嘉道理農場暨植物園公司
Kadoorie Farm & Botanic Garden Corporation

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31st July, 2013 **By email only**

Dear Ms. Wong,

North East New Territories New Development Areas (EIA-213/2013)

We would like to express several concerns regarding the captioned EIA.

1. Stream meanders will be directly and permanently impacted (the meanders were mitigation measures related to previous channelization of the Ng Tung River)

Populations of Rose Bitterling, *Rhodeus ocellatus*, were discovered in the mitigation meanders at Fanling North (FLN) during a site survey in July 2013 (**Figures 1 & 2**). The meanders are now included under the proposed planning areas A1-7, B1-5/ B1-6 and B3-8 – B3-10 (areas shown in Figure 2.2 of the EIA report). This fish species is considered to be of conservation concern by the AFCD[1], and at present can only be found at four sites locally (including the meanders; these meanders are treated as a single newly discovered site as they previously belonged to the same river habitat). The recently published EIA report for the Development of Lok Ma Chau (LMC) Loop study (EIA-212/2013), considered this species to be of high conservation value (Table 12.36); indeed, its status has prompted the drafting of a species action plan for the fish[1].

Juvenile fish were observed (**Figure 1**), indicating that the meanders can function as breeding sites for the species (e.g., the individuals observed are not vagrants/ occasional visitors). Besides the present sites, we consider that the species is likely to also inhabit other meanders along the Ng Tung River (e.g., meanders under A1-11 & B1-2, under B2-8, B2-9 & B2-11, and under C2-9). As indicated in Figure 13.14b of the EIA report, except the meander under A1-7, nearly all other meanders at FLN will be lost/ affected under the current

[1] http://www.epd.gov.hk/epd/english/boards/advisory_council/files/ncsc_paper01_2011.pdf

development layout plan.

Besides the direct and permanent impact (habitat loss) related to a rare fish species, we would also like to point out that these meanders are indeed one of the environmental measures proposed in a past EIA (EIAO Register Office Reference EIA-127/BC) to mitigate the impacts caused by the channelisation of the original Ng Tung River (http://www.epd.gov.hk/epd/english/environmentinhk/eia_planning/guide_ref/drainage2_1.html). We cannot accept that these mitigation areas are now proposed for development, this conveys a message to civil society that the Government does not respect and value the environmental protection measures they have themselves supported in the past. The mitigation proposals fulfill a role under the EIA process, if they are just to be ignored during the planning of a future development then the EIA process itself is compromised. The presence of the Rose Bitterling already indicates that one of the conservation measures proposed in the past (retention of the meander) has, in this case, achieved the original objective – nature conservation (e.g., maintaining the natural habitat and encouraging recolonisation). **The measure was proposed by the Government and now when it is clear that the meanders serve a valuable purpose there are plans to build on top of them. This is not logical.**

Translocation of this species will not be straight forward. The fish is small (mature size would be around 3 cm) and is not easy to observe. Also, the breeding cycle of this species requires a close relationship with the clam, *Anodonta woodiana*[1], and the clam itself may be difficult to find (e.g., in the benthic mud).

We consider that the appropriate way to protect this rare species is to avoid disturbance to the meanders (they should be covered by Conservation Area zoning like A1-7); we consider that this is possible by minimizing the development footprint or modifying the development layout. This requires the cooperation of the project proponents and will demonstrate the commitment to recognize areas which were considered important enough to designate as mitigation for past projects.

2. <u>Direct impacts on Ma Tso Lung Stream should be, and could be, avoided</u>

130 m of the Ma Tso Lung Stream is proposed to be diverted. We consider this to be an unacceptable impact.

The importance of this stream has been well recognized in the EIA report mainly because

of the presence of the Three-banded Box Turtle *Cuora trifasciata*, (a critically endangered species) and thus it should simply be preserved. But it is now proposed to be diverted; we strongly recommend that if there absolutely must be development here, which is not accepted, then the proposed road R1 (connected to the LMC Loop Eastern Connection Road) be shifted slightly to the west. By doing so, we believe that impacts on the stream could be largely avoided and the length of the stream to be diverted, if still necessary, could also be greatly reduced.

It could be argued that the section to be affected would not be of particular concern as this section might not be important to the Three-banded Box Turtle. Nevertheless, as stated in our letter of concern that was sent to you regarding the Sha Lo Tung Columbarium EIA (EIA-203/2012), this species is very mobile and able to spend a considerable amount of time on dry/ wet terrestrial areas (Dr. Gary Ades and Paul Crow personal observation; both are current members of the International Union for Conservation of Nature (IUCN)/ Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group). Individuals have been recorded in a marsh not immediately adjacent to any permanent stream course at Ping Shan Chai, an area just to the north of Sha Lo Tung Valley (Paul Crow personal observation). Simply speaking, based on expert views, this species would not just appear in wooded areas and wooded streams, but will also frequent open habitats such as marshes and seasonally wet habitats. It is thus important that following an ecosystem approach the whole stream system including the riparian zone should be preserved. In fact, the lower section has also been considered to be of "moderate to high" ecological value by the EIA.

According to the habitat map of the EIA, to the west of the proposed R1 road, is predominantly grassland and shrubland; these habitats would be of relatively lower ecological value compared to the stream and the riparian zone. Thus shifting the road R1 slightly to the west would create less significant ecological impacts if it absolutely must be built, which we do not accept. Based on site observation, the Ma Tso Lung valley, where the road R1 is proposed to be located, is relatively flat, however, we are not convinced that it would be an engineering impossibility to shift the road and that there is no other option to reduce the scale of or avoid the stream diversion work. In addition, based on Figures 13.17a &13.18a of the EIA report, we can see that only two short sections of the stream would be impacted by the proposed R1 road footprint. This further makes the 130 m diversion proposal unacceptable. Based on our rough estimation (using Figures 13.17a & 13.18a as guidance), only about 50 m of the stream would come in direct contact with the proposed road footprint. We are concerned that some

over-engineering has been proposed (please compare Figures 13.16b, 13.17a and 13.18a; see **Figure 3** of this letter). To conclude, we urge the project proponents to review the actual need to divert the stream (by 130 m).

3. Information provided in the EIA requires further clarification

3.1 Siu Hang San Tsuen Stream

The lowest reach of Siu Hang San Tsuen Stream will be re-channelised as stated in Tables 13.84 & 13.128 of the EIA. But in the main text (in Section 13.7.3.9 under the subheading Siu Hang San Tsuen Watercourse), the impact caused by the re-channelization has not been fully explained; it only states: "*...while the Fanling Bypass will cross the lower section of the stream on a viaduct. However, the lower section may be impacted by disturbance and run-off during the construction and operational phases of the Project by the Fanling Bypass and development and use of the area around this stream section as an Open Space zone (FLN area D1-3).*"

Under Section 13.8.2.2, mitigation measures proposed for the impact on Siu Hang San Tsuen Stream are as follows: "*...a 10m wide buffer zone on either side of the stream is designated and protected by a 2m-high solid barrier to prevent any construction or other materials being deposited in the stream. A 10m wide buffer zone on either side of a stream to ensure that pollution of the stream course is avoided...*" As illustrated in Figure 13.17b, there would be a 10 m wide buffer (as mentioned in the above text) to protect the lower reach during the construction phase. We are confused as we cannot understand how the proposed buffer zone would function if direct impact (re-channelisation) is going to affect the watercourse. We urge the project proponent to clarify this point.

Also, as described in the EIA, the watercourse will be under a viaduct in the future and thus a shading effect would be created. This lower reach, although channelised at present, is still ecologically linked to the upper reach which is of considerable ecological value (as also mentioned in the EIA). We urge that this lower reach should not be re-channelised and the project proponent should try to, as far as possible, reduce the shading effect.

3.2 Direct impacts on watercourses

According to Table 13.128 of the EIA, both the diversion of the Ma Tso Lung Stream and the re-channelisation of the lower reach of the Siu Hang San Tsuen Stream are considered to be "direct impacts". However, in Table 13.130 and subsequent paragraphs these impacts are not considered to be "habitat loss". We do not agree with this.

We consider that once a watercourse is diverted or re-channelised, this means that the original habitat will be directly affected, and simply speaking is lost; the reinstated environment is a completely new habitat. We would like the project proponent to state clearly that the above two direct impacts are indeed a direct habitat loss, even if afterwards reinstatement/ re-constructed channel may appear.

3.3 Other observations

We would like to point out that an EIA report is a statutory document under the EIAO (Cap. 499, Section 6, Clause 2). Information documented in the EIA report should thus be precise and correct. We have discovered several mistakes.

Section 13.1.4.5 of the EIA describes "*Alternatives to avoid and minimize impacts to stream and marsh habitats at Ma Tso lung*", and this section also refers to Section 2.4.1.8 and Figure 13.6b; the former section should discuss the road options that would affect the Ma Tso Lung Stream, and the latter figure should be to illustrate the buffer associated with the stream. However, both Section 2.4.1.8 and Figure 13.6b mention nothing related to the Ma Tso Lung Stream; the correct section should be 2.4.1.10 and the correct figure should be 13.16b.

Section 13.1.4.5 also mentions that there would be a minimum 15 m to about 30 m buffer for the Ma Tso Lung Stream. Nevertheless, in Section 13.11.2.5, the sentence describing the buffer for the Ma Tso Lung Stream quotes: *"…a buffer corridor with a minimum width of 15m from the road* ***(and 45mm in total)*** *will be reinstated…"* This we believe is a typo and should have been detected and removed before public consultation.

We would like to mention that, besides the project proponents (and their consultant teams), the authorities also have the responsibility to make sure that the documents open for public consultation are not misleading, or contain contradictory information. We urge that the authorities and the project proponents clarify the above mentioned points.

4. Long Valley

The core area of Long Valley is now proposed to be covered by "OU (Nature Park)" zone, and the areas to the north and the south would be zoned under "Agriculture" (AGR). We would like to point out that under the "New Nature Conservation Policy" (NNCP), these areas are grouped into one of the 12 priority sites proposed for further protection (http://www.afcd.gov.hk/english/conservation/con_nncp/con_nncp_list/files/long_valley_ho_

sheung_heung.pdf); this reflects that the areas are all of recognized conservation importance.

Under the current proposal, there would be a management plan for the core area (i.e., the OU (Nature Park) area; Appendix 13.10 of the EIA); this area would be managed for both recreation and conservation. But other areas within the priority site would only be "*protected by retaining their existing AGR zoning*", as stated in Appendix 13.10.

We do not consider that this is an appropriate planning for conservation. Firstly, the present proposal – only to include a portion of the priority site into the so-called "Nature Park" – already ignores the spirit of the NNCP: "*The new nature conservation policy is to regulate, protect and manage natural resources that are important for the conservation of biological diversity of Hong Kong in a sustainable manner, taking into account social and economic considerations, for the benefit and enjoyment of the present and future generations of the community.*" Although some elements of the NNCP such as the Public-private Partnership mechanism are frequently queried by some members of the public, we do not believe that the boundary of the priority site was made haphazardly; the boundary should have made reference to site conditions and the actual available ecological data. More importantly, the boundary was decided by the Government, not Environmental NGOs. Therefore such a designation (of the priority site) should have struck for a fine balance between development and conservation (i.e., *taking into account social and economic considerations*). But now the boundary of the priority site is effectively being ignored. Under the planning mechanism, "AGR" zone is NOT a conservation zoning. Therefore the claim that these areas within the priority site can be protected by retaining the existing AGR zoning is inaccurate and misleading. To better protect these areas and the core area now covered by the proposed OU (Nature Park) zone, the authority should cover the whole priority site with a "Conservation Area" zone, or should even designate it as a Special Area. Only by doing so could the whole priority site be appropriately protected.

The present proposal for Long Valley and Ho Sheung Heung, again, reflects that under the current NENT NDA project, previous intentions for conservation and protection of our local biodiversity (i.e., mitigation meander; priority site for conservation) are now being ignored.

5. Agricultural land

As indicated in our letter of concern regarding the same project to the Panel on

Development, Legislative Council, dated 26th November, 2012, we consider that the agricultural land in Hong Kong should not be further reduced. Although Ping Che NDA has been excluded from the present proposal, there are still many active agricultural areas in the remaining development zones and many of these will be directly and permanently affected. The Government has proposed that there would be some "compensation" scheme and that they would assist affected farmers in setting up their farms at other sites. Nevertheless, the practicality of such compensation proposal has already been queried by some groups (e.g., http://thehousenews.com/NT-northeast/%E6%9D%B1%E5%8C%97%E8%BE%B2%E6%A5%AD%E4%B8%8B%E8%90%BD%E4%B8%8D%E6%98%8E/).

As reported in the Apple Daily newspaper (13th May, 2013), Hong Kong has already lost about 60% of its farmland area in recent decades[2]; the amount of locally produced vegetables for consumption as compared with production is a long way from ensuring local food security, and a Hong Kong scholar has already reported that the present reality of food production in Hong Kong is not desirable[3].

We would also like to mention that Hong Kong is currently unprepared for the effects of Climate Change and Peak Oil which are likely to be severe. Peak Oil is the tipping point of global oil production which will be followed by an ever-decreasing flow of supply and ever-increasing price hikes, leading to economic and social instability; and is considered by leading analysts to have already arrived. Climate scientists in Hong Kong, Mainland China and elsewhere predict food shortages in the coming years due to climate change in China. Hong Kong's food supply is also heavily reliant on the supply of cheap oil and gas, which is used in the production of fertilizers and pesticides, and of course, which is needed for food transportation and refrigeration. We consider that "food security" is a very serious issue and that the Government should take all possible steps to protect and conserve Hong Kong's active, abandoned and illegally degraded agricultural lands so that there is a chance of Hong Kong having increased resilience in the future. In order to safeguard this important public interest (food supply), we need to reiterate that the area of agricultural land in Hong Kong should not be further reduced.

We consider that the Members of the ACE and EIASC have the responsibility to make

[2] http://hk.apple.nextmedia.com/news/art/20130513/18258252

[3] http://hk.apple.nextmedia.com/news/art/20130513/18258255

sure that this important public interest (i.e., food security) will be secured, and should also urge the proponents to give a detailed plan regarding how the loss of active, potential and abandoned agricultural lands can be compensated in a practical way. Otherwise, we cannot support the project.

6. <u>Convention on Biological Diversity</u>

The Convention on Biological Diversity (CBD) was extended to Hong Kong by the Central People's Government in May 2011. Article 8 (in-situ conservation) of CBD (http://www.cbd.int/convention/articles/?a=cbd-08) has required that the contracting party follow the approaches below:

Article 8, (d): Promote the protection of ecosystems, natural habitats and the maintenance of viable populations of species in natural surroundings

Article 8, (i): Endeavour to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and the sustainable use of its components

We consider that, when the project proponent is designing the detailed layout plan of the development, the Convention and related articles should be respected. But, unfortunately, we cannot see this happening in the current plan.

Yours faithfully,

Ecological Advisory Programme
Kadoorie Farm and Botanic Garden

cc.
Panel on Development, Legislative Council
DevB
EnB
AFCD
Conservancy Association
Designing Hong Kong
WWF – Hong Kong

Figure 1. Rose Bitterling juvenile found in the mitigation meander

Figure 2. One of the mitigation meanders where the fish was discovered

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Figure 3. The Ma Tso Lung Stream section proposed to be diverted (extracted from Figure 13.17a of the EIA)