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**Christina Ki Na LEE/PLAND**

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寄件者: Wilfred Ka Hing CHU/PLAND  
寄件日期: 2025年03月26日星期三 14:00  
收件者: Christina Ki Na LEE/PLAND  
主旨: Fw: 有關A/YL-PN/83有關覆核提交補充文件  
附件: TNC supporting letter to Ken-20250325.pdf

**From:** tmylwdpo\_pd/PLAND <tmylwdpo@pland.gov.hk>  
**Sent:** Wednesday, March 26, 2025 1:43 PM  
**To:** Wilfred Ka Hing CHU/PLAND <wkhchu@pland.gov.hk>  
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**Subject:** 轉寄: 有關A/YL-PN/83有關覆核提交補充文件

**From:** tpbpd/PLAND <tpbpd@pland.gov.hk>  
**Sent:** Wednesday, March 26, 2025 12:39 PM  
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**From:** PROJECT CONSULTANCY FBI [REDACTED]  
**Sent:** Wednesday, March 26, 2025 12:35 PM  
**To:** tpbpd/PLAND <tpbpd@pland.gov.hk>  
**Subject:** 有關A/YL-PN/83有關覆核提交補充文件



[REDACTED]

25<sup>th</sup> March 2025

[REDACTED]

[REDACTED]

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Mr. Cheng Wai Kwan, Ken

**Re: TNC support on the continuous operation of the education facilities  
at Ha Pak Nai Education Centre**

Dear Mr. Cheng,

I am writing this letter to supplement on my previous letter re the support in continuous operation of the education facilities at Ha Pak Nai Education Centre.

As we all know, the mudflats of Pak Nai are with rich marine biodiversity and are considered as one of the ecological hotspots in Hong Kong, and it is also well-known for attracting local and overseas tourists as a perfect place for watching sunsets. A variety of coastal wetland habitat types are present including mangrove forests, oyster reefs, soft shore and Hong Kong's largest expanse of seagrass *Halophila beccarii*. Pak Nai is also Hong Kong's largest nursery and foraging grounds for two locally threatened horseshoe crab species, and is regarded as an outstanding biodiversity hotspot. However, the site is not designated as a statutory park (e.g. Marine or Country Park) and therefore does not benefit from active management. As a result, the presence of on-going threats including illegal fishing practices, invasive species, plastic pollution and other aquaculture debris and wildlife disturbance from unregulated tourism, compromise its ecological integrity.

Because of such uniqueness, The Nature Conservancy (TNC) Hong Kong believes a combination of delivering knowledges and providing hands-on conservation experience can increase public awareness of the ecological importance of Pak Nai and provide support to the active restoration of the endangered oyster reef habitats in the area. With the support from the Ha Pak Nai Education Center, which is managed by you and the local communities, the Education Center serve as an important hub to support TNC's research, conservation and education works, to engage the public to get involved in the active habitat management and restoration work and educate tourists with proper code of conduct to enhance the biodiversity of Pak Nai. To that end, The ha Pak Nai Education center plays an active role in conserving the sensitive ecology of Pak Nai, and has made a significant impact on increasing local biodiversity – as we have seen through our scientific surveys carried out over the past 4 years, since the work began.

**Support to Conservation Impacts of Volunteer Works on Endangered Horseshoe Crabs**

The mudflats in Pak Nai hosts two species of endangered horseshoe crabs, *Tachypleus tridentatus* and *Carcinoscorpius rotundicauda*. The constant influx of marine debris from local aquaculture and plastics, the abandoned oyster farms, and the trampling by tourists poses a direct threat to the horseshoe crabs and other sensitive wildlife. On-going management and volunteer works such as reconfiguration of abandoned oyster farm, removal of aquaculture debris and invasive *Spartina* cordgrass, have proven successful in restoring horseshoe crab populations, which have been on the rise for 4 consecutive years.

TNC is part of the IUCN Asian Horseshoe crab observation network program, conducting yearly scientific monitoring of horseshoe crab populations in Pak Nai since 2021, closely monitor the changes on Pak Nai

mudflats and measure conservation impacts of the habitat management on the endangered horseshoe crabs. We have observed a +191.72% increase in horseshoe crab populations from 2021 to 2024, suggesting strong positive effects of our management works. This would not have been possible without the Ha Pak Nai Education center serving as a homebase for this work, and removing the center would jeopardize our ability to carry on-going management work and scientific research that is desperately needed to support local biodiversity. From 2021 to 2025, TNC has achieved the following with the support of the Education Center:

- About 2,614 m<sup>2</sup> of invasive *Spartina cordgrass* has been removed (*Appendix A, Figure A1*).
- Over 8,000 m<sup>2</sup> of abandoned oyster farms have been reconfigured. According to our GIS mapping (*Appendix A, Figure A2*), more than 95 percent of the abandoned farm area has been restored to exposed mudflats, while approximately 4 percent has been transformed into oyster reef structures.
- A total of 471.5 m<sup>3</sup> of aquaculture debris and over 3 tons of marine litter have been collected and removed from the mudflat, including bamboo and plastic barrels from floating oyster rafts, as well as abandoned fishing nets and cages.

### **Support Pak Nai Habitat Restoration and Environmental Education**

TNC conservationists and our student interns have been conducting interviews with tourists since December 2022 to assess their ecological knowledge, attitudes, and behaviors regarding Pak Nai. Over 85% of respondents agree that Pak Nai holds high ecological value, yet only 14% believe that the conservation measures in place are sufficient. The surveys also indicate that tourists are generally unaware of the unique presence of oyster reefs, seagrasses and horseshoe crabs in the area.

To preserve the high ecological value and the diversity of habitats and species in Pak Nai, TNC believes that active management and monitoring are essential, as the area faces ongoing challenges such as marine litter, aquaculture debris, and invasive species. Besides, inappropriate behaviors by tourists—such as trampling seagrass and collecting oysters, horseshoe crabs, and mangrove seedlings—negatively impact Pak Nai's biodiversity. Without active management supported by the Ha Pak Nai Education center, site-based management work would cease to continue, which would have devastating effects on local wildlife.

Under The Northern Metropolis Development policy, Pak Nai is included in this blueprint as a strategic site for conservation and ecotourism development within the proposed 10 km Coastal Protection Park (CPP) along the Deep Bay coastline. The plan also suggests positioning Pak Nai as a peaceful ecotourism node. We believe that The Ha Pak Nai Education center is a perfect example of low impact infrastructure that provides ecotourism opportunities that benefit local communities and local wildlife. The Education Center is an ideal venue for facilitating various activities tailored to the needs of program participants, such as field trips for schools, volunteers and tourists. From 2021 to 2025, TNC has achieved the following with the support of the Education Center:

- Over 250 guided conservation field trips have been organized, engaging more than 4,800 participants from various sectors, including schools, tertiary institutions, NGOs, commercial enterprises, and the general public in habitat management activities, eco-tours, and educational programs at Pak Nai.
- More than 40 university ambassadors have been recruited and trained, contributing over 3,000 hours of volunteer service in habitat restoration and promoting Pak Nai conservation messages to tourists.
- Over 2,000 public visitors have been engaged and educated on sustainable tourism practices (e.g., code of conduct) while visiting Pak Nai.

Given the success of TNC's conservation and education initiatives in collaboration with the Ha Pak Nai Education Center since 2021, we believe that the continued operation of these facilities are not only crucial to support endangered local biodiversity, it serves as a perfect example of ecotourism development under the future CPP.

Attached are the key highlights of our research findings, and an organization list that have been participated in our Pak Nai's activities with photos. If you have any questions, please feel free to contact me at

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Your sincerely,

**ZHAN Tsz Kin**

Tom CHAN Tsz Kin  
Community Conservation Manager,  
The Nature Conservancy Hong Kong

Encl:

- Appendix A: Results of habitat management works in Pak Nai
- Appendix B: Participating organizations of TNC Pak Nai activities
- Appendix C: Activities photos

Appendix A: Results of habitat management works in Pak Nai



Figure A1. Map showing area of invasive *Spartina cordgrass* removed between 2021 and 2024, accounting for 2600m<sup>2</sup>.



Figure A2. Map showing area of abandoned oyster farms rehabilitated into oyster reefs in 2021 and 2024. More than 8000m<sup>2</sup> of abandoned farms has been reconfigured into concentrated oyster reefs to release over 7000m<sup>2</sup> of mudflats area for intertidal species and benefits locomotion of horseshoe crabs.











Figure A3. Map showing distribution of horseshoe crabs in Pak Nai in 2021 and 2024. A continuous increase of horseshoe crab population has been observed in Pak Nai throughout 2021 to 2024, accounting for an increase of 191.72%.

## Appendix B: List of organizations participated in TNC Pak Nai activities

Aberdeen Baptist Lui Ming Choi College  
Alibaba  
Baptist Oi Kwan Social Service  
Baptist Rainbow Primary School  
Baptist Wing Lung Secondary School  
Bloomberg  
Buddhist Tai Hung College  
Capital Group  
Carmel Bunnan Tong Memorial Secondary School  
City University of Hong Kong  
City'super  
CNEC Lau Wing Sang Secondary School  
College of Professional and Continuing Education, The  
Hong Kong Polytechnic University  
Cordis, Hong Kong  
Deutsche Bank  
Fufa Life  
Goldman Sachs  
Germany Miele  
GreenPrice  
Hermès HK  
HH Global  
HKBU Affiliated School Wong Kam Fai Secondary and  
Primary School  
HKU SPACE Po Leung Kuk Stanley Ho Community  
College  
HKUGA College  
Hong Kong Baptist University  
Hong Kong Jockey Club  
Hong Kong Red Cross Princess Alexandra School  
Hong Kong Scout Group  
Hong Kong True Light College  
Howden Insurance  
Inspiring Girls Hong Kong  
Invesco  
J.P. Morgan Hong Kong  
Jockey Club Man Kwan Edu Young College  
Ju Ching Chu Secondary School (Tuen Mun)  
King Ling College  
Knight Frank  
Kowloon Sam Yuk Secondary School  
Kowloon True Light School  
Kwun Tong Maryknoll College  
L'Oreal  
La Salle College  
Li Po Chun United World College of Hong Kong  
Liu Chong Hing Investment Ltd  
Member's Care HKJC Volunteer Team  
Morgan Stanley  
Outdoor Wildlife Learning Hong Kong  
Patagonia Hong Kong  
PHC Wing Kwong College  
Po Leung Kuk Ho Yuk Ching (1984) College  
Po Leung Kuk Laws Foundation College  
Po Leung Kuk Life Planning & Financial Education Centre  
Project Melo  
Rosewood Hong Kong  
Round Table Education  
Sacred Heart Canossian College  
Schroders Hong Kong  
Shun Tak Fraternal Association Tam Pak Yu College  
SKH Lui Ming Choi Secondary School  
SKH Tin Shui Wai Ling Oi Primary School  
South China Morning Post  
St. Margaret's Co-Educational English Secondary School  
St. Paul Secondary School  
St Stephen's College  
Swire Coca-Cola  
Tang King Po School  
The Chinese University of Hong Kong  
The Hong Kong Award for Young People  
The Hong Kong Institution of Engineers  
The Hong Kong University of Science and Technology  
The Swire Charitable Trust  
The True Light School of Hong Kong  
The University of Hong Kong  
The Y.W.C.A Hioe Tjo Yoeng College  
The Zubin Foundation  
Tsung Tsin College  
UBS Hong Kong  
Voltra  
Wah Yan College Kowloon  
Wheel Power Challenge  
Winifred Mary Cheung Morninghope School  
WWF-Hong Kong  
Ying Wa College  
Ying Wa Girls' School

Appendix C: Moments captured on TNC Pak Nai conservation and education activities

	
<p>Figure C1: TNC conservationist measures the length of carapace of a Chinese Horseshoe Crab.</p>	<p>Figure C2: Pak Nai ambassador maps the oyster reef with GPS device.</p>
	
<p>Figure C3: University students participated in the Spartina cordgrass removal activity.</p>	<p>Figure C4: Volunteers involved in the reef reconfiguration activity to rebuild the oyster reef with cement poles removed on the mudflat.</p>
	
<p>Figure C5 and 6: The Ha Pak Nai Education Center serves as a hub to facilitate various activities tailored to the needs of program participant.</p>	
	
<p>Figure 7: Pak Nai field visit co-organize with Hong Kong Red Cross Princess Alexandra School, Voltra and Wheel Power Challenge</p>	<p>Figure 8: Well-structured field trips help fill the knowledge gaps of visitors to Pak Nai's biodiversity, which may further increase their awareness on environmental conservation in the area.</p>