Ecological Survey for the current application conducted in 2023

規 劃 署

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來函檔號 Your Reference:
本署檔號 Our Reference: ( ) in TPB/A/NE-FTA/201
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Unit 1310, Tower 2, Metroplaza
223 Hing Fong Road
Kwai Chung, New Territories
(Attn.: Thomas LUK)

By Post and Fax (3180 7611)
10 June 2022

Dear Sir/Madam,

Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years with Filling of Land in "Agriculture" Zone, Lots 471 S.B RP (Part), 472, 473, 474, 475, 476, 482 RP, 483, 484, 486, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and Adjoining Government Land, Man Kam To Road, Sha Ling
(Compliance with Approval Condition (g) for Planning Application No. A/NE- FTA/201)

I refer to your submission dated 18.3.2022 for compliance with approval condition (g) in relation to the submission and implementation of the ecological mitigation measures under the captioned planning application.

Director of Agriculture, Fisheries and Conservation (Contact person: Ms. NG Chiu-ue, Chole; Tel.: 2150 6931) has been consulted and considered that approval condition (g) has been complied with.

Should you have any queries, please feel free to contact Ms. Amy Y. T. CHONG of this department at 2158 6241.

Yours faithfully,

(Margaret CHAN)
for Director of Planning

c.c.
DAFC (Attn.: Ms. NG Chiu-ue, Chole) (Fax No. 2377 4427)

Internal
CTP/TPB(1)
Site record

HYC/TF/AC/NW/nw

Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period 3 Years and Land Filling for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475, 476, 482 RP, 483, 484, 486, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and Adjoining Government Land, Man Kam To Road, Sha Ling, New Territories

Supplementary Report

Date: 16 May 2023

Prepared by: China Hong Kong Ecological Consultants Limited.

1. Background

1.1 China Hong Kong Ecological Consultants Limited has been invited by Aikon Development Consultancy Ltd. to carry out the ecological survey and respond to Agriculture, Fisheries and Conservation Department comments for the planning application (A/NE-FTA/220).

1.2 The comments were received on 21 March 2023 as follow:

- It is noted that the response from the applicant is based on the previous ecological impact assessment (EcoIA) conducted and no recent ecological survey, flight path survey and EcoIA have been conducted for the revised layout under the current application No. A/NE-FTA/220. Based on this understanding, we have two major comments on the RtoC:
- Impact on avifauna

  - It is noted from the RtoC that the EcoIA for the revised layout, is based on previous EcoIA conducted, which no flight path survey has been conducted. Please ask the applicant to justify their conclusion of no adverse ecological impact of avifauna is anticipated with the proposed building height doubled to 20.675m.
- Impact on *Somanniathelphusa zanklon*

  - We considered the capture survey done in March 2022 is irrelevant to address our concern on the potential impact on *Somanniathelphusa zanklon*. As the water channel within the subject site is not filled after the capture survey, *Somanniathelphusa zanklon* and other freshwater species could be recorded within the subject site again. The potential impact on *Somanniathelphusa zanklon* (and other fauna species, if any) could not be evaluated without a proper and recent survey to confirm the presence of *Somanniathelphusa zanklon* (and other fauna species, if any) in the subject site. If *Somanniathelphusa zanklon* is recorded within the site, mitigation measures such as translocation of the species, etc. should be proposed.

1.3 This report is to provide supplementary surveys and information for the *Somanniathelphusa zanklon* and flight path. Recommendations on ecological mitigation measures to reduce and minimize adverse impacts are also provided in the report where necessary.

2. Methodology

2.1 Survey Area and Programme

2.1.1 The survey area for *Somanniathelphusa zanklon* and flight path survey is provided in **Figure 1.** The ecological surveys were conducted according to the schedule given in **Table 2.1** below.

Table 2.1: Proposed Ecological Survey Schedule

Proposed Survey	2023		
	March	April	May
Freshwater communities survey	27 March	04 April	11 May
Flight path survey	27 March	04 April	11 May

2.2 Freshwater Communities and *Somanniathelphusa zanklon* Survey

2.2.1 The methods of Freshwater communities and Somanniathelphusa zanklon were followed the previous survey method from EcoIA. *Somanniathelphusa zanklon* was surveyed through active searching and/or direct observation at watercourses and adjacent habitats within the subject site (refer to Figure 1). To avoid driving organisms (e.g. fish and crab) away, and avoid disturbing the bottom substrate, direct observation from a suitable distance was conducted before active searching and kick sampling. Boulders within the watercourses were conducted to collect organisms along the watercourse. Organisms encountered were recorded and identified to the lowest possible taxon level. All organisms collected were released to the point of collection after identification. Nomenclature of freshwater fish and invertebrate communities follows Lee et al. (2004) and Dudgeon (2003), respectively.

2.3 Flight Path Survey

2.3.1 Flight Line surveys have been undertaken to assess if proposed project would block the flight path of the avifauna within the subject site. Surveys have been conducted at the early morning from 6:45am to 8:45am. All birds observed within the subject from the fixed survey point in 10-minutes period were recorded. Species, abundance, flight direction and height have been recorded. The vantage point for the flight line survey is shown in **Figure 2.**

3. Survey Results

3.1 Freshwater Communities and *Somanniathelphusa zanklon*

3.1.1 Freshwater Communities and *Somanniathelphusa zanklon* survey were conducted at watercourses and adjacent habitats within the subject site, two *Somanniathelphusa zanklon* individuals were recorded within the watercourse during the survey which is listed as "Endangered" on the IUCN Red List. Besides the *Somanniathelphusa zanklon*, *Gambusia affinis* and *Channa gachua* were also recorded within the subject site. The location of the *Somanniathelphusa zanklon* is provided in **Figure 1**.

3.2 *Flight Path Survey*

3.2.1 The flight line surveys were conducted at the vantage point where is adjacent to the Subject Site, shown in Figure 2. A total of 109 individuals of avifauna species were recorded at the point count location. The species were mainly common urban species and some wetland dependent species such as heron. Survey data were summarised in **Table 3.1** and **Table 3.2.** Flight line A direction to southeast of subject site was the major flight line for most of the bird, particularly Red-whiskered Bulbul, Chinese Bulbul, most of them were flight within the subject site with short distances. While flight lines B, C were in direction to southwest and northeast respectively, where birds recorded in these flight lines were mostly urban birds. Most of the birds were recorded at 0-10m height from the ground which usually flight within subject site. Birds at flight heights from 10m to over 10m were rarely recorded.

Table 3.1 Number of bird individuals recorded at different flight heights from point count

Species	Number of bird individuals recorded at different flight heights				
	0-10m	10-20m	20-30m	30-40m	>40m
Black-necked Starling	18	7			
Chinese Pond Heron	2				
Crested Myna	12				
Common Tailorbird	6				
Yellow-bellied Prinia	5				
Chinese Bulbul	10	4			
Red-whiskered Bulbul	23	6			
Spotted Dove	6	2	4		
White Wagtail	1	1			

Greater Coucal	1				
Crested serpent eagle					1
Total number of birds at each flight heights (Relative percentage)	84 (77%)	20 (18%)	4 (4%)	0 (0%)	1 (1%)

Table 3.2 Relative percentage of bird usage in each Flight Line

	Bird usage	Flight heights					Species
		0-10m	10-20m	20-30m	30-40m	>40m	
Flight lines	Number of birds (relative percentage)	Number of birds (relative percentage)	Number of birds (relative percentage)	Number of birds (relative percentage)	Number of birds (relative percentage)	Number of birds (relative percentage)	
A	79 (72%)	67 (85%)	9 (11%)	2 (3%)	0 (0%)	1 (1%)	Chinese Pond Heron, Greater Coucal, Black-necked Starling, Red-whiskered Bulbul, Spotted Dove, Crested serpent eagle, White Wagtail, Yellow-bellied Prinia, Common Tailorbird
B	12 (11%)	8 (67%)	4 (33%)	0 (0%)	0 (0%)	0 (0%)	Black-necked Starling, Spotted Dove, Red-whiskered Bulbul, Crested Myna
C	18 (17%)	9(50%)	7 (39%)	2 (11%)	0 (0%)	0 (0%)	Black-necked Starling, Red-whiskered Bulbul, Spotted Dove, Yellow-bellied Prinia, Common Tailorbird, Chinese Pond Heron, White Wagtail

4. Potential Impact

4.1 Potential Habitat Loss of *Somanniathelphusa zanklon*

Two individuals of *Somanniathelphusa zanklon* were recorded within the watercourse. The watercourse will be retained in the construction design which may be disturbed during the construction phase indirectly. Therefore, the impact to the *Somanniathelphusa zanklon* is considered to be Low to Moderate.

4.2 Barrier Effect of Flight Path

4.2.1 Flight routes of the waterbird were studied and the results indicated that most of the birds flew toward the southeast area of the Subject Site and to Man Kam To. Most of the bird species were urban and common in Hong Kong. In addition, most of them were recorded flew with a short distance within or near the subject site. The proposed 20.675m height building will not be an obstacle for waterbirds or Ardeidae as only two Chinese Pond Herons were recorded to fly low, within the Subject Site. The Subject Site is not attractive to bird species and not a major flight line of Ardeidae. Therefore, the impact on the bird flight line is considered to insignificant.

4.3 Potential Impact of bird species

4.3.1 Only 11 avifauna species were recorded during the survey. Most of the species were common species and widely distributed in Hong Kong. Among of them, two species were species of conservation interest. Agricultural land was recorded adjacent to the project site, there is the same habitat for the remaining birds. The bird species were also adapted to other habitat (e.g. village area, plantation, developed area). Therefore, the impact on the remaining birds species is considered to insignificant.

5. Mitigation Measures

Capture-and-translocation of *Somanniathelphusa zanklon*

5.1 *Somanniathelphusa zanklon* were recorded within the Subject Site during the additional survey. Capture-and-translocation of *Somanniathelphusa zanklon* in these areas with sightings prior to site formation was recommended to minimize the impacts on these fauna species of conservation importance. The impact on the *Somanniathelphusa zanklon* would be reduced to insignificant after the mitigation measures.

6. References

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- AFCD (2023) Hong Kong Biodiversity Database. Agriculture, Fisheries and Conservation Department, HKSAR. Retrieved from http://www.afcd.gov.hk/english/conservation/hkbiodiversity/database/search.asp?lang=en
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- Dudgeon, D. (2003). Hillstreams. Agriculture Fisheries and Conservation Department, Government of Hong Kong SAR & Wan Li Book, Co. Ltd., Hong Kong: 133 pp.
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- Lam, S.K.S, Lee V.L.F, Ng F.K.Y, Chan T.K.Y & Young, M.L.C (2004) Field Guide to the Freshwater Fish of Hong Kong. Agriculture, Fisheries and Conservation Department. HKSAR.
- Lee, V.L.F., Lam, S.K.S., NG, F.K.Y., Chan, T.K.T. and Young, M.L.C. (2004). Field Guide to the Freshwater Fish of Hong Kong, Friends of the Country Parks and Cosmos Books Ltd, Hong Kong.

Figure

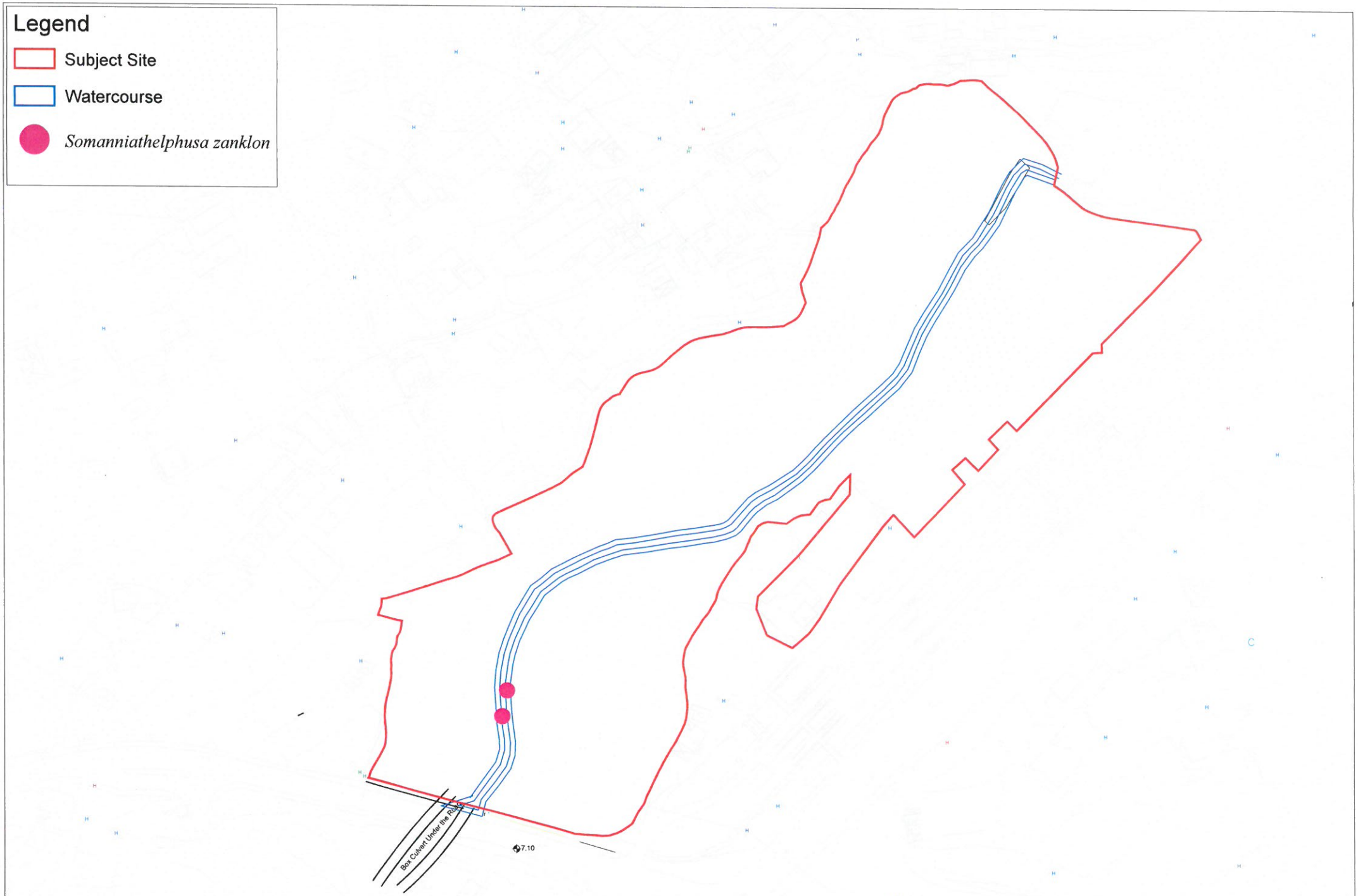

Figure 1. Location of Subject Site and *Somanniathelphusa zanklo*

Legend

- Subject Site
- Watercourse
- Vantage Point

A — The arrow represent the general direction of bird flight path. But no the exact landing location. The Density and thickness of arrow reflects the relative frequency. But not the total number of bird use.

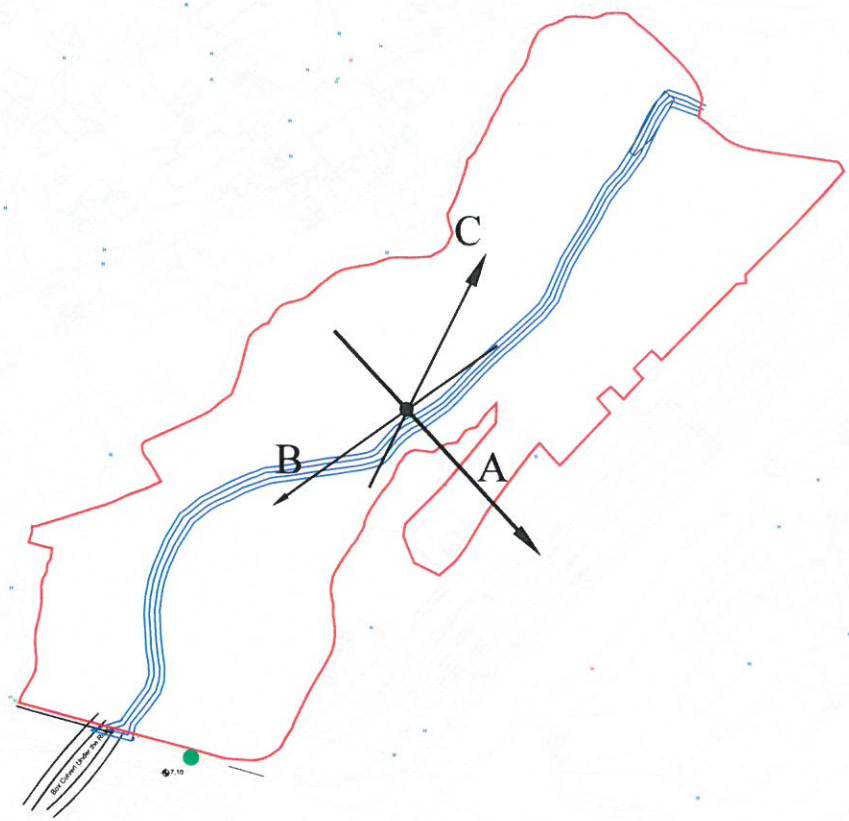

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Figure 2. Flight Path Map

Appendices

Appendix A: Photographic records

Photo 1. General View of Subject Site

Photo 2. General View of Subject Site

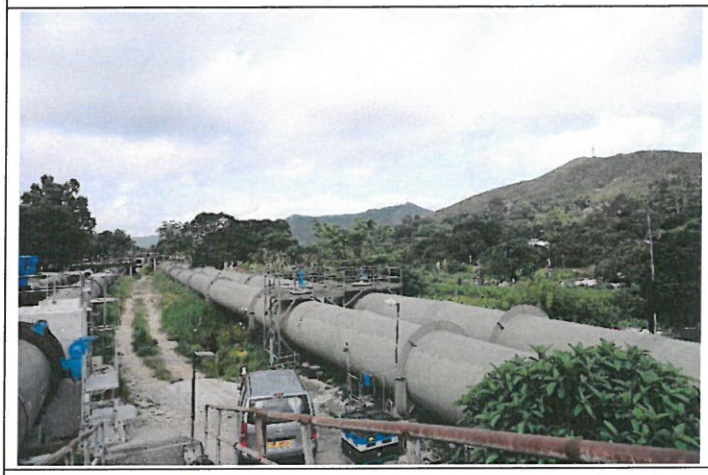

Photo 3. General View of Subject Site

Photo 4. Watercourse within Subject Site

Photo 5. *Somanniathelphusa zanklon*

Photo 6. *Somanniathelphusa zanklon*