Appendix L1 Cumulative Statistics on Exceedances

		Total No. recorded in this quarter	Total No. recorded since project commencement
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	0	2
	Limit	0	0
Impact Dolphin	Action	0	9
Monitoring	Limit	1	9

Appendix L2 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting Period		Cumulative Statistics	
_	Complaints	Notifications of	Successful
		Summons	Prosecutions
This quarter	2	0	0
Total No. received since project commencement	10	0	0

#### ENVIRONMENTAL COMPLAINT/ ENQUIRY FORM



#### Complaint/ Enquiry Received\*

Date: 28 March 2017 Time: Undisclosed

From: Environmental Protection Department (EPD)

Via: Email

Complainant/ Enquirer\*:
Name: Undisclosed
Tel: Undisclosed
Address: Undisclosed

Media: Dust / Noise / Water Quality / Other

Description: On 27 March 2017, a complaint was received by EPD from The Visionary regarding noise nuisance generated at night on 26 March 2017 and muddy water observed in the morning on 27 March 2017. The complainant believed that the noise source was possibly from construction sites nearby Hong Kong Boundary Crossing Facilities (HKBCF) of Hong Kong–Zhuhai–Macau Bridge (HZMB) Projects and the muddy water was also likely to be generated from HZMB related projects. The Environmental Team (ET) received the complaint notification from the Independent Environmental Checker (IEC) on 28 March 2017.

#### Investigation Report & Response

The Construction Noise Permit (CNP) for night-time works (CNP no. GW-RS1044-16) and night-time working records were reviewed immediately upon receiving the complaint. Night-time works under this Contract (from 21:00 on 26 March 2017 to 07:00 on 27 March 2017) were mainly segment erection works at Pier E13C and Pier E10. As informed by the Contractor, powered mechanical equipment (PME) deployed for night-time works during the concerned period included two crane barges, a tower crane and two generators, which demonstrated that the Contractor has complied with the corresponding conditions outlined in the CNP no. GW-RS1044-16 and no non-compliance was identified. A joint inspection amongst Supervising Officer's Representative (SOR), the Contractor and ET was held (from 23:00 on 6 April 2017 to 03:00 on 7 April 2017). A location in the proximity of The Visionary (distance between inspection site and night-time working areas was approximate 1.8km) was visited. Night-time works undertaken during the joint inspection were night-time preparation works at Pier E8B and segment erection works at Pier E10. Major sources of noise nuisance during inspection were found relating to aircraft and road traffic. No particular noise generated from segment erection works, tools handling or communication between workmen was noticed.

Water Quality Monitoring results between 21 March 2017 and 28 March 2017 were reviewed (*Annex A*). No exceedance on water quality parameters was observed. The recorded levels of depth-averaged turbidity and suspended solids at all water quality stations during the concerned period were well below the Action Level of the corresponding water quality parameters (Action Level of turbidity and suspended solid are 27.5 NTU and 23.5 mg/L respectively). In addition, site inspection was carried out at Pier E10 on 30 March 2017. There was no construction vessels associated with muddy plumes or discharges of muddy waters from platforms (*Annex B*).

Based on the above, there is no evidence to prove that the complaint case is related to this Contract.

#### Mitigation Measures and Follow-Up Actions Recommended to Contractor

Based on the investigation, there is no evidence to prove that the complaint case is related to this Contract and thus no further action is required. The Contractor has been reminded to strictly comply with all conditions stipulated in the CNP undertaken during restricted hours. The ET will keep checking on the operations of construction works and noise and water quality monitoring results.

Date of File Closed: 07 April 2017

Approved and Filed by:

(Jovy Tam, ET Leader) Date: 07 April 2017

### Annex A

Result Summary of Water Quality Monitoring between 21 March 2017 and 28 March 2017

	Works	Date (yyyy-mm-dd)	Tide	Stat	Start Time	Level	Lev_Cod	Replicate	Temp_v	pH_v	Sal_v	DO_v	Turb_v	SS_v
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	CS(Mf)5	7:20	Surface	1	1	17.8	7.72	27.7	7.32	8.54	11.9
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	CS(Mf)5	7:20	Surface	1	2	17.9	7.76	27.8	7.33	8.39	11.6
TMCLKL	HY/2012/07	2017-03-21			7:20	Middle	2	1	18	7.82	27.9	7.24	8.87	12.4
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	CS(Mf)5	7:20	Middle	2	2	18	7.83	28	7.22	8.81	12.3
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	CS(Mf)5	7:20	Bottom	3	1	18.2	7.7	28.1	7.16	9.12	13
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	CS(Mf)5	7:20	Bottom	3	2	18.1	7.71	28	7.19	9.04	12.8
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4a		Surface	1	1	17.9	7.75	27.6	7.24	8.37	11.6
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4a	7:30	Surface	1	2	18	7.78	27.7	7.21	8.31	11.5
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4a	7:30	Middle	2	1						
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4a	7:30	Middle	2	2						
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4a	7:30	Bottom	3	1	18.1	7.72	27.8	7.34	8.46	11.9
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4a	7:30	Bottom	3	2	18	7.7	27.9	7.3	8.51	12.1
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4	7:40	Surface	1	1	17.9	7.69	27.8	7.21	8.34	11.5
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4	7:40	Surface	1	2	18	7.73	27.7	7.23	8.39	11.7
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4	7:40	Middle	2	1						
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4	7:40	Middle	2	2						
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4	7:40	Bottom	3	1	18.1	7.78	27.9	7.4	8.51	12
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	SR4	7:40	Bottom	3	2	18	7.81	28	7.42	8.44	12
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS8	7:50	Surface	1	1	18	7.75	27.7	7.18	8.4	11.7
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS8	7:50	Surface	1	2	18	7.74	27.6	7.19	8.47	11.8
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS8	7:50	Middle	2	1						
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS8	7:50	Middle	2	2						
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS8	7:50	Bottom	3	1	17.9	7.84	27.8	7.25	8.66	12.3
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS8	7:50	Bottom	3	2	17.8	7.85	27.8	7.27	8.72	12.4
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)16	8:00	Surface	1	1	17.9	7.73	27.8	7.36	8.52	11.8
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)16	8:00	Surface	1	2	18	7.7	27.7	7.38	8.61	12.1
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)16	8:00	Middle	2	1	18.1	7.64	27.9	7.24	8.48	11.4
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)16	8:00	Middle	2	2	18	7.68	27.9	7.21	8.42	11.5
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)16	8:00	Bottom	3	1	18.2	7.76	28.1	7.12	8.75	12
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)16	8:00	Bottom	3	2	18.2	7.79	28	7.1	8.71	11.9
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)9	8:10	Surface	1	1	18	7.69	27.6	7.45	8.92	11.9
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)9	8:10	Surface	1	2	17.9	7.67	27.7	7.41	8.84	11.8
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)9	8:10	Middle	2	1						
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)9		Middle	2	2						
TMCLKL	HY/2012/07	2017-03-21	Mid-Flood	IS(Mf)9	8:10	Bottom	3	1	18.1	7.72	27.8	7.28	8.76	11.9

Temp.=Temperature (°C); Salt.=Salinity (ppt); DO=Dissolved Oxygen (mg/L); Turb. = Turbidity (NTU); SS = Total Suspended solids (mg/L)

#### Notes:

- 1. Empty cell is shown when there was no monitoring / sampling.
- 2. The monitoring /samplings were taken at 3 water depths, namely, 1m below water surface, mid-depth and 1m above sea bed, except where the water depth was less than 6m, in which case the mid-depth station was omitted. If water depth was less than 3m, only the mid-depth station was monitored.

TMCLKL HY/2012/07	2017-03-21 Mid-Flo	od IS(Mf)9	8:10	Bottom	3	2	18.1	7.74	27.9	7.29	8.68	11.8
TMCLKL HY/2012/07	2017-03-21 Mid-Flo	od CS(Mf)3	8:22	Surface	1	1	17.9	7.75	27.6	7.36	8.85	11.8
TMCLKL HY/2012/07	2017-03-21 Mid-Flo	od CS(Mf)3	8:22	Surface	1	2	17.8	7.73	27.5	7.39	8.79	11.7
TMCLKL HY/2012/07	2017-03-21 Mid-Flo	od CS(Mf)3	8:22	Middle	2	1	17.9	7.67	27.7	7.42	9.01	12.1
TMCLKL HY/2012/07	2017-03-21 Mid-Flo	od CS(Mf)3	8:22	Middle	2	2	18	7.65	27.6	7.44	9.05	12.2
TMCLKL HY/2012/07	2017-03-21 Mid-Flo	od CS(Mf)3	8:22	Bottom	3	1	18.1	7.69	27.9	7.21	8.42	11.6
TMCLKL HY/2012/07	2017-03-21 Mid-Flo	od CS(Mf)3	8:22	Bottom	3	2	18	7.71	27	7.2	8.49	11.7
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	CS(Mf)5	20:13	Surface	1	1	17.9	7.76	27.8	7.26	8.67	12
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	CS(Mf)5	20:13	Surface	1	2	18	7.73	27.8	7.24	8.69	12
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	CS(Mf)5	20:13	Middle	2	1	18.1	7.88	27.8	7.13	8.95	12.4
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	CS(Mf)5	20:13	Middle	2	2	18.1	7.92	27.9	7.18	8.99	12.5
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	CS(Mf)5	20:13	Bottom	3	1	18.2	7.54	28	7.02	9.18	12.9
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	/	20:13	Bottom	3	2	18.1	7.57	28.1	7.08	9.23	12.9
TMCLKL HY/2012/07	2017-03-21 Mid-Eb		19:47	Surface	1	1	18	7.84	27.7	7.15	8.44	11.3
TMCLKL HY/2012/07	2017-03-21 Mid-Eb		19:47	Surface	1	2	18.1	7.88	27.7	7.19	8.46	11.3
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Middle	2	1						
TMCLKL HY/2012/07	2017-03-21 Mid-Eb		19:47	Middle	2	2						
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Bottom	3	1	18.2	7.62	27.8	7.24	8.53	11.5
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Bottom	3	2	18.2	7.67	27.9	7.29	8.57	11.5
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Surface	1	1	18	7.77	27.8	7.14	8.45	11.2
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Surface	1	2	18	7.71	27.9	7.18	8.49	11.3
TMCLKL HY/2012/07	2017-03-21 Mid-Eb		<del></del>	Middle	2							
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Middle	2							
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Bottom	3		17.9	7.86	28	7.33	8.62	11.4
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Bottom	3	2	18	7.88	28	7.36	8.68	11.5
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Surface	1	1	17.9	7.65	27.8	7.03	8.56	11.4
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Surface	1	2	18.1	7.69	27.7	7.07	8.58	11.4
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Middle	2							
TMCLKL HY/2012/07	2017-03-21 Mid-Eb		<del></del>	Middle	2	2						
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Bottom	3	1	18.1	7.88	27.9	7.1	8.71	11.7
TMCLKL HY/2012/07	2017-03-21 Mid-Eb			Bottom	3	2	18.1	7.93	28	7.16	8.76	11.8
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	<u> </u>		Surface	1	1	18	7.76	27.7	7.22	8.67	11.5
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	/		Surface	1	2	17.9	7.8	27.7	7.27	8.62	11.6
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	/		Middle	2		17.8	7.54	27.8	7.09	8.58	11.4
TMCLKL HY/2012/07	2017-03-21 Mid-Eb		1	Middle	2		17.9	7.58	27.9	7.13	8.63	11.5
TMCLKL HY/2012/07	2017-03-21 Mid-Eb	IS(Mf)16	18:42	Bottom	3	1	18.1	7.63	28	7.01	8.88	12.1

TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	IS(Mf)16	18:42	Bottom	3	2	18	7.67	28.1	7.05	8.91	11.9
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	IS(Mf)9	18:21	Surface	1	1	17.9	7.61	27.7	7.23	8.95	12.1
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	IS(Mf)9	18:21	Surface	1	2	18	7.66	27.8	7.26	8.98	12.1
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	IS(Mf)9	18:21	Middle	2	1						
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	IS(Mf)9	18:21	Middle	2	2						
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	IS(Mf)9	18:21	Bottom	3	1	18.1	7.83	27.9	7.08	8.85	12.1
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	IS(Mf)9	18:21	Bottom	3	2	18.2	7.87	28	7.11	8.82	12.1
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	CS(Mf)3	18:00	Surface	1	1	17.9	7.82	27.7	7.2	8.93	12
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	CS(Mf)3	18:00	Surface	1	2	17.9	7.85	27.7	7.24	8.96	12
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	CS(Mf)3	18:00	Middle	2	1	18	7.54	27.7	7.36	9.12	12.3
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	CS(Mf)3	18:00	Middle	2	2	18.1	7.57	27.8	7.38	9.17	12.4
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	CS(Mf)3	18:00	Bottom	3	1	18	7.65	27.9	7.05	8.62	11.9
TMCLKL HY/2012/07	2017-03-21	Mid-Ebb	CS(Mf)3	18:00	Bottom	3	2	18	7.69	28.1	7.08	8.64	11.8
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	CS(Mf)5	13:17	Surface	1	1	17.9	7.72	26.8	7.4	9.16	12.9
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	CS(Mf)5	13:17	Surface	1	2	18	7.76	26.8	7.44	9.11	13.1
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	CS(Mf)5	13:17	Middle	2	1	18	7.54	26.9	7.32	9.38	13.4
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	CS(Mf)5	13:17	Middle	2	2	18.1	7.58	27	7.38	9.41	13.6
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	CS(Mf)5	13:17	Bottom	3	1	17.9	7.61	27.1	7.26	9.67	14
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	CS(Mf)5	13:17	Bottom	3	2	18.1	7.66	27.2	7.29	9.65	14.1
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4a	13:40	Surface	1	1	17.9	7.57	26.9	7.34	9.04	13.1
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4a	13:40	Surface	1	2	18	7.6	27	7.37	9.08	13.3
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4a	13:40	Middle	2	1						
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4a	13:40	Middle	2	2						
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4a	13:40	Bottom	3	1	18	7.68	27.1	7.25	9.23	13.4
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4a	13:40	Bottom	3	2	18	7.73	27.1	7.28	9.28	13.4
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4		Surface	1	1	17.8	7.71	26.9	7.28	9.02	12.9
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4	14:00	Surface	1	2	17.9	7.74	27	7.3	9.08	13
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4	14:00	Middle	2	1						
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4	14:00	Middle	2	2						
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4	14:00	Bottom	3	1	18	7.83	27	7.16	9.22	13.5
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	SR4		Bottom	3	2	18.1	7.88	27.1	7.2	9.27	13.4
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	IS8	14:23	Surface	1	1	17.9	7.55	26.9	7.17	8.84	12.6
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	IS8	14:23	Surface	1	2	18	7.59	27	7.21	8.88	12.6
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	IS8	14:23	Middle	2	1						
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	IS8	14:23	Middle	2	2						
TMCLKL HY/2012/07	2017-03-23	Mid-Flood	IS8	14:23	Bottom	3	1	18.1	7.62	27.1	7.12	9.05	13

TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	[S8	14:23	Bottom	3	2	18.2	7.68	27.2	7.18	9.1	13.1
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	(S(Mf)16	14:44	Surface	1	1	18	7.72	27	7.28	9.02	12.7
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	(S(Mf)16	14:44	Surface	1	2	18	7.77	27	7.23	9.05	12.9
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	(S(Mf)16	14:44	Middle	2	1	17.9	7.52	27.1	7.13	9.12	13.1
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	(S(Mf)16	14:44	Middle	2	2	18	7.55	27	7.16	9.17	13.3
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	(S(Mf)16	14:44	Bottom	3	1	18.1	7.79	27.1	7.04	9.33	13.6
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	(S(Mf)16	14:44	Bottom	3	2	18.2	7.83	27.2	7.1	9.37	13.7
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	IS(Mf)9	15:07	Surface	1	1	17.9	7.62	26.9	7.19	8.83	12.7
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	IS(Mf)9	15:07	Surface	1	2	18	7.68	27.1	7.22	8.86	12.7
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	IS(Mf)9	15:07	Middle	2	1						
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	IS(Mf)9	15:07	Middle	2	2						
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	IS(Mf)9	15:07	Bottom	3	1	18.1	7.43	27.2	7.17	9.21	13.4
TMCLKL HY/2012/07	2017-03-23 Mid-Flood I	IS(Mf)9	15:07	Bottom	3	2	18.1	7.47	27.1	7.14	9.28	13.5
TMCLKL HY/2012/07	2017-03-23 Mid-Flood (	CS(Mf)3	15:30	Surface	1	1	17.9	7.55	27	7.25	8.94	12.7
TMCLKL HY/2012/07	2017-03-23 Mid-Flood (	CS(Mf)3	15:30	Surface	1	2	17.9	7.58	27	7.29	8.99	12.9
TMCLKL HY/2012/07	2017-03-23 Mid-Flood (		15:30	Middle	2	1	17.8	7.76	27.1	7.32	9.22	13.3
TMCLKL HY/2012/07	2017-03-23 Mid-Flood (	CS(Mf)3	15:30	Middle	2	2	17.9	7.78	27.2	7.38	9.27	13.3
TMCLKL HY/2012/07	2017-03-23 Mid-Flood (	CS(Mf)3	15:30	Bottom	3	1	18	7.52	26.8	7.2	9.34	13.6
TMCLKL HY/2012/07	2017-03-23 Mid-Flood (	CS(Mf)3	15:30	Bottom	3	2	18.1	7.59	26.9	7.27	9.41	13.8
TMCLKL HY/2012/07		CS(Mf)5	11:48	Surface	1	1	17.9	7.68	26.8	7.27	9.34	13.4
TMCLKL HY/2012/07		CS(Mf)5		Surface	1	2	17.8	7.64	26.9	7.23	9.27	13.2
TMCLKL HY/2012/07		CS(Mf)5	11:48	Middle	2	1	17.9	7.66	26.9	7.18	9.5	13.8
TMCLKL HY/2012/07		CS(Mf)5		Middle	2	2	17.9	7.61	26.9	7.15		13.9
TMCLKL HY/2012/07		CS(Mf)5		Bottom	3	1	18	7.67	27	7.06	9.8	14
TMCLKL HY/2012/07		CS(Mf)5		Bottom	3	2	18	7.7	27.1	7.02	9.74	13.8
TMCLKL HY/2012/07		SR4a	11:30	Surface	1	1	17.9	7.64	26.9	7.18	9.17	12.8
TMCLKL HY/2012/07		SR4a		Surface	1	2	17.9	7.62	27	7.24	9.26	13.1
TMCLKL HY/2012/07		SR4a		Middle	2							
TMCLKL HY/2012/07		SR4a		Middle	2	2						
TMCLKL HY/2012/07		SR4a		Bottom	3	1	17.9	7.66	27	7.13	9.33	13.4
TMCLKL HY/2012/07		SR4a		Bottom	3	2	17.8	7.69	27.1	7.09	9.41	13.6
TMCLKL HY/2012/07		SR4		Surface	1	1	17.9	7.68	26.8	7.16	9.13	13.1
TMCLKL HY/2012/07		SR4		Surface	1	2	17.9	7.65	26.9	7.13	9.06	13
TMCLKL HY/2012/07	2017-03-23 Mid-Ebb \$	SR4	11:13	Middle	2	1						
TMCLKL HY/2012/07		SR4	11:13	Middle	2							
TMCLKL HY/2012/07	2017-03-23 Mid-Ebb \$	SR4	11:13	Bottom	3	1	17.9	7.66	26.9	7.09	9.34	13.5

TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb SR4	11:13	Bottom	3	2	17.8	7.7	27	7.06	9.42	13.8
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS8		Surface	1	1	17.8	7.67	26.9	7.05	8.93	12.8
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS8	10:55	Surface	1	2	17.9	7.64	27	7.02	9.02	12.9
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS8	10:55	Middle	2	1						
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS8	10:55	Middle	2	2						
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS8	10:55	Bottom	3	1	17.9	7.67	27	7	9.27	13.4
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS8	10:55	Bottom	3	2	17.9	7.7	27.1	6.98	9.34	13.5
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)16	10:33	Surface	1	1	17.8	7.63	27	7.08	9.04	13
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)16	10:33	Surface	1	2	17.8	7.59	27.1	7.11	9.13	13
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)16	10:33	Middle	2	1	17.8	7.61	27.1	7.04	9.22	13.5
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)16	10:33	Middle	2	2	17.9	7.57	27.1	7.01	9.17	13.3
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)16	10:33	Bottom	3	1	18	7.63	27.2	6.97	9.48	13.7
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)16	10:33	Bottom	3	2	18	7.66	27.3	6.94	9.53	13.6
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)9	10:15	Surface	1	1	17.8	7.58	27	7.06	8.94	13.1
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)9	10:15	Surface	1	2	17.9	7.56	27.1	7.03	9.01	13.2
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)9	10:15	Middle	2	1						
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)9	10:15	Middle	2	2						
TMCLKL HY/2012/07	2017-03-23 Mid-	-Ebb IS(Mf)9	10:15	Bottom	3	1	17.8	7.57	27.1	7.08	9.34	13.4
TMCLKL HY/2012/07	2017-03-23 Mid-		10:15	Bottom	3	2	17.8	7.58	27.1	7.1	9.42	13.8
TMCLKL HY/2012/07	2017-03-23 Mid-		9:50	Surface	1	1	17.8	7.59	27.1	7.09	9.04	12.8
TMCLKL HY/2012/07	2017-03-23 Mid-		9:50	Surface	1	2	17.8	7.56	27.2	7.11	9.13	13.1
TMCLKL HY/2012/07	2017-03-23 Mid-		9:50	Middle	2	1	17.8	7.63	27.2	7.18	9.31	13.5
TMCLKL HY/2012/07	2017-03-23 Mid-	\ /		Middle	2	2	17.9	7.58	27.2	7.21	9.38	13.7
TMCLKL HY/2012/07	2017-03-23 Mid-		9:50	Bottom	3	1	18	7.64	27.3	7.15	9.62	14.1
TMCLKL HY/2012/07	2017-03-23 Mid-			Bottom	3	2	18	7.66	27.4	7.12	9.55	14
TMCLKL HY/2012/07	2017-03-25 Mid-	-Flood CS(Mf)5	15:15	Surface	1	1	18.6	7.67	26.8	7.27	8.87	12.5
TMCLKL HY/2012/07	2017-03-25 Mid-			Surface	1	2	18.5	7.69	26.7	7.29	8.84	12.7
TMCLKL HY/2012/07	2017-03-25 Mid-			Middle	2	1	18.7	7.74	26.9	7.19	9.24	13.2
TMCLKL HY/2012/07	2017-03-25 Mid-	-Flood CS(Mf)5	15:15	Middle	2	2	18.7	7.75	27	7.15	9.2	13.2
TMCLKL HY/2012/07	2017-03-25 Mid-			Bottom	3	1	18.7	7.7	27.1	7.15	9.19	13.3
TMCLKL HY/2012/07	2017-03-25 Mid-			Bottom	3	2	18.8	7.71	27.1	7.11	9.15	13.4
TMCLKL HY/2012/07	2017-03-25 Mid-			Surface	1	1	18.5	7.62	26.8	7.33	9.14	13.3
TMCLKL HY/2012/07	2017-03-25 Mid-	-Flood SR4a	15:35	Surface	1	2	18.4	7.59	26.8	7.29	9.18	13.4
TMCLKL HY/2012/07	2017-03-25 Mid-	-Flood SR4a	15:35	Middle	2	1						
TMCLKL HY/2012/07	2017-03-25 Mid-	-Flood SR4a		Middle	2							
TMCLKL HY/2012/07	2017-03-25 Mid-	-Flood SR4a	15:35	Bottom	3	1	18.6	7.66	26.9	7.42	9.33	13.5

TMCLKL HY/2012/07	2017-03-25 Mid-Flood SR4a	15:35	Bottom	3	2	18.6	7.68	26.8	7.39	9.3	13.4
TMCLKL HY/2012/07	2017-03-25 Mid-Flood SR4	15:53	Surface	1	1	18.4	7.59	26.7	7.11	8.95	12.8
TMCLKL HY/2012/07	2017-03-25 Mid-Flood SR4	15:53	Surface	1	2	18.4	7.58	26.6	7.07	8.9	12.7
TMCLKL HY/2012/07	2017-03-25 Mid-Flood SR4	15:53	Middle	2	1						
TMCLKL HY/2012/07	2017-03-25 Mid-Flood SR4	15:53	Middle	2	2						
TMCLKL HY/2012/07	2017-03-25 Mid-Flood SR4	15:53	Bottom	3	1	18.5	7.63	26.8	7.17	9.15	13.4
TMCLKL HY/2012/07	2017-03-25 Mid-Flood SR4	15:53	Bottom	3	2	18.6	7.64	26.9	7.14	9.19	13.3
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS8	16:10	Surface	1	1	18.5	7.66	26.8	7.24	9.09	12.9
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS8	16:10	Surface	1	2	18.4	7.67	26.7	7.27	9.05	12.9
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS8	16:10	Middle	2	1						
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS8	16:10	Middle	2	2						
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS8	16:10	Bottom	3	1	18.6	7.6	26.9	7.2	9.02	13
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS8	16:10	Bottom	3	2	18.6	7.62	26.9	7.23	9.07	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)16	16:30	Surface	1	1	18.5	7.69	26.8	7.36	8.77	12.4
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)16	16:30	Surface	1	2	18.5	7.72	26.8	7.39	8.7	12.4
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)16	16:30	Middle	2	1	18.6	7.75	26.9	7.22	8.93	12.9
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)16	16:30	Middle	2	2	18.5	7.76	27	7.17	8.9	12.9
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)16		Bottom	3	1	18.6	7.71	27	7.44		13.5
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)16	16:30	Bottom	3	2	18.7	7.73	27	7.47	9.3	13.6
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)9	17:00	Surface	1	1	18.5	7.63	26.9	7.17	8.78	12.6
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)9	17:00	Surface	1	2	18.4	7.64	26.8	7.21	8.75	12.5
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)9	17:00	Middle	2	1						
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)9	17:00	Middle	2	2						
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)9	17:00	Bottom	3	1	18.6	7.67	26.9	7.31	8.9	12.9
TMCLKL HY/2012/07	2017-03-25 Mid-Flood IS(Mf)9	17:00	Bottom	3	2	18.6	7.69	29.9	7.34	8.96	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Flood CS(Mf)3	17:25	Surface	1	1	18.5	7.7	26.8	7.07	8.84	12.6
TMCLKL HY/2012/07	2017-03-25 Mid-Flood CS(Mf)3	17:25	Surface	1	2	18.5	7.71	26.9	7.04	8.8	12.6
TMCLKL HY/2012/07	2017-03-25 Mid-Flood CS(Mf)3	17:25	Middle	2	1	18.5	7.74	27	7.25	8.71	12.5
TMCLKL HY/2012/07	2017-03-25 Mid-Flood CS(Mf)3	17:25	Middle	2	2	18.6	7.76	27	7.28	8.75	12.6
TMCLKL HY/2012/07	2017-03-25 Mid-Flood CS(Mf)3	17:25	Bottom	3	1	18.6	7.72	27	7.29	9.02	13.2
TMCLKL HY/2012/07	2017-03-25 Mid-Flood CS(Mf)3	17:25	Bottom	3	2	18.7	7.7	27.1	7.26	9.06	13.3
TMCLKL HY/2012/07	2017-03-25 Mid-Ebb CS(Mf)5	13:10	Surface	1	1	18.5	7.56	26.8	7.34	9.05	13
TMCLKL HY/2012/07	2017-03-25 Mid-Ebb CS(Mf)5	13:10	Surface	1	2	18.4	7.59	26.9	7.31	9.11	12.9
TMCLKL HY/2012/07	2017-03-25 Mid-Ebb CS(Mf)5	13:10	Middle	2	1	18.5	7.63	26.9	7.28	9.23	13.4
TMCLKL HY/2012/07	2017-03-25 Mid-Ebb CS(Mf)5	13:10	Middle	2	2	18.6	7.66	26.9	7.25	9.27	13.4
TMCLKL HY/2012/07	2017-03-25 Mid-Ebb CS(Mf)5	13:10	Bottom	3	1	18.6	7.64	27	7.2	9.35	13.4

TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b CS(Mf)5	13:10 Bottom	3	2	18.7	7.7	27	7.16	9.3	13.2
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4a	12:48 Surface	1	1	18.5	7.58	26.8	7.26	9.26	13
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4a	12:48 Surface	1	2	18.5	7.61	26.8	7.24	9.2	13
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4a	12:48 Middle	2	1						
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4a	12:48 Middle	2	2						
TMCLKL HY/2012/07	2017-03-25 Mid-El	b SR4a	12:48 Bottom	3	1	18.5	7.63	26.8	7.29	9.34	13.4
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4a	12:48 Bottom	3	2	18.6	7.66	26.8	7.31	9.42	13.6
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4	12:33 Surface	1	1	18.5	7.53	26.8	7.06	9.15	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4	12:33 Surface	1	2	18.5	7.56	26.8	7.09	9.1	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Et	b SR4	12:33 Middle	2	1						
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4	12:33 Middle	2	2						
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4	12:33 Bottom	3	1	18.5	7.57	26.8	7.01	9.03	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b SR4	12:33 Bottom	3	2	18.5	7.6	26.8	6.97	8.98	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS8	12:15 Surface	1	1	18.4	7.58	26.8	7.11	9.26	13.2
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS8	12:15 Surface	1	2	18.5	7.61	26.8	7.08	9.2	13.2
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS8	12:15 Middle	2	1						
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS8	12:15 Middle	2	2						
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS8	12:15 Bottom	3	1	18.5	7.64	26.8	7.03	9.11	13.2
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS8	12:15 Bottom	3	2	18.5	7.62	26.9	7	9.05	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS(Mf)16	11:52 Surface	1	1	18.4	7.63	26.7	7.27	8.94	12.9
TMCLKL HY/2012/07	2017-03-25 Mid-Et	b IS(Mf)16	11:52 Surface	1	2	18.3	7.66	26.8	7.3	8.86	12.6
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS(Mf)16	11:52 Middle	2	1	18.4	7.6	26.8	7.23	8.79	12.8
TMCLKL HY/2012/07	2017-03-25 Mid-Eb		11:52 Middle	2	2	18.5	7.63	26.8	7.2	8.85	12.8
TMCLKL HY/2012/07	2017-03-25 Mid-Et		11:52 Bottom	3	1	18.5	7.67	26.9	7.33	9.07	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Et	b IS(Mf)16	11:52 Bottom	3	2	18.6	7.62	27	7.31	9.13	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS(Mf)9	11:37 Surface	1	1	18.3	7.61	26.7	7.07	9.07	13.2
TMCLKL HY/2012/07	2017-03-25 Mid-Et	b IS(Mf)9	11:37 Surface	1	2	18.3	7.63	26.8	7.12	9.15	13.4
TMCLKL HY/2012/07	2017-03-25 Mid-Eb		11:37 Middle	2	1						
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b IS(Mf)9	11:37 Middle	2	2						
TMCLKL HY/2012/07	2017-03-25 Mid-Eb		11:37 Bottom	3	1	18.3	7.64	26.8	7.15	9.03	13
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	_ ` ′	11:37 Bottom	3	2	18.4	7.66	26.9	7.18	8.97	13.1
TMCLKL HY/2012/07	2017-03-25 Mid-Et	_ ` ′	11:15 Surface	1	1	18.3	7.67	26.6	7.14	8.97	12.7
TMCLKL HY/2012/07	2017-03-25 Mid-Eb		11:15 Surface	1	2	18.4	7.71	26.7	7.11	9.04	12.9
TMCLKL HY/2012/07	2017-03-25 Mid-Et	b CS(Mf)3	11:15 Middle	2	1	18.4	7.63	26.7	7.23	8.86	12.8
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	_ ` /	11:15 Middle	2	2	18.4	7.66	26.7	7.25	8.8	12.8
TMCLKL HY/2012/07	2017-03-25 Mid-Eb	b CS(Mf)3	11:15 Bottom	3	1	18.4	7.68	26.8	7.33	9.13	13.4

TMCLKL HY/2012/07	2017-03-25 Mid-Ebb	CS(Mf)3	11:15	Bottom	3	2	18.5	7.7	26.9	7.3	9.18	13.5
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	CS(Mf)5	17:36	Surface	1	1	18.7	7.87	26.8	7.39	8.26	11.6
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	CS(Mf)5	17:36	Surface	1	2	18.8	7.89	26.9	7.42	8.29	11.9
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	CS(Mf)5	17:36	Middle	2	1	18.8	8.04	27	7.58	8.35	11.9
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	CS(Mf)5	17:36	Middle	2	2	18.9	8.07	27.1	7.61	8.37	12.1
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	CS(Mf)5	17:36	Bottom	3	1	18.9	8.11	27.3	7.73	8.44	12.2
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	CS(Mf)5	17:36	Bottom	3	2	18.9	8.13	27.4	7.75	8.47	12.4
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4a	17:59	Surface	1	1	18.6	8.04	26.7	7.28	8.09	11.7
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4a	17:59	Surface	1	2	18.7	8.02	26.8	7.31	8.11	11.8
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4a	17:59	Middle	2	1						
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4a	17:59	Middle	2	2						
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4a	17:59	Bottom	3	1	18.7	7.95	26.9	7.45	8.24	11.9
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4a	17:59	Bottom	3	2	18.8	7.98	26.9	7.48	8.27	11.9
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4	18:22	Surface	1	1	18.6	7.89	26.9	7.25	8.24	11.8
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4	18:22	Surface	1	2	18.6	7.91	26.9	7.28	8.27	11.8
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4	18:22	Middle	2	1						
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4	18:22	Middle	2	2						
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4	18:22	Bottom	3	1	18.7	8.07	27	7.34	8.34	12.2
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	SR4	18:22	Bottom	3	2	18.8	8.09	27.1	7.37	8.37	12.1
TMCLKL HY/2012/07	2017-03-28 Mid-Flood 1	IS8	18:44	Surface	1	1	18.8	8.12	26.8	7.12	8.45	12
TMCLKL HY/2012/07	2017-03-28 Mid-Flood 1	IS8	18:44	Surface	1	2	18.9	8.14	26.9	7.15	8.48	12
TMCLKL HY/2012/07	2017-03-28 Mid-Flood 1	IS8	18:44	Middle	2	1						
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS8	18:44	Middle	2	2						
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l			Bottom	3	1	19	7.92	27	7.27	8.5	12.2
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS8	18:44	Bottom	3	2	19.1	7.95	27.1	7.29	8.53	12.3
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS(Mf)16		Surface	1	1	18.7	7.84	26.8	7.34	8.04	11.3
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS(Mf)16	19:05	Surface	1	2	18.8	7.87	26.9	7.37	8.07	11.5
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS(Mf)16		Middle	2	1	18.9	8.09	27	7.45	8.23	11.9
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS(Mf)16	19:05	Middle	2	2	19	8.12	27.1	7.47	8.26	12
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS(Mf)16	19:05	Bottom	3	1	19.1	8	27.2	7.5	8.37	12.2
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	` ′		Bottom	3	2	19.2	7.98	27.3	7.53	8.35	12.2
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	/-		Surface	1	1	18.5	8.04	26.9	7.16	8.23	11.9
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS(Mf)9		Surface	1	2	18.6	8.07	27	7.19	8.27	11.8
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS(Mf)9	19:30	Middle	2	1						
TMCLKL HY/2012/07	2017-03-28 Mid-Flood	IS(Mf)9		Middle	2	2						
TMCLKL HY/2012/07	2017-03-28 Mid-Flood l	IS(Mf)9	19:30	Bottom	3	1	18.7	7.92	27.2	7.34	8.36	12.1

TMCLKL HY/2012/07	2017-03-28 Mid-Flood IS(N	Mf)9 19:30	Bottom	3	2	18.8	7.95	27.3	7.37	8.39	12.2
TMCLKL HY/2012/07	2017-03-28 Mid-Flood CS(		Surface	1	1	18.7	7.83	26.8	7.25	7.98	11.3
TMCLKL HY/2012/07	2017-03-28 Mid-Flood CS(	(Mf)3 19:50	Surface	1	2	18.7	7.86	26.9	7.28	8.01	11.5
TMCLKL HY/2012/07	2017-03-28 Mid-Flood CS(	(Mf)3 19:50	Middle	2	1	18.8	8.04	27	7.37	8.09	11.6
TMCLKL HY/2012/07	2017-03-28 Mid-Flood CS(	(Mf)3 19:50	Middle	2	2	18.9	8.07	27.1	7.4	8.11	11.7
TMCLKL HY/2012/07	2017-03-28 Mid-Flood CS(	(Mf)3 19:50	Bottom	3	1	19	8.11	27.2	7.49	8.25	12
TMCLKL HY/2012/07	2017-03-28 Mid-Flood CS(	(Mf)3 19:50	Bottom	3	2	19.1	8.13	27.3	7.51	8.28	12.2
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb CS(	(Mf)5 14:48	Surface	1	1	18.6	7.62	26.9	7.25	9.11	13.1
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb CS(	(Mf)5 14:48	Surface	1	2	18.7	7.65	27	7.22	9.17	13
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb CS(	(Mf)5 14:48	Middle	2	1	18.7	7.69	27.1	7.19	9.29	13.5
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb CS(	(Mf)5 14:48	Middle	2	2	18.6	7.72	27.2	7.16	9.33	13.5
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb CS(	(Mf)5 14:48	Bottom	3	1	18.7	7.7	27.2	7.11	9.41	13.5
TMCLKL HY/2012/07		(Mf)5 14:48	Bottom	3	2	18.8	7.76	27.3	7.07	9.36	13.3
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4	4a 14:24	Surface	1	1	18.5	7.64	26.8	7.17	9.32	13
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4	4a 14:24	Surface	1	2	18.6	7.67	26.9	7.15	9.26	13.1
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Middle	2	1						
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Middle	2	2						
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Bottom	3	1	18.6	7.69	26.9	7.2	9.4	13.5
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Bottom	3	2	18.7	7.72	27	7.22	9.48	13.7
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Surface	1	1	18.5	7.59	26.9	6.97	9.21	13.2
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Surface	1	2	18.5	7.62	26.8	7	9.16	13.2
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Middle	2	1						
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Middle	2	2						
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Bottom	3	1	18.5	7.63	26.9	6.92	9.06	13.1
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb SR4		Bottom	3	2	18.4	7.66	27	6.88	9.04	13.2
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb IS8		Surface	1	1	18.6	7.64	26.9	7.02	9.32	13.3
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb IS8		Surface	1	2	18.5	7.67	27	6.99	9.26	13.2
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb IS8		Middle	2	1						
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb IS8		Middle	2	2						
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb IS8		Bottom	3	1	18.6	7.7	27	6.94	9.17	13.3
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb IS8		Bottom	3	2	18.6	7.68	27.1	6.91	9.11	13.2
TMCLKL HY/2012/07		/	Surface	1	1	18.4	7.69	26.8	7.18	9	13
TMCLKL HY/2012/07			Surface	1	2	18.5	7.72	26.9	7.21	8.92	12.7
TMCLKL HY/2012/07			Middle	2	1	18.5	7.66	27	7.14	8.85	12.9
TMCLKL HY/2012/07			Middle	2	2	18.6	7.69	27.1	7.11	8.91	12.9
TMCLKL HY/2012/07	2017-03-28 Mid-Ebb IS(N	Mf)16 13:18	Bottom	3	1	18.7	7.73	27.1	7.24	9.13	13.1

TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	IS(Mf)16	13:18	Bottom	3	2	18.6	7.68	27.2	7.22	9.19	13.1
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	IS(Mf)9	12:56	Surface	1	1	18.3	7.67	26.9	6.98	9.13	13.3
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	IS(Mf)9	12:56	Surface	1	2	18.4	7.69	27	7.03	9.21	13.4
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	IS(Mf)9	12:56	Middle	2	1						
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	IS(Mf)9	12:56	Middle	2	2						
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	IS(Mf)9	12:56	Bottom	3	1	18.5	7.7	27.1	7.06	9.09	13.1
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	IS(Mf)9	12:56	Bottom	3	2	18.4	7.72	27	7.09	9.03	13.2
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	CS(Mf)3	12:34	Surface	1	1	18.4	7.73	26.7	7.05	9.03	12.8
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	CS(Mf)3	12:34	Surface	1	2	18.5	7.77	26.8	7.02	9.1	13
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	CS(Mf)3	12:34	Middle	2	1	18.5	7.69	26.9	7.14	8.92	12.9
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	CS(Mf)3	12:34	Middle	2	2	18.6	7.72	26.8	7.16	8.86	12.9
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	CS(Mf)3	12:34	Bottom	3	1	18.6	7.74	26.9	7.24	9.19	13.5
TMCLKL HY/2012/07	2017-03-28	Mid-Ebb	CS(Mf)3	12:34	Bottom	3	2	18.5	7.76	27	7.21	9.24	13.6

## Annex B

# Photos of Site Inspection on 30 March 2017

#### ANNEX B - PHOTOS OF SITE INSPECTION ON 30 MARCH 2017

Photo 1

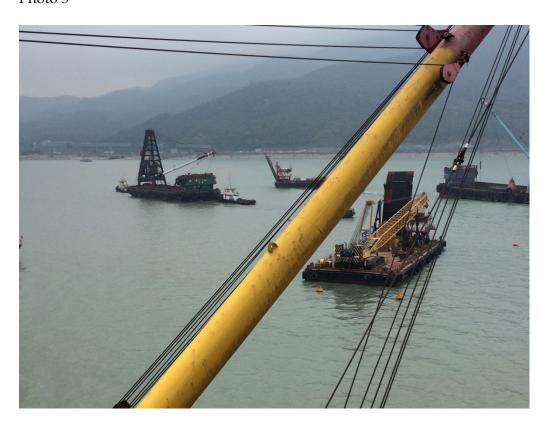


Photo 2



#### ANNEX B - PHOTOS OF SITE INSPECTION ON 30 MARCH 2017

Photo 3



#### ENVIRONMENTAL COMPLAINT/ ENQUIRY FORM



#### Complaint/ Enquiry Received\*

Date: 6 June 2017 Time: Undisclosed

From: Environmental Protection Department (EPD)

Via: Email

Complainant/ Enquirer\*:
Name: Undisclosed
Tel: Undisclosed
Address: Undisclosed

Media: Dust / Noise / Water Quality / Other

Description: A complaint was received by EPD on 31 May 2017 regarding construction dust nuisance nearby vehicle access road of 044 and 045 buildings of Hong Kong Boundary Crossing Facilities (HKBCF) of Hong Kong–Zhuhai–Macau Bridge (HZMB) Projects (See *Figure 1*). The Contractor was notified by EPD regarding the complaint on 2 June 2017. The Environmental Team (ET) received the complaint notification from the Independent Environmental Checker (IEC) on 6 June 2017.

#### Investigation Report & Response

Work records and watering records were reviewed upon receiving the complaint. Based on the work records provided by the Contractor, major works at the concerned area were bored piling works for the construction of Pier F8 and Pier F12. According to the watering records, a watering programme of 8 times daily watering was maintained by manual between 29 May 2017 and 2 June 2017 at the construction sites of Southern Landfall under this Contract, which is considered complying with the relevant requirements stipulated in the Environmental Permit and EM&A Manual of the Tuen Mun-Chek Lap Kok Link Project. Informed by the Contractor, water truck was deployed and watering was provided nearby vehicle access road of 044 and 045 buildings on 2 June and 3 June 2017.

Site inspection at the concerned area was carried out on 7 June 2017. During the site inspection, frequent vehicle movement on an unpaved haul road near 044 and 045 buildings and a nearby stockpile of excavated soil were observed. Based on the observation, it is believed that the major sources of dust nuisance were generated from vehicle movements on unpaved roads and windblown dust of stockpiled material. Water sprinkling systems were installed along the unpaved haul road and on the soil stockpile as an enhanced measure by the Contractor on 4 June 2017 for dust suppression (see *Figure* 2). The water sprinkling systems were subsequently checked during the site inspection on 7 June 2017. Regular watering was observed maintained at the concerned area nearby 044 and 045 buildings of HKBCF (see *Annex A*).

#### Mitigation Measures and Follow-Up Actions Recommended to Contractor

To mitigate dust emission from construction activities and trucks, the Contractor was reminded to maintain the following measures:

- 1. Watering of the construction sites for 8 times per day shall be maintained in all areas throughout the construction period. Increase in watering frequency should be considered if necessary.
- 2. All stockpiles of aggregate should be covered and water applied especially in dry condition.

Date of File Closed: 8 June 2017

Approved and Filed by:

(Jovy Tam, ET Leader) Date: 8 June 2017

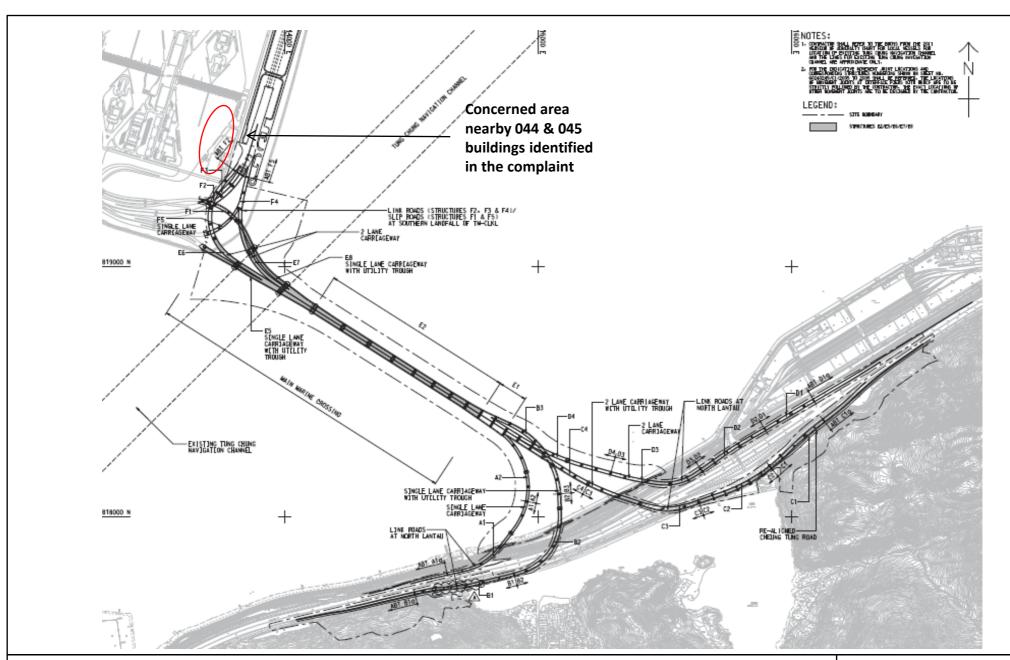
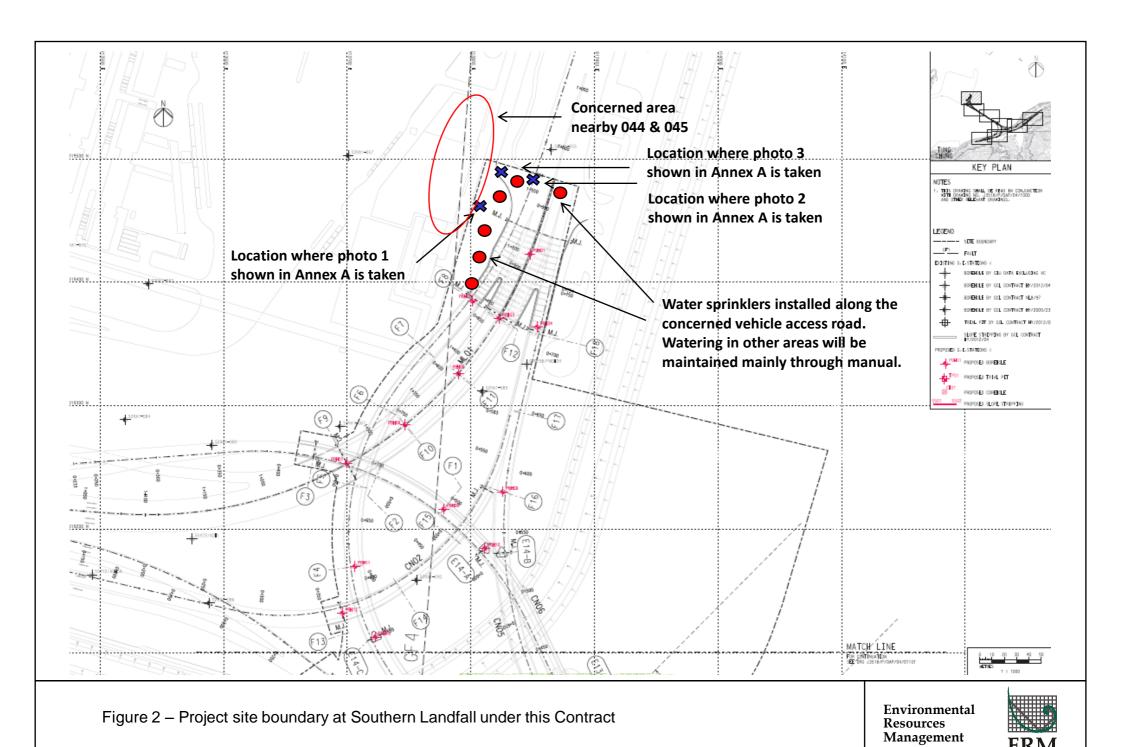


Figure 1 – Project site boundary under this Contract







### Annex A

Photos of site inspection at Southern Landfall on 7 June 2017

# ANNEX A - PHOTOS OF SITE INSPECTION AT SOUTHERN LANDFALL ON 7 JUNE 2017

Photo 1 - Water sprinklers installed along the access road near 044 and 045 buildings

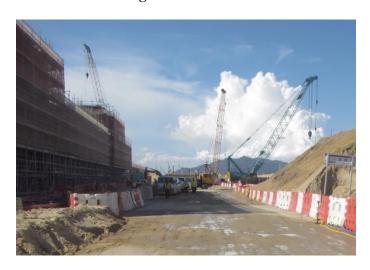


Photo 2 – Water sprinklers installed on the soil stockpile for dust suppression



Photo 3 - Moist road surface was observed at the concerned area



Email message

From

Environmental Resources Management

To Ramboll Environ - Hong Kong, Limited (ENPO)

ERM- Hong Kong, Limited

16/F Berkshire House, 25 Westlands Road Quarry Bay, Hong Kong 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 Impact Dolphin

Monitoring

Date 30 August 2017



Dear Sir or Madam,

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

0215660\_Mar2017/May2017\_dolphin\_STG&ANI\_NEL&NWL

A total of one limit level exceedance was recorded in the quarterly impact dolphin monitoring data between March and May 2017.

Regards,

Mr Jovy Tam

Environmental Team Leader

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# ERM-Hong Kong, Limited

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

# Impact Dolphin Monitoring Notification of Exceedance

Date   March to May 2017 (monitored)	l	og No.
Monitoring Area  Northeast Lantau (NEL) and Northwest Lantau (NWL)  Parameter(s) with Exceedance(s)  Action Levels  North Lantau Social cluster  North Lantau Social cluster  Recorded Levels  NEL: STG < 2.4 & ANI < 31.3  NWL: STG < 6.9 & ANI < 31.3  NWL: STG < 3.9 & ANI < 17.9  Recorded Levels  NEL: STG = 0.93 & ANI = 5.25  One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL	[Total No. of Exceedance = 1]	
Monitoring Area  Northeast Lantau (NEL) and Northwest Lantau (NWL)  Quarterly encounter rate of dolphin sightings (STG) Quarterly encounter rate of total number of dolphins (ANI)  Action Levels  North Lantau Social cluster  NEL: STG < 4.2 & ANI < 15.5  or NWL: STG < 6.9 & ANI < 31.3  NWL: STG < 2.4 & ANI < 8.9  and NWL: STG < 3.9 & ANI < 17.9  Recorded Levels  NEL  STG = 0 & ANI = 0  NWL  STG = 0.93 & ANI = 5.25  One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		Date
Parameter(s) with Exceedance(s)  Quarterly encounter rate of dolphin sightings (STG) Quarterly encounter rate of total number of dolphins (ANI)  NEL: STG < 4.2 & ANI < 15.5 or NWL: STG < 6.9 & ANI < 31.3  North Lantau Social cluster  NEL: STG < 2.4 & ANI < 8.9 and NWL: STG < 3.9 & ANI < 17.9  Recorded Levels  NEL STG = 0 & ANI = 0 NWL STG = 0.93 & ANI = 5.25  One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		
Action Levels   Quarterly encounter rate of total number of dolphins (ANI)		Ionitoring Area
Action Levels  NEL: STG < 4.2 & ANI < 15.5 or NWL: STG < 6.9 & ANI < 31.3  Limit Levels  NEL: STG < 6.9 & ANI < 31.3  North Lantau Social cluster  NEL: STG < 2.4 & ANI < 8.9 and NWL: STG < 3.9 & ANI < 17.9  Recorded Levels  NEL  STG = 0 & ANI = 0  NWL  STG = 0.93 & ANI = 5.25  One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		'arameter(s) with
North Lantau Social cluster  North Lantau Social cluster  North Lantau Social cluster  NEL: STG < $2.4 \& ANI < 31.3$ NEL: STG < $2.4 \& ANI < 8.9$ and NWL: STG < $3.9 \& ANI < 17.9$ Recorded Levels  NEL  STG = $0.93 \& ANI = 0$ NWL  STG = $0.93 \& ANI = 5.25$ One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		xceedance(s)
North Lantau Social cluster  North Lantau Social cluster  NWL: STG < $6.9 \& ANI < 31.3$ NEL: STG < $2.4 \& ANI < 8.9$ and NWL: STG < $3.9 \& ANI < 17.9$ Recorded Levels  NEL  STG = $0 \& ANI = 0$ NWL  STG = $0.93 \& ANI = 5.25$ One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		Action Levels
North Lantau Social cluster  NEL: STG < 2.4 & ANI < 8.9 and NWL: STG < 3.9 & ANI < 17.9  Recorded Levels  NEL  STG = 0 & ANI = 0  NWL  STG = 0.93 & ANI = 5.25  One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		
Recorded Levels  NEL  STG = $0 \& ANI = 0$ NWL  STG = $0.93 \& ANI = 5.25$ One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		Nor
Recorded LevelsNELSTG = 0 & ANI = 0NWLSTG = 0.93 & ANI = 5.25One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		imit Levels
NWL STG = 0.93 & ANI = 5.25  One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		
One Limit Level Exceedance was recorded in the quarterly impact dolphin monitoring at NEL		Recorded Levels
_ ,		
NWL between March and May 2017. The exceedance was reported in the approved Forty-thin	and	One L
	<sup>·</sup> d	NWL
Monthly EM&A Report dated 12 June 2017.		Month
<ul> <li>Further to the review of the available and relevant dolphin monitoring data in the EM&amp;A under Contract, statistical analyses were conducted as follows:</li> <li>A two-way ANOVA with repeated measures and unequal sample size was conducted us Period (2 levels: baseline vs impact – present impact quarter, March to May 2017) and Location (2 levels: NEL and NWL) as fixed factors to examine whether there were any significant differences in the average encounter rates between the baseline and present in monitoring quarter. By setting α = 0.05 as the significance level in the statistical tests, significant differences in STG (p = 0.0019) and ANI (p = 0.0186) were detected between Periods.</li> <li>A two-way ANOVA with repeated measures and unequal sample size was conducted us Cumulative Period (2 levels: baseline vs impact – cumulative quarters, December 2012 to 2017) and Location (2 levels: NEL and NWL) as fixed factors to examine whether there we any significant differences in the average encounter rates between the baseline and cumulative monitoring quarter. By setting α = 0.00005 as the significance level in the statistic tests, significant difference in STG (p = 0.000001) and in ANI (p = 0.000000) between Cumulative Period and Location were detected.</li> <li>* Note: The commencement date under Contract No. HY/2012/07 is 31 October 2013.</li> </ul>	sing mpact May vere ulative ical	Contra
Works Undertaken (in In the quarter between March and May 2017, the major marine works under Contract No. HY/2	012/07	,
the monitoring included:		
• Uninstallation of marine piling platform; • Pier construction:		•
<ul><li>Pier construction;</li><li>Launching gantry operation; and</li></ul>		
Installation of deck segment and pier head segment.		
The manufacture of week organization and profit from organization		

#### Possible Reason for Action or Limit Level Exceedance(s)

The potential factors that may have contributed to the observed exceedance are reviewed below:

- Blocking of CWD travelling corridor:

  The *Monitoring of Marine Mammals in Hong Kong Waters* (2016 17) <sup>(1)</sup> reported that dolphin usage and traveling activities to the northern side of the airport (dolphin traveling corridor) are affected by frequent high-speed ferry traffic from Sky Pier (not related to this Contract), which is likely one of the factors resulting in the decrease in dolphin abundances in North Lantau.
- Marine works of the Contract:
   As per the findings from the EIA report (Section 8.11.9), the major influences on the Chinese White Dolphin (CWD) Sousa chinensis under this Contract are marine traffics and bored piling works. The Monitoring of Marine Mammals in Hong Kong Waters (2016-2017) also reported that CWD decline were likely influenced by reclamation works, bored piling and intensive marine traffic from construction activities.

Based on these possible reasons, the corresponding marine works and implementation of mitigation measures are reviewed. This Contract does not have any reclamation works, thus no habitat loss was caused by reclamation. In the reporting period, the Contractor implemented the marine traffic control as per the requirements in the *EP-354/2009/D* and the updated *EM&A Manual*. Most of the vessels of this Contract also worked within the site boundary, in which the area is seldom used by CWD. Disturbance from vessels of this Contract is considered minor. All of the marine bored piling works of this Contract was completed in September 2015. Thus, underwater noise emission from this Contract had been substantially reduced in this reporting period when comparing to the previous quarters. During dolphin monitoring in this quarter, no unacceptable impact on CWD due to the activities under this Contract was observed.

• Impact on water quality: According to the findings in the water quality monitoring results at the impact monitoring stations between March and May 2017, there was no exceedance on WQM. Impact mean levels of depth-averaged SS at all sampling stations during both mid-ebb and mid-flood tides were well below the corresponding ambient levels. The WQM results imply that no unacceptable impact on water quality was associated with the marine works under this Contract, and thus no indirect impacts on marine habitat quality due to change in water quality is observed in this Contract.

In view of the above, marine ecological mitigation measures were considered properly implemented, and thus no unacceptable impact on CWD or its habitat was associated with this Contract in this quarter.

#### Actions Taken/To Be Taken

With reference to the site inspection records in this quarter, the respective marine ecological mitigation measures have been implemented properly by the Contractor throughout the marine works period, including:

- 1. 250m dolphin exclusion zone;
- 2. Acoustic decoupling plan;
- 3. Training to workers;
- 4. Offsite vessel routing control in accordance with Regular Marine Travel Routes Plan, including routing control within existing and proposed marine park boundaries;
- 5. Vessels speed limited at 5 knots and 10 knots within existing and proposed marine park boundaries and site boundary respectively;
- 6. Idling and mooring of working vessels within site boundary;

The existing mitigation measures are recommended to be continuously implemented. Furthermore, it is also recommended to reduce the vessels for marine works as much as possible. The ET will monitor for future trends in exceedance(s).

A joint team meeting was held on 17 July 2017 for discussion on CWD trend, with attendance of ENPO, Representatives of Resident Site Staff (RSS), Representatives of Environmental Team (ET) for Contract No. HY/2010/02, HY2011/03, HY/2012/07 and HY/2012/08. The discussion/recommendation as recorded in the minutes of the meeting, which might be relevant to this Contract are summarized below. It was concluded that the HZMB works is one of the contributing factors affecting the dolphins. It was also concluded the contribution of impacts due to the HZMB works as a whole (or individual marine contracts) cannot be quantified or separate from the other stress factors. It was reminded that the ETs shall keep reviewing the implementation status of the dolphin related mitigation measures and remind the contractor to ensure the relevant measures are fully implemented. The ETs were also reminded to update the BMP boundary in the Regular Marine Travel Route Plan. The participants were requested by ENPO to collect and report the marine traffic statistics. It was recommended that the marine works of HZMB projects should be completed as soon as possible to reduce the overall duration of impacts and allow the dolphins population to recover as early as possible. The participants were also reminded that the protection measures (e.g., speed limit control) for the Brothers Marine Park (BMP) shall be implemented so as to provide a better habitat for dolphin recovery. It is noted that even though marine vessels may moor within the mooring site of BMP, commercial activities including loading / unloading / transhipment are not allowed except a permit is obtained. The HZMB works vessels were recommended to avoid the BMP. It was also recommended that the marine works footprint and vessels for the marine works should be reduced as much as possible, and vessels idling / mooring in other part of the North Lantau shall be avoided whenever possible. The ETs were also reminded that starting from January 2016, high-speed ferry (HSF) from the SkyPier would be re-routed north to the northern edge of the Sha Chau and Lung Kwu Chau Marine Park that had the highest density of CWD in the NWL. While the HSF would reduce speed to 15 knots, the associated disturbance might still affect CWD in the area. It implied that the CWDs in the area should be closely followed.

#### Remarks

The results of impact water quality and impact dolphin monitoring, the status of implemented marine ecological mitigation measures are documented in the approved *Fortieth-First* to *Fortieth-third Monthly EM&A Reports*. Comparison on water quality between impact and baseline periods is elaborated in the 14th Quarterly EM&A Report.