area.	Closed
111106	06/11/2011	Police officer	Wan Chai	Construction noise generated from the site at about 6:30 a.m on 6 November 2011 and require to stop the machine operation	1) According to the information reported by Contractor, one BC cutter and hoist were operated for Diaphragm Wall construction of Shatin-Central Link to inspect bentonite pipes and ensure no damages and all the joints are tightened in good position. Then, the subcontractor for Diaphragm wall, SAMBO Korean foreman stopped the engine of the BC cutter immediately. The police officer recorded the details and HKID number of the foreman and then left. Due to the different language communication between the police officer and the Korean foreman, no	Closed

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					CNP was checked by the police officer. 2) ET confirmed with the Resident Site Staff that same issue was also raised out by RSS at about 7:00a.m on the same day. Besides, it was confirmed that there is no valid Construction Noise Permit for the conducted construction works in the period between 2300 and 0700. 3) Due to insufficient communication between Contractor HK/2009/01 and their Korean Sub-contractor, Korean Sub-contractor had not notified to Contractor before carrying out the inspection of the BC cutter, hoists and bentonite pipes at about 6:00a.m to ensure no damages and all the pipe joints should be tightened and in good position. 4) Contractor was advised to enhance the communication between Contractor and sub-contractor and provide sufficient environmental training to all foreman and operators on restricted hour operation. Futhermore, Construction Noise Permit should be checked and in place for the construction works during restricted hour 5) This complaint was considered in relation to the conducted construction works during restricted hours without valid Construction Noise Permit. No more construction works were conducted during night time period. The construction works will be conducted in accordance with the time period stated in valid CNP. This complaint will be kept in view of any follow-up action from the relevant government activities.	
120405	05/04/2012	N/A	North Point	A complaint regarding excessive noise from construction sites of CBTS was observed daily before 7:30am except on public holidays, and the noise source was mainly from piling works. The complainant requested that construction works should start after 8:30am to avoid nuisance to nearby residents and a speedy follow-up and reply.	1) RSS notified ET on 5 April 2012. 2) ET confirmed with the Resident Site Staff that no piling works were performed during the concerned period. 3) After reviewing the results of noise monitoring (M2b and M3a), no exceedance was recorded during daytime period and the noise level was below 75dB(A). Site inspection for HY/2009/15 was conducted on 10 April 2012. The condition of noise mitigation measures around CBTS was found satisfactory. RSS confirmed that no pilings were performed during the concerned period. The major works included drilling, diaphragm wall construction and excavations. 4) HyD made a reply to the complainant on 16 April 2012 via 1823. HyD replied that the current works at CBTS were drilling, diaphragm wall construction and deep excavations. In order to minimize the noise generated	Closed

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					from the above works, the Contractor had erected temporary noise barriers and provided noise blankets on plants. RSS would continue to work with the Contractor on the effectiveness of the environmental mitigation measures implemented on site. No further complaint was received after the response.	
130308	06/03/2013	ICC Case#1-407181502	Tin Hau	A complaint regarding the dropping of fine rock material into surrounding waterbody was observed during rock breaking operation with two excavators in active operation at the Eastern Breakwater of Causeway Bay Typhoon Shelter near the North Point lighthouse.	1) RSS notified ET on 8 March 2013 2) ET confirmed with RSS that excavation works, installation of buoy, flashing light and silt curtain and dredging works were undertaken at Eastern Breakwater during the concerned period on 6 March 2013. One backhoe equipped with breaker and one derrick barge were confirmed in operation while another backhoe was at idle during the concerned period on 6 March 2013. 3) Reviewing the photo record provided by RSS, the condition of the silt curtain deployed around the Eastern Breakwater on 6 March 2013 was found to be in good condition. It is considered that the silt curtain was properly in place during the concerned period and the concerned act of dropping of fine rock material was confined within the silt curtain boundary without adverse impact to the nearby water quality. Further follow up was conducted on 12 March 2013 during weekly environmental audit inspection, the silt curtain deployed around the concerned area was found to be maintained in good condition and the water quality at the concerned work area was generally satisfactory. No violation of the Environmental Permit condition was found. The contracotr was advised and committed to implement preventive meaures to miminize the potential impact of work including conducting regular diver check to ensure the integrity and the extend of silt curtain deployment and to provide adequtae back up stock of silt curtain for emergency use.	Closed
140612	12/06/2014	EPD ref: EP/860/F2/24 Annex IV	Wan Chai	The complaint is regarding to the water quality of the waterfront outside the Hong Kong Academy for Performing Arts Theatre Block, where a large piece of muddy water was found.	1) WSII RSS team notified ET on 12 June 2014; Notification letter from EPD (ref: EP/860/F2/24 Annex IV) was received by ET on 13 June 2014. 2) ET confirmed with RSS that neither marine construction works nor barge operation was conducted at the concerned location during the time of complaint. With respect to the complaint case, muddy dispersion was observed at HKCEC2W works area on 12 June 2014, and	Closed

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					the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs. Immediate follow up action was requested. 3) It is considered that Contractor's mitigation measures would require further review on the effectiveness to avoid seepage of muddy dispersion such as regular diver inspection check and daily visual checking of silt curtains. Additional silt curtain at marine access zone was installed by Contractor on 12 June 2014 and the double layer silt curtain were generally in order. Follow-up inspection was further conducted on 16 June 2014. The Contractor's investigation report on the complaint case was submitted to EPA via email on 18 June 2014.	
140723	21/07/2014	ICC Case Ref: 2-341537112	Works area opposite to Ngan Tao Building	The complaint is regarding to construction noise impact to the complainant who could not sleep due to work and machine at the project site opposite to the Ngan Tao Building.	1) Construction noise impact referred by RSS was received by ET on 25 July 2014 2) ET confirmed with RSS that horizontal cutting and removal of D-wall at Eastern, Southern and Northern side of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter before 23:00hrs on 20 July 2014 that total 3 numbers of derrick lighter and 3 numbers of saw cut machine were in operation, and removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter around 00:25hrs to 00:56hrs on 21 July 2014 that total 1 number of derrick lighter was in operation. 3) According to the relevant site records under Contract HY/2009/15, before 23:00hrs on 20 July 2014, horizontal cutting and removal of Diaphragm Wall at Eastern, Southern and Northern side of TS2 was conducted under HY/2009/15 within Causeway Bay Typhoon Shelter. Total 3 nos. of derrick lighter and 3 nos. of saw cut machine were in operation at the above period. From around 00:25hrs to 00:56hrs on 21 July 2014, removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter. Total 1 no. of derrick lighter was found operating at the above period 4) It was considered the condition of CNP GW-RS0592-14 was not fulfilled by the Contractor of HY/2009/15. "From 00:25hrs to 00:57hrs on 21 July 2014, the PME(s) (1 no. of Derrick Lighter) on-site could not follow with any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in no. GW-RS0592-14."	Final report (Issue1) issued on 31 July 2014. Further to complainant follow-up, Final report (Issue2) Issued on 12 Aug 2014.

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					Notwithstanding the above, according to the site recorded provided by the RSS, the derrick lighter was found malfunction at around 23:00hrs on 20 July 2014 while the diaphragm wall cutting procedure was incomplete. Under safety and navigation consideration, the completion of diaphragm wall removal was necessary and of imminent need. 5) The Contractor of HY/2009/15 was advised to review the construction sequence and emergency response procedure for construction activities during restricted hours and night time period to allow for sufficient buffer time for work completion such that the Construction Noise Permit would be followed. Furthermore, the Contractor of HY/2009/15 was suggested to conduct throughout checking of PME used on site prior to work commencement to minimize the potential malfunctioning of PME during the course of work which affect the duration of works.	
141016	14/10/2014	EPD Ref.: EP860/E2/24 Annex IV ICC complaint received by ET on 10 October 2014	Work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	Construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	A public complaint regarding construction noise impact referred by EPD was received by ET on 16 October 2014 (EPD Ref.: EP860/E2/24 Annex IV dated 16 October 2014). The complainant reported that construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground. ET confirmed with the Resident Site Staff that From 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02. From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.	Interim investigation report submitted to EPD on 23 October 2014. Updated interim investigation with supplementary information submitted to EPD on 17 November 2014 EPD

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					From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway. Total one scissor platform and two hand held drills (battery) were in operation. From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road.Total one crane lorry was in operation. According to the relevant site records under Contract HK/2009/02, from 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02. From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area.Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02. From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway. Total one scissor platform and two hand held drills (battery) were in operation. From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road. Total one crane lorry was in operation. In view of the above findings, no direct information associated with the noise concern was considered available.	advised no further comment on the updated interim report and case closed on 27 Nov 2014.

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141110	07/11/2014	EPD Ref.: H05/RS/00027815-14 EPD complaint received by ET on 10 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.	A public complaint regarding odour concern referred by EPD was received by ET on 07 November 2014 (EPD Ref.: H05/RS/00027815-14 dated 10 November 2014). The complainant reported that Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool. ET confirmed with the Resident Site Staff that ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated. Dredging works was conducted on 7 November 2014 during daytime at WCR3 (East of old Wan Chai Ferry Pier) Total 1 no .of dredger, 1 no. of hopper and 1 no. of tug boat were operated. According to the relevant site records under Contract HK/2009/02, ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.	Interim investigation report submitted to EPD on 17 November 2014. EPD advised no comment on the interim report and case closed on 1 Dec 2014.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Based on the relevant information provided by RSS, despite no information associated with the malodour concern was identified after investigation, the Contractor was reminded to conduct regular checking on the condition of PME used on site to ensure only well maintained PME are used on site The interim report would be submitted to EPD on 17 November 2014.	
141113	12/11/2014	EPD Ref.: H05/RS/00028253-14 EPD complaint received by ET on 13 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians.	A public complaint regarding odour concern referred by EPD was received by ET on 13 November 2014 (EPD Ref.: H05/RS/00028253-14 dated 13 November 2014). The complainant reported thatMalodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians. (Contract HK/2009/02) ET confirmed with the Resident Site Staff that demolition works was conducted under Contract HK/2009/02 on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated. According to the relevant site records under Contract HK/2009/02, demolition works was conducted on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated. In addition, investigation found that due to malfunctioning of one of the excavators deployed at old Wan Chai Ferry Pier, dark smoke was emitted from the defective excavator for a short period of approximately 30 seconds at around 15:00 hrs on 12 November 2014. The operation of excavator was immediately suspended and followed by repair works. The normal operation of the excavator was resumed after repair. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.	Interim investigation report submitted to EPD on 19 November 2014. EPD advised no comment on the interim report and case closed on 8 Dec 2014.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
141121	Not Specified	EPD Ref: H08/RS/28263-14 EPD complaint information and findings was received by ET via email on 21 Nov 2014	Causeway Bay Typhoon Shelter	Resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night.	EPD received a construction noise complaint from dredging works at Causeway Bay Typhoon Shelter and a resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night. EPD investigation found that the operation of a derrick barge is covered by CNP no. GW-RS0701-14. EPD reminded the Contractor of HY/2011/08 to ensure the work strictly follow the permit conditions and endeavor to minimize the noise as so not to disturb the nearby residents.	Complaint case handled by EPD and relevant investigation findings was sent to ET on 21 November 2014
150127	21 Jan 2015	EPD complaint (EPD Ref.: H05/RS/00001 725-15) received by ET on 27 January 2015 and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015	A portion of Hung Hing Road immediately to the east of Marsh Road near SPCA	Construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public.	A public complaint regarding air quality impact referred by EPD was received by ET on 27 January 2015 (EPD Case Ref.: H05/RS/00001725-15 dated 27 January 2015) and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015. The complainant reported that construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public. ET confirmed with the Resident Site Staff that the major construction activities around the concerned location conducted on 21 January 2015 include breaking of seawall blocks and D-wall at TPCWAW; concreting, grouting and drilling works at TPCWAW;reclamation/ backfilling works at TPCWAW Mitigation measures implemented by the Contractor for the above construction works include spraying haul road with water; covering bagged cement with tarpaulin; providing three sided and top covering for grouting stations; providing water spraying to dusty activities such as breaking works According to the relevant site records, breaking of seawall blocks and D-wall, concreting, grouting and drilling works and reclamation/ backfilling works were	Interim report submitted to EPD on 9 February 2015, EPD advised no comment on 27 February 2016 on the interim report submitted and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					conducted at TPCWAW. Dust mitigation measures including spraying haul road with water, covering bagged cement with tarpaulin, providing three sided and top covering for grouting stations and water spraying to dusty activities such as breaking works were implemented by the Contractor of HY/2009/15 near the concerned location on 21 January 2015. Follow-up investigation was conducted on 27 January 2015 during weekly environmental inspection, dust mitigation measures including water spraying for dusty haul road and major dust generation works; and provision of three sides and top covering for grouting station were confirmed in place. In addition, based on the review of the monitoring data of the monitoring station located at the concerned location raised by the complainant, namely monitoring station CMA3a , no action or limit level exceedance was recorded during air quality monitoring conducted on 20 and 21 January 2015. Nevertheless, the Air Quality Health Index (AQHI) recorded by EPD across Western District and Eastern District on the complaint date was ranged from 4 to 10+ indicating a severely high concentration of ambient air pollutants. As such, the site condition under Contract HY/2009/15 at the concerned location was considered to be generally satisfactory and no non-conformity related to cumulative air quality impact was observed. Nevertheless, in view of the public concern, the contractor was reminded to enhance the dust mitigation measures implemented to minimize potential nuisance to nearby public.	
150622	18 June 2015	EPD Ref.:H05/RS/ 00015054-15 dated 8 June	A mooring location near shore and at location outside Wan Chai Sports	Dark smoke and malodour emission was observed from a hopper barge moored near shore and	A public complaint regarding dark smoke and malodour concern referred by EPD was received by ET on 22 June 2015 (EPD Ref.: H05/RS/00015054-15 dated 22 June 2015). The complainant reported that dark smoke and malodour emission was observed from a hopper barge	Interim report submitted to EPD on 29 June 2015 and EPD

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		2015	Ground	other construction plants under operation from the reclamation construction site	moored near shore and other construction plants under operation from the reclamation construction site with Contract no. HK/2009/02 at location outside Wan Chai Sports Ground caused air pollution. The complainant alleged that the said situation had been observed for a prolonged period. ET confirmed with the Resident Site Staff that reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 from 15 June 2015 to 19 June 2015. Total 3 nos. of mobile crane were in operation. On 17 June 2015, one no. of concrete pump truck and two nos. of concrete mixer were in operation.Excavation and Lateral Support was conducted at Portions 3 & 4 from 15 June 2015 to 19 June 2015. Total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. In addition, on 15 June 2015, 17 June 2015 and 19 June 2015, 1 no. of derrick barge was moored near Portions 3 & 4 for transportation of the excavated material away from site. According to the relevant site records under Contract HK/2009/02, from 15 June 2015 to 19 June 2015, reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 and total 3 nos. of mobile crane, one no. of concrete pump truck (on 17 June 2015 only) and two nos. of concrete mixer (on 17 June 2015 only) were in operation; excavation and lateral support was conducted at Portions 3 & 4 and total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. Based on relevant site record, no hopper barge was moored under Contract HK/2009/02 around the concerned location while 1 no. of derrick barge was moored under Contract HK/2009/02 near Portions 3 & 4 for transportation of the excavated material from Portions 3 & 4 away from site on 15 June 2015,17 June 2015 and 19 June 2015 respectively. Follow-up inspection was conducted during weekly	advised no comment on 20 July 2016 on the interim report submitted and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					environmental inspection on 25 June 2015, no dark smoke and malodour emission was observed from the PMEs operating on-site. A derrick barge was observed moored near Portions 3 & 4 and excavated material was transferred to the derrick barge by the excavators on land without barge operation and no particular dark smoke and malodour emission was observed. Nevertheless, the Contractor was reminded to conduct regular checking on the condition of the derrick barge and other PMEs deployed on site to ensure only well maintained PMEs are used to avoid potential dark smoke and maldour emission affecting nearby public.	
150723	20 July 2015	EPD Ref.:H05/RS/ 00018040-15 dated 23 July 2015	Ex-Wanchai Ferry Pier near 720 & & 722 Bus stop	Malodour from marine sediment	A public complaint regarding malodour referred by EPD was received by ET on 23 July 2015 (EPD Ref.: H05/RS/00018040-15 dated 23 July 2015). The complainant reported that malodour from marine sediment was scented at ex-Wanchai ferry pier near route 720 & 722 bus stop. (Contract HK/2009/02). ET confirmed with the Resident Site Staff that Rockfill placing works was conducted by one derrick barge at the concerned location (WCR3) under Contract HK/2009/02 on 20 July 2015. No marine sediment was stored or placed on site at the concerned location under Contract HK/2009/02 on 20 July 2015. According to the relevant site records under Contract HK/2009/02, rockfill placing works was conducted by one derrick barge at WCR3 area on 20 July 2015 and no marine sediment was stored or placed on site at the concerned location on the concerned date. Follow-up inspection was conducted during weekly environmental inspection on 29 July 2015. No marine sediment was observed stored or placed at the concerned location while it was noted that a culvert outfall with potential odour concern is located adjacent to the concerned location.	Interim report submitted to EPD on 30 July 2015. EPD advised no comment on 17 August 2015 on the interim report submitted and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Nevertheless, the Contractor was reminded to review the handling procedures in case of any future marine sediment handling at the concerned location and to consider the implementation of mitigation measures as appropriate to minimize potential malodour impact to nearby public.	
150904	01 Sept 2015	EPD Ref.: H05/RS/00022241-15 dated 04 September 2015 received by ET on 4 September 2015	East of New WanChai Ferry Pier	Dropping of excavated material from land to sea during laoding of material	A public complaint regarding dropping of excavated material from land to sea referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H05/RS/00022241-15 dated 04 September 2015). The complainant reported that dropping of excavated materials from land to sea during loading of materials by excavator at the construction site to work boat. (Contract HK/2009/02) ET confirmed with the Resident Site Staff that transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was undertaken by Contract HK/2009/02 on 01 September 2015. Mitigation measure including providing tarpaulin sheet to cover the gap between seawall and the hopper barge to prevent dropping of material to the sea was implemented by the Contractor. According to the relevant site records under Contract HK/2009/02, transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was carried out on 01 September 2015 and mitigation measures including provision of tarpaulin sheet between seawall and the hopper barge was implemented by the Contractor of HK/2009/02 on the concerned date. Follow-up inspection was conducted during weekly environmental inspection on 10 September 2015. Transferring of C&D materials from land to barge by excavator was observed at the concerned location and mitigation measures including provision of tarpaulin sheet between seawall and hopper	Interim report submitted to EPD on 14 September 2015. EPD advised no comment on 5 October 2015 on the interim report submitted and case closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					barge and the material transfer works was generally in order. Nevertheless, the Contractor of HK/2009/02 was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge. The Contractor was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge.	
150904	02 Sept 2015	EPD Ref.: H04/RS/00022385-15 dated 04 September 2015 received by ET on 04 September 2015	Location outside Fleet Arcade	Construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site.	A public complaint regarding construction noise and dust and exhaust emission referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H04/RS/00022385-15 dated 04 September 2015). The complainant reported that construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site. (Contract HK/2012/08) ET confirmed with the Resident Site Staff that from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one generator and one circular saw were in operation. From 1900hrs on 30 August 2015 to 0700 on 31 August 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.	Interim report submitted to EPD on 14 September 2015. 2nd interim report submitted to EPD on 17 Dec 2015 3rd interim report submitted to EPD on 31 Dec 2015

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					From 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one derrick barge was in operation. From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. One derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location. Based on the relevant site records, from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one generator and one circular saw were in operation and the relevant Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place. From 1900hrs on 30 August 2015 to 0700 on 31 August 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location and from 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one derrick barge was in operation and the Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place.	

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					From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. In view of the above, the construction activities conducted under Contract HK/2012/08 during the concerned period was in compliance with the statutory requirement. In addition, one derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location. Follow-up inspection was conducted during weekly environmental inspection on 08 September 2015 and no dark smoke emission was observed from the derrick barge moored outside the concerned location. Nevertheless, the Contractor of HK/2012/08 was reminded to conduct regular checking on the condition of the all derrick barges deployed on site to ensure only well maintained equipment are used to avoid potential dark smoke emission affecting nearby public and the Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance. The Contractor was reminded to conduct regular checking on the condition of derrick barges deployed on site to ensure only well maintained equipments are used on site to avoid potential dark smoke emission affecting nearby public. The Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance.	
150917	17 Sep 2015	A public complaint regarding water quality referred by EPD was	Central and Wan Chai Reclamation coastline (between LUNG WUI ROAD to LUNG WO ROAD,	Silt from Central and Wan Chai Reclamation was spotted along the coastline (between LUNG WUI ROAD to LUNG WO ROAD, Central & Wan	Based on the site records confirmed by RSS, removal of seawall blocks by derrick barge was undertaken by Contract HK/2012/08 at Central Reclamation Phase III works area while mitigation measures including provision of silt curtain implemented by the Contractor of HK/2012/08 during the	Interim investigation report submitted to EPD on 25

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		received by ET on 17 September 2015	Central & Wan Chai, Hong Kong)	Chai, Hong Kong)	seawall block removal works. According to relevant record, muddy dispersion at HKCEC2W (area opposite to Lung King Street) was observed by the Environmental Team on 14 September 2015 afternoon. The muddy patch was observed dispersing outside the outer layer silt curtain deployed by the Contractor of HK/2012/08 towards the Central Reclamation Phase III area while the outer layer silt curtain was observed partially opened. In view of the above observations, the Contractor was advised to rectify any environmental deficiencies such that adequate protection such as silt curtain shall be provided for exposed soil slope to mitigate for potential runoff related water quality impact to the surrounding waters; outer layer silt curtain deployed shall be entirely closed during works to safeguard the surrounding water quality. Any opening for marine vessel shall be closed promptly after passage and localized silt curtain deployed on site shall be properly maintained to avoid any gap or opening to effectively safeguard the nearby waters.	September 2015. EPD advised no comment on 14 October 2015 and case closed.
151015	11 Oct 2015	A public complaint regarding direct discharge of muddy effluent referred by RSS was received by ET on 14 October 2015	Seafront opposite to Watson Road adjacent to Eastern Breakwater	Pink fluid was observed discharged into marine waters at seafront opposite to Watson Road adjacent to the Eastern Breakwater on 11 October 2015.	Based on the site records confirmed by RSS, no construction activity near the seaside between Eastern Breakwater and the Dumping Jetty was undertaken by Contract HY/2009/19 while at site area away from the seawall, construction of EVB substructure, EVB and APS structure was undertaken on 11 October 2015. In addition, no works involving the use of paint was carried out at the concerned site area (Site Portion between Eastern Breakwater and the Dumping Jetty) and along the alignment of the Culvert T1 under Contract HY/2009/19 and no temporary storage of paint was located at the concerned site area and along the alignment of the Culvert T1 under HY/2009/19 on 11 October 2015. Follow-up inspection was conducted during weekly environmental inspection on 14 October 2015. No construction works involving the use of paint was observed undertaken at the concerned location while a few number of small containers of paint was observed placed around the concerned location and the paint containers were sealed and no sign of leakage was observed. The few containers were further checked and was found not matching the pink fluid observed on the complaint date. On the other hand, a culvert discharge outfall was found located within the concerned area where the pink fluid was observed. Based on the above, no direct information indicating the pink	HyD will consolidate all input from relevant parties to form a reply to ICC.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					fluid was originated from the worksarea under HY/2009/19 was considered available. Nevertheless, the Contractor was reminded that paints stored on site shall be properly labelled and stored in sealed container at weather proof location to avoid potential spillage.	
151028	26 Oct 2015	A public complaint regarding construction noise impact referred by EPD was received by ET on 28 October 2015 (EPD Ref:H05/RS/00027330-15 Dated 28 October 2015)	Construction Site next to ex-Wan Chai Ferry Pier	Operation of grab dredger at construction site near the ex-Wan Chai Ferry Pier from around 0100 to 0400 hours on 26 October 2015 caused noise nuisance.	According to the relevant site records under Contract HK/2009/02, from 01:00hrs to 04:00hrs on 26 October 2015, rock filling was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02 and the relevant Construction Noise Permit GW-RS1121-15 for the concerned construction works was in place. The construction activity conducted under Contract HK/2009/02 during the concerned period was in compliance with the statutory requirement. Nevertheless, the Contractor was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance in view of the nearby public concern.	The interim report would be submitted to EPD on 05 November 2015 and EPD advised no comment on 16 November 2016 and case closed.
151116	13 November 2015	A public complaint regarding water quality referred by EPD was received by ET on 16 November 2015 (EPD Ref: H05/RS/00029126-15)	Construction Site at HKCEC and seafront outside Lung Wo Road	Muddy water was discharged from the construction site at HKCEC and dispersed to seafront outside Lung Wo Road on 13 November 2015 afternoon. The complainant also alleged that the deployment of the silt curtain did not follow the design requirement under the environmental permit that the curtain should be hanged to seabed level	Based on the site records, rock mound trimming works was conducted under Contract HK/2012/08 at HKECE2 area on 13 November 2015 and mitigation measures including provision of localized silt curtain around the works area was implemented by the Contractor. Follow-up inspection was conducted during weekly environmental inspection on 17 November 2015, both outer layer silt curtain and localized layer of silt curtain around the active works area were observed deployed while the localized silt curtain deployed around the marine works area was observed partially opened for marine access. Despite no muddy dispersion was generated around the localized silt curtain enclosed area, the Contractor was advised to promptly improve the condition of the silt curtain to ensure the effectiveness of the mitigation measure deployed and to ensure the silt curtain is closed after marine vessel movement. Based on further review on the current construction stage at HKECE2, the dredging works and trench filling works were completed and filling works were conducted behind seawall or temporarily seawall in form of rockbund, the outer layer of silt curtain currently serves as the additional mitigation measure to	The interim investigation report would be submitted to EPD on 1 December 2015 and record of diving inspection conducted on 27 November 2016 was forwarded to EPD on 4 Dec 2016. EPD advised no further comment on 14 Dec 2015 and case closed.

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					the required silt curtain deployment for safeguarding the water quality in the area. To clarify for the current silt curtain arrangement, the Contractor was advised to submit an updated silt curtain deployment plan with respect to the latest silt curtain arrangement for the current construction stage. In addition, contaminated discharge at Culvert L originating from upstream locations was intermittently observed based on previous site records. Nevertheless, in view of the public concern, the Contractor was reminded to conduct regular checking on the condition and maintenance for the silt curtain deployed on site to ensure the effectiveness of the mitigation measure. A joint meeting for the complaint was held amongst the EPD, WDII RSS team, the ET and the Contractor of HK/2012/08 on 24 November 2015 and a joint silt curtain diver inspection check amongst EPD, ET, IEC, WDII RSS and the Contractor was conducted on 27 November 2015 to confirm the silt curtain condition and the silt curtain deployed at the HKCEC2 water channel was found generally in order.	
160413 (HK201208)	13 April 2016	A public complaint referred by EPD was received by ET on 13 April 2016 (EPD Ref.: H05/RS/00008367-16 dated 13 April 2016)	Outside the Hong Kong Academy for Performing Arts	Muddy water discharge from construction site	A public complaint regarding muddy water discharge referred by EPD was received by ET on 13 April 2016 (EPD Ref.: H05/RS/00008367-16 dated 13 April 2016). The complainant reported that muddy water was discharged from the construction work of Contract HK/2012/08 to the sea outside the Hong Kong Academy for Performing Arts on 13 April 2016 morning. ET confirmed with the Resident Site Staff that internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13 April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation. Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08. According to the relevant site records provided by RSS, internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13	Interim investigation report was submitted to the EPD on 21 April 2016. EPD advised no further comment on 6 June 2016 on the interim report submitted and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation. Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08. In addition, amber rainstorm warning signal was hoisted from 0630 hours to 1200 hours on 13 April 2016 and during the above time period, muddy water was observed from the upstream of culvert L outside the HK/2012/08 site. Follow up inspection was conducted on 19 April 2016, protection measures including provision of sandbag bunding along the side of the landing barge was implemented and no mud or soil deposition was observed along the seawall and no discharge point was located within the temporary water channel connecting the Culvert L outfall location to the Victoria Harbour. In addition, piling works was observed at the north side of Zone A1 on 19 April 2016 and construction effluent collection from piling work via sedimentation tank to wastewater treatment facility was implemented and steel barrier was installed around the piling works area to mitigate against potential surface runoff related impact. Nevertheless, in view of the public concern, the Contractor was reminded to maintain adequate perimeter embankment protection along the seawall boundary and maintain proper construction effluent collection system to avoid potential runoff related impact to nearby waters.	
160706	30 June 2016	A public complaint referred by EPD was received by ET on 06 July	Construction area near Royal Hong Kong Yacht Club	Derrick barge moored near Royal Hong Kong Yacht Club emitted dark smoke since mid of June 2016.	A public complaint referred by EPD was received by ET on 06 July 2016 (Case Ref.: H05/RS/0016226-16). The complainant reported that a derrick barge in green colour under Contract HY/2009/15 moored near Royal Hong Kong Yacht Club emitted dark smoke since mid of June 2016.	Interim report was submitted to EPD on 14 July 2016.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		2016 (Case Ref:. H05/RS/00016 226-16),			ET confirmed with Resident Site Staff that the concerned green derrick barge was identified as Yue Fat 206 (YF 206) and the concerned green derrick barge was operated within the Ex-PCWA area for excavation works intermittently across the period from 15 June 2016 to 30 June 2016. The concerned green derrick barge YF206 within Ex-PCWA area was no longer deployed under Contract HY/2009/15 after 02 July 2016. Follow-up inspection was conducted on 11 July 2016, the concerned derrick barge YF206 was not deployed at the concerned location and no dark smoke was observed from other derrick barge operating on-site. Nevertheless, in view of the public concern, the Contractor of HY/2009/15 was reminded to conduct regular checking and maintenance of all derrick barges deployed on site to ensure only well maintained equipment is used to avoid potential dark smoke emission affect nearby surroundings.	EPD advised no further comment on 20 September 2016 on the interim report submitted and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
160825	25 August 2016	A public complaint referred by EPD was received by ET on 25 August 2016 (Case Ref.: H08/RS/00012592-16)	East of Temporary Reclamation Zone TS3, Causeway Bay Typhoon Shelter	Muddy water was observed at Causeway Bay Typhoon Shelter	A public complaint referred by EPD was received on 25 August 2016 (Case Ref.: H08/RS/00012592-16). The complainant reported that muddy water was observed at Causeway Bay Typhoon Shelter. ET confirmed with the Resident Site Staff that no marine construction activities were undertaken at the concerned location at East of Temporary Reclamation Zone TS3 within Causeway Bay Typhoon Shelther from 14:00hrs to 17:00hrs on 25 May 2016. Site control measures including the following were implemented by the Contractor of HY/2010/08 around the concerned location. Site control measures including i) Wastewater treatment facilities (AquaSed) were installed at TS3 for treatment of wastewater generated during construction activities. Sampling of effluent from AquaSed was conducted by the Contractor of HY/2010/08 and all results complied with the requirements in the Discharge Licence. Visual inspection and pH measurement of effluent were conducted daily by Environmental Supervisors and all results passed. ii) Brick/ earth/ sandbag bunds were installed alongside the site perimeter of TS3 to prevent muddy runoff into the sea. iii) Piping with idled ends were removed to prevent accidental discharge of untreated wastewater. iv) Diver inspection for silt curtains and/ or impermeable barriers was conducted on an ad-hoc basis. vii) Temporary cut slopes were shotcreted or properly covered with tarpaulin sheets. viii) Regular inspections were conducted by the RSS and Contractor's environmental representatives on regular basis on the conditions of mitigation measures implemented on site. Based on the complainant photo information, the exposed soil slope at Temporary Reclamation Zone TS3 were observed protected by covering and enclosed by double layer of impermeable barrier/ silt curtain and no contaminated discharge was identified. In addition, based on information from Hong Kong Observatory, the tidal condition on 25 May 2016 afternoon was found to	The Interim investigation report was submitted to EPD on 2 September 2016. EPD advised no further comment on 31 October 2016 on the interim report submitted and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					be ebb-tide while non construction works marine vessel movements around the identified muddy plume within Causeway Bay Typhoon Shelter was observed in the complainant photo information. Based on review on relevant records, no contaminated surface runoff and no contaminated discharge was identified at the concerned location during the environmental site inspection conducted on 25 May 2016. Follow up inspection was conducted on 31 August 2016 and seawall construction and filing works at the Temporary Reclamation Zone TS3 was observed completed. No contaminated discharge and no contaminated surface runoff was found. Nevertheless, the contractor of HY/2010/08 was reminded to maintain appropriate bunding at seawall boundary for protection against potential surface runoff related impact. Also, the Contractor of HY/2010/08 was reminded to maintain proper site drainage for effluent collection and treatment system to ensure the compliance with relevant discharge license.	

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
180625	5 June 2018	An EPD complaint was referred to the ET on 25 June 2018 (CASE Ref: H05/RS/000015459-18)	Site outside Lung Wo Road	Muddy water discharge was found at the site outside Lung Wo Road on 5 June 2018 afternoon.	An EPD complaint was referred to the ET on 25 June 2018 (CASE Ref: H05/RS/000015459-18). The complainant reported that muddy water discharge was found at the site outside Lung Wo Road on 5 June 2018 afternoon. ET confirmed with the Resident Site Staff that installation of metal formwork at seawall was carried out on 5 June 2018 afternoon and mitigation measure including placing rock fill material on slope surface was implemented at the concerned location to reduce surface runoff. Follow up site inspection was conducted by the Environmental Team on 26 June 2018, no muddy water discharge or surface runoff related water quality impact was observed at construction area under HK/2012/08 near the concerned area Nevertheless, in view of the public concern, the Contractor of HK/2012/08 was reminded to provide addition tarpaulin covering to the slope surface along the seawall around the concerned location to reduce the potential surface runoff and maintain regular checking on the embankment condition to ensure no gap / void to avoid potential seepage / surface runoff to nearby water	The interim report will be submitted to EPD on 4 July 2018. EPD advised no comment on 28 September 2018 on the interim investigation report and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
180625	11 June 2018	An EPD complaint was referred to the ET on 25 June 2018 (CASE Ref: H05/RS/00015 954-18).	Construction Site near Wan Chai Pier	Construction dust and muddy water discharge was found at the site near Wan Chai Pier on 11 June 2018 afternoon.	ET confirmed with the Resident Site Staff that marine construction activity of removal of TWCR4 and stockpile of fill material at WCR3 Area were conducted under the Contractor of HK/2009/02 on 11 June 2018 afternoon. The Contractor of HK/2009/02 reported that double silt curtain was in place as mitigation measures during the marine activity and regular spraying water was provided as dust mitigation measures at WCR3 Area. Follow-up inspection was conducted on 28 June 2018, excavation works was observed at WCR3 Area and mitigation measures including watering during excavation was generally in place. Other dust mitigation measure includes covering the stockpile material and watering the dusty surface and haul road were generally in place. No particular dust impact was observed. No muddy water discharge or surface runoff related water quality monitoring impact was observed at Contract HK/2009/02 site area. Mitigation measures for marine activity includes providing double layers of silt curtain to enclose the marine activity area was generally in place and additional tarpaulin was provided to cover the temporary cut slope to avoid the potential surface runoff. In view of the public concern, the Contractor of HK/2009/02 was reminded to keep review the performance of dust mitigation measures including watering during excavation and material handling, covering the stockpile material and watering the dusty surface and haul road to avoid potential dust impact and minimize any potential dust impact to the surroundings. The Contractor of HK/2009/02 was also reminded to maintain regular checking on the embankment, silt curtain and tarpaulin condition to ensure no gap / void to avoid potential water quality related impact.	The interim report will be submitted to EPD on 4 July 2018. EPD advised no comment on 28 September 2018 on the interim investigation report and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
190116	12 January 2019	An EPD complaint was referred to the ET on 16 January 2019 (CASE Ref: H08/RS/00001488-19, H08/RS/00001532-19, and H08/RS/00001663-19).	Victoria Harbour near Causeway Bay Typhoon Shelter	Milky water discharge was found at the Victoria Harbour, near Causeway Bay Typhoon Shelter on 12 January 2019	ET confirmed with the WDII Resident Site Staff that the concerned area was located out of the site area of Contract No. HK/2009/02 and the Contractor of HK/2009/02 had no activity at the area concerned on 12 January 2019. ET confirmed with the CWB Resident Site Staff that no construction works was conducted by the contractor of HY/2010/08 at Victoria Harbour, near Causeway Bay Typhoon Shelter on 12 January 2019 at around noon. Despite no construction activity was conducted under Contract HK/2009/02 and HY/2010/08 on the concerned date and location as confirmed with corresponding Resident Site Staff, in view of public concern, the Contractor of Contract HK/2009/02 and HY/2010/08 were reminded to review the on-site drainage system and the operation of wastewater treatment system. The Contractor of Contract HK/2009/02 and HY/2010/08 were also reminded to provide mitigation measure such as deployment of silt curtain to enclose the works area if any marine activity to be conducted at the concerned area.	The interim report will be submitted to EPD on 24 January 2019. EPD adived no comment on 12 February 2019 on the interim report submitted and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
191218	18 December 2019	A public complaint made to EPD on 18 December 2019 was received by ET on 12 March 2020. (CASE Ref: H05/RS/00036 224-19)	Expo Drive East next to the Hong Kong Convention and Exhibition Centre	Oil slick was spotted on sea surface outside Expo Drive East next to the Hong Kong Convention and Exhibition Centre on 18 December 2019.	ET confirmed with the Resident Site Staff that no construction activity was undertaken around the concerned location under Contract HK/2009/02 on 18 December 2019 and the coastline of the concerned area has already been handed over to other party.	The interim report was submitted to EPD on 16 March 2020. EPD advised no further comment on 12 June 2020 and case closed.