Appendix N1 Cumulative Statistics on Exceedances

		Total No. recorded in this reporting month			
1-Hr TSP	Action	0	0		
	Limit	0	0		
24-Hr TSP	Action	0	2		
	Limit	0	0		
Noise	Action	0	0		
	Limit	0	0		
Water Quality	Action	1	135		
-	Limit	0	15		
Impact Dolphin	Action	0	9		
Monitoring	Limit	0	11		

Appendix N2 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period	Cumulative Statistics								
	Complaints	Notifications of Summons	Successful Prosecutions						
This Reporting Month (January 2018)	1	0	0						
Total No. received since project commencement	12	0	0						

Email message		Environmental Resources Management
То	Ramboll Environ - Hong Kong, Limited (ENPO)	16/F Berkshire House, 25 Westlands Road Quarry Bay, Hong Kong
From	ERM- Hong Kong, Limited	Telephone: (852) 2271 3113 Facsimile: (852) 2723 5660 E-mail: jovy.tam@erm.com
Ref/Project number	Contract No. HY/2012/07	
	Tuen Mun - Chek Lap Kok Link - Southern	
	Connection Viaduct Section	
Subject	Notification of Exceedance for Marine Water Quality Impact Monitoring	
Date	15 January 2018	ERM

Dear Sir/ Madam,

Please find attached the Notification of Exceedance (NOE) of the following Log no.:

Action Level Exceedance 0215660_3 January 2018_Depth-averaged SS_F_Station SR4a

A total of one (1) exceedance was recorded on 3 January 2018.

Regards,

Mr Jovy Tam Environmental Team Leader

CONFIDENTIALITY NOTICE

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ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/07 TUEN MUN – CHEK LAP KOK LINK – SOUTHERN CONNECTION VIADUCT SECTION

Marine Water Quality Impact Monitoring

Notification of Exceedance

Log No.											
	<u>Action Level Exceedance</u> 0215660_3 January 2018_Depth-averaged SS_F_Station SR4a										
	0215000_3 J	anuary 2018_Deptn-averaged 55_F_Station SR4a									
	[Total No. of Exceedances = 1]										
Date	3 January 2018 (Measured)										
	4 January 2018 (In situ results received by ERM)										
	12 Januar	ry 2018 (Laboratory results received by ERM)									
Monitoring Station	CS(Mf)5,	SR4a, SR4, IS8, IS(Mf)16, IS(Mf)9, CS(Mf)3(N)									
Parameter(s) with Exceedance(s)	D	Depth-averaged Suspended Solids (SS)									
Action Levels for SS	SS	120% of upstream control station at the same tide of the same day and 95%-ile of baseline data (i.e., 23.5 mg/L).									
Limit Levels for SS	SS	130% of upstream control station at the same tide of the same day and 99%-ile of baseline data. (i.e., 34.4 mg/L)									
Measured Levels	Action Level Exceedance 1. Mid-flood at SR4a (Depth-averaged SS = 31.3mg/L).										
Works Undertaken (at	No major marine works was undertaken under this Contract on 3 January 2018.										
the time of monitoring event)											
Possible Reason for	The exceedances of depth-average	ged SS are unlikely to be due to the Project, in view of the following:									
Action or Limit Level	• No marine works was undertaken under this Contract on 3 January 2018.										
Exceedance(s)	 Apart from SR4a, depth-averaged SS levels at all other sensitive receiver stations and impact stations were in compliance with the Action and Limit Levels during both mid-flood and mid-ebb tides on the same day. 										
	 Depth-averaged Turbidity levels and average DO levels at all stations were in compliance with the Action and Limit Levels during both mid-ebb and mid-flood tides on the same day. According to ET's site inspection on 3 January 2018, no particular finding was observed at SR4a (see <i>site photo record</i>). 										
Actions Taken / To Be		ed necessary. The ET will monitor for future trends in									
Taken	exceedances.										
Remarks	The monitoring results on 3 January 2018 and locations of water quality monitoring stations are attached. Site photo record on 3 January 2018 is attached.										

Project	Works	Date (yyyy-mm-dd	Tide	Station	Start Time	Level	Replicate	Temperature (°C)	pН	Salinity (ppt)	DO (mg/L)	Average DO (mg/L)	Turbidity (NTU)	Depth-Averaged Turbidity	SS (mg/L)	Depth-Averaged SS
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)5	13:45	Surface	1	18.8	8.2	31.1	7.6		2.3		6.2	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)5	13:45	Surface	2	18.8	8.2	31.0	7.6	7.6	2.3		8.1	7.0
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)5	13:45	Middle	1	18.6	8.2	31.2	7.6	7.0	2.2	2.3	7.6	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)5	13:45	Middle	2	18.7	8.2	31.1	7.6		2.3	2.5	7.4	7.0
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)5	13:45	Bottom	1	18.7	8.2	31.2	7.6	7.6	2.4		5.7	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)5	13:45	Bottom	2	18.7	8.2	31.1	7.6	7.0	2.4		6.9	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)3(N)	12:41	Surface	1	18.6	8.0	30.8	7.3		6.2		7.9	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)3(N)	12:41	Surface	2	18.6	8.1	30.8	7.3	7.3	5.9		5.6	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)3(N)	12:41	Middle	1	18.5	8.0	30.9	7.3	1.5	6.6	6.2	5.9	6.6
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)3(N)	12:41	Middle	2	18.6	8.1	30.9	7.3		6.3	6.3	5.9	6.6
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)3(N)	12:41	Bottom	1	18.6	8.0	30.8	7.3	7.2	6.4		7.0	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	CS(Mf)3(N)	12:41	Bottom	2	18.6	8.0	30.8	7.3	7.3	6.4		7.1	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	IS(Mf)16	13:19	Surface	1	18.7	8.2	31.0	7.8		2.4		6.1	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	IS(Mf)16	13:19	Surface	2	18.7	8.2	30.9	7.9	7.0	2.4		7.3	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	IS(Mf)16	13:19	Middle	1					7.9		0.0		()
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	IS(Mf)16	13:19	Middle	2							2.8		6.2
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	IS(Mf)16	13:19	Bottom	1	18.6	8.2	31.0	7.8	7.0	3.1		5.4	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	IS(Mf)16	13:19	Bottom	2	18.7	8.2	30.9	7.9	7.9	3.1		5.9	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4a	13:08	Surface	1	18.5	8.2	31.1	7.7		3.7		10.2	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4a	13:08	Surface	2	18.5	8.2	31.0	7.8	7 0	3.9	9.8	9.8	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4a	13:08	Middle	1					7.8		4.0		0.7
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4a	13:08	Middle	2							4.0		9.7
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4a	13:08	Bottom	1	18.5	8.2	31.1	7.7	7.0	4.2		9.2	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4a	13:08	Bottom	2	18.5	8.2	31.0	7.8	7.8	4.2		9.7	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4	13:03	Surface	1	18.7	8.2	31.1	7.8		4.7		10.5	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4	13:03	Surface	2	18.7	8.2	31.0	7.8	7 0	4.9		8.8	
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4	13:03	Middle	1					7.8		5.0		0.6
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4	13:03	Middle	2							5.0		9.6
TMCLKL	HY/2012/07	2018-01-03	Mid-Ebb	SR4	13:03	Bottom	1	18.7	8.2	31.1	7.8	5 0	5.1		9.4	
	HY/2012/07	İ	Mid-Ebb		13:03	Bottom	2	18.7	8.2	31.0	7.8	7.8	5.1		9.6	
TMCLKL		2018-01-03	Mid-Ebb	IS8	12:55	Surface	1	18.7	8.2	31.0	7.9		3.5		7.9	
TMCLKL		2018-01-03	Mid-Ebb	IS8	12:55	Surface	2	18.7	8.2	30.9	7.9	- 0	3.5		9.0	
TMCLKL	1	2018-01-03	Mid-Ebb	IS8	12:55	Middle	1	1017	012	5017		7.9			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
TMCLKL		2018-01-03	Mid-Ebb	IS8	12:55	Middle	2							4.0		10.2
TMCLKL		2018-01-03	Mid-Ebb	IS8	12:55	Bottom	1	18.6	8.2	31.1	7.8	5 û	4.4		12.2	1
TMCLKL		2018-01-03	Mid-Ebb	IS8	12:55	Bottom	2	18.6	8.2	31.0	7.9	7.9	4.4		11.7	1
TMCLKL	1	2018-01-03	Mid-Ebb	IS(Mf)9	12:33	Surface	1	18.8	8.2	31.2	8.1		2.7		6.6	
TMCLKL	1	2018-01-03	Mid-Ebb	IS(Mf)9	12:47	Surface	2	18.8	8.2	31.1	8.2	0.5	2.7		6.8	1
TMCLKL		2018-01-03	Mid-Ebb	IS(Mf)9	12:47	Middle	1	1010	0.2		0.2	8.2	2.1			
TMCLKL	1	2018-01-03	Mid-Ebb	IS(Mf)9	12:47	Middle	2							2.8		6.8
TMCLKL	1	2018-01-03	Mid-Ebb	IS(Mf)9	12:47	Bottom	1	18.8	8.2	31.2	8.2	_	2.9		6.9	1
TMCLKL	1	2018-01-03	Mid-Ebb	IS(Mf)9	12:47	Bottom	2	18.8	8.2	31.1	8.2	8.2	2.9		6.8	1

Project	Works	Date (yyyy-mm-dd) Tide	Station	Start Time	Level	Replicate	Temperature (°C)	pН	Salinity (ppt)	DO (mg/L)	Average DO (mg/L)	Turbidity (NTU)	Depth-Averaged Turbidity	SS (mg/L)	Depth-Averaged SS
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)5	7:44	Surface	1	18.5	8.1	31.0	7.5		6.6		9.5	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)5	7:44	Surface	2	18.5	8.2	30.9	7.5	7.5	6.8		9.2	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)5	7:44	Middle	1	18.5	8.1	31.0	7.5	1.0	10.7	9.7	8.4	9.0
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)5	7:44	Middle	2	18.5	8.2	30.9	7.5		10.7	9.1	9.4	9.0
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)5	7:44	Bottom	1	18.5	8.1	31.0	7.5	7.5	11.7		8.7	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)5	7:44	Bottom	2	18.5	8.2	30.9	7.5	1.2	11.9		8.9	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)3(N)	9:53	Surface	1	18.7	7.9	30.2	7.1		11.8		14.6	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)3(N)	9:53	Surface	2	18.7	8.0	30.2	7.1	7.1	11.8		14.3	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)3(N)	9:53	Middle	1	18.7	7.9	30.2	7.1	/.1	11.5	12.5	13.3	14.8
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)3(N)	9:53	Middle	2	18.7	8.0	30.2	7.1		11.5	12.3	14.0	14.0
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)3(N)	9:53	Bottom	1	18.7	7.9	30.2	7.1	7.1	14.2		17.2	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	CS(Mf)3(N)	9:53	Bottom	2	18.7	8.0	30.2	7.1	/.1	14.2		15.1	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	IS(Mf)16	8:08	Surface	1	18.4	8.2	30.9	7.6		4.3		7.0	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	IS(Mf)16	8:08	Surface	2	18.4	8.2	30.8	7.6	7(4.3		6.3	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	IS(Mf)16	8:08	Middle	1					7.6		1.5		(5
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	IS(Mf)16	8:08	Middle	2							4.5		6.5
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	IS(Mf)16	8:08	Bottom	1	18.4	8.2	31.1	7.6	7.(4.7		5.7	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	IS(Mf)16	8:08	Bottom	2	18.4	8.2	31.0	7.6	7.6	4.7		6.8	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4a	8:18	Surface	1	18.3	8.2	31.1	7.5		11.8		32.7	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4a	8:18	Surface	2	18.3	8.2	31.0	7.5	7.5	11.8	30.9		
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4a	8:18	Middle	1					7.5		10.4		21.2
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4a	8:18	Middle	2							12.4		31.3
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4a	8:18	Bottom	1	18.3	8.2	31.1	7.5	75	13.0		31.1	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4a	8:18	Bottom	2	18.3	8.2	31.0	7.5	7.5	13.0		30.6	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4	8:21	Surface	1	18.3	8.2	31.2	7.5		4.3		4.6	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4	8:21	Surface	2	18.3	8.2	31.1	7.5	7.5	4.3		5.2	
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4	8:21	Middle	1					7.5		0.6		()
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4	8:21	Middle	2							8.6		6.0
TMCLKL	HY/2012/07	2018-01-03	Mid-Flood	SR4	8:21	Bottom	1	18.3	8.2	31.2	7.5		12.8		7.2	
	HY/2012/07		Mid-Flood		8:21	Bottom	2	18.3	8.2	31.1	7.5	7.5	12.9		7.1	
TMCLKL		2018-01-03	Mid-Flood		8:30	Surface	1	18.3	8.2	31.2	7.6		6.4		8.2	
TMCLKL		2018-01-03	Mid-Flood		8:30	Surface	2	18.4	8.2	31.1	7.6		6.4		7.6	
TMCLKL		2018-01-03	Mid-Flood		8:30	Middle	1					7.6				
TMCLKL		2018-01-03	Mid-Flood		8:30	Middle	2							6.4		7.4
TMCLKL		2018-01-03	Mid-Flood		8:30	Bottom	1	18.3	8.2	31.2	7.6		6.3		6.3	1
TMCLKL		2018-01-03	Mid-Flood		8:30	Bottom	2	18.4	8.2	31.1	7.6	7.6	6.3		7.6	1
TMCLKL		2018-01-03	Mid-Flood		8:38	Surface	1				-					
TMCLKL		2018-01-03	Mid-Flood		8:38	Surface	2			1		7 0				1
TMCLKL		2018-01-03	Mid-Flood		8:38	Middle	1	18.4	8.2	31.4	7.8	7.8	3.0	0.0	6.8	
TMCLKL		2018-01-03	Mid-Flood		8:38	Middle	2	18.4	8.2	31.2	7.8		3.0	3.0	5.2	6.0
TMCLKL		2018-01-03	Mid-Flood		8:38	Bottom	1	2011					2.0		2.2	1
		2018-01-03	Mid-Flood		8:38	Bottom	2									1

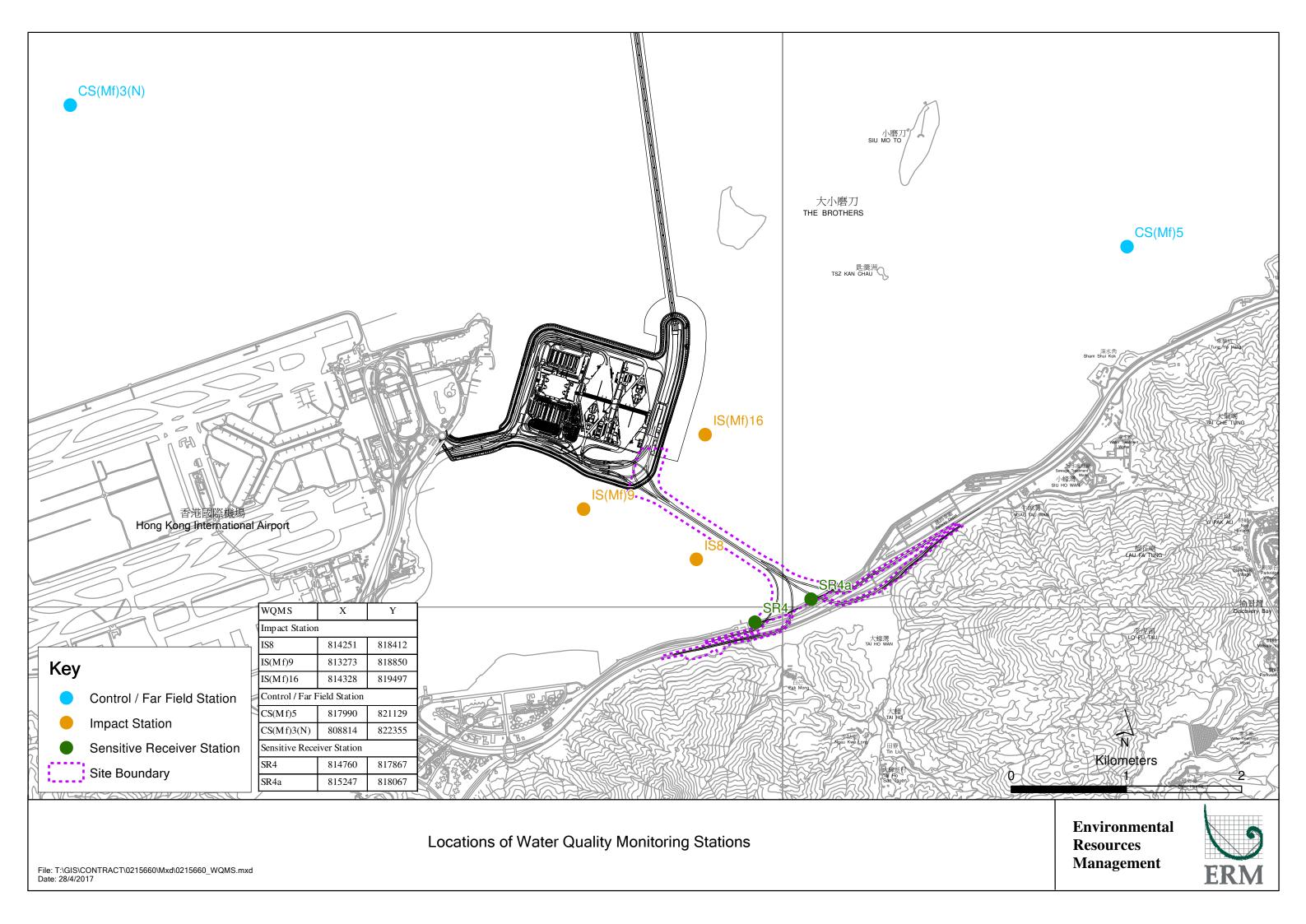
Note:

Indicates Exceedance of Action Level Indicates Exceedance of Limit Level

CONTRACT NO. HY/2012/07 - WQM SITE PHOTOS AT SR4A ON 3 JANUARY 2018

Photo 1 - Mid-Flood at SR4a on 3 January 2018





ENVIRONMENTAL COMPLAINT/ ENQUIRY FORM



Complaint/ Enquiry Received*
Date: 26 January 2018
ïme: Undisclosed
From: Environmental Protection Department (EPD)
/ia: Email
Complainant/ Enquirer *:
Jame: Undisclosed
el: Undisclosed
Address: Undisclosed
/Iedia: Dust / Noise / Water Quality / Other
Description: A complaint was received by EPD regarding a suspected sighting of dolphin near the viaduct at Tai Ho Wan and onstruction materials falling from the nearby elevated structures in the previous week of the complaint log date. The omplainant expressed concern on the potential impact on dolphin caused by the construction activities. In addition, the omplainant made inquiries with reference to environmental legislation regarding the implementation of dolphin monitoring neasures i.e. allocation of marine mammal observers at the concerned area. The Environmental Team (ET) received the omplaint notification from the Environmental Project Office (ENPO) on 26 January 2018.

1

Work records of the concerned period were reviewed upon receiving the complaint. Based on the work records provided by the Contractor, works nearby Tai Ho Wan during the previous week of the complaint log date was mainly parapet installation at Viaduct B (Pier B6-B8) and Viaduct C (Pier C4-C6) (*Figure 1*). No record of falling objects from height was reported during the concerned period.

According to ET's site inspection records on 10th and 17th January 2018, no observation of falling objects from elevated structures/sighting of dolphins was recorded. Construction and demolition (C&D) materials were observed stored at the designated areas. General refuses were observed stored in the waste skips/containers and disposed of on a regular basis by trucks or vessels. The construction waste disposal records of public fill reception facilities and designated landfill were properly recorded through the trip-ticket system and reported in the Environmental Monitoring and Audit (EM&A) Reports. Weekly inspections of waste management performance and physical conditions of the Project Site were maintained (*Annex A*). Additionally, workers' training records provided by the Contractor were reviewed. It is considered that adequate training on waste management was provided for the frontline workers.

According to the latest Environmental Permit of the Tuen Mun-Chek Lap Kok Link Project (EP-354/2009/D), a dolphin exclusion zone (DEZ) of 250m shall be implemented around the work areas of dredging, reclamation or sheet piling works. According to the work records, no dredging, reclamation or sheet piling works were undertaken in the previous week of the complaint log date. It is considered that the on-site implementation of DEZ is an additional mitigation measure for dolphin monitoring at the current stage. Based on the review of the Contractor's construction programme, a DEZ was implemented around the major work area where main construction activities (i.e. segments installation) were located (*Figure 2*). According to the monitoring records provided by the marine mammal observers, no sighting of dolphin was reported between 15th-20th and 22nd-25th January 2018.

A joint site inspection amongst ENPO, Supervising Officer's Representative (SOR) and ET was held on 29 January 2018. During the joint site inspection, it was observed that majority of the parapets were completely installed as safety barrier at the edge of viaducts. For small gaps and openings, 200mm high toe-board and erected guard-rails (450-600mm for mid rail and 900-1150mm for top rail) were installed to prevent falling objects (*Annex B*).

A joint investigation was conducted on 30 January 2018 by ET, EPD, the Contractor, and SOR. Construction works and corresponding safety measures at the Project areas nearby Tai Ho Wan were inspected. On-site implementation of DEZ was reviewed. No falling objects from elevated structures/sighting of dolphins were observed during the joint investigation (*Annex C*).

Upon investigation, there is no adequate evidence to ascertain the causes of the incident.

Mitigation Measures and Follow-Up Actions Recommended to Contractor

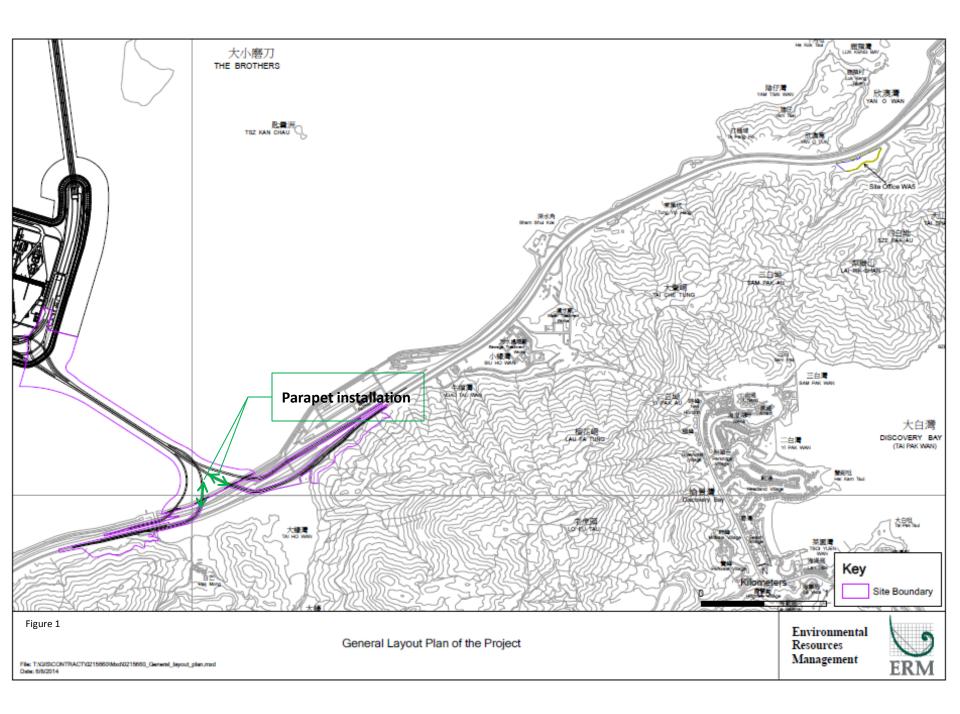
The Contractor has been reminded to maintain waste management practices and increase training frequency for the workers. In addition, the Contractor has been reminded to review the safety measures in all construction areas under this Contract to prevent falling objects from height. Moreover, the Contractor has been reminded to implement relevant environmental protection measures specified in the Environmental Permits and EM&A Manual of the Tuen Mun-Chek Lap Kok Link Project to mitigate the impacts on dolphins.

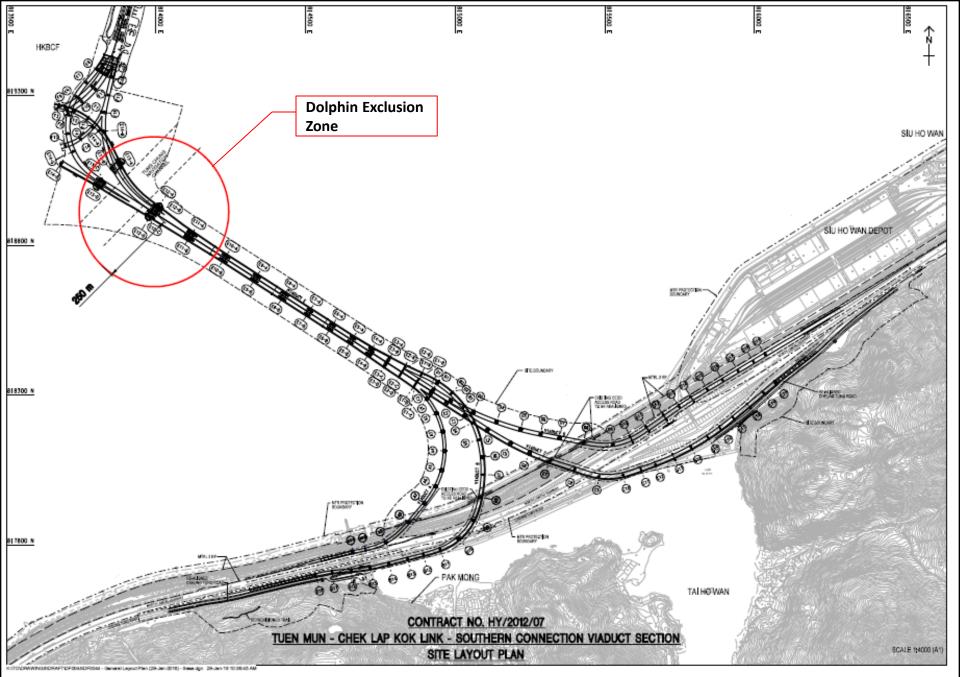
Date of File Closed :

2 February 2018

Approved and Filed by:

(Jovy Tam, ET Leader) Date: 2 February 2018





Layout of Dolphin Exclusion Zone

Annex A

Photos of ET site inspection on 10 and 17 January 2018

ANNEX A - PHOTOS OF ET SITE INSPECTION ON 10 AND 17 JANUARY 2018

Photo 1 – Adequate housekeeping was maintained at site

(10 January 2018)



Photo 2 – Construction materials were stored at the designated areas

(17 January 2018)



Annex B

Photos of joint site inspection on 29 January 2018

Photo 1 - Parapet installation at Viaduct B and C



Photo 2 - Land portion of Viaduct B (near Tai Ho Wan)



Photo 3 - Land portion of Viaduct C (near Tai Ho Wan)



ANNEX B - PHOTOS OF JOINT SITE INSPECTION ON 29 JANUARY 2018



Photo 4 – High toe-board and erected guard-rails were installed between gaps

Annex C

Photos of joint site inspection on 30 January 2018

ANNEX C - PHOTOS OF JOINT SITE INSPECTION ON 30 JANUARY 2018



Photo 1 - Overview of the Project area (near Tai Ho Wan)

Photo 2 – Land portion of Viaduct D (near Tai Ho Wan)

