



香港 HONG KONG  
國際機場 INTERNATIONAL  
AIRPORT

Our ref: PSU/EIA/O/1  
Your ref: (60) in EP2/G/B/162 Pt.2

The EIA Ordinance Register Office,  
Environmental Protection Department,  
27th floor, Southorn Centre,  
130 Hennessy Road,  
Wanchai, Hong Kong

29 June 2012  
(By Hand)

**Attention: Mr Sam Wong, Principal Environmental Protection Officer**

Dear Sir,

**Environmental Impact Assessment (EIA) Ordinance (Cap. 499)  
Application for Environmental Impact Assessment Study Brief  
Expansion of Hong Kong International Airport into a Three-Runway System  
(Application No.: ESB-250/2012)  
Submission of Further Information**

In response to your letter dated 8 June 2012 (Your Reference: (60) in EP2/G/B/162 Pt.2) requesting further information concerning the Project Profile of the captioned Project under section 5(4) of the EIA Ordinance, we are writing to provide the following information as per the specific requests in your aforesaid letter (shown in *italics*):

**(a) Information regarding marine ecology**

- (i) *Please clarify the marine traffic arising from the operation of the expansion of the airport will have impact on marine lives including Chinese White Dolphin.***

As mentioned in Section 3.3.4.2 of the Project Profile, reclamation required for the Project will potentially encroach into the travelling "corridors" of the Chinese White Dolphin (CWD). In addition to physical encroachment, during the operation phase marine traffic to the north of the Airport will be constrained within the approach between Sha Chau (Marine Park) and the new Hong Kong International Airport Approach Areas (HKIAAA) boundary that is expanded northwards as a result of the Airport expansion. The resulting increase in marine traffic density in this area is expected to create a moderately busier seaway and may thus have indirect consequences for marine life including CWDs. These may include behavioural changes to avoid the moderately busier channels used by vessel traffic and potential disturbance to marine habitats due to such vessel activities.

SkyPier fast ferry volume may increase from the expected increase in visitors/passengers during operation of the expanded Airport. Any such increase is expected to contribute in a small way to the overall increase in marine traffic in the North / North Western waters and

may also increase potential disturbance from high speed vessel activities on marine life habitats including CWDs.

The above potential impacts will be subject to further and thorough investigation and evaluation during the EIA. Where necessary, practicable mitigation measures will be explored and investigated as part of the EIA study.

- (ii) ***The information about the population trends of Chinese White Dolphin is outdated and is not in line with the updated information. As such, the updated information should be adopted.***

Section 3.2 of the Project Profile has outlined the available information that will be used in the EIA, including the monitoring of marine mammals in Hong Kong waters for Chinese White Dolphin (CWD) abundance and distribution conducted by the Agriculture, Fisheries and Conservation Department (AFCD). All the CWD monitoring results and AFCD's findings on CWD abundance and distributions, together with any other relevant literature information available at the time of the EIA study and field survey findings will be used to establish the baseline information for assessment of impacts on marine ecology in the EIA.

Nevertheless, to supplement the information on CWD used for the Master Plan 2030 as provided in Section 4.4.3 of the Project Profile, the recent CWD monitoring results published by AFCD reported that 327 groups of CWDs were sighted in the Hong Kong waters, numbering 1,134 individuals, during the study period from April 2011 to March 2012 through systematic line-transect vessel surveys<sup>(1)</sup>. The estimate of dolphin abundance in West Lantau, Northwest Lantau and Northeast Lantau was 78 dolphins in 2011, which was slightly higher than the lowest estimate in 2010 of 75 dolphins, but was still well below the estimates made in previous years and was only half of the highest estimate in 2003 of 158 individuals<sup>(1)</sup>. **Table 1** summarises the abundance estimates of CWDs in the three areas from 2003 to 2011, which show noticeable declining trends.



Table 1 Temporal trends in abundance estimates of Chinese White Dolphins in Northeast, West and Northwest Lantau from 2003 to 2011

Year	Abundance Estimate			
	Northeast Lantau	West Lantau	Northwest Lantau	Combined
2003	18	56	84	158
2004	9	51	62	122
2005	7	42	58	107
2006	9	44	54	107
2007	10	54	60	124
2008	11	43	42	96
2009	5	43	40	88
2010	7	33	35	75
2011	11	28	39	78

Source of data:

- (1) Hung, S.K.Y. (2012). Monitoring of marine mammals in Hong Kong waters (2011-12): Final Report (1 April 2011 to 31 March 2012). Submitted to the Agriculture, Fisheries and Conservation Department of the Hong Kong SAR Government – Tender Re.: AFCD/SQ/117/10. (available from AFCD website: [http://www.afcd.gov.hk/english/conservation/con\\_mar/con\\_mar\\_chi/con\\_mar\\_chi\\_chi/files/FinalReport2011to12pp1to120.pdf](http://www.afcd.gov.hk/english/conservation/con_mar/con_mar_chi/con_mar_chi_chi/files/FinalReport2011to12pp1to120.pdf))

We would also like to take this opportunity to reiterate that we are fully aware of the concerns about the potential impacts on marine ecology including CWD due to the Project, as highlighted in Sections 3.3.4, 4.4 and 5.4 of the Project Profile. To allow for collection of comprehensive baseline information for assessment of the potential impacts in the EIA, various types of ecological surveys, in addition to CWD surveys, will be conducted along the northern, eastern and western shores of the existing Airport island as well as at other known sites of ecological value in the vicinity, including Sha Chau; Tai Mo To; Siu Mo To; Sham Wat; Sha Lo Wan; Hau Hok Wan; San Tau; Tung Chung Bay and Tai Ho. Based on the baseline information obtained, the EIA will not only cover the marine ecological sensitive receivers as listed in Section 4.4.1 of the Project Profile but will also include other areas of potential ecological concerns such as the existing Hong Kong International Airport Approach Area (previously referred to as the Chek Lap Kok Marine Exclusion Zone).

(b) Information regarding noise

- (i) ***In respect of traffic noise issue, please clarify whether there will be any road types subject to the control of the EIAO. Also, road types under category of non-designated projects should also be indicated.***

As mentioned in Section 1.4 of the Project Profile, the Project involves, amongst others, improvements to the road network in the existing passenger and cargo areas and new landside transportation facilities including additional car parks on the existing Airport island. While the extent of road network requiring improvements are yet to be determined by the traffic impact assessment to be carried out, the potential cumulative noise impact due to the road improvement works on the existing Airport island together with the road network outside the existing Airport island during the operation phase will be addressed in the EIA.

- (ii) ***There is no mentioning of the marine traffic issue. Please elaborate on this issue.***

Notwithstanding the increase in marine traffic from construction vessels that would have potential indirect impacts on Chinese White Dolphins as already mentioned in Section 3.3.4.1 of the Project Profile, marine traffic during the construction phase will also generate potential airborne noise that may affect nearby noise sensitive receivers (NSRs). It is anticipated that construction phase marine vessels will be operating predominantly to the north of the existing Airport island. The nearby NSRs as outlined in Section 4.2.1 of the Project Profile are located more than 2km away from the main construction area. The potential marine traffic noise impact on such NSRs during construction phase will be addressed as part of the EIA.

During the operation phase, there may be an increased number of marine vessels using the existing SkyPier including fast ferry services. As the anticipated route of the marine vessels will be north and west bound (e.g. towards Macao), the nearby NSRs as outlined in Section 4.2.1 of the Project Profile are more than 2km away from the route. The potential marine traffic noise impact on these NSRs during operation phase will be addressed as part of the EIA. In addition, as supplemented in the detail provided at (a)(i) above, the potential impacts generated by additional marine traffic including fast ferries will be subject to further and thorough investigation and evaluation during the EIA.

We would also like to supplement that the potential air quality impacts due to the aforementioned increases in marine traffic during both construction and operation phases of the Project will be addressed as part of the air quality impact assessment of the EIA. Where necessary, practicable mitigation measures will be identified in the EIA.



- (iii) ***Please also clarify whether there will be any helipad to be built which may be a designated project under the EIAO.***

It is confirmed that no helipad will be built as part of the Project.

- (iv) ***Major Sensitive receivers, such as Ma Wan and Tsing Yi, along flight paths arising from the expansion of the airport should be included.***

Based on the preliminary projection in the Hong Kong International Airport Master Plan 2030 (MP2030), which made use of some broad assumptions for identification of problems, the potential NSR falling within the Noise Exposure Forecast (NEF) 25 contour of the three-runway system at design capacity has been provided in Section 4.2.1 of the Project Profile. In the course of carrying out more detailed noise impact assessment according to the statutory EIA process (as mentioned in the same Section of the Project Profile), the NEF 25 contour will be subject to further evaluation; and potential noise sensitive receivers, if any, will be identified in areas along the flight paths or in the vicinity of the Airport such as Ma Wan, Tsing Yi, Tsing Lung Tau, Tuen Mun, Tung Chung, etc. The projected noise impact on any identified noise sensitive receivers will be addressed for compliance of noise criteria under the EIA Ordinance.

(c) **Health**

- (i) ***There is no mentioning of health issues. Please clarify whether there will be any health issue arising from the operation of the expansion of airport. If affirmative, elaboration on this issue has to be put down in the revised project profile.***

The key potential air pollutants that would be generated have been provided in Section 3.3.1.2 of the Project Profile. In accordance with Annex 4 of the Technical Memorandum on EIA Process (EIAO-TM), all air pollutants established by the Air Quality Objectives (AQOs) under the Air Pollution Control Ordinance will be addressed against the AQOs. Notwithstanding the prevailing AQOs, the project proponent has committed to adopt also the proposed new AQOs as mentioned in Section 3.3.1.2 of the Project Profile. These air pollutants include sulphur dioxide, nitrogen dioxide, ozone, total suspended particulates, respirable suspended particulates, fine suspended particulates, carbon monoxide and lead. Other key potential toxic air pollutants will be identified and evaluated using methods, standards or criteria adopted by recognized international organizations such as the World Health Organization (WHO) or the US Environmental Protection Agency (USEPA) to be agreed with the Director of Environmental Protection.

Under the Hong Kong Planning Standards and Guidelines and the EIAO-TM Annex 5, no noise sensitive receivers for landuse planning purpose should be allowed within the NEF 25

contour. The standard adopted in Hong Kong compares favourably with that adopted by Federal Aviation Administration in the US for the protection of human health and welfare from aircraft noise impacts on community. We would adopt the NEF 25 contour for assessment of noise impacts under the three-runway system.

(d) Hazard

- (i) ***Please elaborate the meaning of “necessary modifications to... and the off-airport fuel receiving facilities” as these may have implications to hazard to life.***

The off-airport fuel receiving facilities located at Sha Chau and Tuen Mun will not be modified or affected beyond the current plan, hence there is no hazard to life reassessment implications associated with these off-airport fuel receiving facilities. Necessary modifications to the existing marine facilities as stated in Section 1.4.2 of the Project Profile refer to the need to divert or protect the sections of aviation fuel pipeline and 11kV submarine cable that overlap or are in close proximity to the Airport expansion/reclamation area. While the specific extent of the modification works is not yet known (i.e. as it is dependent on finalisation of the reclamation method and design), the diversion of the existing submarine pipelines will adhere to all relevant legislative health and safety requirements.

- (ii) ***Please clarify whether construction works will be carried out in the proximity of existing aviation fuel pipelines. If positive, please elaborate if there will be any implications to the hazard to life.***

Construction activities will be carried out at the section of aviation fuel pipelines that require diversion or protection as mentioned in (d)(i) above. Any new pipelines required to enable construction of the Project is limited to that outlined above. The foreseen construction activities include building new pipelines around the periphery of the Airport expansion area, and connecting the new pipeline to the existing pipelines at this periphery area. It is anticipated that the fuel supply in the existing pipelines will need to be temporarily suspended while the connection work is conducted, and that closing off the sections of existing pipelines within the Airport expansion area may be required prior to dismantling (alternative schemes exist where the pipelines may be maintained). There may be potential hazard to life risk to construction workers during construction phase when the new pipelines are being connected to the existing pipelines. Hazard to life associated with construction work within the existing Airport boundary to be carried out affecting the existing aviation fuel pipeline will be addressed during the EIA stage.



- (iii) ***Please elaborate whether there will be any potential hazard for the new pipelines for aircraft refuelling operation.***

During operation phase of the Airport expansion area, extended fuel hydrant systems will be provided to allow aircraft refuelling operation at the new aircraft stands. This system will be of the same nature to that currently in use on the existing Airport facilities. The potential hazard of this kind of installation will need to be addressed during the EIA stage.

- (iv) ***Please clarify whether there will be new facilities for storage of dangerous goods in relation to the cargo operation, any new aviation fuel tanker filling facilities/stations and new liquefied petroleum gas-powered facilities.***

New facilities for storage of dangerous goods (i.e. fuel for airside vehicles / Ground Services Equipment) will be provided at the Airport expansion area. It is expected that these facilities will be very similar to the existing airside fueling facilities. Stored fuels will include diesel, gasoline and possibly liquefied petroleum gas (LPG). The volume of dangerous goods to be stored will be confirmed during the subsequent design stage. The potential hazard impact arising from this kind of installation will need to be addressed during the EIA stage. It is anticipated that chlorine storage will not be required for the proposed greywater recycling system.

In addition to the aforementioned further information provided as per your request, we would also wish to clarify or supplement the following:

A number of potential projects that would interface with this Project have been identified in Section 2.3 of the Project Profile, which include the Development of the Integrated Waste Management Facilities Phase 1 and the Sludge Treatment Facilities. For avoidance of doubt, the approved EIA reports for these two projects will also be referenced in the EIA for this Project, as summarized in **Table 2**.

Table 2 Additional approved EIAs of relevance to this Project

Register No.	Title	Relevance to this Project
AEIAR-163/2012	Development of the Integrated Waste Management Facilities Phase 1	This approved EIA is located in the same water control zone as the Project and some of the identified sensitive receivers and findings particularly for air quality, water quality and marine ecological impact assessments would be relevant to this Project
AEIAR-129/2009	Sludge Treatment Facilities	This approved EIA is located in the same water control zone as the Project and some of the identified sensitive receivers and findings particularly for air quality, water quality and marine ecological impact assessments would be relevant to this Project

In addition to the projects listed under Section 2.3 of the Project Profile, other relevant and significant sources will be further identified in the EIA study for inclusion in the cumulative assessments.

We trust that you will find the Project Profile together with the provided further information to be satisfactory and sufficient for the application of EIA study brief under the EIA Ordinance.

Yours faithfully,  
For and on behalf of  
Airport Authority Hong Kong



Kevin Poole

cc Mott MacDonald Hong Kong Limited – Dr Anne Kerr