



世界自然基金會
香港分會

WWF-Hong Kong

香港新界葵涌葵昌路 8 號
萬泰中心 15 樓
15/F, Manhattan Centre
8 Kwai Cheong Road
Kwai Chung, N.T., Hong Kong

電話 Tel: +852 2526 1011
傳真 Fax: +852 2845 2764
wwf@wwf.org.hk
wwf.org.hk

23 July 2025

Dr. CHUI Ho Kwong, Samuel, JP
Director of Environmental Protection
16/F, East Wing, Central Government Offices,
2 Tim Mei Avenue, Tamar, Hong Kong
(Email: eiaocomment@epd.gov.hk)

By email only

Dear Dr. Chui,

Northern Metropolis Highway – Kwu Tung Section
(Application No. PP690/2025)

WWF would like to provide the following comments and recommendations to the captioned Project Profile (PP) on the proposed Northern Metropolis Highway – Kwu Tung Section (hereafter referred to as the Project).

Impacts to recognised biodiversity hotspot and associated at-risk species

WWF-Hong Kong, in association with a group of local experts (e.g. the Hong Kong Bird Watching Society, Kadoorie Farm and Botanic Garden, and local researchers), published a report titled “**The State of Hong Kong Biodiversity 2025**” in March, together with the “**Hong Kong Terrestrial Biodiversity Hotspot Map 2025**”¹. The study concluded that 26% (232 out of 886) of the assessed terrestrial and freshwater species in Hong Kong are at risk of local extinction; and identified a total of 27 biodiversity hotspots in Hong Kong.

The PP indicates that the Project will interfere directly and indirectly with two hotspots identified in the study, namely “Inner Deep Bay” and “Long Valley to Sandy Ridge”. Data and information from our expert group have shown that these two hotspots support together at least **161 species of High or Moderate Risk** of local extinction.

Apart from the large and unique Deep Bay wetland ecosystem, the alignment of the Project also appears to either cut through or adjoin a number of hills and mountains in the wider area; these include but not limited to Crested Hill and Tit Hang Shan. These

¹ <https://www.wwf.org.hk/en/biodiversity/hkbiodiversity2025/>

together possible™

relatively barren and exposed hillside environs are typically covered by a mixture of short grassland and shrubland, and are often fire-maintained. In spite of that, our records suggest that these habitats support a distinct faunal community of grassland specialists. A number of species of **High or Moderate Risk**, such as Golden-headed Cisticola (*Cisticola exilis*), Eurasian Eagle-Owl (*Bubo bubo*), Bonelli's Eagle (*Aquila fasciata*), Chinese Francolin (*Francolinus pintadeanus*), Spotted Angle (*Caprona alida*), Large Branded Swift (*Pelopidas subochracea*) and Small Three-ring (*Ypthima norma*), do occur and even breed on these hills. With the maturation of our native forests, these relatively unvegetated hillside habitats are in decline across Hong Kong due to vegetation succession.

In addition, according to the farmland biodiversity survey carried out by Kadoorie Farm and Botanic Garden (KFBG)² between 2021 to 2022, the Sandy Ridge area ranks the first in terms of both bird species richness (a total of 98 species recorded) and overall ecological value among the nine surveyed sites across Northwest and Northeast New Territories.

The Project Proponent should pay due attention to the identified hotspots and the at-risk species present in the area during the course of the EIA. Encroachment and disturbance (particularly during the operation phase of the Project) to these important habitats should be avoided as much as possible.

Ensure Sufficient Survey Effort on Eurasian Otter

In 2009, a Eurasian Otter was sighted in an inactive fishpond in the wet agricultural area southwest of Sandy Ridge and east of Ng Tung River³. Recently, KFBG's survey team discovered signs of otters in the same area⁴.

In EIAs in Hong Kong, there have been a number of cases where specific survey effort was allocated for species of high conservation importance and significance. For instance, specific cover board surveys were conducted for the Bogadek's Burrowing Lizard on Hei Ling Chau (AEIAR-105/2007 – A Commercial Scale Wind Turbine Pilot Demonstration) and Shek Kwu Chau (AEIAR-163/2012 – Development of the Integrated Waste Management Facilities Phase 1). Specific field surveys for White-bellied Sea Eagle and Bogadek's Burrowing Lizard had also been conducted under the EIA study for the proposed Kau Yi Chau Artificial Islands Development.

More relevantly, in the approved EIA for the Development of Lok Ma Chau Loop (AEIAR-176/2013), it is stated clearly that “usually, mammal surveys are conducted simultaneously with surveys of other faunal groups, such as herpetofauna and odonata (during daytime and night-time). These surveys generally comprise a fixed transect passing through a variety of habitats within a study area. Eurasian Otter, however, is a

² <https://www.kfbg.org/images/download/kfbg%20northern%20metropolis%20bird%20report%20sept%202023%20eng.pdf>

³ [https://www.epd.gov.hk/epd/SEA/eng/files/LandUsePlanningforClosedArea_Chp7\[1\].pdf](https://www.epd.gov.hk/epd/SEA/eng/files/LandUsePlanningforClosedArea_Chp7[1].pdf)

⁴ <https://shorturl.at/k7A7K>

secretive creature, and consequently **very difficult to survey using standard techniques**. In Hong Kong, its small population size and largely nocturnal or crepuscular habits make it even more difficult to survey than other wild animals. Even the use of remote-sensing camera-trapping in areas known to support a population of the species is **not very successful**.” In view of that, the EIA took the approach of employing Local Ecological Knowledge (LEK) by conducting questionnaire interviews with people such as pond operators and villagers in an attempt to help fill this key information gap.

In this instance, as the proposed highway will cross the Ng Tung River where there have been records of Eurasian Otters, we urge that the Project Proponent to carry out specific, dedicated surveys for Eurasian Otters in the forthcoming EIA study, to complement for the generic transect surveys and camera trapping. Active and intensive search for field signs of Otters (including but not limited to spraints, anal jellies, smears, footprints, scratch marks, etc.) across the EIA study area should be conducted. These surveys should be carried out by personnel with relevant expertise and previous experience in conducting otter survey. Due to the extreme low number and detectability of local otters, the approach of employing Local Ecological Knowledge (LEK) should also be considered by conducting questionnaire interviews with local people such as fishermen, pond operators and villagers.

Potential environmental impacts on the bird flight path along Ng Tung River

Since the proposed alignment will cross Ng Tung River in form of a viaduct, such emerged structure during both construction and operation phases can impact existing bird flight paths. Birds may be displaced from their original flight paths due to the presence of the viaduct, especially if it creates a barrier or alters their usual flight patterns. Besides, birds may collide with the viaduct structure, particularly during low visibility conditions or if they are attempting to navigate around the structure. These impacts are subject to the height of the viaduct and its design. The project proponent should conduct sufficient surveys to understand the viaduct's environmental impacts on the flight paths during the construction and operation phases, so as to properly identify, assess, minimise and mitigate the potential impacts of the proposed structure in the EIA report. The project proponent should consider alternative mitigation measures such as alignment, design of the viaduct in comparison with the environmental benefits and dis-benefits of the mitigation measures, with a view to avoiding, minimising and mitigating adverse environmental impacts.

Piecemeal approach for the NM Highway

From the website of Highways Department⁵, a preliminary alignment of the NM Highway as a whole is already available. It is also stated that “**San Tin section in or before 2036, with a view to completing the remaining sections in phases in 3 to 4 years after the commissioning of the San Tin section**”. With the Project's intrinsic nature as an inseparable road infrastructure designed to link most if not all of the important development nodes across the NM, and that the different in the time of completion of

⁵ https://www.hyd.gov.hk/en/our_projects/road_projects/895th/index.html (Accessed on 28th April 2025)

different sections is just merely a few years, the Project Proponent's approach to proceed with the EIA process one section at a time is highly questionable, especially when this application was filed less than 3 months after the application regarding the San Tin Section. This kind of piecemeal approach is likely to underestimate the overall direct and indirect environmental impacts of the NM Highway as a whole.

Adopt Tunnel Boring Machine for all tunnelling works

According to the PP, the tunnel passing through Crest Hill would be constructed by the Drill & Blast / Drill & Break method (D&B method) or Tunnel Boring Machine method (TBM). Since D&B method may cause more environmental disturbances such as ground borne noise, ground vibrations, ground water contamination, dewatering of surface waters that may pose impacts to the local habitats, affecting flora and fauna potentially, we highly recommend the Project Proponent to consider utilising TBM for all tunnelling work to avoid/minimise disruption to the local ecosystems.

Viaduct is a better alternative to at-grade road

The PP's indicative layout plan (Fig 1 of the PP) only shows the proposed tunnel section of the alignment while other forms of infrastructural link i.e. at-grade road, viaduct are unavailable. From the perspective of biodiversity conservation, we recommend the remaining sections to be constructed in form of viaducts wherever practicable as they minimise habitat loss and fragmentation. If at-grade road must be involved, adequate animal passages should be incorporated in the design to mitigate this barrier effect and retain habitat accessibility for wildlife species. The feasibility of wildlife overpass should also be considered where appropriate.

Control of wastewater discharge during construction

Since the development footprint cover watercourses, the discharge points and boundaries for treated construction wastewater should be designated precautionary. Efficiency of wastewater treatment facilities should be ensured by on-site regular monitoring and random checking, and carry out immediate maintenance whenever necessary, particularly during the wet season and before rainstorms. Any discharge points of surface runoff generated from the works sites and treated wastewater should not be located at the places that are prone to flooding or in the vicinity of any watercourses.

Site selection for areas of ground for supporting construction activities

During the construction phase, areas of ground will be cleared, compacted, altered for on-site storage, work, vehicle movement or other purposes as work sites or road access for supporting construction activities on a temporary basis. We view such work site or road access with site formation/modification taken place such as soil compaction, concretisation and even tree felling/pruning should not be located at the existing Green Belts, along river banks or over natural habitats such as woodland, agricultural land that the proposed alignment will encroach onto. Concretisation and extensive compaction over a long period will make habitat restoration more difficult and even unrestorable

because the physical soil environment would have been damaged or changed. We recommend that such work sites to be located in the already-paved or built-up areas. If there is no alternative available, the Project Proponent should reinstate any changed physical environment and habitats to be same as before, and to the satisfaction of relevant government departments.

Light pollution and glare should be carefully considered

Since over 90% of the alignment will mainly in the form of at-grade road/viaduct, light pollution particularly glare impact generated from the highway lighting system during the operation phase, can negatively impact wildlife species through attraction and disorientation or by disrupting their natural behaviours. Since highway lighting is essential to support driver safety, light pollution inevitably occurs along the highway and its surroundings. Therefore, assessment on respective highway lighting should be conducted in the EIA study to evaluate their glare impact on the wildlife species along the alignment and its vicinity with specific mitigation measures proposed, such as directional shielding, appropriate lumen output or the type/color temperature of the light source for reducing the negative impacts posed by the highway lighting system.

Thank you very much for your kind attention and consideration.

Kind regards,

A handwritten signature in blue ink, appearing to read 'Tobi Lau'.

Mr. Tobi Lau
Senior Manager, HK Biodiversity and Conservation Policy
WWF Hong Kong
Tele: 2161 9626