



Doubts about Mitigation Measures Prompt Green Groups to Recommend that ACE Members Reject the Third Runway EIA

Friends of the Earth (HK), the Hong Kong Dolphin Conservation Society, the Conservancy Association and WWF-Hong Kong held a joint press conference yesterday (12 September 2014). The groups drew attention to the fact that a number of doubts about the Third Runway project's Environmental Impact Assessment (EIA) report remain unsolved and questioned the effectiveness of mitigation measures proposed by Airport Authority Hong Kong (AAHK). Of greatest concern is the fact that the mitigation measures proposed in AAHK's EIA, particularly regarding the Chinese white dolphins (CWDs), remain unchanged and will not avoid or mitigate the environmental impacts of the Third Runway project. As a result, **the four green groups strongly urge the Advisory Council on the Environment (ACE) to reject the EIA report.**

The ACE will meet next Monday, 15 September, to discuss whether they will advise the Environmental Protection Department to give a green light to the EIA. There are still numerous outstanding questions regarding air quality and noise pollution that were not addressed in previous meetings, while AAHK's new proposed "Marine Ecology and Fishery Enhancement Plan" is not an effective mitigation measure to alleviate impacts on the CWD.

The Marine Ecology and Fishery Enhancement Plan does not go far enough

Up until the end of August, AAHK had failed to address the ACE members' concerns regarding the EIA, with the result that ACE members repeatedly and publicly expressed their disappointment with the document. However, it appears that after AAHK released a new 40-page plan to protect marine ecology on 2 September, its "Marine Ecology and Fisheries Enhancement Plan", some ACE members changed their minds and began to show positive support for the EIA.

The problem is that this document lacks any effective measures to mitigate or compensate for the loss of marine habitats caused by reclamation work during the building stage of the third runway. As such, the green groups find it difficult to understand how ACE members can be inclined to endorse the EIA as a result



of this plan.

1. According to the EIA report, the waters to the west of HKIA (i.e. the plan's "enhancement area") have low marine traffic to begin with, so no real "enhancement" of the marine habitat would occur when high speed ferries to and from the Sky Pier are restricted, since these ferries do not pass through this area in the first place. The EIA report also indicates that the routes taken by construction vessels will not overlap with this enhancement area, as these vessels have other route options.
2. Some measures which AAHK claims will help improve the marine ecology, such as the deployment of artificial reefs and the release of fish fry, have not yet been scientifically proven to be applicable in the Hong Kong context and experts are doubtful that they will be effective. Research in other countries has found that such measures may lead to other problems.

This flawed and misleading enhancement plan should not be enough to satisfy ACE members' concerns to the extent that they give a green light to the Third Runway EIA. We insist that conservation should be given a higher priority over development. We also insist that the marine parks recently announced by the government should be expanded to cover the entire core habitat of CWDs in west Lantau and linked with the existing Sha Chau and Lung Kwu Chau Marine Parks in order to optimize the conservation of Chinese white dolphins.

Air Quality Assessment

According to the EIA Study Brief, the operational air quality impacts (in the year 2031) within five km of the project boundary shall be quantified to determine whether the estimated pollutant levels comply with the relevant Air Quality Objectives (AQOs) at all Air Sensitive Receivers (ASRs).

A report made by AAHK in 2010¹ revealed that there would be non-compliance with the AQO for daily NO₂ (i.e., 40µg/m³) at the ASRs in Tung Chung and Sha Lo Wan. Also, before the EIA's public inspection period, AAHK held several briefing sessions regarding the preliminary assessment findings. At a briefing session in

¹ Air Quality Review for Hong Kong International Airport, Sept 2010

June, 2013, the NO₂ level recorded at Tuen Mun's ASR was indicated as "marginal". However, six month later, AAHK stated that no non-compliance of AQO was predicted for identified ASRs at Tuen Mun. In the EIA report, the assessment findings for Year 2031 3RS scenario indicate NO₂ levels will comply with the AQOs at all ASRs.

During the meeting with the ACE EIA sub-committee, AAHK did not clearly explain why how the NO₂ levels would change from "non-compliance"/ "marginal" to "compliance". Unfortunately, the ACE members did not request that the input parameters be disclosed, leaving this question unanswered.

Table 1: Yr 2031 Annual NO₂ Concentration (ug/m³)

Location	Air Quality Review for Hong Kong International Airport (Yr 2010)	3RS EIA Report (Yr 2014)
Tung Chung	42.0	31
Sha Lo Wan	44.1	36

Table 2 : Yr 2031 Annual NO₂ Concentration Compliance Status

Location	Noise, Air and Health Impact Assessment 7th Media Workshop June 2013	3RS Project Updates Dec 2013
Tuen Mun	Marginal	Compliance

Note :

[1] AQO annual NO₂ concentration: 40 ug/m³

Conclusion

Given the facts that the mitigation measures for Chinese white dolphins are still insufficient, and that there are still outstanding questions regarding to air quality and noise pollution that have not yet been addressed; we do not accept this EIA report, and we strongly urge the ACE to reject this flawed EIA.

Media Enquiries:

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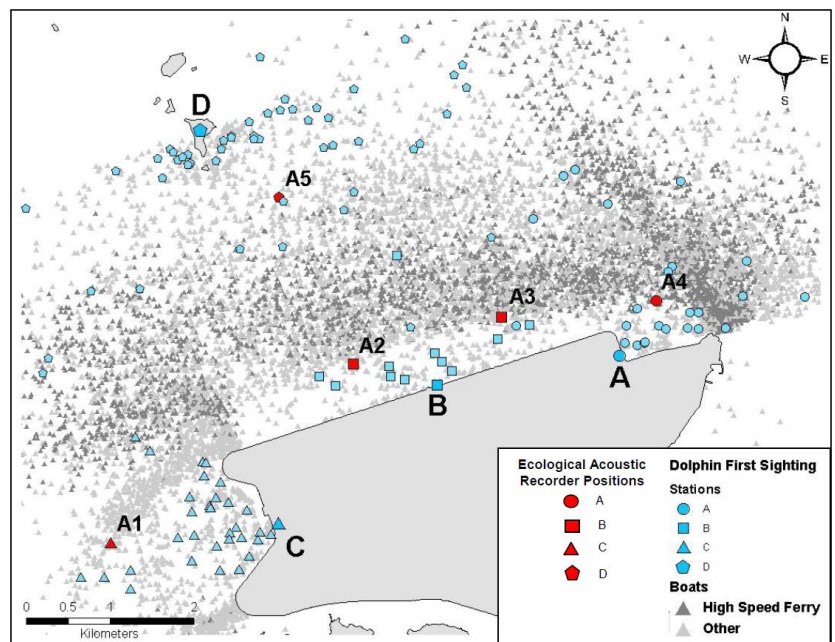
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Appendix. Main issues with the additional marine habitat enhancement during construction phase of 3RS project, according to MEFEP (Chapter 4)

Several marine habitat enhancement measures have been suggested in the Plan for dolphin protection during the construction phase. However, such measures are largely inappropriate and inadequate to address the critical issue of massive habitat loss to the Chinese white dolphins and overall marine ecology, which are discussed below in details:

1. The enhancement plan suggests that areas within North Lantau waters can be targeted as “potential habitat enhancement areas” during construction phase, well in advance of marine park designation. These areas include the embayed areas in waters (between HKIAAA) west of HKIA (about 430 hectares). The suggested measures to be implemented include: 1) restrict Sky Pier high-speed ferries (HSFs) and construction vessels from entering into this enhancement area; 2) develop and work to implement various conservation and fisheries enhancement measures such as deployment of artificial reefs and restocking of fish fry.

- According to the 3RS EIA report (see figure on the right), the waters to the west of HKIA (i.e. the enhancement area) have low marine traffic to begin with, so no real enhancement of marine habitat would be resulted with the restriction of Sky Pier HSFs as those ferries never occur in this area in the first place. For construction vessels, the EIA report also indicated that their traveling route would not overlap with this enhancement area, and those vessels have other



options to travel as well. On the other hand, there are other areas outside of proposed work area that would have more needs for vessel traffic management, but was not considered for habitat enhancement or other protection. If the protection measure is aimed to reduce the impacts of marine traffic, it should be designated in areas with high commercial marine traffic in order to have some actual enhancement effect.

- The effectiveness of suggested measures on artificial reef deployment and fish fry restocking to enhance fish stocks have yet to be scientifically proven to be applicable in the Hong Kong context, and local fisheries experts are doubtful that they will be effective due to the following reasons:

Deployment of Artificial Reefs (ARs)

Artificial reefs are used or intended for:

- Physical barriers to trawling (Taiwan is a good example);
- Recreational activities, i.e. attraction of fish for recreational fishing or for divers (note: Fish Aggregation Devices (FADs) are another kind of artificial structure that attracts fish to increase ease of fishing in pelagic areas);
- Habitat restoration – to replace lost reef habitat or increase reef habitat in areas where reef habitat is a limiting factor for recovery (e.g. Hong Kong)

The Plan repeatedly suggests that AR deployment could be used to promote fisheries resources recovery as one of the habitat enhancement measures. Technically, in relation to habitat restoration, there is no evidence that in the context of a marine environment such as Hong Kong's AR can work because:

- Hong Kong's fishery is recruitment limited (i.e. not enough reproductive adults to produce enough young to recruit). In other words, the problem in HK is NOT habitat limitation but growth and recruitment overfishing. So ARs are entirely inappropriate for purpose.
- Concentrations of fish were reported around ARs; however, these fish likely is being attracted and concentrate from other areas, so there may have no net gain in fish stock – it is just an illusion that the ARs work. This is a global discussion and interest in ARs is waning as a result of unproven benefits.
- ARs are expensive and have not been shown to restore habitats, or fisheries in Hong Kong despite a 20 year history and millions of HK dollars being spent. The AR programme is evidently completely unaccountable in terms of effectiveness and financial viability; the programme merits a thorough audit. It has demonstrated no net economic or biological benefit. Fishermen in HK fish on ARs and do not recognize any benefit from them (according to LegCo discussion).
- Artificial reefs mainly concentrate on the remaining resource and the potential enhancement effect is, in general, considered quite low (FAO comment on AR: In terms of habitat rehabilitation, artificial reefs have little, if any, success as they only concern a limited area²).

Releasing of Fish Fry

- In general, releasing fish fry, even 'native' species, could create problems, such as the homogenisation of the genetic structure of the species, increasing the ecological burden on the receptor site (e.g., more food will be required for the released fishes), and the introduction of disease.
 - In addition, the identity of many released species would still be problematic. The practice may also introduce exotic species, as sometimes exotic species will be accidentally released with the 'native species' (some may be mixed with the native or look alike with the native). Moreover, it would not be possible to release fish fry originated from Hong Kong since no local fish farms produce fish fry, and many of these fry are usually from mainland Chinese/Taiwanese fish farms. Therefore, the
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genetic structure would already be completely different to the sub-population in Hong Kong. In fact, fish fry release as a conservation tool is thought to be a very outdated concept overseas due to the potentially arising problems as mentioned above.

- The Plan did not specify how advance the proposed measure will be implemented during construction phase, and all these measures are only optional without firm commitment to be delivered. Specific timeline of implementation and management targets during construction phase are not well explained. Moreover, as the assistance from various government departments, as well as the agreement with stakeholders such as fishermen are critical to implement most of those measures, which are out of control of AAHK, firm commitment from the various involved parties should be confirmed before the enhancement plan is endorsed by ACE and EPD.

2. The enhancement plan also suggests that the Southwest Lantau waters can be enhanced by implementing enhancement measures including AR deployment and fish fry restocking.

- The measure appears to be out of place without any explanation on why only the marine habitats in Southwest Lantau need to be enhanced, but not the rest of West Lantau waters, or other part of the dolphins' range (especially the important dolphin habitats identified in AFCD studies).
- As mentioned above, the only enhancement measures including AR deployment and fish fry restocking would not be beneficial to Chinese white dolphins at all. No other effective measures have been suggested besides the enhancement of fisheries resources.

3. The enhancement plan suggests providing assistance on the enforcement of regulations in Sha Chau and Lung Kwu Chau Marine Park (SCLKCMP) by deploying observers as surveillance on voluntary basis in order to support the protection of CWDs in existing marine park. It also suggest to assist the dolphin stranding response and education programme by regular patrol to identify dolphin injury cases and shorten the response time to rescue dolphin or retrieve dolphin stranded carcasses.

- These suggested measures are non-relevant to habitat enhancement, which is the main goal of Chapter 4 in addressing the construction phase habitat loss to the dolphins. It is puzzling that the more effective protection measures adjacent to SCLKCMP as suggested in Chapter 3 are not being suggested here at all within the SCLKCMP in Chapter 4. Moreover, the effectiveness of such surveillance within the marine park is highly questionable, as it is impossible for AFCD patrol staff to respond immediately to the surveillance report and enforce the law unless they are stationed in the area all the time. The plan also implies that the current surveillance by marine park staff is inadequate, and this issue should be issued by AFCD as their responsibility, but not through AAHK.



Besides the abovementioned issues with the suggested enhancement plan, the Plan also does not propose any measure to address the unpredictable impact and disturbance brought by high volume of marine traffic to the dolphins. During the peak construction time for reclamation (2016/17), the maximum vessel movement will be 120 per day, and 120 stationary vessels will be located within the works area. Together with the traffic contributed from other vessel types, intensive movement of more than 400 vessels will be expected in the vicinity of Project Area daily. Even though the project proponent will pose speed restriction to the work vessels and Sky Pier HSFs in the low-conflict area, the huge amount of marine traffic will inevitably pose impacts to the dolphins using the water areas.