

### Initial Comments on the EIA Report for the Expansion of Hong Kong International Airport into a Three-Runway System

Submitted by Dr. Samuel K. Hung, Chairman of Hong Kong Dolphin Conservation Society (samuel@hkdcs.org)

For this Panel's discussion and consideration, we would like to file our initial comments on the EIA report for the third runway expansion project proposed by the Airport Authority. The report is unacceptable in many ways, as it could not satisfy some of the requirements of the project's study brief, and have downplayed some important impacts in the assessment. Moreover, the proposed mitigation and compensation measures are largely inappropriate and inadequate, which cannot match the magnitude of the serious impacts posed on the Chinese White Dolphins during and after the reclamation works. We strongly urge the EPD and ACE members to reject this EIA report due to its poor quality. Below please find the major flaws of the EIA report that we are not satisfied with:

#### **Habitat Loss**

The survey data presented in the EIA report indicated that the proposed footprint of 3RW is unquestionably an important habitat for dolphins to travel through in the day-time, and forage frequently in night-time. Massive reclamation in such important habitat is unjustified, especially in light of the dramatic decline in dolphin abundance in past 10 years, and pre-cautionary principle should be applied to avoid additional habitat loss and degradation that can threaten the local dolphin population further.

Moreover, the preliminary results from the EIA report showed that the proposed footprint of 3RW can potentially present an important dolphin habitat, with the conclusion that it may be used more often at night with potential greater importance. There is a critical need for the project proponent to conduct a more comprehensive study to confirm whether this is indeed an important habitat for what type of dolphin activities, as massive reclamation should not be allowed in an important habitat for activities that serve important function for the dolphins, either at night or during the day.

### **Traveling Corridor**

The EIA report results showed that many individuals travel through the third runway



footprint, to move between important feeding habitats at the Brothers Islands and Sha Chau & Lung Kwu Chau Marine Park, and suggested that the traveling corridor of dolphins can be shifted further north in light of the new reclamation area. However, such suggestion was not supported by any scientific-based evidence that dolphins are capable and willing to shift their existing travel route into the Urmston Road. In fact, the Urmston Road is the busiest shipping channel in Hong Kong, and the section from Tuen Mun to Tap Shek Kok overlaps with such traveling corridor. From past data, it is shown that dolphins actively avoid that section to move from Northwest to Northeast Lantau waters. Therefore, it can be reasonably assumed that dolphins would not take the risk to shift their traveling route north into this dangerous shipping channel, and the dolphins' traveling corridor will be seriously contracted as a result of the new land formation in addition to the increased amount of high-speed ferries traffic from the Sky Pier operated by the Airport Authority. This will seriously affect the future dolphin usage of Northeast Lantau waters, especially the Brothers Islands Marine Park to be established in 2016 (see below on impacts to nearby marine parks).

Moreover, the EIA study failed to address the study brief requirements on examination of the potential changes on interaction between different social clusters of dolphins due to the potential obstruction of traveling corridor between Northwest and West Lantau, as well as the potential cumulative impacts from the presence of Hong Kong-Zhuhai-Macau Bridge construction works such as the building of Hong Kong Link Road on the movement of dolphins between two social clusters.

#### Vessel Traffic

The EIA report study showed that dolphin avoided the area with high volume of vessel traffic, especially from the Sky Pier operated by the Airport Authority, which confirmed previous studies that the Airport Authority is partly responsible for the decline in dolphin usage in this important area in the past decade. To review the full potential of this dolphin habitat at the footprint of the reclamation, Airport Authority should immediately halt or divert the Sky Pier vessel traffic away from this area and nearby waters, in order to examine the original state of dolphin usage for assessment of its original importance in this area.

Moreover, the EIA report assumed that all construction vessels are slow-moving and will



not affect dolphin usage in nearby waters. But it failed to address that during construction phase there will be many fast-moving transportation boats moving through different important dolphin habitat (the high volume of this type of boats were evident from the current bridge construction works), in addition to the 300 working boats in the work area. Furthermore, the EIA report only focused on the speed of the boats and their associated impacts, but completely ignored the impact in increase amount of traffic volume (i.e. number of boats). As we learn from the example from the current bridge construction, even slow-moving vessels can be harmful for dolphins if the overall traffic volume is high.

The EIA report also failed to meet the study brief requirement to study the anthropogenic noise generated by vessel traffic other than the high speed ferries, and that can include construction boats and transportation boats as the construction will induce huge amount of these moving vessels traversing through the dolphin habitat in North Lantau waters. Another study brief requirement was not met either to study the acoustic behaviour of dolphins (e.g. in the presence and absence of vessel noise) for detailed assessment of acoustic disturbance to Chinese White Dolphins.

### Impacts to nearby marine parks

During the construction phase, no measure was proposed to ensure that dolphins will not be obstructed to gain access to the nearby Brothers Islands Marine Park, when it is clear that their traveling corridor will be seriously affected. This will effectively affect the viability of this newly established marine park with no apparently mitigation measure during the construction phase. In fact, the timing of third runway reclamation will coincide with the Brothers Islands Marine Park establishment in 2016, and dolphins will not have a chance to have a recovery in usage at the Brothers Islands.

In light of the significant impact of HKBCF reclamation impact on dolphin usage in the nearby potential marine park, the EIA report has underestimated the impact of reclamation to the nearby Sha Chau and Lung Kwu Chau Marine Park, which is situated only 900m from the northern edge of the third runway platform. The possible impacts could be the habitat degradation within the marine park as a result of changes in prey resource and water current, increasing amount of construction vessels moving frequently around the marine park boundary during construction phase, and high volume of moving and anchoring vessels (at least 300 vessels in peak construction period) that can obstruct



dolphin movements to gain access to marine park. Moreover, the potential vessel traffic diversion from the Sky Pier to the north of Lung Kwu Chau, where dolphin densities are known to be high, can further harm the long-term viability of Sha Chau and Lung Kwu Chau Marine Park as it will bring even more high-speed ferry traffic closer to the marine park boundary.

#### Mitigation measure (1): new marine park

The EIA report is misleading that it has a section on establishment of new marine protected areas under the construction phase mitigation and precautionary measures. It is absolutely inappropriate to mention a mitigation measure in operation phase under the construction phase mitigation measures, to give people false understanding that such habitat loss is also mitigated during the construction phase. Also, the report is misleading to say that the "habitat loss due to construction would become permanent in the operation phase", by ignoring the fact that habitat loss will be become permanent once the construction phase begins.

The location and timing of the new marine park establishment is not well justified either. This area has been heavily disturbed in the past due to the high-speed ferry traffic from the Sky Pier and other vessel activities, and recently dolphin usage there has been affected by the HKBCF reclamation and other HZMB associated works. Such location for the new marine park proposal will be seriously affected by the third runway reclamation works with further degradation if the project goes ahead. If the establishment of the marine park is to deal with the impact of habitat loss and disturbance to the traveling corridor, the current marine park proposal will fail to mitigate against these impacts, and such location of the new marine park is not well justified at all in the EIA report as required by the study brief.

The timing of the establishment of the new marine park presented another critical issue. The EIA report stated that such marine park will only be established in 2023, after the construction is completed. Throughout the construction period, huge amount of important dolphin habitat will be lost, and their traveling corridor between the two marine parks will be seriously disrupted by the third runway reclamation works and high-speed ferry traffic from Sky Pier. It is very unreasonable and illogical to establish the marine park only after the construction finishes in 2023 when the dolphins will seriously suffer throughout the construction phase, and some may die and left Hong Kong water permanently. The EIA



report did not address how they are confident the dolphins will still be able to survive and return either.

Regrettably, the EIA report offered no other alternative consideration in proposing other marine parks, such as the expansion of Southwest Lantau Marine Park (as proposed by cetacean experts) by extending toward Tai O and connecting the Sha Chau and Lung Kwu Chau Marine Park further north. Such large marine protected area in the western waters can be established right away well before the construction phase, instead of waiting until the third runway construction is over.

### Mitigation measure (2): management of vessel traffic

Regrettably, the EIA report did not attempt to follow the study brief suggestion on reduction the volume of marine traffic, but only focused on speed limits and re-routing vessel traffic as the mitigation measures in dealing with the serious impacts of vessel traffic. Without the assessment of impacts on the increased volume of moving vessels near the third runway footprint (that will include at least 300 boats in peak construction period as mentioned in the EIA report), the control of speed limits and traffic diversion would not be enough to mitigate the impacts of vessel traffic.

The EIA report suggested speed restrictions and route diversions for high-speed ferries, and mentioned these ferry operators are under its jurisdiction to enforce such mitigation measures. However, the Airport Authority failed to mention how such jurisdiction can extend beyond HKIAAA and how to enforce such law. The report also failed to mention that the Administration supports such restrictions and route diversions and will enforce such law for Airport Authority as an important mitigation measure.

The EIA report also mentioned that the increased number of high-speed ferries in a narrower corridor of movement would result in increased conflicts with the Chinese White Dolphins (especially near the Urmston Road), while it failed to mentioned that such conflicts also exist for river trade and other vessels, and there will be absolutely no mitigation measure on controlling those vessels even though they will also contribute serious threat to the dolphins along with the high-speed ferries within the narrower corridor once the third runway will be built.