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香港觀鳥會
THE HONG KONG BIRD WATCHING SOCIETY
Since 1957 成立

By email only

1 June 2019

Dear Sir/Madam,

Comments on the Environmental and Ecological Assessment for Peter Scott Field Studies Centre Demolition and Rebuild

BirdLife INTERNATIONAL PARTNER 國際鳥盟成員

The Hong Kong Bird Watching Society (HKBWS) understands that the redevelopment of the Peter Scott Field Studies Centre (PSFSC) is not a Designated Project under the Environmental Impact Assessment Ordinance. Given that the PSFSC is within the internationally recognized Ramsar site, the ecologically sensitive WCA and the wider Deep Bay wetland ecosystem, the redevelopment of the PSFSC is required to be conducted with great care following the precautionary approach[1].

We appreciate the effort of WWF - Hong Kong in preparing an Environmental and Ecological Assessment (EEA) for the project and is made available for the public to comment. However, this consultancy report do not reflect the high degree of conservation concern that the Mai Po wetlands are receiving and the high standard that WWF - Hong Kong as a leading conservation organization is expected to deliver. HKBWS considers that there are various inadequacies in this EEA report that needs to be properly addressed, in order to minimize the environmental and ecological impacts of the works at PSFSC. Below are our comments and recommendations on the EEA.

1. Location

A.1.6 of the PSFSC EEA stated that the PSFSC is covered by "Government, Institution or Community" (GIC) zoning and encircled by "Conservation Area" (CA). This is just part of the fact. **It should also mention that the PSFSC is within the Ramsar Site and the "Wetland Conservation Area" (WCA).** This would better illustrates the ecological sensitivity of the area and gives a more complete background on why demolition and construction works at PSFSC should be taken with great care.

[1] Town Planning Board Guideline No. 12C: https://www.info.gov.hk/tpb/en/forms/Guidelines/pg12c_e.pdf

2. Adverse impacts on the ardeid (egrets/herons) night roost

A.6.21 of the PSFSC EEA already documented the ardeid night roost at the PSFSC forecourt. "*During April 2019, some 74-84 Little Egrets, 25 to 33 Chinese Pond Herons, 6 Great Egrets and 1 Cattle Egret were observed recorded flying to a night roost in the trees adjacent to the PSFSC forecourt.*" A.6.59 and A.3.8 of the PSFSC EEA suggested that there will be no works at the PSFSC during 1730 to 0800. Since the time for ardeids to return to their roosting site is dependent on the time of sunset, and the sunset time ranges from 1738 to 1904 within a year in Hong Kong, we are concerned the cut off time 1730 is not sufficient to protect the roosting ardeids. **We consider that works should be finished at least one hour before sunset instead.** Besides monthly monitoring of the ardeids, it would be good to know the arrival time, pattern and direction of the roosting ardeids, so as to assess if the works would have any adverse impacts.

3. Adverse noise impacts on Ecological Sensitive Receivers (ESRs) are not mitigated

3.1. A.6.53 of PSFSC EEA stated that "*there is no line of sight from the PSFSC (due to screening by tress and, to a lesser extent, by buildings), so the only potential disturbance impact would be that of noise*". The current background noise level at PSFSC is 54dB (Table A3-3 of the PSFSC EEA). Comparing Figures A3-1, A3-2 and A3-4 of PSFSC EEA, noise levels at the residential areas were significantly reduced with the use of 5m and 10m noise barriers under the mitigated scenario (Figure 1). **However, there seems to be little noise reduction in the fishponds, wetlands and *Gei Wais*. The mitigated noise level is still predicted to range from 66dB to 86dB, just like the noise contours in the unmitigated scenario (Figure 2)**.

3.2. A.3.31, A.6.51 and A.6.53 of PSFSC EEA stated that "*these contour plots also show the generally low level of noise in the area outside the PSFSC boundary*", "*the modelling of noise during the demolition and construction stages of PSFSC show low-levels of noise off-site during the works, meaning that there are unlikely to be any ecological impacts caused by noise from the PSFSC project site*" and "*so the only potential disturbance impact would be that of noise which would be much attenuated due to distance*". **It is uncertain how these conclusions can be drawn**.

3.3. **Additional noise mitigation measures** (e.g. the use of a moveable noise enclosure at PSFSC and installation of a noise barrier between the site and any nearby ESRs) **were left to the decision of the Demolition/Construction Contractor** (A.3.32 of the PSFSC EEA)**. We consider that these additional mitigation measures should be a requirement for the contractors to fulfil in the tender/contract rather than**

optional choices, as these measures should be able to further minimise the adverse noise impacts to the surrounding fishponds and wetlands environments which are important bird foraging and roosting grounds.

4. Underestimate the ecological value of fishponds

4.1. A.6.54 of the PSFSC EEA stated that "*The other wetland habitats adjacent to or within 200m of PSFSC comprised only of commercial fishponds, which are either abandoned or frequently managed for aquaculture. Either way, these fishponds are of much less significance to wintering waterbirds than the brackish gei wai in the MPNR, as shown on Table A6-12. Any impacts to this small number of birds will be of low significance.*" **We consider that such statement downplays the ecological importance of fishponds, and is contrary to the assessment made in Table A6-8, where both active fishponds and abandoned fishponds were evaluated as of "*High Ecological Value*"**.

4.2. We would like to reiterate that the **PSFSC is within the Ramsar Site and the WCA**. The Town Planning Board Guideline No. 12C clearly stated that "*The Study on the Ecological Value of Fish Ponds in the Deep Bay Area completed in 1997 has confirmed the unique international and regional importance of the fish pond system in the Deep Bay Area particularly for ardeids (i.e. herons and egrets). It has established that fishponds in the area have intrinsic value as they function ecologically as a substantial source of food supply for the birds and as an important habitat for roosting and foraging of waterbirds. The fish pond system is fundamentally linked with the Mai Po Marshes and is part of the Deep Bay Area wetland ecosystem.*" The planning intention of WCA is "*to conserve the ecological value of the fishponds which form an integral part of the wetland ecosystem in the Deep Bay Area. It comprises the exiting and contiguous, active or abandoned fishponds in the Deep Bay Area, which should all be conserved.*" **Therefore, we consider that any works at PSFSC should be conducted with great care**.

4.3. **The ecological value of fishponds is related to its operation**. When fishermen drain the ponds to harvest their fish, the trash fish and other invertebrates left in the shallow water of the pond creates a favourable feeding habitat for waterbirds. From the bird monitoring conducted for our Fishponds Management Agreement project, **the number of waterbird species recorded during drain-down was found to be about 19 times higher than the number recorded before the fishpond drain-down**. Therefore, the number of bird species recorded at fishponds can have a big variation depending on the operation of the fishpond, **thus low number of bird recorded at a**

certain point of time does not indicate the fishponds are of low ecological value.

4.4. Besides, the data presented in Table A6-12 seems to be **misleading**. The mean count is the average bird usage of the fishponds in the whole year, but the seasonality of birds during a year is neglected (i.e. it is well-understood that there are more birds during winter). Also, the maximum count of some bird species seems to be much lower than that recorded in the Agriculture, Fisheries and Conservation Department (AFCD) Monthly Waterbird Monitoring in the Deep Bay Area[2]. It is uncertain if such difference was due to difference in survey methodology, or the presence/absence of drained-down fishponds. **In fact, a total of 20 waterbird and wetland dependent bird species were recorded in 16 fishponds within 200m of PSFSC in winter of 2017** (i.e. January to March, and October to December)(please refer to Table 1 below). In February 2017, 138 Little Egret was found in a drained-down fishpond immediately next to the PSFSC; while in another drained-down fishpond about 140m from PSFSC, 192 Little Egret, 114 Great Egret and 22 Black-faced Spoonbill were recorded. **We consider that the fishponds surrounding the PSFSC is of high ecological value and the adverse ecological impacts of the redevelopment works on these fishponds should not be underestimated**.

5. <u>Programme for works at PSFSC</u>

5.1. A.2.11 and A.2.12 stated that "*The existing PSFSC building is planned to be demolished during the period April to June 2019*" and "*Following demolition, the new PSFSC building will be constructed from June 2019 to December 2021*". From Figure A1-5, **it seems that there will not be any phasing of works at PSFSC to avoid demolition/construction works during the dry season**. It is only stated that "*dry season during which <u>noisy outdoor works in MPNR</u>* (Mai Po Nature Reserve) *<u>are controlled</u>*" and "*worst-case programme for <u>cumulative impacts with MPNR</u>*". **MPNR, PSFSC and the surrounding fishponds are all within the Ramsar Site and the WCA, and all are of high ecological and conservation value.** Noisy works such as demolition, sheetpiling and foundation works should be scheduled outside the dry season to avoid the adverse impacts on the overwintering birds using Mai Po and nearby wetlands. We would also like to know if any specific demolition/construction methods were selected and if construction by precast or prefabrication units will be adopted, in order to minimize the environmental impacts to the ecologically sensitive surroundings during construction phase.

[2] Anon. 2017-2018. Monthly Waterbird Monitoring Biannual Report 2 (October 2016 to March 2017, October 2017 to March 2018), Mai Po Inner Deep Bay Ramsar Site Waterbird Monitoring Programme 2016-17. Report by the Hong Kong Bird Watching Society to the Agriculture, Fisheries and Conservation Department, Hong Kong Special Administrative Region Government.

Table 1. Waterbird and wetland dependent bird species recorded in 16 fishponds within 200m of PSFSC in winter of 2017 (Data source: AFCD Monthly Waterbird Monitoring, January to March/October to December 2017)

No.	Name	Scientific Name	Conservation and Protection Status^	Maximum count per survey
1	Little Grebe	*Tachybaptus ruficollis*	LC	15
2	Black-faced Spoonbill	*Platalea minor*	PGC; WASP(II); RLCV(EN); IUCN(EN)	22
3	Black-crowned Night Heron	*Nycticorax nycticorax*	(LC)	1
4	Chinese Pond Heron	*Ardeola bacchus*	PRC (RC)	20
5	Eastern Cattle Egret	*Bubulcus coromandus*	(LC)	1
6	Grey Heron	*Ardea cinerea*	PRC	6
7	Great Egret	*Ardea alba*	PRC (RC)	120
8	Intermediate Egret	*Ardea intermedia*	RC	6
9	Little Egret	*Egretta garzetta*	PRC (RC)	332
10	Great Cormorant	*Phalacrocorax carbo*	PRC	13
11	Black Kite	*Milvus migrans*	(RC); WASP(II); CITES(II)	2
12	White-breasted Waterhen	*Amaurornis phoenicurus*	-	4
13	Common Moorhen	*Gallinula chloropus*	-	5
14	Little Ringed Plover	*Charadrius dubius*	(LC)	11
15	Green Sandpiper	*Tringa ochropus*	-	2
16	Wood Sandpiper	*Tringa glareola*	LC	1
17	Common Sandpiper	*Actitis hypoleucos*	-	5
18	White-throated Kingfisher	*Halcyon smyrnensis*	(LC)	1
19	Common Kingfisher	*Alcedo atthis*	-	1
20	Pied Kingfisher	*Ceryle rudis*	(LC)	1

^ Note: Conservation and protection status refers to Fellowes *et al.* (2002), List of Wild Animals under State Protection, Red List of China's Vertebrates (Jiang *et al.* 2016), The International Union for Conservation of Nature Red List of Threatened Species IUCN (2017), and The Convention on International Trade in Endangered Species of Wild Fauna and Flora CITES (2017).

a. All wild birds are protected under Wild Animal Protection Ordinance (Cap. 170).

b. Fellowes *et al.* (2002): GC=Global Concern; LC=Local Concern; RC=Regional Concern; PRC=Potential Regional Concern; PGC: Potential Global Concern. Letters in parentheses indicate that the assessment is on the basis of restrictedness in nesting and/or roosting sites rather than in general occurrence.

b. List of Wild Animals Under State Protection promulgated by State Forestry Administration and Ministry of Agriculture on 14 January, 1989 (WASP): I = Class I Protected Species in China; II = Class II Protected Species in China.

c. Conservation status by Red List of China's Vertebrates (RLCV) (Jiang *et al*. 2016): CR = Critically Endangered; EN = Endangered; VU = Vulnerable; NT = Near Threatened.

d. Conservation status by IUCN (2017): CR = Critically Endangered; EN = Endangered; VU = Vulnerable; NT = Near Threatened.

e. Protection status by CITES (2017): II = Listed in CITES Appendix II; III = Listed in CITES Appendix III.

6. Bird collision

6.1. A.1.12 stated that "*Operation stage ecological impacts are not anticipated*". As shown in the drawing in Figure A1-4, there will be a lot of large windows or glass doors/panels in the new PSFSC. **The EEA seems to neglect the risk of bird collision during the operation phase.** Below is the paragraph about bird collision in my email communication with WWF - Hong Kong on 14 March 2019.

> "*As I have mentioned in the previous meetings already, given that Mai Po is in such an ecologically sensitive location, I would expect the "new" PSFSC and the renovated EC would be bird friendly buildings, and I would expect the glass windows and panels in these buildings would be specially treated to avoid bird collision (no matter there were many bird collision incidents at Mai Po or not). For visual markers on glass windows/panels, instead of the normal straight lines or dots designs, there could be creative and artistic solutions to this (such as translucent silhouettes of trees/ lines of water birds/lines of writing "WWF - Hong Kong/Peter Scott Field Studies Centre/Mai Po Nature Reserve" etc). Careful considerations should also be given on the internal and external lighting arrangement. There are many documents in the US on bird collision and bird friendly buildings. Here are two links to the documents by Audubon Minnesota and American Bird Conservancy on best practices for bird safety and bird-friendly building design for your reference.*
> *http://mn.audubon.org/conservation/birdsafe-buildings*
> *https://abcbirds.org/program/glass-collisions/*"

7. Final remarks

HKBWS understands the EEA and all the aforementioned recommendations are not statutory requirements, therefore, it heavily relies on the commitment of WWF - Hong Kong to set a strict standard for contractors and workers to follow for the conservation of the Deep Bay wetlands and to ensure the redevelopment of PSFSC to be conducted at a standard that is in line with the conservation importance of the internationally recognized Ramsar Site. The works of WWF - Hong Kong would also set an important example for other developments in the Deep Bay area. We hope our comments are useful and will be taken into consideration, such that the demolition and construction works will be carried out in a more comprehensive manner to safeguard all important bird foraging and roosting grounds in the Deep Bay wetlands. Thank you for your kind attention.

Yours faithfully,

Woo Ming Chuan
Senior Conservation Officer
The Hong Kong Bird Watching Society
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Figure 1. Noise mitigation at PSFSC proposed in the EEA and used for simulation of noise contours under the mitigated scenario (extracted from Figure A3-3 of the PSFSC EEA).

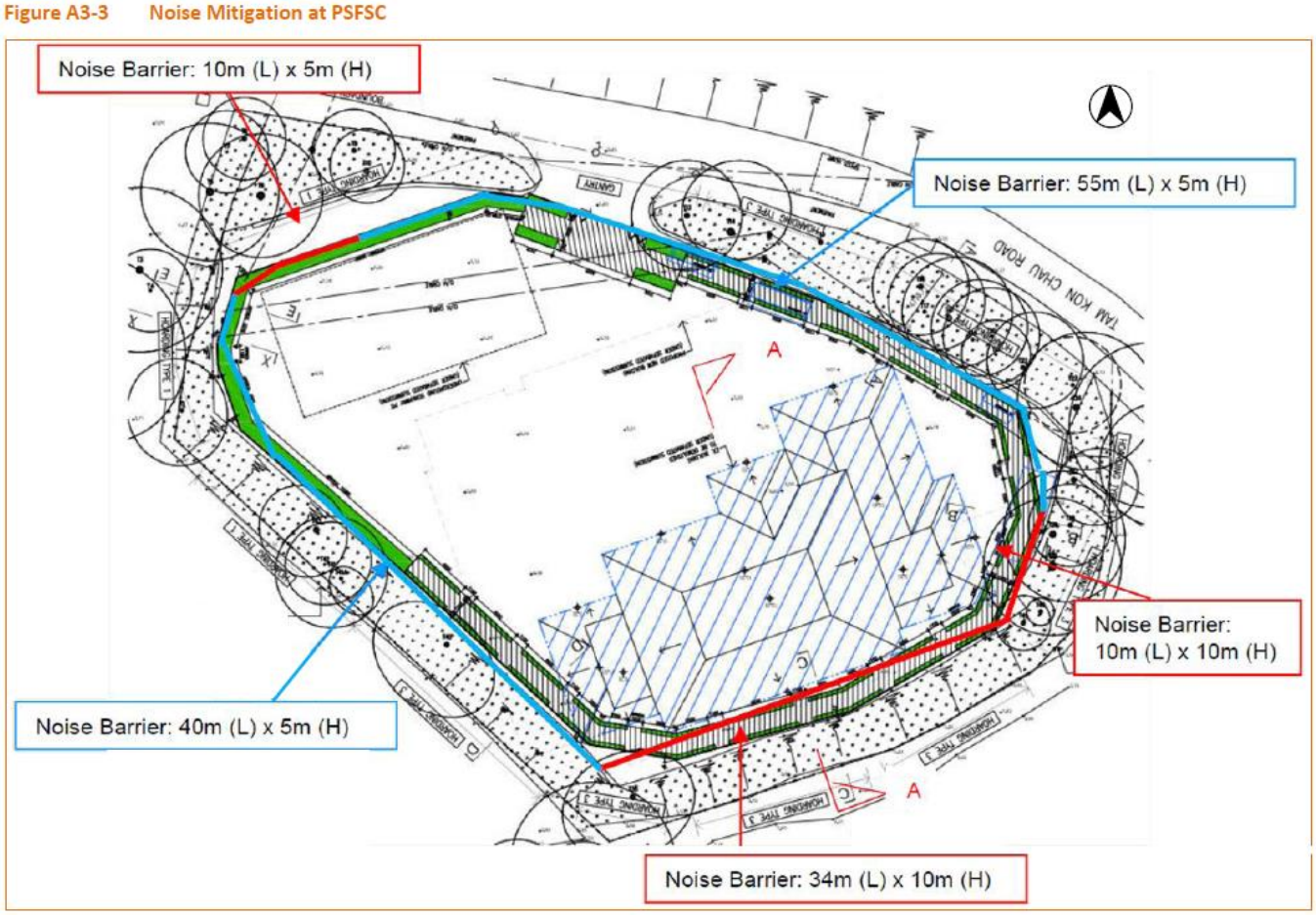

Figure 2. Overlaying Figures A3-1, A3-2 and A3-4 of PSFSC EEA, noise levels at the residential areas were significantly reduced (areas highlighted in yellow) with the use of 5m and 10m noise barriers under the mitigated scenario. However, there seems to be little noise reduction in the fishponds, wetlands and *Gei Wais*. The mitigated noise level is still predicted to range from 66dB to 86dB, just like the noise contours in the unmitigated scenario.