

**For Discussion
on 11 April 2017**

**Legislative Council Subcommittee
to Follow Up Issues Relating to the
Three-Runway System at the Hong Kong International Airport**

**Environmental Issues: Progress of Implementation of
Key Environmental Impact Assessment Commitments**

Introduction

This paper provides an update on the progress of implementing key Environmental Impact Assessment (“EIA”) commitments by the Airport Authority Hong Kong (“AAHK”).

Background

2. At the meeting on 5 December 2016, Members were briefed on the overview, scope and progress update of the Three-Runway System (“3RS”) development, covering, amongst others, the latest progress with respect to environmental-related issues (LC Paper No. CB(4)143/15-16(01)). Separately, the mitigation and enhancement measures in connection with the conservation of marine ecology and Chinese White Dolphins (“CWDs”) were discussed at the meeting of the former Subcommittee to Follow Up Issues Relating to the Three-Runway System at the Hong Kong International Airport (“former Subcommittee”) on 16 February 2016 and set out in LC Paper No. CB(4)576/15-16(01).

3. Members noted, amongst others, that AAHK :

- (a) attaches great importance to addressing all environmental impact associated with the 3RS and aims to achieve “development alongside environmental conservation” in the implementation of the 3RS project;
- (b) ensures that all potential environmental impact is properly avoided, minimized and compensated through the EIA process; and
- (c) is committed to fulfilling the requirements of the Environmental Permit (“EP”).

A. Overall Compliance with Pre-construction EP Conditions

4. The EP sets out a total of 56 conditions covering proposed environmental mitigation measures, monitoring, and submission requirements during different stages of the project. 18 submissions were required to be made before the commencement of 3RS construction works and they were all fulfilled in accordance with the EP conditions. All submissions made have been published on AAHK's 3RS dedicated website (<http://env.threerunwaysystem.com/en/ep-submissions.html>). AAHK will continue to fulfil the requirements of the remaining EP conditions in the course of taking forward the 3RS project.

B. Comprehensive Environmental Monitoring and Audit Programme

5. One of the key requirements stipulated in the EP is the implementation of a comprehensive Environmental Monitoring and Audit ("EM&A") programme which comprises pre-construction baseline monitoring and construction phase impact monitoring of CWDs, water quality, dust and noise; as well as environmental audits and inspections to ensure the proper implementation of all required environmental protection and mitigation measures.

6. To ensure compliance with the EP requirements, a full-time on-site Environmental Team ("ET") has been commissioned by AAHK to carry out comprehensive environmental monitoring and audit in connection with CWDs, ecology, air, noise, water etc. Furthermore, a full-time on-site Independent Environmental Checker ("IEC") has been appointed to audit, review, and verify all EM&A data and EP submissions. Both the ET and the IEC, while directly commissioned and managed by AAHK, work independently and are properly empowered to monitor and audit the contractors' works in connection with environmental compliance. AAHK has also appointed an EP consultant to support AAHK in the coordination of EP issues, EIA commitments and the development of a number of key environmental management plans and deliverables as stipulated in the EP.

7. The construction dust and noise impact monitoring commenced in December 2015, while the CWDs and water quality impact monitoring began in August 2016, following the commencement of land-based and marine-based construction activities. All EM&A information, including environmental monitoring results, implementation status of environmental mitigation measures, events of non-compliance and the corresponding follow-up actions etc., are reported on a monthly basis and summarized in the Monthly EM&A

Reports which are available to the public at <http://env.threerunwaysystem.com/en/em&a-reports.html>. AAHK will continue to monitor closely the environmental performance of contractors to ensure their compliance with environmental requirements.

C. Mitigation Measures in Connection with Chinese White Dolphins

(a) Mitigation Measures for Potential Disturbance from Marine Traffic

8. To minimize the potential disturbance of marine traffic on CWDs, a key mitigation measure is the implementation of the Marine Travel Routes and Management Plan for High Speed Ferries (“HSFs”) of SkyPier (“the SkyPier Plan”). Since 28 December 2015, SkyPier HSFs travelling to/from Zhuhai and Macau have been diverted to the north of the Sha Chau and Lung Kwu Chau Marine Park, with their speed restricted to 15 knots across areas with high CWD abundance (i.e. Speed Control Zone). AAHK has also committed to capping the SkyPier HSFs traffic movement at an annual average daily level of 99, prior to the successful designation of the proposed marine park described in paragraphs 16 to 18 below.

9. In the recent 12 months (March 2016 to February 2017), with the exception of three deviation cases, about 10,000 sailings of diverted HSFs travelled across the Speed Control Zone at an average speed of 15 knots or below. In general, those few deviation cases were largely to do with vessel captains having to give way to another oncoming vessel to ensure safety. Appropriate follow-up investigation and actions have been taken on those cases to ensure safe implementation of the route diversion and compliance with speed control requirements in the future. AAHK will continue to maintain close contact with ferry operators to share experience and ensure the safe and effective implementation of the SkyPier Plan.

10. Although construction vessels travelling at low speeds are not expected to pose a significant threat to CWDs, a range of mitigation measures (e.g. a speed limit of 10 knots within CWDs hotspots and within 3RS works areas for construction vessels) have nevertheless been implemented. In particular, a Marine Traffic Control Centre (“MTCC”) has been established in late 2016 with a dedicated team of experienced marine traffic specialists appointed by AAHK and representatives from relevant contractors to monitor the activities of the construction vessels for compliance with the relevant environmental and marine traffic safety requirements.

(b) Other Construction Phase Mitigation Measures

11. Apart from the mitigation measures for the potential disturbance of marine traffic on CWDs, AAHK has implemented the following measures to minimise the potential construction phase impact on CWDs :

- (a) complete avoidance of marine percussive piling and avoidance of bored piling during the peak calving season for CWDs;
- (b) acoustic decoupling of construction equipment mounted on construction barges to minimize acoustic disturbance to CWDs; and
- (c) establishment of dolphin exclusion zones around noisier marine construction activities to reduce the risk of potential disturbance to CWDs.

12. As part of the EM&A programme described above, dolphin monitoring is being carried out via the following methods :

- (a) vessel based surveys – to provide details on CWD abundance patterns over time;
- (b) land-based theodolite tracking – to supplement the abundance data by providing fine-scale information on CWD behaviour and activity, and more specifically, swimming and movement patterns of CWD groups; and
- (c) underwater acoustic monitoring using Passive Acoustic Monitoring – to detect CWD activity and to provide supplemental information to assist in determining CWD travel patterns, behaviour changes associated with vessel activity/other concurrent activities, and habitat use during both day time and night time.

13. AAHK has invited two well-respected and highly-qualified international marine mammal biologists¹ to conduct CWD monitoring work. Based on the analysis of the data collected so far, it is observed that CWDs are now rarely sighted around the Brothers Islands in Northeast Lantau. The waters around Southwest Lantau and West Lantau, on the other hand, were found to be

¹ AAHK has invited Dr Bernd Würsig and Dr Thomas Jefferson to lead the impact assessment on CWD. The two experts have been working extensively in Southeast Asia, with a primary research focus on the conservation biology of CWD population in Hong Kong since 1995.

used by CWDs more in 2016 than in the past, possibly due to the dolphins travelling away from the increasingly disturbed habitats in Northwest and Northeast Lantau. Close monitoring of CWDs will continue during the construction stage of the 3RS project to avoid and mitigate potential disturbance to CWDs as far as practicable.

D. Translocation of Corals

14. The 3RS EIA concluded that the potential impact on coral² associated with the 3RS project is expected to be low-to-moderate and no mitigation measures are thus required. That said, as a precautionary measure³ and wherever feasible, coral colonies attached on movable boulders (i.e. less than 50 cm in diameter) along the existing northern seawall of the airport island have all been translocated to the recipient site at Yam Tsai Wan by December 2016 in accordance with the Coral Translocation Plan deposited with and accepted by EPD as required under the EP. AAHK is now carrying out scheduled post-translocation monitoring surveys to monitor the general health condition of the translocated corals.

15. In addition to the commitments set out in the Coral Translocation Plan, and at the request of the Advisory Council on the Environment (“ACE”), AAHK has commissioned a team including a coral expert from the University of Hong Kong to undertake a transplantation⁴ study for the corals along the northern seawall of the existing airport island. The transplantation of coral fragments/colonies to Yam Tsai Wan for this study was completed in February 2017 and the study team is now carrying out post-transplantation monitoring to determine the general health conditions of the transplanted corals.

² According to the findings of the Baseline Coral Survey Plan verified by the IEC in December 2015, all the coral species recorded are not listed in the CITES-listed endangered species database of Hong Kong. In accordance with the Updated EM&A Manual however, it was proposed that a pre-construction phase dive survey should be conducted as a precautionary measure, to identify any corals that may be subject to direct habitat loss and disturbance and are suitable for translocation. (Note : CITES stands for Convention on International Trade in Endangered Species of Wild Fauna and Flora)

³ Details of the precautionary measure are presented in the Coral Translocation Plan which was accepted by the Environmental Protection Department (“EPD”) and is available at the link in paragraph 4 above i.e. <http://env.threerunwaysystem.com/en/ep-submissions.html>.

⁴ “Translocation” involves the moving from one place to another of coral colonies with their substratum (i.e. the layer of rock or soil beneath). “Transplantation” involves the collection of coral fragments / colonies from the donor site and then attaching them to appropriate substrate at the recipient site.

E. Proposed Marine Park

16. In discussing LC Paper No. CB(4)576/15-16(01) at the meeting on 16 February 2016, former Subcommittee Members noted that AAHK will establish a new 2,400 hectare marine park (see map at Annex on the preliminary boundary), as a key mitigation measure for the potential impact on marine ecology and CWDs.

17. A Marine Park Proposal which describes the preliminary location, layout, size and management plan of the proposed marine park was presented to the ACE on 7 December 2015. Supplementary information was subsequently submitted to ACE to address members' comments, and the revised Marine Park Proposal was approved by EPD in mid-March 2016.

18. AAHK is carrying out a detailed study on the preparatory work for marine park designation. Two rounds of stakeholder consultation will be conducted with the first round of consultation being planned for late 2017/early 2018 to solicit views and comments from the fishing industry, green groups, non-governmental organizations, marine industry, marine users, boat operators, relevant District Councils, advisory committees⁵, community groups and government departments. AAHK will lead the stakeholder consultation activities, with the support and participation from the Agriculture, Fisheries and Conservation Department ("AFCD"). As the authority under the Marine Parks Ordinance, AFCD will be responsible for the designation and management of the 3RS Marine Park⁶.

F. Marine Ecology and Fisheries Enhancement

19. At the meeting of this Subcommittee on 5 December 2016, Members were briefed on the establishment of a Marine Ecology Enhancement Fund ("MEEF") and a Fisheries Enhancement Fund ("FEF") with a total budget of HK\$400 million. Application for funding from the MEEF for financial year ("FY") 2017/18 closed at the end of January 2017, while that for funding from the FEF closed at the end of February 2017. The Management Committees of the two funds will be responsible for vetting and selecting relevant applications in an independent and objective manner based on the merits of the project

⁵ Advisory committees include the Country and Marine Parks Board, Marine Parks Committee, and Marine Department's consultative committees such as Port Operations Committee, Local Vessel Advisory Committee and High Speed Craft Consultative Committee.

⁶ AAHK will seek to assist in completing the designation of the proposed marine park before the operation of the 3RS project.

proposed, and ensuring that selected projects are properly and effectively conducted by the successful applicants during the relevant financial year. The successful applications for FY 2017/18 will be announced in mid-2017.

G. Stakeholder Engagement

20. Since 2012, AAHK has set up Community Liaison Groups (“CLGs”) in five neighbouring districts of HKIA (namely Islands, Kwai Tsing, Shatin, Tsuen Wan and Tuen Mun) for the purpose of engaging and consulting local communities on the latest airport developments and environmental issues. In September 2015, AAHK has also set up the Professional Liaison Group (“PLG”) comprising 22 relevant professional/experts in different relevant environmental fields to facilitate communications and enquiries on all environmental issues related to the 3RS project.

21. Between April 2016 and March 2017, three rounds of meetings/visit were held for the CLGs (totalling more than 130 members, district councillors and community leaders). During the same period, the PLG has held two rounds of meetings, with the next round of meeting/visit being planned for May 2017.

Advice Sought

22. Members are invited to note the issues covered in this paper.

**Airport Authority Hong Kong
April 2017**

Preliminary Boundary of the Proposed 3RS Marine Park

