

Tai Shue Wan Development at Ocean Park

Ardeid Inspection Report
Document No. 328011/03/06/C

September 2014
Ocean Park Corporation

Tai Shue Wan Development at Ocean Park

Ardeid Inspection Report
Document No. 328011/03/06/C

September 2014

Ocean Park Corporation

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

Pursuant to Condition 2.9(b) of Environmental Permit No. EP-487/2014,

this Ardeid Inspection Report has been reviewed and certified by the Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

Certified by:

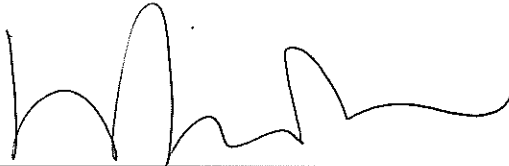


Terence Kong
Environmental Team Leader (ETL)
Mott MacDonald Hong Kong Limited

Date

17 September 2014

Verified by:



Winnie Ko
Independent Environmental Checker (IEC)
Environmental Resources Management

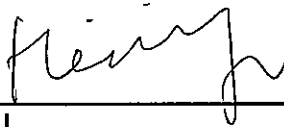
Date

17 Sept 2014

Pursuant to Conditions 2.3 and 2.9(b) of Environmental Permit No. EP-487/2014,

this Ardeid Inspection Report has been prepared by the Qualified Ecologist.

Prepared by:



Heidi YU
Qualified Ecologist
Mott MacDonald Hong Kong Limited

Date

17 September 2014

Content

Chapter	Title	Page
1.	Introduction	1
1.1	Background	1
1.2	Objectives of Ardeid Inspection	1
2.	EIA Baseline Information and EM&A Requirements	2
2.1	Findings of TSW Egret during EIA stage	2
2.2	Impact Assessment for Potential Impact on the Abandoned Breeding Site in the EIA Report	2
2.3	Environmental Monitoring and Audit Requirements	2
3.	Ardeid Inspection	4
3.1	Inspection Period	4
3.2	Methodology	4
3.3	Inspection Result	4
4.	Conclusion	5

Figures

Figure 1 Location of Roosting Site of Ardeids before Commencement of Site Clearance of the Project

Appendix

Appendix A Curriculum vitae of the Qualified Ecologist (Removed)
Appendix B Photographic Record of Ardeid Inspection

1. Introduction

1.1 Background

In August 2013, Ocean Park Corporation (OPC) commissioned Mott MacDonald Hong Kong Limited (MMHK) to carry out the EIA study for the proposed Tai Shue Wan Development at Ocean Park (hereafter referred as “the Project”) for the construction and operation. The EIA report was submitted to EPD on 31 March 2014.

As mentioned in the EIA Report, an egretty was discovered at Tai Shue Wan (TSW) in 2011. It has been used by ardeids for breeding in 2012, but then abandoned without any breeding activities since the breeding season of 2013. Ecological impact on the breeding colony is considered negligible in the absence of an actual egretty and lack of breeding individuals. Nevertheless, for the approach of impact avoidance, the EIA Report has suggested inspection of the planting area previously used by ardeids for breeding prior to site clearance works to confirm no active ardeid nest is present.

The EIA report was approved with condition on 27 August 2014 (Register No. AEIAR-184/2014). EPD issued an Environmental Permit (EP) for the Project (Permit No. EP-487/2014) on 27 August 2014.

As stipulated in Condition 2.9 (b) of the EP, the Permit Holder is required to appoint a Qualified Ecologist to carry out monitoring of ardeid breeding activities and submit an Ardeid Inspection Report to EPD no later than one month before the commencement of site clearance works at the existing roosting location (refer to **Figure 1**). This Ardeid Inspection Report is prepared to meet this EP condition.

1.2 Objectives of Ardeid Inspection

The objectives of this Ardeid Inspection Report are as follows:

- To report the findings of monitoring of any ardeid breeding activities and inspection of the existing roosting location to confirm no active ardeid nest is present;
- To propose mitigation measures as specified in the approved EIA Report if any active ardeid nest is observed.

2. EIA Baseline Information and EM&A Requirements

2.1 Findings of TSW Egretty during EIA stage

As detailed in Table 10.1 and Section 10.3.3.2 of the approved EIA Report, in view of the previous egretty record, the location previously recorded with breeding activities, i.e. Bird Paradise and Flamingo Pond, was surveyed approximately twice a month during the survey period (February to July 2013) to investigate any breeding activity of the ardeids. As detailed in Table 10.6 of the EIA report, pairing activity for Little Egret was noted at the early breeding season but no breeding activities and no active nests were observed, although there was no change in site conditions. The pairing activities was noted in March 2013 for two pairs of Little Egret but no further breeding activities was subsequently observed. Although the TSW egretty has been used by ardeids for breeding in 2012, no ardeid nests were found during the surveys conducted at the breeding season of 2013. The TSW egretty/breeding site has been abandoned.

2.2 Impact Assessment for Potential Impact on the Abandoned Breeding Site in the EIA Report

The ardeid community in Aberdeen Channel and adjacent areas was first documented in 2008 under the HKBWS Egretty counts, in which both Heung Yip Road at Aberdeen and Ocean Park were surveyed for the presence of an egretty. In 2011, a small population started breeding in Ocean Park Tai Shue Wan after temporary closure of the area which restricted visitor's access and therefore attracted ardeids. However, after two years of temporary use, the site was abandoned in the breeding season of 2013. In the egretty counts for summer 2012 conducted by the HKBWS, a maximum of 14 ardeid nests comprising 7 Little Egrets and 7 Black-crowned Night Herons nests were recorded at the Ocean Park Egretty. In the breeding season of 2013, this egretty and the proposed site area was also surveyed by HKBWS but no ardeid nests were found.

There is currently no active egretty in TSW. The previous egretty in TSW was abandoned; the last breeding record is from 2012. The small and temporary TSW egretty in an artificial habitat is not considered to be of high ecological significance. Site clearance would remove the vegetation used by ardeids, but the ecological impact on the breeding colony is negligible in the absence of an actual egretty and lack of breeding individuals.

The potential of re-establishment of egretty in TSW is considered low, as the egretty is located within the park area open to visitors. Even without the proposed project, the re-opening of TSW gate or even daily operation of the park would limit the chance of egretty establishment. Therefore, the impact to the loss of potential breeding habitat for ardeid is minor.

Nevertheless, the EIA Report suggested that prior to site clearance works at the planting area previously used by ardeids for breeding should be inspected to confirm no active ardeid nest is present. If any active ardeid nest is observed, suitably sized buffer area should be established to avoid human or machinery disturbance until the nest is abandoned.

2.3 Environmental Monitoring and Audit Requirements

Prior to site clearance works at the planting area abandoned for ardeid breeding, the area around the indicative boundary of the ardeids roosting site (as shown in **Figure 1**) shall be inspected to confirm no active ardeid nest is present. If any active ardeid nest is observed, suitably sized buffer area shall be

established to avoid human or machinery disturbance until the nest is abandoned. A qualified ecologist with at least 5 years of experience in ardeids monitoring or survey shall be appointed to carry out the inspection. This Ardeid Inspection Report is thus prepared to meet this EM&A requirement.

3. Ardeid Inspection

3.1 Inspection Period

Ardeid inspections were undertaken on 8 August 2014 and 5 September 2014 at daytime.

3.2 Methodology

Ardeid inspection was conducted by actively searching for any presence of active ardeid nest within the indicative boundary of roosting site of ardeids as presented in **Figure 1**. Inspection was conducted with the aid of 8x42 binoculars.

The ardeid inspection was carried out by a qualified ecologist with more than 5 years of experience in ardeid monitoring. Curriculum vitae of the qualified ecologist is attached in **Appendix A** for reference.

Condition of the roosting site of ardeids was recorded with photographs taken.

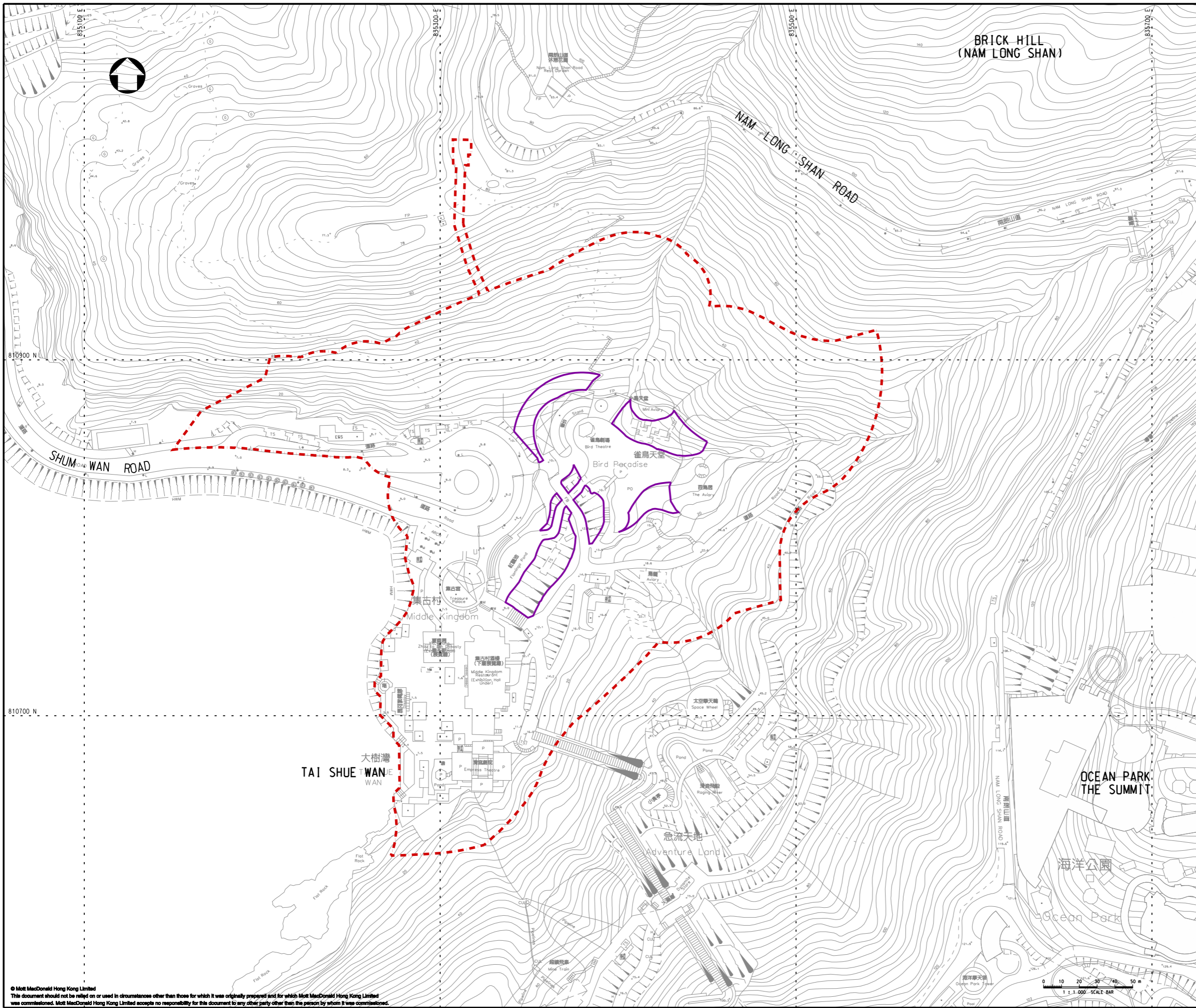
3.3 Inspection Result

No active ardeid nest was observed on trees within the indicative boundary of roosting site of ardeids. Photographs of the roosting site of ardeids are shown in **Plates 1 to 2** in **Appendix B**.

Neither ardeid breeding activities nor presence of egret were observed at or in the vicinity of the roosting location.

4. Conclusion

The Ardeid Inspection Report is prepared in accordance with Condition 2.9 (b) of the Environmental Permit for the Project. Site inspection of ardeid nest was undertaken on 8 August 2014 and 5 September 2014, before commencement of site clearance works at the existing roosting location. The ardeid inspection confirmed that no active ardeid nest was present at the area around the indicative boundary of the ardeids roosting site.



Notes

Key to symbols

- - - - - PROJECT BOUNDARY
- INDICATIVE BOUNDARY OF ROOSTING SITES OF ARDEIDS

Reference drawings

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	SEP 14	MING	FIRST ISSUE	HY	AFK



Mott MacDonald

20/F Two Landmark East
100 How Ming Street
Kowloon, Kowloon
Hong Kong
☎ +852 2828 5757
☎ +852 2827 1823
www.mottmac.com.hk

Client



Project

**TAI SHUE WAN DEVELOPMENT
AT OCEAN PARK**

Title

**LOCATION OF ROOSTING SITE OF
ARDEIDS BEFORE COMMENCEMENT
OF SITE CLEARANCE OF THE
PROJECT**

Designed	HY	Eng check	FW
Drawn	MING	Coordination	FW
Dwg check	HY	Approved	AFK
Scale at A1	1:1000	Status	PRE
Drawing Number		Rev	P1

FIGURE 1

Appendix A
Curriculum Vitae of the Qualified Ecologist (Removed)

Appendix B
Photographic Record of Ardeid Inspection

Appendix B Photographic Record of Ardeid Inspection



Plate 1: View of the previous ardeids roosting site near Flamingo Pond (taken on 8 August 2014)



Plate 2: View of the previous ardeids roosting site near Bird Paradise (taken on 8 August 2014)