

Our Ref: TCS00874/16/300/L0087

Welcome Construction Co., Ltd.

Flat 01, 19/F, Westley Square,
48 Hoi Yuen Road,
Kwun Tong, Kowloon.

Attn: Mr. Lucas Wong

15 January 2018

By e-mail

Dear Sir,

**Re: CEDD Contract No. CV/2012/05 - Bathing Beach at Lung Mei, Tai Po
Fauna Translocation Plan – Stage 3 & 4**

I refer to the captioned submission submitted to us, please note that we have no adverse comment on this submission. We herewith certify the captioned submission in accordance with Condition 3.11 of the Environmental Permit no. EP-388/2010.

Should you have any queries, please feel free to contact the undersigned at Tel: 2959-6059 or Fax: 2959-6079 or E-mail: twtam@fordbusiness.com.

Yours sincerely,

For and on Behalf of

Action-United Environmental Services & Consulting



T. W. Tam
Environmental Team Leader
TW/nh

CEDD
ERM

Mr. K F Chan
Mr. Jovy Tam

via email
via email

Environmental Permit No. EP-388/2010

Development of a Bathing Beach at Lung Mei, Tai Po

Independent Environmental Checker Verification


Reference Document/Plan

Document/Plan to be Certified/ Verified:	Fauna Translocation Plan – Stage 3 & 4
Date of Report:	12 January 2018 (Version 1)
Date received by IEC:	15 January 2018

Reference EP Condition

Environmental Permit Condition:	3.11
To minimize the potential ecological impact on fish species of conservation importance including Two-spot Goby <i>Psammogobius biocellatus</i> , Tropical Sand Goby <i>Favonigobius reichei</i> and Grass Puffer <i>Takifugu niphobles</i> , the following precautionary measures shall be implemented:	
(a) The removal of rocks/hard objects in the intertidal zone shall be conducted during low tide and the area shall not exceed 10m ² for each removal. The rock removal works shall be conducted under the supervision of a qualified fish specialist who will be responsible for checking for any species of concerns under the rocks/hard objects to be removed. The proposed fish specialist shall be agreed by the Director.	
(b) The “cleared” areas shall be properly fenced off immediately after removal of the rocks/hard objects. The qualified fish specialist shall inspect the areas beforehand to avoid trapping any species of concerns inside the enclosed area; and	
(c) A trial shall be conducted in the beginning of the rock removal work so as to further fine-tune the above method, if necessary.	

IEC Verification

I hereby verify that the above referenced document/plan complies with the above referenced condition of EP-388/2010.	
Mr Jovy Tam	Date: 15 January 2018
Independent Environmental Checker	

Contract No. CV/2012/05

Fauna Translocation Plan - Stage 3 & 4

Dr. Mark Shea

(Version 1; 12 January, 2018)

1 Objective

- 1.1 To comply with the EP [EP No. EP-388/2010; Section 3.11 (c), under Part C, Permit Conditions], i.e., “A trial shall be conducted in the beginning of the rock removal work so as to further fine-tune the ‘fauna translocation method’ if necessary. Trials for rock removal were performed on 21st September and 4th October 2017.
- 1.2 To relocate the target fauna species as specified in EP and contract particular specification (PS). The main target species included 3 fish species specified in the EP, i.e., Two-spot Goby (*Psammogobius biocellatus*), Tropical Sand Goby (*Favonigobius reichei*), Grass Puffer (*Takifugu niphobles*), as well as starfish, sea urchins, sea cucumbers within the intertidal zone of the Site. Nine other fish species that are specified in the PS will also be included in the translocation exercise, including: Brown frillin goby (*Bathygobius fuscus*), Fork tongue goby (*Glossogobius giuris*), Estuarine goby (*Mugilogobius abei*), Barcheek goby (*Rhinogobius giurinus*), Shimofuri goby (*Tridentiger bifasciatus*), Saddle grunt (*Pomadasy maculatus*), Spotted scat (*Scatophagus argus*), Japanese sillago (*Sillago japonica*) and Jarbua terapon (*Terapon jarbua*); and to release the collected target species at the reception site of Ting Kok East Tai Po.

2 Scope of Fauna Translocation

- Setting up Fencing Structure
- Fauna Collection within Project Site at Lung Mei, Tai Po
- Fauna Releasing at Reception Site of Ting Kok East, Tai Po

3 Method

Setting up Fencing Structure

- 3.1 Objective of setting up fencing is to prevent the target marine fauna re-enter the cleared area after performing fauna translocation. The fencing structure should tolerate tidal changes and hydraulic force. Major components of the fencing structure with its functions are listed below:
 - Metal posts inserted into the seabed for supporting the fish net;
 - Fish net mesh size 2mm x 2mm: to avoid any incidental movement of any organisms in and out of the fenced area;
 - Sand bags with sand or alternative filling material: provision of weight for sinking bottom side of fish net to seabed;

Rock Removal Trial

- 3.2 Refer to Section 3.2 of Fauna Translocation Plan – Stage 2 Version 3 dated 27 December 2017

Stages of Marine Fauna Translocation Exercise

- 3.3 There are altogether 4 Stages in the entire marine fauna translocation exercise as shown in Figure 2. Each stage of work includes the collection and release of the target marine faunas together with the associated works in setting up the fencing system to enclose the translocation area. This document specifies the arrangement and methodology for the Stage 3 & 4 translocation works.

Set up Fencing System

- 3.4 Metal posts will be inserted into the seabed for supporting the fish net. Fish nets connected to the metal posts and sand bags with sand or alternative filling material will be placed at the bottom of the fish net to provide weight for sinking the fish net to seabed. The detail of fencing system is shown in Figure 1. The extent of the fencing system is indicated in Figures 3a, 3b and Figures 3c, 3d for stage 3 and stage 4 fauna translocation respectively.

Fauna Collection

- 3.5 to 3.12 Refer to Section 3.5 to 3.12 of Fauna Translocation Plan – Stage 2 Version 3 dated 27 December 2017
- 3.13 A grid will be considered as “cleared” upon completion of the inspection, checking and capture of target marine fauna and final checking by the qualified fish specialist to confirm no trapping of target species in the area.
- 3.14 Refer to Section 3.14 of Fauna Translocation Plan – Stage 2 Version 3 dated 27 December 2017.

Fauna Releasing at Reception Site of Ting Kok East

- 3.15 to 3.18 Refer to Section 3.15 to 3.18 of Fauna Translocation Plan – Stage 2 Version 3 dated 27 December 2017.
- 3.19 Plant and works will be used in the entire marine faunas translocation exercise include:
- a. Fish net setting up
 - One to two labourers
 - b. Rock removal
 - One fish specialist
 - One to two labourers
 - c. Fauna capture
 - 3 fish container(s) with portable air pump (aerated water tanks) and sea water
 - Hand nets, spates, nylon nets
 - One fish specialist as supervisor
 - One to three ecologist/assistant ecologist/ecology technicians/workers
 - d. Fauna transportation from Lung Mei to reception site at Ting Kok East
 - One vehicle
 - One fish specialist
 - One worker

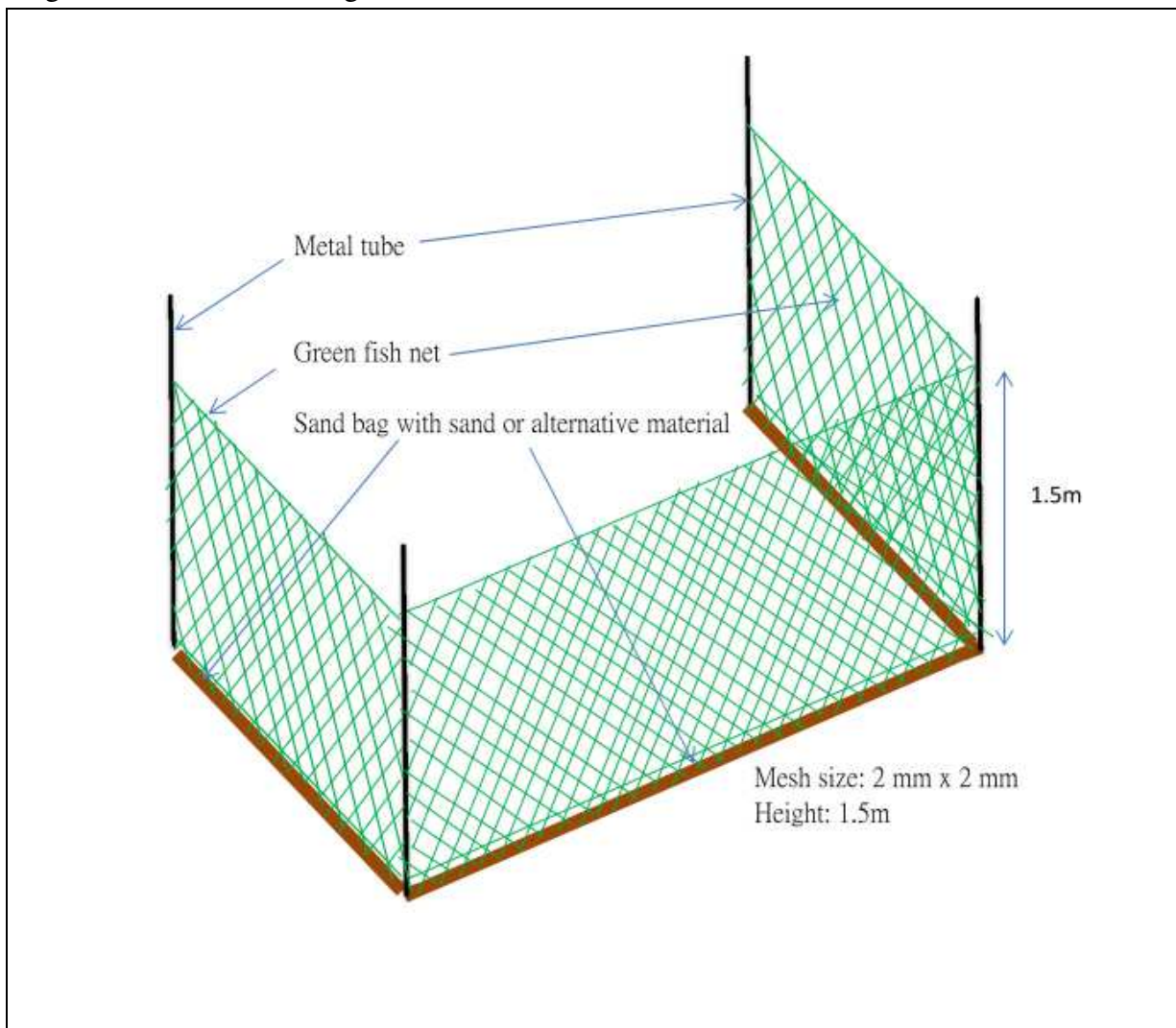
4 Fauna Translocation Programme

- 4.1 The stage 3 and 4 of marine fauna translocation includes the installation of fencing system and translocation within a day. The works will be completed in January 2018. The actual translocation schedule shall be recorded in the monthly EM&A report.

5 Seahorses Found During Fauna Translocation and Seahorse Translocation

- 5.1 Refer to Section 5.1 of Fauna Translocation Plan – Stage 2 Version 3 dated 27 December 2017.

Figure 1: Details of fencing structure.



Bathing Beach at Lung Mei
Fauna Translocation Plan - Stage 3 & 4

Figure 3a: Stage 3 fauna translocation area with fencing system at low tide



Bathing Beach at Lung Mei
Fauna Translocation Plan - Stage 3 & 4

Figure 3b: Stage 3 fauna translocation area with fencing system at high tide



Figure 3c: Stage 4 fauna translocation area with fencing system at low tide



Figure 3d: Stage 4 fauna translocation area with fencing system at high tide

