



**Chairman and Members of Public Works Subcommittee, Legislative Council**

(c/o Clerk to Public Works Subcommittee)

Legislative Council Complex,

1 Legislative Council Road, Central, Hong Kong

10 May 2019

(By post and e-mail)

Dear Sir/Madam,

**Re: Public Works Subcommittee Meeting on 14 May 2019, agenda item #4 “studies related to artificial islands in the Central Waters”**

We understand the above captioned will be discussed during the meeting of the Public Works Subcommittee on 10 May 2019. WWF-Hong Kong reaffirms that “brownfield first” policy must be prioritised and reclamation should be the last resort for land supply. Coastal and marine spatial planning is urgently required to conserve marine resources prior to any planning of reclamation.

Recent reclamation around Lantau including Hong Kong-Zhuhai-Macau Bridge and third runway already put stress to the surrounding environment. The proposed artificial islands would be the largest single reclamation project in the history of Hong Kong and the potential cumulative environmental impact could not be underestimated. We **do not endorse the approval of all studies** related to this proposed reclamation based on ‘build first, conserve later’ without exploring other options diligently.

If the Public Works Subcommittee decided that studies are required, then we strongly request the Environmental Impact Assessment (EIA) studies scope goes well beyond the minimal requirement. This is evident by the third runway EIA approved in 2016, which the EIA report underestimated more than 75% of the coverage of a global rare coral in the third runway reclamation site and only less than 5% of the rare coral was relocated.

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together possible

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註冊名稱 Registered Name: 世界自然(香港)基金會 World Wide Fund For Nature Hong Kong  
(於香港註冊成立的擔保有限公司 Incorporated in Hong Kong with limited liability by guarantee)

There is a lack of ecological data in the proposed reclamation location, and if relevant studies would be approved by the Subcommittee then we strongly urge for a robust ecological impact studies scope to adequately assess the impact of proposed reclamation (more details can be found in the attached Appendix):

1. Conduct at least 12 months long-term terrestrial ecological surveys of taxa groups required under the Environmental Impact Assessment Ordinance (EIAO).
2. Carry out at least 24 months long-term ecological surveys of cetaceans covering both wet and dry season.
3. Conduct ecological and breeding surveys of White-bellied Sea Eagle, including but not limited to: distribution and population in East Lantau waters; nesting location(s); impact assessment of foraging area loss on breeding success due to reclamation.
4. Conduct a comprehensive survey on hard corals, octocorals and black corals.
5. Conduct fishery modelling to estimate the impact of reclamation to the fishing industry.
6. Conduct a modelling study on the effect of the reclamation on hydrology.
7. Conduct a Social Return on Investment (SROI) study in order to measure the true environmental and social cost

(The above points are by no means an exhaustive list of the study scope required, rather, these are necessary scope based on our knowledge)

Our sea is an important and precious resource, and should be carefully managed to conserve biodiversity, support fisheries, businesses, recreation, and a high quality of life. A healthy sea provides a wealth of benefits to Hong Kong communities. WWF continues to maintain the view that brownfield sites can provide adequate space to solve Hong Kong's immediate housing needs. Brownfields should be developed before considering reclamation, which causes irreversible damage to marine ecology and fishery resources. We will closely monitor the environmental studies if approved to assess its completeness/reliability – this is a detrimental way to treat our sea with bad judgement and scratchy information like the third runway EIA.

Yours faithfully,



David Olson  
Director of Conservation  
WWF-Hong Kong

*Encl.*

## Appendix I

### Panel on Development Meeting on 26 March 2019, agenda item #IV “studies related to artificial islands in the central waters, Lantau Conservation Fund and work progress of the Sustainable Lantau Office”

#### Important Notes

- The proposed reclamation is the biggest single reclamation in Hong Kong. If the Panel on Development approve this agenda, beyond minimal ecological impact assessment scope under Environmental Impact Assessment Ordinance (EIAO) is considered necessary by WWF-Hong Kong.
- In general, at least 12 months long-term terrestrial ecological surveys of taxa groups and at least 24 months long-term marine ecological surveys is needed
- This Appendix contains known species of conservation interest within and around the proposed reclamation (based WWF-Hong Kong’s knowledge). This Appendix does not constitute an exhaustive list of ecological impact study scope required for the proposed reclamation.

#### Appendix IA Terrestrial Species of Conservation Interests

- 1) White-bellied sea eagle (*Haliaeetus leucogaster*)
  - This is one of the few raptor species that breeds locally. As at 2012, a total of 15 active pairs were recorded in Hong Kong.
  - White-bellied sea eagle is an uncommon resident along the south China coast and their records are scarce. The species is recognized as “National Protection Class II” in China.
  - 3 nests were identified around the proposed reclamation as at 2009 as per AFCD information. This implies the potential foraging area of white-bellied sea eagles from these nests will be encroached (based on overseas studies<sup>1</sup>, foraging range of White-bellied sea eagle can be up to 150km<sup>2</sup>). Subsequently, their breeding success will be affected. Nesting raptors are also sensitive to disturbance from construction, development, and human activity, often with negative impacts on nesting success.
- 2) Bogadek’s burrowing lizard *Dibamus bogadeki*
  - Hong Kong is the only location in the world that has records of this species, it only known to occur on three islands either directly impacted by the proposed reclamation or in the near vicinity: Sunshine Island, Hei Ling Chau(喜靈洲), and Shek Kwu Chau(石鼓洲). The IUCN Red List considers this species as NE (Not Assessed). However, given it is presently known only from three small localities and two of the islands have a high likelihood of significant degradation if the reclamation project goes through, the species should be considered Critically Endangered until further information becomes available. Hong Kong has a responsibility under its Biodiversity Strategy and Action Plan and through its obligations as a signatory to the Convention on Biological Diversity to ensure that this unique and vulnerable species is properly

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<sup>1</sup> As cited in: [https://www.afcd.gov.hk/tc\\_chi/publications/publications\\_con/files/IssueNo18.pdf](https://www.afcd.gov.hk/tc_chi/publications/publications_con/files/IssueNo18.pdf)

protected. The reclamation project has a high potential to bring invasive species, such as feral cats and rats, to the islands that will prey on these lizards.

#### **Appendix IB Marine Species of Conservation Interests**

##### 1) Cetaceans (including Chinese white dolphins and finless porpoises)

- Minimal surveys had been carried out within and around the proposed reclamation.
- Surveys should cover both vessel line transects (visual search and hydrophone attached on boat, twice-per-month), underwater hydrophone (continuous monitoring) and helicopter survey, covering both wet and dry seasons.
- Shallow water feeding grounds are essential for the long-term survival of the Chinese white dolphin in Hong Kong waters. Reclamation projects are a major driver of loss of this critical habitat for this species. A thorough study is required to evaluate the importance of the shallow water habitats for local population of dolphin's feeding, resting, and other aspects of its natural history.

##### 2) Capture Fisheries

- Area within and around the proposed reclamation is an important fishing ground for local capture fishermen, especially during windy weather within and around the proposed reclamation is relatively calm.
- According to fishermen, common fish species caught within and around the proposed reclamation include marbled rockfish (褐菖), croaker (石首魚), sweetlip (細鱗) and elongate ilisha (曹白).
- Studies should include desktop review, *in-situ* observations using active fishing vessels (dry and wet seasons) and interviews with fishermen.
- Dry and wet seasons fisheries resource survey (with different fishing operations such as gill net, purse seine and hard line, covering both pelagic and demersal fish species) is also required.

##### 3) Corals

- Hard coral communities found within and around the proposed reclamation (data as at 2018, from The Oceanway Corporation):
  - i. 21 species\* at Kau Yi Chau
  - ii. 19 species\* at Siu Kau Yi Chau
  - iii. 20 species\* at Sunshine Island (Chau Kung To)
  - iv. 22 species\* at Peng Chau
  - v. 18 species at Hei Ling Chau(\* *Psammocora haimeana* was found)
- *Psammocora haimeana* regarded as uncommon species by Agriculture, Fisheries and Conservation Department (AFCD).

- i. This species of hard coral is also of research interest due to its ability to survive in low salinity and turbid water, which has potential to adapt to changes in marine conditions driven by climate change.
- A comprehensive coral survey on diversity and coverage should be done within and around the proposed reclamation. Relevant environmental parameters, e.g. temperature, salinity and turbidity, should be recorded as part of the coral surveys.