

Table J1 *Cumulative Statistics on Exceedances*

Monitoring Parameters	Action/Limit Level	Total No. recorded in this reporting quarter	Total No. recorded since project commencement
1-Hr TSP	Action	0	30
	Limit	0	2
24-Hr TSP	Action	0	5
	Limit	0	1
Water Quality	Action	0	6
	Limit	0	1
Impact Dolphin Monitoring	Action	0	7
	Limit	1	2

Table J2 *Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions*

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This Reporting Period (Mar 2015 to May 2015)	0	0	0
Total No. received since project commencement	4	0	0

Email
message

**Environmental
Resources
Management**

To ENVIRON - Hong Kong, Limited (ENPO)

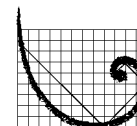
From ERM- Hong Kong, Limited

Ref/Project number Contract No. HY/2012/08 Tuen Mun–Chek Lap
Kok Link–Northern Connection Sub-sea Tunnel
Section

Subject Notification of Exceedance for Impact Dolphin
Monitoring

Date 2 October 2015

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



ERM

Dear Sir or Madam,

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

0212330_Mar2015/May2015_dolphin_STG&ANI_NEL&NWL

A total of one limit level exceedance was recorded in the quarterly impact
dolphin monitoring data between March 2015 and May 2015.

Regards,

A handwritten signature in black ink, appearing to be 'Jovy Tam'.

Mr Jovy Tam
Environmental Team Leader

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ERM-Hong Kong, Limited

CONTRACT NO. HY/2012/08

TUEN MUN – CHEK LAP KOK LINK –
NORTHERN CONNECTION SUB-SEA TUNNEL SECTION

Impact Dolphin Monitoring
Notification of Exceedance

Log No.	0212330_Mar2015/May2015_dolphin_STG&ANI_NEL&NWL [Total No. of Exceedances = 1 Limit Level Exceedance]	
Date	March 2015 to May 2015 (monitored) 1 September 2015 (results received by ERM)	
Monitoring Area	Northeast Lantau (NEL) and Northwest Lantau (NWL)	
Parameter(s) with Exceedance(s)	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
Limit Levels		NEL: STG < 2.4 & ANI < 8.9 and NWL: STG < 3.9 & ANI < 17.9
Recorded Levels	NEL	STG = 0 & ANI = 0
	NWL	STG = 0.47 & ANI = 2.36
	One Limit Level Exceedance is recorded in the quarterly impact dolphin monitoring at NEL and NWL between March 2015 and May 2015. The exceedance was reported in the approved <i>Nineteenth Monthly EM&A Report</i> dated 11 June 2015.	
Statistical Analyses	<p>Further to the review of the available and relevant dolphin monitoring data in the EM&A programme by this Contract, statistical analyses were conducted as follows:</p> <ul style="list-style-type: none"> A two-way ANOVA with repeated measures and unequal sample size was conducted using Period (2 levels: baseline vs impact – present quarter, March 2015 to May 2015) and Location (2 levels: NEL and NWL) as fixed factors to examine whether there were any significant differences in the averages encounter rates between the baseline and present impact monitoring quarter. By setting $\alpha = 0.05$ as the significance level in the statistical tests, significant difference in STG ($p = 0.0015$) and in ANI ($p = 0.0139$) between Period were detected. A two-way ANOVA with repeated measures and unequal sample size was conducted using Cumulative Period (2 levels: baseline vs impact – cumulative quarters*, December 2012 to May 2015) and Location (2 levels: NEL and NWL) as fixed factors to examine whether there were any significant differences in the averages encounter rates between the baseline and cumulative impact monitoring quarters. By setting $\alpha = 0.01$ as the significance level in the statistical tests, significant difference in STG ($p = 0.0004$) and in ANI ($p = 0.0001$) between Cumulative Period and Location were detected. <p>*Note: The commencement date under <i>Contract No. HY/2012/08</i> is 1 November 2013.</p>	
Works Undertaken (in the monitoring quarter)	In the quarter between March 2015 and May 2015, no marine works was carried out in this Contract.	

Possible Reason for Action or Limit Level Exceedance(s)	<p>The exceedance is considered not caused by the Project, in view of the following:</p> <ul style="list-style-type: none"> • The <i>Monitoring of Marine Mammals in Hong Kong Waters (2014 – 15)</i> ⁽¹⁾ 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 project), which is likely a contributing factor for the decrease in dolphin abundances in NEL. • As per the findings from the EIA report (Section 8.11.9), the major influences on the Chinese White Dolphin (CWD) are marine traffics, dredging works and reclamation/filling works. The Contractor has implemented the marine traffic control as per the requirements in the EP-354/2009/D and the updated EM&A Manual. No marine works were carried out during the monitoring quarter. During this quarter of dolphin monitoring, no unacceptable impact on CWD due to the activities under this Contract was observed. • According to the findings in the quarterly water monitoring results between March 2015 and May 2015, the impact mean level of SS (Mid-ebb: 7.9 mg/L; Mid-flood: 7.8 mg/L) in this quarter is below of the baseline mean level of SS (Mid-ebb: 10.0 mg/L; Mid-flood: 10.3 mg/L). This would imply that no indirect impacts on marine habitat quality due to change in water quality is observed in this Contract.
Actions Taken/ To Be Taken	<p>With reference to the site inspection records in this quarter, the respective marine ecological mitigation measures (including marine traffic control) have been implemented properly by the Contractor throughout the marine works period. No immediate additional action is considered necessary. The ET will monitor for future trends in exceedance(s).</p> <p>A joint team meeting was held on 10 July 2015 for discussion on CWD trend, with attendance of ENPO, HyD, Representatives of Resident Site Staff (RSS), Environmental Team (ET) for Contract No. HY/2010/02, HY2011/03, HY/2012/07 and HY/2012/08, and Representatives of Main Contractor for Contract No. HY/2011/03 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 nor 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 were fully implemented. 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 so as to reduce the overall duration of impacts and allow the dolphins population to recover as early as possible.</p>
Remarks	<p>The results of impact water quality and impact dolphin monitoring, the status of implemented marine ecological mitigation measures are documented in the approved <i>Seventeenth to Nineteenth EM&A Monthly Reports</i>.</p>

(1) Hung SKY (2015). Prepared for AFCD. Available from: http://www.afcd.gov.hk/english/conservation/con_mar/con_mar_chi/con_mar_chi_chi/con_mar_chi_chi.html