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By email only

2 March 2024

Dear Dr Chui,

**Comments on the Environmental Impact Assessment Report for the proposed
San Tin / Lok Ma Chau Development Node (EIA-302/2023)**

The Hong Kong Bird Watching Society (HKBWS) would like to raise our concerns regarding the captioned Environmental Impact Assessment Report (EIA). Our concerns regarding the ecological impacts covers the following topics and the detailed comments are explained in the following sections.

1. No avoidance of habitat loss in pond of high ecological value
2. Refusal to re-apply for EIA Study Brief violate procedural justice
3. Misidentification of Designated Project (DP)
4. Project Area and Assessment Area should be extended
5. Underestimation of habitat ecological value due to the deficiency of 12-month baseline surveys and the incomplete review of existing available avifauna datasets
6. Uncertain qualification for conducting the avifauna baseline survey and inadequate gatekeeping of EIA report before public inspection
7. Underestimation of ecological value as “piecemeal approach” and inappropriate assessment was adopted in the evaluation of pond habitat
8. Absence of firefly survey and comprehensive monitoring of Eurasian Otter
9. Significant environmental changes to the egrettries and their surroundings
10. Direct loss in foraging and feeding ground for the egrettries was neglected and the corresponding impacts were underestimated
11. Disruption of the flight corridor for breeding egrets and herons

12. Inadequate protection of the egretty using the Open Space zoning
13. Failed to identify and assess the impacts on the day roost of Black-crowned Night Herons in San Tin Pumping Station
14. Direct impacts on the loss in foraging ground for ardeids' night roosts were ignored
15. Missed more than half of the breeding bird species in fishpond wetlands
16. Threats to the integrity of Deep Bay wetland ecosystem caused by previous and ongoing development projects
17. Further significant fragmentation of Deep Bay wetland ecosystem by the current project
18. Absence of light impact assessment
19. Inadequate Visual Impact Assessment
20. Only four species selected for the functional value calculation and the compensation requirement is unacceptable
21. Inappropriate assumption of the Exclusion Zone (EZ) and Reduced Density Zone (RDZ)
22. Over-estimation of the carrying capacity of the compensation wetlands
23. Unjustified 45% increase in functional value
24. Absence of habitat management plan of the Sam Po Shue Wetland Conservation Park (SPSWCP)
25. Inappropriate implementation timeline of SPSWCP
26. The proposed 35m eco-interface lacks buffering function
27. Bird collision risk may not be avoided or mitigated
28. Wetland Enhancement Measures outside the assessment area of the project
29. Cumulative ecological impacts and undesirable precedent set in Deep Bay area

Principle of Avoidance

1 No avoidance of habitat loss in pond of high ecological value

- 1.1** According to Section 4.3 of the Technical Memorandum on Environmental Impact Assessment Process (TM), the methodologies proposed for mitigation shall give priority to avoidance of impacts. In Annex 16 of the TM, the first guiding principle for ecological assessment is that *“areas and/or habitats of ecological importance shall be conserved as far as possible. Any*

project that is likely to result in adverse ecological impacts in areas of ecological importance shall not normally be permitted unless the impacts can be minimized and/or compensated.”

- 1.2** In Section 3.3.3 of the Study Brief, the applicant is required to provide information on the “*consideration of the different land use and layout options, taking into account the principles of avoidance, minimizing and control of adverse environmental impacts*”. The applicant shall also consider “*alternative design, siting and alignment of supporting infrastructures, construction*” in the description of the project. In Appendix I of the Study Brief, regarding the requirement for Ecological Impact Assessment (EcoIA), the assessment shall “*recommend possible and practicable mitigation measures (such as alternative design and configuration of the Project, modification/change of construction methods, restriction of building height, provision of buffer areas, etc.) to avoid, minimize and/or compensate for the adverse ecological impacts identified during the construction and operation phases of the Project*”.
- 1.3** However, in Section 10.11.2 Avoidance Measure of the EIA, it only mentions the avoidance of Mai Po Inner Deep Bay Ramsar Site, the avoidance of clearance of some plants that are used for Mai Po Lung Village (MPLV) Egret, and the avoidance of flight paths obstruction and fragmentation of wildlife movement corridor.
- 1.4** However, the development footprint for I&T zone largely overlaps with the wetlands of conservation importance, such as 175 hectares of Important Bird and Biodiversity Area (IBA)¹, 150 hectares of Wetland Conservation Area (WCA), 97 hectares of Wetland Buffer Area (WBA) and SSSI, which are ecologically linking to Ramsar Site, are important foraging and feeding grounds for both migrating birds and breeding birds. No avoidance of the above was adopted.
- 1.5** Moreover, in order to avoid the impacts on egret, namely Mai Po Lung (MPLV) Village Egret and Mai Po Village (MPV) Egret, apart from retaining the trees that used for nesting, the feeding grounds in fishponds

¹ [http://datazone.birdlife.org/site/factsheet/inner-deep-bay-and-shenzhen-river-catchment-area-iba-hong-kong-\(china\)](http://datazone.birdlife.org/site/factsheet/inner-deep-bay-and-shenzhen-river-catchment-area-iba-hong-kong-(china))

and the flight corridor for the birds to commute from their feeding grounds to the egretries are also the core and essential elements to sustain the egretries. However, the direct loss in their feeding grounds and the flight corridor were not avoided, while some trees used for nesting would still be removed. We consider it is inappropriate to claim the proposed measures as Avoidance Measures for the MPV Egretty and core area of MPLV Egretty.

- 1.6** For the avoidance of flight paths obstruction and fragmentation of wildlife movement corridor, we doubt that the provision a 70 m wide NBA near the MPLV Egretty is simply ineffective to minimize, not to mention to avoid the fragmentation of movement corridor for breeding ardeids.
- 1.7** In addition, there are no alternative development options proposed and assessed to avoid and minimize the environmental impacts arising from the extensive loss in wetland habitats of the development. In Section 10.8.2.22, the applicant clearly stated that *“in view of the construction disturbance impact on the pond habitats and associated wildlife, as well as the decrease of carrying capacity, mitigation measures such as minimisation (e.g. phasing of pond filling, minimisation of disturbance), compensation (wetland compensation), and enhancement measures would be implemented.”* No avoidance of disturbance to pond habitats was adopted while the applicant quickly jumped to consider minimisation and compensation for the impacts in the mitigation measures. We consider such mitigation approach taken in this EIA failed to comply with the TM and the Study Brief.

Bypass EIA process

2 Refusal to re-apply for EIA Study Brief violate procedural justice

- 2.1** The project area shown in the current EIA report nearly doubled in development footprint, scale and magnitude, compared with that proposed in the Project Profile of the San Tin/ Lok Ma Chau Development Node back in 2021.
- 2.2** However, the government did not submit a new Project Profile to apply for a new EIA Study Brief according to the new development that would bring enormous ecological impacts to the Deep Bay wetland system.

- 2.3** This shows an attempt of bypassing the EIA process. As a result, the public is unable to comment on the new development and the study scope, such as the areas or species that should be included as ecologically sensitive receivers based on the new development. This is not only disregarding the public's right to information, but also violating procedural justice.
- 2.4** In addition, we are concerned the previous EIA study brief did not define a larger study scope and comprehensive research methods for the latest extensive pond filling and physical changes, leading to the deficiency of the EIA study to effectively identify, assess, avoid and mitigate the significant ecological impacts of the San Tin Technopole development.

Misidentification of Designated Projects

3 Misidentification of Designated Project (DP)

- 3.1** According to the Study Brief, the EIA Study shall identify *“individual DPs proposed under the Project that fall under Schedule 2 of the EIAO, in addition to those mentioned in the Study Brief to ascertain whether the findings of this EIA study have adequately assessed and addressed the environmental impacts of those DPs; and where necessary to identify the outstanding issue that need to be assessed and addressed in any further detailed EIA studies.”*
- 3.2** Nearly half of the I&T zone falls within Buffer Zone 2, where any residential or recreational development, other than New Territories exempted houses within Deep Bay Buffer Zone 1 or 2 shall be regarded as Schedule 2 designated project under Environmental Impact Assessment Ordinance (Cap. 499).
- 3.3** However, in Section 1.5 of the Introduction, only the recreational development for proposed Sites O.1.1, O.1.2, and O.1.3 (as open space) encroach into Deep Bay Buffer Zone 2 was regarded as DP. Meanwhile, the I&T zone which falls within Buffer Zone 2 and composes of talent accommodation and hotels, was **not** being identified as a DP. We consider that the I&T zone should also be regarded as a DP that require Environmental Permit, to comply with the Study Brief.

Delineation of Project Area and Assessment Area

4 Project Area and Assessment Area should be extended

- 4.1** Given that the Sam Po Shue Wetland Conservation Park (SPSWCP) is regarded as the compensation measures while developments of infrastructure and visitor facilities will also be introduced into the SPSWCP, the SPSWCP should be included in the Project Area while the assessment area should also be extended outside the SPSWCP.
- 4.2** Due to the remarkably significant wetland loss due to the proposed San Tin Technopole development, and the close ecological connectivity to the Mai Po Inner Deep Bay Ramsar Site, Guangdong Shenzhen Futian Mangrove Wetlands Ramsar Site and IBA, it is necessary to extend the assessment area outside the current 500m area from the project site to cover all the above three sites of conservation importance, so as to assess the potential impacts on the integrity and carrying capacity of the Deep Bay wetland system as a whole.

Inadequate ecological baseline survey and underestimation of ecological values

5 Underestimation of habitat ecological value due to the deficiency of 12-month baseline surveys and the incomplete review of existing available avifauna datasets

- 5.1** According to Annex 16 of the Technical Memorandum, in order to “*ensure that the baseline information obtained is accurate, reproducible and can be easily verified, the methodology used must be clearly stated in the ecological assessment report. The methods employed must be sound and scientific.*” Moreover, the baseline study shall include the review of existing information, while such information includes both published materials and those made available by government and non-government bodies.
- 5.2** Mai Po Inner Deep Bay Ramsar Site Waterbird Monitoring Programme Monthly Waterbird Monitoring was administered and executed by HKBWS under a subvention from the Agriculture, Fisheries and Conservation Department (AFCD) from 1997 to 2004, and it has been arranged under service contracts of the AFCD since April 2004. This programme has collected over 27 years of waterbird data in the Deep Bay area including the

project site in San Tin and Mai Po. The dataset includes the bird species and abundance recorded at each pond every month. The bird and geographical data are useful to evaluate the ecological value and functions of pond habitats, and to estimate the capacity of the Deep Bay wetlands for different waterbird species.

- 5.3 Though the applicant has made use of the findings of the bird monitoring programmes to inform the current EIA Study, **only 2021-2022 data were used.** And the data **only appears in two parts,** which are the table summarizing the flora and fauna species of conservation importance recorded within the Assessment Area, and the calculation of functional value for the wetland compensation.
- 5.4 In the Table 10.7 Ecological Evaluation of Pond within the Assessment Area and Table 10.27 Evaluation of Potential Ecological Impacts to Pond, the applicant **did not use** the waterbird Monitoring data collected through literature review for the **evaluation of ecological value of ponds and the ecological impacts on ponds in the northern portion.** As a result, through the Literature Review, only 4 species of conservation importance were presented in the evaluation. However, from the 2021-2022 waterbirds monitoring data, 46 wetland species were recorded within the affected ponds in Sam Po Shue and San Tin, while 38 are species of conservation importance, which is equivalent to nearly ten times more than that presented by the applicant. If reviewing 5-year waterbirds monitoring data, 66 wetland bird species were recorded within these ponds, while 55 are species of conservation importance. We are highly concerned that **there is a serious underestimation of ecological value of habitats in the northern portion.**
- 5.5 Besides, referring to the habitat maps that show the locations of Species of Conservation Importance from Literature Review, there is no record of species of conservation importance in Sam Po Shue and San Tin. Though the applicant explained that *“the exact locations and habitats for avifauna recorded were not available from the literature”*. However, from our understanding, the data actually consists of the geographical locations of every surveyed ponds.

5.6 According to the survey transects provided by the applicant, it cannot cover all the ponds in the assessment area especially for the ponds within the project site. Such inadequacy of the survey dataset was not mentioned in the report (Figure 1). With such deficiency, using the correct and complete dataset from literature review is very important to ensure the ecological value of the habitats (particularly for the pond habitat) would not be underestimated.

6 Uncertain qualification for conducting the avifauna baseline survey and inadequate gatekeeping of EIA report before public inspection

6.1 First, there are three apparent mistakes in the descriptions of the photos of the bird species of conservation importance. In Appendix 10.2 of the EcolA, three bird photos and the corresponding names do not match. The photo of Wood Sandpiper is written as Marsh Sandpiper. The photo of Long-toed Stint is labelled as Little Stint. The photo annotated Crested Goshawk, despite the limited image quality, is believed to be another small raptor species within the Accipiter family instead of Crested Goshawk. Although we are not sure whether these errors are due to "typo" or "misidentification of birds", given that birds are important species and indicators for the conservation of the Deep Bay wetlands, while the EIA report is a professional and legally binding document, we are surprised by such mistakes. This may not only leads to underestimation of the impact of development on the ecological environment and wildlife, but also affects the credibility of the report, raising doubts about the "seriousness" of the impact assessment of the San Tin Technopole.

6.2 Second, the survey failed to record the common landbird species in fishpond areas. Based on our observation, landbird species such as Reed Warblers, Zitting Cisticola, and Siberian Rubythroat are commonly found in fishponds and open country habitats during migratory seasons. However, the report does not have the records of these species, which is highly unusual. Identifying such landbird species requires certain skills, including familiarity with their calls. If not familiar with their characteristics and behavior, there is a possibility of overlooking them, leading to underestimation of the

ecological value and function of San Tin wetlands.

- 6.3** Deep Bay wetland is the most intact coastal wetland system remaining in the Greater Bay Area, and it should be treated with great care. We hope the relevant authorities and the Advisory Council on the Environment (ACE) would rigorously review the EIA report, ensuring that it provides accurate, reliable, and comprehensive ecological baseline data, so as to enable a comprehensive evaluation of potential environmental impacts and to prevent irreversible damage to the wetland system caused by any developments.

7 Underestimation of ecological value as “piecemeal approach” and inappropriate assessment was adopted in the evaluation of pond habitat

- 7.1** According to Figure 10.5 of the Ecological Impact Assessment (EcolA), the contiguous pond habitat in the northern portion was not assessed as a whole, but was divided into seven sub-zones based on their “*condition and disturbance*”. Eventually, the ecological value of ponds in Sam Po Shue Zone B and San Tin Zone B was assessed as “Moderate to High”, while that of San Tin Zone C and Sam Po Shue Zone C was regarded as “Moderate”. As stated in the Town Planning Board Guideline No. 12C, “**Different ponds are used preferentially by birds in different seasons, and it would be difficult to justify removal of certain individual fish ponds**” and stressed that a precautionary approach is needed to maintain the ecological integrity of the Deep Bay wetland ecosystem as a whole. Therefore, we consider it is inappropriate to divide the connecting and contiguous wetlands of the San Tin area into seven parts for evaluation, as this will underestimate the ecological value of each zone and pond.
- 7.2** Fragmentation of the pond habitat for assessment and filling the fishponds for development are also against the basic conservation principle of “the larger the area, the larger the effective area for conservation”. Given the importance of maintaining the ecological integrity of the Deep Bay wetland, **all pond habitats should be taken as one complete habitat for the assessment and should not be fragmented for assessment and development. Also, edge effect of a conservation area cannot be used to**

justify a development at its boundary, or else it would set an undesirable precedent for development encroachment into the conservation area leading to a loss in conservation area and its conservation effectiveness. The “precautionary approach” and “no-net-loss in wetland” under Town Planning Board Guideline No. 12C are conservation principles established with extensive and sounded scientific studies, and they should be strictly followed in the current development.

- 7.3** In Section 10.6.2.12, the applicant tried to describe that “*Sam Po Shue Zone B and C were both subject to higher level of disturbance, such as heavy vehicles operating along the pond bunds within the areas, as well as adjacent human activities, brownfield, and traffic along the west of STEMDC*”.
- 7.4** However, in Section 10.6.2.69, it states that “*Sam Po Shue Zone A and Sam Po Shue Zone B also had relatively high diversity of avifauna species of conservation importance considering the high species richness and area ratio*.” In Section 10.8.1.44, the applicant mentioned that “*some ponds (e.g. San Tin Zone B and Sam Po Shue Zone B with moderate to high ecological values) experienced less anthropogenic disturbance and form part of the contiguous ponds in San Tin – Sam Po Shue area which supported relatively high diversity and abundance of avifauna species of conservation importance*”. In Table 10.7 Ecological Evaluation of Pond within the Assessment Area, the fragmentation of pond in San Tin and Sam Po Shue area in the northern portion is regarded as “Low”.
- 7.5** The above descriptions of Sam Po Shue Zone B **contradict with** that in Section 10.6.2.12 (i.e. as quoted in paragraph 5.2 of this letter). Actually, the ponds in Sam Po Shue Zone A and B are subject to less disturbance due to the absence of fishpond operation in recent years. As a result, these ponds provide suitable habitats for various duck species of conservation interest, support a high diversity and abundance of bird species of conservation importance, and thus has a high ecological value.
- 7.6** More importantly, these ponds are ecologically connected to each other as well as the surrounding wetlands. However, a list of species of conservation importance is presented under each zone. Such presentation is highly

misleading because it gives an impression that birds recorded in one zone would only appear in that particular zone. In reality, the bird species recorded in each zone would also use other pond habitats and their presence is not confined to a certain pond/zone. Therefore, with such assessment methodology adopted, the ecological value of the pond habitat is underestimated in the current report.

- 7.7** Not only using a list of species of conservation importance under each zone is misleading, the dataset used to generate this species list is incomplete (as explained in the previous section 3 of this letter). Take Sam Po Shue Zone B as an example again, the species list of this zone only has 15 avifauna species of conservation importance, which is highly unusual. Sam Po Shue Zone B is highly connected to the adjacent wetlands and is of high ecological value. According to the waterbird monitoring data that the applicant obtained from AFCD, 42 wetland-dependent species of conservation importance, which is almost 3 times of the number presented by the applicant, were recorded within Sam Po Shue Zone B in just recent 5 years. They include the globally Vulnerable Common Pochard, globally Near Threatened Ferruginous Duck, Class II national protected species Eurasian Spoonbill, Purple Heron of Regional Concern, Great Crested Grebe of Regional Concern, Cinnamon Bittern of Local Concern, etc.
- 7.8** The globally critically endangered species Baer's Pochard was also recorded at the affected ponds within Sam Po Shue Zone B. This species is listed as Class I National Protected animal in China. According to the 2019 assessment by the IUCN, the global population of adult Baer's Pochard is estimated to be only 150-700 individuals, primarily due to the continuous loss and degradation of wetland habitats in both their breeding and wintering grounds. In Hong Kong's context, Baer's Pochard has almost disappeared from Hong Kong since 2014, but it was recorded in Sam Po Shue in January 2023, which is the first and important sighting in the past ten years.
- 7.9** We are concerned the applicant has not made full use of the existing available dataset for assessment, leading to the serious underestimation of the ecological value of ponds in Sam Po Shue.

8 Absence of firefly survey and comprehensive monitoring of Eurasian Otter

- 8.1** The channel subject to tidal influence and pond habitats are potential breeding grounds for Mai Po Bent-winged Firefly which is endemic to Deep Bay, however, no independent survey was conducted to identify potential ecological sensitive receivers of the development.
- 8.2** According to existing study done by HKU, it is known that ponds at the northern portion of the project area are also confirmed with the presence of Eurasian Otter. This area is also regarded as part of the core area of otter habitat in Hong Kong. However, insufficient efforts are given to identify and assess the impacts on this species. We doubt that the EIA study has significantly underestimate the ecological impacts on the local and regional population of Eurasian Otter.

Significant impacts on egrettries

9 Significant environmental changes to the egrettries and their surroundings

- 9.1** In Section 10.8.1.37, it states that “*the current nesting substratum would be largely preserved as far as practicable, except for a narrow strip of Weeping Fig (*Ficus benjamina*) located at the north of Castle Peak Road (San Tin section) and a small patch of vegetation at the east of Shek Wu Wai Road, which would be subjected to direct loss due to a proposed road upgrading works*”. Considering the majority of the current and historical nesting areas of MPLV Egretty would be retained, the applicant concluded that “*the impact from small area of direct loss of the nesting substratum is anticipated to low to moderate*”. The impacts on egrettries are seriously underestimated.
- 9.2** Breeding egrets/herons are susceptible to environmental changes, disturbance by human activities, construction noise and vibration, any deterioration of habitat quality would potentially reduce the breeding success of the birds. We consider that removal of any current nesting substratum is unacceptable, as there is no successful case of relocation of egretty, thus there is no confidence that the breeding birds will use the new nest substratum provided and it may lead to overcrowding of nests in the current substratum.

9.3 More importantly, even with the proposed seasonal control of construction activities near the egrettries during breeding season, due to the permanent loss in foraging grounds, the longer distance to the feeding sites, and the loss of flight corridor due to the construction of medium to high density buildings in the current project, the egrets/herons may eventually abandoned the site in the worst-case scenario, leading to adverse impacts on the viability of the ardeids' population.

10 Direct loss in foraging and feeding ground for the egrettries was neglected and the corresponding impacts were underestimated

10.1 Mai Po Lung Village (MPLV) egrettry and Mai Po Village (MPV) egrettry, which together support nearly 200 nests of breeding ardeids and is equivalent to almost 46% of the total breeding population of ardeids in Deep Bay, falls within or at the boundary the project area. These two egrettries are also the second and third largest egrettries in Deep Bay area and both have a history of over 20 years.

10.2 According to the data in 2022, the recorded number of nests of Chinese Pond Heron accounts for over one-third of the total number in Hong Kong, while the nest number of little egret accounts for one-fourth of the whole breeding population. They are of **high ecological importance** and any potential negative direct and indirect impacts on their nesting sites, feeding and foraging ground, and also flight corridor should be avoided as far as possible.

10.3 It is noted that the applicant has conducted flight path surveys for the breeding ardeids. In Section 10.3.2.8 of the EcolA, the flight path surveys for the breeding ardeids were undertaken at the vantage points (VP1A, VP1B, VP2A and VP2B). It also states that *“high-power binoculars were also used at a further vantage point (VP3B) to supplement on the potential landing location of ardeids from the egrettry. Where the ardeids fly out of sight prior to landing, the location at which they are lost from sight was recorded.”* The records of landing locations could help inform the feeding ground of the breeding ardeids, so as to properly assess the ecological value of the ponds and the adverse impacts on the essential feeding grounds for the breeding

birds. However, referring to Figure 10.6A, the map only shows the indicative directions of flight paths of the MPLV and MPV Egret, while the exact locations of landing points were not presented (Figure 2).

- 10.4** As displayed in Figure 10.6A and Appendix 10.5 of the report, **over 95% of the flight paths of the MPLV were in north to northwest directions (e.g. Flight Paths 1 to 5) to the ponds at San Tin and Sam Po Shue, and 99% of these flight paths have a flight height of 20m or below.** Also, previous study shown most breeding ardeids flew less than 2km from their nests, and that the project site and assessment area of the current development is well within 2km from both egretries (i.e. MPLV and MPV). Therefore with the vantage points next to the egretty (i.e. VP2A), in the fishpond area (i.e. VP2B) and at a higher observation point at the Lok Ma Chau station (i.e. VP3B) as explained in the methodology session, we consider the **landing points (at least for MPLV) can be observed unless the methodology was not properly followed or implemented.** Therefore, it is unclear how the conclusion of *“the majority of the ardeids were observed to fly over a long distance, landing at areas outside the observable distance”* can be drawn in session 10.6.2.62. The landing location indicates the foraging ground of the breeding birds and is related to the breeding success and viability of the breeding population, we consider that **the EIA report must provide the landing data to properly assess the corresponding ecological value and adverse impacts.**
- 10.5** Nearly 90 hectares of ponds in San Tin and Sam Po Shue, where are going to be reclaimed for the I&T development, are actually providing an essential foraging ground for the breeding ardeids. Taking Chinese Pond Heron as an example, according to the data in 2022, the number of nests of Chinese Pond Heron at MPLV accounts for one-third of the total number in Hong Kong and is the **largest breeding population of this species in Hong Kong**, while the EIA report stated that *“only a small portion of the ardeids were observed to land within the Assessment Area (mostly Chinese Pond Herons)”*. From our previous observation, **about 50% of Chinese Pond Herons at MPLV would land at the proposed filled fishponds.** It is anticipated that the permanent loss in fishponds will cause **devastating impact on the breeding ardeids, particularly the Chinese Pond Heron population.**

10.6 Although it is stated that the loss in ponds will be compensated by the establishment of the Sam Po Shue Wetland Conservation Park (SPSWCP), during the calculation of compensation requirement, only four larger wetland avifauna species (i.e. Black-faced Spoonbill, Great Cormorant, Great Egret, Grey Heron) have been used as indicators to reflect the functional value of the ponds to be lost. The calculation **does not take Little Egret and Chinese Pond Heron into account**, which will undervalue the functions of the ponds in providing feeding ground to support the two large nesting colonies.

10.7 We doubt that the proposed compensation requirement is far from enough to compensate for the **irreversible and significant loss in important breeding and foraging grounds for Little Egret and Chinese Pond Heron.**

11 Disruption of the flight corridor for breeding egrets and herons

11.1 The applicant quoted a recent study which suggested that "*ardeids were observed to fly over obstructing bridge structure when returning to the night roost (Stanton and Klick, 2018), suggesting adaptability in their behaviour, where minor behavioural change might be observed, but their existing usage would be continued.*" We consider that **this reference (i.e. Stanton and Klick, 2018) is simply irrelevant** as the main objective of the paper is to study the level of vehicular traffic on the flight behaviour of roosting Little Egrets. The observation of Little Egrets flying over an existing bridge to go back to their roosting site, does not imply that the construction and operation of a bridge have no/little impact on the flight path of ardeids. Also, unlike a bridge crossing the channel, the current proposed development consists of buildings with over 100-119mPD, the current magnitude of development is much greater than the bridge mentioned in the recent study. Moreover, unlike roosting birds, breeding birds need to travel more frequently in search of food for the chicks. The dramatic increase in the travelling distance due to the avoidance of high-rises would greatly increase the energy expenditures of the breeding ardeids, which could result in **failure in nesting and even abandonment of the egretry.**

11.2 Based on the data provided from the applicant, approximately 99.4% of breeding ardeids in MPLV Egretty, and over 26% of ardeids from MPV Egretty flew across the development area for feeding and foraging. Therefore, the project would have significant impact on the flight paths of both egretties.

11.3 In the revised EcolA of the Yau Mei San Tsuen development (planning application A/YL-MP/247), it stated "Chinese Pond Heron was the only species which was not regularly observed using Flight Line 1 (i.e. over Fairview Park), suggesting that this species may be deterred by the presence of the buildings". As MPLV has the largest breeding population of Chinese Pond Heron in Hong Kong and that over 95% of the flight paths from MPLV were in north to northwest directions to the ponds at San Tin and Sam Po Shue, we consider that **the impact of the project on the breeding herons are greatly underestimated.**

12 Inadequate protection of the egretty using the Open Space zoning

An "Open Space" is proposed to preserve the MPLV Egretty and the nearby area on its southwest. Although it is stated that "*any recreation facilities / uses that would attract human activities in proximity of the egretty would be avoided during the detailed design stage of the Open Space*", we doubt that such promise could not be turned into reality because the intention of "Open Space", in accordance to the Schedule Notes under the Town Planning Ordinance, is intended "*primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public*". The zoning is not for conservation. Under the "Open Space" zoning, no planning permission is required for uses which could result in intensive human disturbance, such as Playground, Barbecue Spot, Visitor Centre. We consider the EIA study has neglected the potential ecological impacts during the operational phase of the Open Space, and thus a more stringent conservation zoning should be provided to effectively protect the egretty.

Significant impacts on roosting sites of ardeids

13 Failed to identify and assess the impacts on the day roost of Black-crowned Night Herons in San Tin Pumping Station

The trees around the flood storage pond next to the San Tin fishponds is a day roosting site for Black-crowned Night Herons. Last year, we observed over 54 Night Herons flying from this roost to the fishponds in search of food before sunset. However, the report fails to mention this roosting site. This overlooked roosting site appears to have a larger number and scale of heron usage than the other roosts that identified by the applicant. We are concerned the EIA has significantly underestimated the adverse impact of the development on the heron population.

14 Direct impacts on the loss in foraging ground for ardeids' night roosts were ignored

Similar to the problems of flight path survey conducted for the egrettries, the survey and assessment for the night roost has not identify the landing location of the roosting birds, and thus the direct impacts of the loss in foraging ground for them have not been assessed.

Significant impacts on breeding birds

15 Missed more than half of the breeding bird species in fishpond wetlands

15.1 The fishpond wetlands are important breeding grounds for many waterbirds. For example, breeding records of White-breasted Waterhen and other species of conservation importance like Little Ringed Plover and Little Grebe have been recorded in the proposed pond filling areas. However, the EIA report only recorded the breeding behaviour of two bird species (i.e. Little Ringed Plover and White-shouldered Starling) in the fishpond areas. In other words, the report has overlooked at least half of the known breeding bird species in the fishpond areas.

15.2 In addition, the report has also failed to find out the potential breeding grounds for various landbirds and bitterns in the inactive fishponds and reedbeds. As breeding is a crucial part of the bird life cycle, any disturbance to them would directly threaten the survival of their entire populations.

Significant loss in wetland connectivity and integrity of Deep Bay wetland ecosystem

16 Threats to the integrity of Deep Bay wetland ecosystem caused by previous and ongoing development projects

- 16.1** Extensive fishponds were filled for the Lok Ma Chau Boundary Control Point (LMCBCP) back in the 1980s, then there was the viaduct for the Lok Ma Chau Spur Line and Lok Ma Chau Station in early 2000s. However, as most of the development were at-grade/low-rise and the surrounding wetlands are still conserved, the ecological connectivity between fishpond wetlands in San Tin and Hoo Hok Wai/Ma Tso Lung still managed to maintain. As stated in the Town Planning Board Guideline No. 12C, *“The Ecological Field Survey of Hoo Hok Wai completed in June 2013 has further confirmed that the fish ponds and freshwater marshes occupying majority of the Hoo Hok Wai area have high ecological value due to their importance to waterbirds, including ardeids and spoonbills and other wetland-dependent species, including Eurasian Otter, and their strong ecological linkages with other wetlands within the Deep Bay Area, including the Mai Po Inner Deep Bay Ramsar Site.”*
- 16.2** The Lok Ma Chau Loop development was confirmed in late 2010s, and has a maximum height of building up to about 54mPD with a population of 50,000 to 53,000. Such high-rise development and loss in wetland area would fragment the Deep Bay wetland system. The WCA and the LMC Loop were about 800 metres to 1.5 kilometres wide. However, after the LMC Loop development and even with the “Ecological Area” which was created for compensating the habitat loss caused by the development, there are only about 300 - 500 metres left which is about a 60% reduction of the width of the original movement corridor. As the high-rise buildings are not yet built at the moment, it is still uncertain if the proposed compensation measure (i.e. Ecological Area and stepped height building profile) can effectively mitigate and compensate the adverse ecological impacts of the Lok Ma Chau Loop development.
- 16.3** With the above wetland loss by previous developments and uncertainties in the effectiveness of mitigation/compensation measure, we consider that the wetland connectivity around the San Tin/Lok Ma Chau Loop area is still under great threat. If the mitigation and compensation measures of the Lok

Ma Chau Loop failed, the development may have **detrimental impacts on the movement of birds within the Deep Bay wetland ecosystem, thus leading to the loss of foraging habitat for birds in the fishponds and wetlands of Hoo Hok Wai/Ma Tso Lung.**

17 Further significant fragmentation of Deep Bay wetland ecosystem by the current project

- 17.1** The project area that currently overlaps with Ha Wan Tsuen and the LMCBCP is the crucial and only movement corridor left to access the Hoo Hok Wai and Ma Tso Lung fishpond wetlands. Any developments involve construction of buildings or viaduct structures, no matter it is called as low, medium or high density, will disrupt the only movement corridor for connecting the wetlands between the Ramsar Site, San Tin, Ma Tso Lung and Long Valley, leading to irreversible fragmentation of the avifauna movement and reduction in carrying capacity of the Deep Bay wetlands due to the potential isolation of the habitats in Ma Tso Lung and Long Valley.
- 17.2** In response to this significant impact, no independent and comprehensive flight path survey was conducted. According to the flight path survey for the two night roosts near a 300m wide flight corridor has been proposed in the EIA report. **However, this 300m corridor is not justified while the remaining movement corridor of the Lok Ma Chau Loop development is not yet proven as a success.**
- 17.3** The eastern half of the corridor “*comprises a proposed low-rise AFCD Fisheries Research Centre ($\leq 15mPD$)*”, while the western half is an “*NBA that no aboveground building structures will be erected*”. New elevated and at-grade roads will also be constructed across the proposed 300m flight corridor. According to Figure 10.6C and Figure 10.6D, the recorded flight paths were distributed all over the wetland areas. A 300m wide flight corridor is considered to be insufficient to avoid or minimize the fragmentation of movement corridor for avifauna. **Instead, it is reasonable to provide a 1,200m wide Non-building Area (i.e. the distance measured from the fishponds next to Shenzhen River at Ha Wan Tsuen, to the fishponds near Ha Wan Fisherman San Tsuen and Pun Uk Tsuen) to**

preserve the remaining and the only movement corridor to access the fishpond wetlands in Hoo Hok Wai/ Ma Tso Lung (Figure 3).

- 17.4** Moreover, according to Appendix 14.2 which presents the building height concept of the development, the buildings within 100m from the proposed flight corridor is up to 20-60mPD high, while the buildings within 100-200m from the corridor will be up to 150-179mPD high. **The introduction of high-rises to this remaining and only movement corridor left will lead to direct disruption of bird movement within the Deep Bay wetland ecosystem.** Referring to the flight path survey conducted by the applicant, among 2,202 numbers of usage of the flight path corridor around the LMCBCP, over 96% of them were recorded with a flight height within 0-30m. **This again reveals that all buildings above ground will cause direct obstruction of the flight paths, leading to fragmentation of habitats and undermining the integrity of wetland ecosystem in Deep Bay.** A 1,200m wide movement corridor composes of Non-building Area should be provided. Buildings within 500m to the corridor should also be restricted by stringent height/density control (i.e. 3-storey or low-density).

Inadequate impact assessment

18 Absence of light impact assessment

- 18.1** The study on the Ecological Value of Fishponds in the Deep Bay Area published by the Planning Department suggests that *“the most significant factors contributing to higher bird usage were larger area of ponds and increasing distance to human disturbance”*. Given the close distance to the ecological sensitive birds and habitats within Ramsar Site and IBA, we are highly concerned the 15mPD-149mPD high buildings located within 500m from the sensitive wetlands would become well-lit façades (created by lightings from each building blocks and lighting for roads) during night time, and would be highly visible over a large area, resulting in adverse impacts on the habitat quality and wildlife in the Ramsar Site and IBA.

18.2 According to the Light Pollution Guidelines for Wildlife under the Convention on Migratory Species², “where there is important habitat for migratory shorebirds within 20 km of a project, consideration should be given as to whether that light is likely to have an effect on those birds.” This 20 km buffer is based on “a precautionary approach that sky glow can cause a change in behaviour in other species up to 15 km away”. Moreover, artificial light can in fact “disorient flying birds, affect stopover selection, and cause their death through collision with infrastructure. Birds may starve as a result of disruption to foraging, hampering their ability to prepare for breeding or migration”³.

18.3 In the evaluation of potential ecological impacts to pond, the overall impact significance of the permanent and irreversible disturbance including glare from artificial lightings during the operation phase is “Low to Moderate”. We consider it is not justified as there is an absence of light impacts assessment on the ecological sensitive receivers in the Ramsar site and IBA.

19 Inadequate Visual Impact Assessment

19.1 The applicant failed to identify the **residents and fish farmers in Lin Barn Tsuen, Hop Sing Wai, Mai Po Lo Wai and Sam Po Shue** as Visually Sensitive Receivers (VSRs). In addition, the project area is very close to the well-known **bird watching hotspot** within the Inner Deep Bay Ramsar Site and Important Bird and Biodiversity Area, the local, regional and foreign **birders visiting these fishpond wetlands should also be regarded as VSRs and assessed**. According to Figure 14.9b, no viewpoints are provided to represent the abovementioned VSRs.

19.2 Future users of SPSWCP were identified as one of the VSRs, however, the visual impacts assessment on them was not properly conducted. In Figure 14.9b, the only viewpoint selected for the future visitors (i.e. VP8) is located at Lok Ma Chau MTR Station, which is **outside** the proposed SPSWCP (Figure 4). It is irrelevant and inappropriate. We consider several Viewpoints within

² <https://www.cms.int/en/document/light-pollution-guidelines-wildlife-0>

³ <https://www.cms.int/en/document/light-pollution-guidelines-wildlife-0>

the proposed SPSWCP with various distances from the project area should be selected for assessment. The corresponding photomontages to demonstrate the visual impacts on the future SPSWCP should also be provided.

Wetland compensation not well-justified

20 Only four species selected for the functional value calculation and the compensation requirement is unacceptable

20.1 The existing “functional value” of the affected ponds are used for the formulation of the wetland compensation requirement. The applicant rely only on the peak counts of 2021-22 dry-season survey data from AFCD Monthly Waterbird Survey as well as their EIA ecological survey data. Four large wetland avifauna species (Black-faced Spoonbill, Great Cormorant, Great Egret, Grey Heron) have been chosen as indicators for the estimation of “functional value” and calculation for compensation requirement. It is stated that the baseline densities and abundance for the indicator species were estimated across areas that could potentially be used for enhancement within the proposed SPS WCP. We consider such calculation is inaccurate and inappropriate in the following ways.

20.2 First, it is explained that one of the two reasons for choosing these four bird species (Black-faced Spoonbill, Great Cormorant, Great Egret, Grey Heron) is the relatively higher sensitivity to disturbance. However, according to a study of human disturbance, the flight initiation distances of other non-nesting bird species of the different family or order like species of Anseriformes (i.e. include goose and ducks) and Falconiformes (i.e. include falcons, eagles, ospreys) can be greater than that of Pelecaniformes birds, which include Black-faced Spoonbills and ardeids⁴. As there are still other species that are proven more sensitive to human disturbance than Black-faced Spoonbills and ardeids, we consider the reasoning of picking most species belong to the Pelecaniformes based on the level of sensitivity to disturbance is not scientifically sound, and it is unacceptable to leave these

⁴ Livezey, K.B.; Fernandez-Juricic, E.; Blumstein, D.T. Database of bird flight initiation distances to assist in estimating effects from human disturbance and delineating buffer areas. *J. Fish Wildl. Manag.* 2016.

groups of birds out. If the vulnerability to disturbance is the reason for species selection, duck species, raptor species and breeding bird species that have been recorded within the project area should also be included in the calculation of the functional value and compensation requirement.

- 20.3** In terms of ducks, we consider the globally vulnerable **Common Pochard**, near-threatened **Ferruginous Duck**, critically endangered **Baer's Pochard**, **Tufted Duck** of Local Concern, **Eurasian Teal** and **Northern Shoveler** of Regional Concern should also be regarded as indicator species for the estimation of the functional value and compensation requirement. According to the available waterbird monitoring data, the inactive fishponds at Sam Po Shue Zone A and B have been recorded with the scarce and globally vulnerable Common Pochard, as well as the rare and globally near-threatened Ferruginous Duck, for five consecutive years.
- 20.4** In Hong Kong's context, globally critically endangered species Baer's Pochard has almost disappeared from Hong Kong since 2014, but it was recorded in Sam Po Shue in January 2023, which is the first and important sighting in the past ten years. Tufted ducks are regularly recorded within the project area with significant abundance. All the above duck species should be included in the estimation.
- 20.5** Other than ducks, given the the **raptors** regularly appear in San Tin and Sam Po Shue, such as **Eastern Imperial Eagle**, **Eastern Marsh Harrier**, **Pied Harrier**, **Greater Spotted Eagle** and **Black-winged Kite**, are known to exhibit marked avoidance of man-made structures and are highly susceptible to disturbance and developed area, they should all be included in the calculation.
- 20.6** The **nesting waterbirds** are inherently vulnerable to loss and disturbance, species like **Little Ringed Plover** of Local Concern, **Little Grebe** of Local Concern and **White-breasted Waterhen**, that are commonly found breeding in the pond habitats, should also be included as indicator species.
- 20.7** Second, the applicant explained that four selected species are considered as key species using the pond habitats. However, it is unclear **why Little Egret and Chinese Pond Heron**, as the two important nesting species rely heavily on the ponds for feeding chicks, **are not included** in the calculation.

- 20.8** Besides, **all four bird species are piscivores that primarily feed on fish**. Bird species that belong to other feeding guilds including omnivorous, carnivorous, insectivorous and herbivorous are not taken into account.
- 20.9** According to the bird records of HKBWS, the proposed pond filling area has a rich biodiversity, with a total of 205 bird species recorded, accounting for one-third of the total bird species in Hong Kong. Apart from the large-sized waterbirds that mostly feed on fish, shorebirds that feed on infaunal and epifaunal invertebrates are also the key species in fishponds. They include the tactile-surface foraging birds like the globally near-threatened species Red-necked Stint, Temminck's Stint of Local Concern, the visual-surface foraging birds like the globally vulnerable species Sharp-tailed Sandpiper, Little Ringed Plover of Local Concern, the water-surface foraging birds like Black-winged Stilt of Regional Concern. Some species also prefer foraging at the edge of the ponds.
- 20.10** The landbirds that feed on insects or seeds like the critically endangered species Yellow-breasted Bunting, the globally vulnerable Manchurian Reed Warbler and Zitting Cisticola of Local Concern, are also key species that can be found in the emergent vegetation in inactive fishponds within the project area.
- 20.11** We consider the current selection for the indicator species has highly simplified the species diversity and the diversity of micro-habitats of the ponds in northern portion. It will dramatically underestimate the functional value of the affected ponds and overestimate the capability of the enhancement measures within the smaller SPSWCP to compensate for the loss in ecological functions. Hence, we consider the corresponding estimation of the compensation requirement based on such a problematic selection of indicator species is **not acceptable**.

21 Inappropriate assumption of the Exclusion Zone (EZ) and Reduced Density Zone (RDZ)

- 21.1** In determining the disturbance impacts of the development, the applicant stated that similar approaches in assessing disturbance impacts in the previous EIA reports were adopted in the current EIA study. It is thus

assuming that a definite EZ and RDZ around the disturbance source will be created for potentially affected species. The 0-100m EZ, 0-200m EZ, 100-200m RDZ and 200-400m RDZ are anticipated during Construction Phase, while a 0-50m EZ, 0-100m EZ, 50-100m RDZ and 100-200 RDZ are anticipated during operation phase.

21.2 We are concerned it is inadequate to directly apply the “Assumed Extent of Disturbance Impacts” suggested in the previous EIA of Fung Lok Wai and Lok Ma Chau Spur Line to the current study. In the EIA study for Fung Lok Wai development, when determining the disturbance distance, only the species that regularly occurring in Fung Lok Wai were analyzed. Therefore, the disturbance distance calculated is very site-specific, thus cannot be directly used in other places in the Deep Bay area.

29.1 Take ducks as an example, only Common Teal and Eurasian Wigeon which are both dabbling ducks was used for the analysis of disturbance. However, in the current project site and assessment area, more diving duck species, such as Tufted Duck, Common Pochard and Ferruginous Duck, were recorded. Yet, these diving duck species were not included in the analysis of susceptibility to disturbance. Hence, there is a data gap between the Fung Lok Wai case and the current project.

29.2 As such, we are concerned the current EIA study failed to properly and accurately analyze the predicted disturbance distance for the species of conservation importance that regularly recorded in San Tin affected ponds.

22 Over-estimation of the carrying capacity of the compensation wetlands

22.1 It is stated that *"the Government will develop the Sam Po Shue Wetland Conservation Park (SPSWCP) with a proposed area of approximately 338 ha to create environmental capacity for the development of San Tin Technopole. Among the 338 ha, while 10 ha is reserved for supporting facilities such as visitor center and other basic infrastructure, the Government will enhance the ecological function and capacity of 288 ha of wetlands and fisheries resources of 40 ha of fishponds by establishing the SPS WCP with active conservation management and modernised aquaculture to compensate for the loss of pond and other wetland habitats and fisheries resources arising*

from the development of San Tin Technopole and to achieve no-netloss in ecological function and capacity of the wetlands concerned."

- 22.2** Obviously, developing 10ha for visitor center facilities and infrastructure within the fishpond area, while reserving 40 ha of fishponds for modernised aquaculture and active conservation management, will inevitably lead to direct habitat loss, fragmentation of habitats, direct disruption of the corridor for terrestrial animals, undermining the carrying capacity of the SPSWCP. However, no details of the location and scale of the visitor center facilities and infrastructure are given in the current EIA report. **There are no proper ecological value and impact assessments for the development of the SPSWCP.**
- 22.3** In addition, as there will be modernized aquaculture development within 40 ha of the SPSWCP, no further details on the construction and operation of the so-called modernized aquaculture practice are given in the EIA report. In other words, it is unknown whether the incorporation of modernized aquaculture into the compensation wetlands would result in primary adverse ecological impacts and compromising the ecological function of the SPSWCP.
- 22.4** If we refer to the presentation document released in December 2023 during the public engagement exercise for the Strategic Feasibility Study on the Development of Wetland Conservation Parks System under the Northern Metropolis Development Strategy. It highlights the in-pond raceway system and the use of renewable energy, which would probably occupy an extensive area of suitable foraging and roosting habitats for wildlife, including the water body and the pond bunds. Apart from these two ideas, representatives of both EPD and AFCD have been repeatedly promoted the practice of “container aquaculture system” over the past year. According to the blueprint for the sustainable development of agriculture and fisheries announced on 14 December 2023, high-pursue density, high-tech and high-yield culture operations (such as container culture systems) will be pursued at suitable locations and modernized culture techniques and management

will be implemented in the proposed SPSWCP⁵. The graphic in the document shows the container being constructed on the pond bund.

22.5 Under such context, we consider the applicant must provide detailed impact assessment for the establishment of the SPSWCP. However, when the applicant assessed the secondary impact of wetland compensation due to the habitat modification for the introduction of the enhanced wetlands (i.e. ecologically enhanced fishponds and enhanced freshwater wetland habitats) in the SPSWCP in Section 10.8.5, it is stated that the establishment of these habitats *“is anticipated to increase the ecological function and capacity of the existing pond habitat. As such, the ecological enhancement would compensate for the loss of wetland habitat arising from the development of San Tin Technopole and achieve no-net-loss in ecological function and capacity of the wetlands concerned. **No significant secondary impact is anticipated from the implementation of wetland compensation within the SPS WCP.**”*

22.6 We would like to emphasize that the establishment of SPSWCP will inevitably involve earthworks such as land re-profiling, temporary loss in micro-habitats and changes in habitat composition, resulting in both direct, indirect, permanent and temporary impacts on the wildlife. Furthermore, as discussed above, the construction and operation of the visitor facilities, infrastructures and modernized aquaculture development in 50ha of the compensation wetlands, would cause direct habitat loss, fragmentation of habitats, direct disruption of the corridor for terrestrial animals and avifauna species, off-site impacts including the disturbance associated with further light, noise, human disturbance, etc. A significant reduction in carrying capacity of the SPSWCP is also anticipated.

22.7 Therefore, we consider the conclusion of positive gain in “Estimated Overall Functional Value across Impacted Area and Potential Enhancement Area” as stated in Table 10.43 is unjustified.

⁵ https://www.afcd.gov.hk/english/Blueprint/files/AFBlueprint_Eng.pdf

23 Unjustified 45% increase in functional value

According to Section 10.11, the applicant anticipated that there could be 45% increase in functional value after the implementation of the six enhancement measures proposed under the current wetland compensation strategy. Such assumption was made based on the previous approved EIA reports for the proposed development at Fung Lok Wai in 2008. This development proposal involves around 4 hectares of permanent habitat loss for the construction of 19 blocks of residential buildings, ranging from 15 to 19-storey high, and about 76 hectares of wetland nature reserve. We consider the scale of developments and the magnitude of the ecological impacts of the two developments vary a lot. In addition, the secondary impacts of the establishment of SPSWCP have not yet been assessed. Moreover, the proposed mitigation and compensation measures of the Fung Lok Wai development was not implemented, thus its effectiveness is still unknown. Therefore, it is **inappropriate** to directly apply the 45% increase to the current development.

24 Absence of habitat management plan of the SPSWCP

24.1 Given the significant loss in pond habitat in the current project, the establishment of the SPSWCP is a key compensation measure for such loss. However, the current study only provides a general “wetland compensation strategy” to achieve the compensation requirement. **The applicant failed to submit a wetland/habitat management plan**, or a Habitat Creation and Management Plan (HCMP) in the EIA study. Even a Preliminary Management Plan for the Long Valley Nature Park was submitted in the EIA of the North East New Territories New Development Areas Planning and Engineering Study. Without such management plan in place, the current EIA study should be considered as incomplete and should not be made published by the authority for public inspection.

24.2 Moreover, without a management plan, **it is unclear if the SPSWCP is feasible and can effectively compensate for the detrimental impacts of the current project**. Even though various management measures were suggested in the EIA report, yet it is uncertain if all measures will be adopted in the future SPSWCP. Without a clear management plan, it is not possible

to estimate the budget required for the establishment and operation of the SPSWCP. **All of the above raises concerns about the commitment and effectiveness of the proposed SPSWCP compensation measure of this project.**

24.3 We consider that the SPSWCP as a compensation measure of this project should include the following items to ensure its effectiveness and long-term viability:

- i. Provide a habitat management plan and specification of resources requirement for its implementation.
- ii. Draft a long-term foundation management system with management guidelines.
- iii. Secure the financial arrangements to establish the SPSWCP and sustain its management.
- iv. Specify the management agents and their responsibility.
- v. Develop a transition plan for the land resumption period to minimize the ecological impact caused.

24.4 It is crucial to prioritize the implementation of effective management plans to safeguard wetland habitats and their ecological functions. We consider **a detailed habitat management plan must be made available for public comment before approval of the EIA report and the granting of the Environmental Permit for the development.**

25 Inappropriate implementation timeline of Sam Po Shue WCP

It is stated that “the Government aims to start the development of SPS WCP in around 2026/2027 for completion by 2039 or earlier to tie in with the full operation of San Tin Technopole. For the site formation works of the first batch of land at San Tin Technopole targeted for commencement in late 2024, no pond filling will be involved. On current planning, pond filling works will not start until 2026/27, and the pace of pond filling will tie in with the development progress of the SPS WCP”.

This is significantly later than the commencement of the construction for the San Tin Technopole development in 2024 Q4. Moreover, San Tin Technopole development is expected to have its first batch of residents by 2031, and the majority of residents are expected to move in gradually by 2034. Yet the SPSWCP

will not be completed until 2039, we doubt that **the conservation efforts and effectiveness of the SPSWCP would be compromised by the adverse impacts aroused from the construction and operation of the surrounding development.** We consider any construction works associated with wetland loss should only be commenced after the wetland compensation measures are proven effective and successful.

26 The proposed 35m eco-interface lacks buffering function

26.1 A 35m wide NBA in the form of an “eco-interface” was proposed in the EIA study. First, according to the landscape plan, the eco-interface is not fully covered by natural features. Instead, boardwalk and pedestrian are planned along the eco-interface. We consider the introduction of recreational features in the eco-interface will reduce its buffering function. The so-called eco-interface which is primarily intended to buffer the sensitive wetlands against disturbance, should be designed as restricted area.

26.2 Secondly, considering the study on the Ecological Value of Fishponds in the Deep Bay Area, which proposes a 500m Wetland Buffer Zone based on the preliminary study on impacts of human disturbance on bird usage, and also the general understanding that the disturbance distance of birds, depending on species and season, can be up to 500m, we consider a 500m buffer outside the fishpond wetland area should be provided to truly perform the buffering function of the buffer zone.

27 Bird collision risk may not be avoided or mitigated

27.1 It is stated that “*risk of bird collision would be higher in the northern portion of Project area, especially in the vicinity of the commuting flight paths of egrettries and night roost, and the west – east flight corridor near the LMC BCP*”. We are concerned the applicant has neglected the risk of window collision that poses to open-country bird species and other wetland dependent bird species like the common kingfisher and raptors. They are frequently recorded in the bird collision events in Hong Kong⁶, and are also

⁶ The preliminary analysis of the bird-window collision cases in Hong Kong. Available at: <https://cms.hkbws.org.hk/cms/phocadownload/submissions/HKBirdWindowCollisionAnalysis2022.pdf>

the key species in fishpond wetlands.

27.2 In addition, to mitigate the bird collision risk, the applicant suggested that “with implementation of other mitigation measures such as using non-transparent or nonglaring materials and providing suitable lighting, ecological impact arising from bird collision is expected to be low”.

27.3 However, in Table 14.11 of the Visual Impact Assessment, the proposed noise barriers and enclosures “shall be design in an elegant manner that includes suitable combination of transparent and sound absorbent materials”. **Such visual mitigation measure apparently contradicts with the mitigation measures proposed in the ecological impact assessment.**

27.4 Moreover, unless there is detailed designs and conditions on the anti-bird collision requirements provided for all the structures within the project area in the EIA study stage, the effectiveness and the implementation mitigation measures to minimize the bird collision risk are simply unknown.

28 Wetland Enhancement Measures outside the assessment area of the project

28.1 In Section 10.11.3.40, it states that “two management issues at Mai Po Inner Deep Bay Ramsar Site could be addressed to enhance environmental capacity across the broader NWNT wetland system”.

28.2 Desilting of tidal channels and control of *Sonneratia* to enhance the ecology of the Mai Po Nature Reserve should be regarded as **the existing management works that AFCD and the managing party are responsible for.**

Describing them as **enhancement measures under the San Tin Technopole development is misleading**, unless the applicant agreed with us that the wetland loss and the off-site impacts due to the San Tin Technopole development will **reduce the carrying capacity across the broader Deep Bay wetland system.** It is therefore necessary and reasonable, at this EIA study stage, to provide a comprehensive ecological impact assessment that covers the whole Ramsar Site and IBA, instead of the current assessment that only covers the 500m area outside the project area. By identifying the impacts on a wider scale, it is possible to figure out the enhancement requirement and to determine the enhancement measures.

28.3 In addition, the applicant has not provided the baseline data of the sites/areas to be enhanced. No detailed plan for implementing such measures and evaluation of the potential positive or negative outcomes are presented in the current EIA study. We are concerned the applicant has overlooked the feasibility, effectiveness and potential secondary impacts of the proposed enhancement measures.

28.4 Based on the egret monitoring data in 2022, the Mai Po Mangrove Egret is located within the proposed area for the Sonneratia removal works. This egret is the largest in the Deep Bay area. It supports around 138 pair of breeding ardeids, including Great Egret, Eastern Cattle Egret, Little Egret and Black-crowned Night Heron. Yet, introduction of invasive exotic mangrove Sonneratia is a serious problem in the Deep Bay wetlands, the planning and implementation needs great cares and efforts, to avoid any irreversible secondary impacts. However, such impact assessment is absent in the EIA.

29 Cumulative ecological impacts and undesirable precedent set in Deep Bay area

29.1 In Section 10.10, it states that “a full list of concurrent projects is detailed in Table 2.7.” First, it should be referred to Table 2.9. Second, the list failed to include all developments proposed by the government and private sector.

29.2 The government proposed projects include the Development of Lok Ma Chau Loop – Eastern Connection Road, Feasibility Study for the Ma Tso Lung Area and Other Sites in Kwu Tung North New Development Area and North District and Feasibility Study for the Land Use Review Study for Lau Fau Shan, Tsim Bei Tsui and Pak Nai Areas.

29.3 The development projects proposed by private sector include the rezoning application for a residential development in Lin Barn Tsuen (No. Y/YL-ST/1), the two rezoning applications for residential developments in Yau Pok Road (No. Y/YL-MP/7 and Y/YL-MP/8), the approved planning application for Wetland Restoration Area Low Density Residential Development (No. A/YL-MP/247) and the Comprehensive House and Wetland Habitat Development in Wo Shang Wai (No. A/YL-MP/344).

29.4 We are highly concerned the cumulative ecological impacts of a number of residential developments proposed or approved in close proximity of the

project area to the fishponds of Deep Bay area, have not been assessed.

All the residential and infrastructure developments will cumulatively cause significant impacts on the carrying capacity of the Deep Bay as a whole, and also threaten the breeding bird population and migratory bird population along the East Asian-Australasian Flyway.

The Deep Bay wetland ecosystem is the last remaining contiguous coastal wetlands in the Greater Bay Area. It supports up to 10,000 migratory birds each year, including the globally endangered Black-faced Spoonbill. The core goal of the Wetland Conservation Parks System should be to halt wetland loss and secure the integrity of the Deep Bay wetland ecosystem, and should align with the Kunming-Montreal Global Biodiversity Framework under the Convention on Biological Diversity which also targets to halt and reverse biodiversity loss.

HKBWS hopes that our comments would be taken into consideration. Thank you for your kind attention.

Yours faithfully,
The Hong Kong Bird Watching Society

Figure 1. According to the survey transects provided by the applicant, it cannot cover all the ponds in the assessment area especially for the ponds within the project site. Such inadequacy of the survey dataset was not mentioned in the report. With such deficiency, using the correct and complete dataset from literature review is very important to ensure the ecological value of the habitats (particularly for the pond habitat) would not be underestimated.

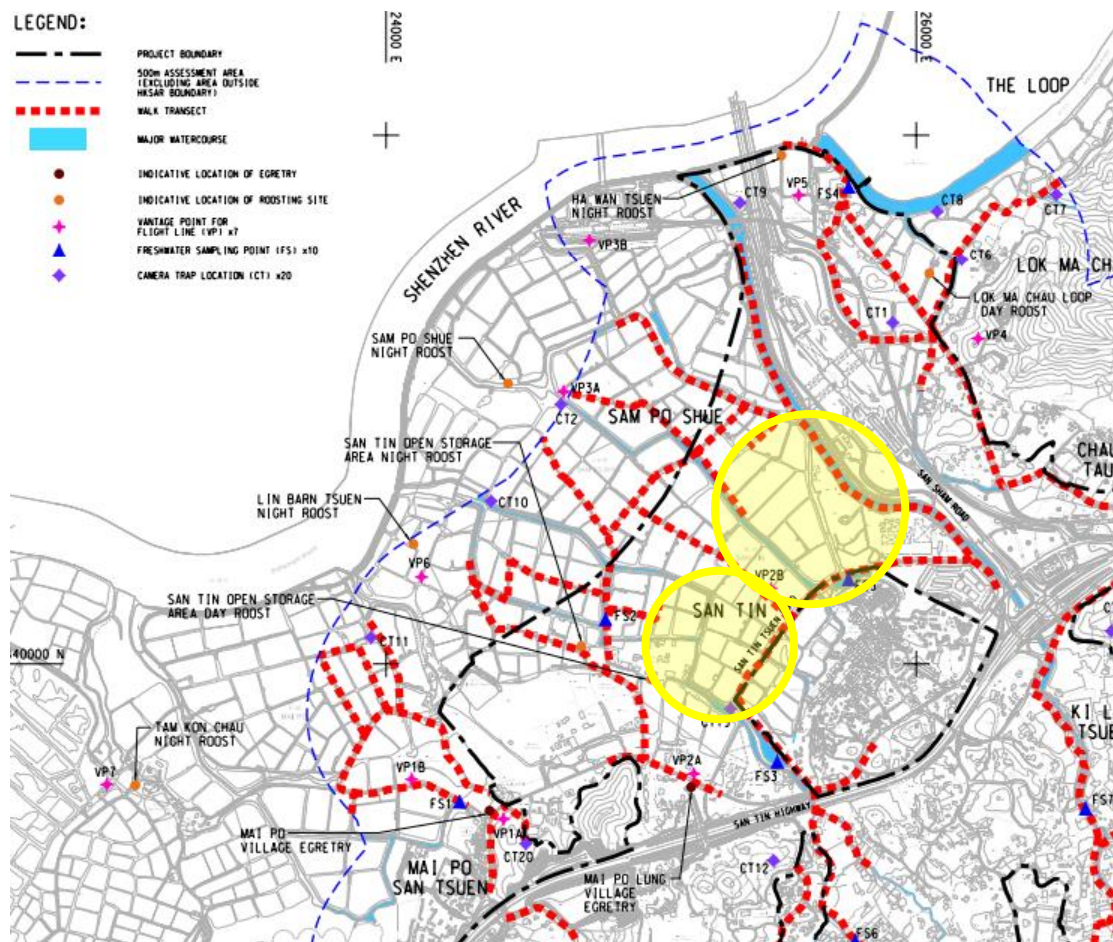


Figure 2. The records of landing locations could help inform the feeding ground of the breeding ardeids, so as to properly assess the ecological value of the ponds and the adverse impacts on the essential feeding grounds for the breeding birds. However, referring to Figure 10.6A, the map only shows the indicative directions of flight paths of the MPLV and MPV Egret, while the exact locations of landing points were not presented. We consider the landing points (at least for MPLV) can be observed unless the methodology was not properly followed or implemented. We urge that the applicant **must provide the landing data to properly assess the corresponding ecological value and adverse impacts.**

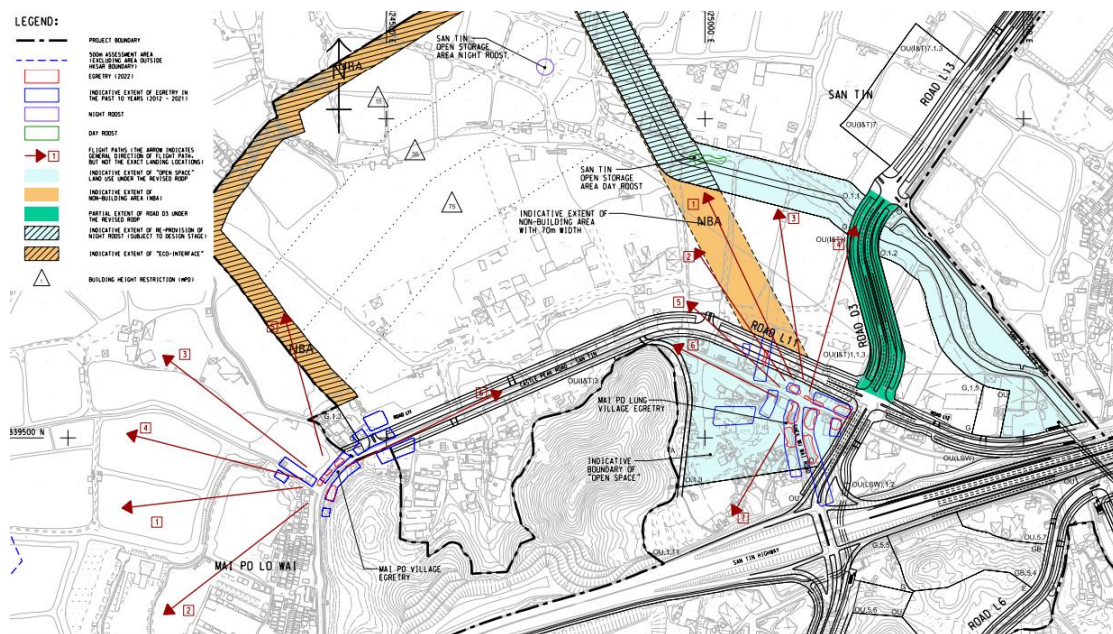


Figure 3. A 1,200m wide Non-building Area (i.e. the distance measured from the fishponds next to Shenzhen River at Ha Wan Tsuen, to the fishponds near Ha Wan Fisherman San Tsuen and Pun Uk Tsuen) to preserve the remaining and the only movement corridor to access the fishpond wetlands in Hoo Hok Wai/ Ma Tso Lung.

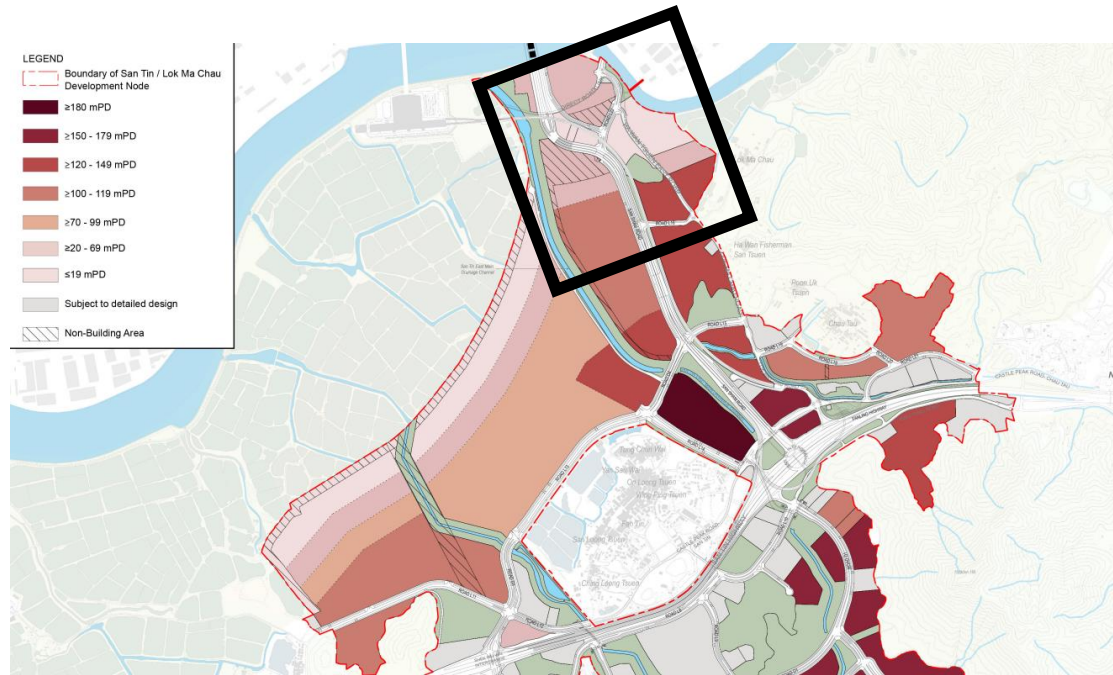


Figure 4. The viewpoint selected for the future visitors of SPSWCP (i.e. VP8) is located at Lok Ma Chau MTR Station, which is **outside** the proposed SPSWCP. It is irrelevant and inappropriate.

