

Contract No. CM 02/2024

**Expansion of Sha Tau Kok
Sewage Treatment Works –
Environmental Team
Services (2024-2026)**

Survey Report of the
Night Roosting Site for Great Egrets and
other Ardeid Species

Drainage Services Department

2025-03-12

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Drainage Services Department
42/F, Revenue Tower
5 Gloucester Road
Wan Chai
Hong Kong

Your reference:

Our reference: HKDSD206/50/110405

Date: 17 March 2025

Attention: Mr Lam Tack Ho, Alex

BY EMAIL & POST
(email: thlam@dsd.gov.hk)

Dear Sirs

Agreement No.: CM 14/2018
Independent Environmental Checker Services for
Expansion of Sha Tau Kok Sewage Treatment Works
Survey Report of the Night Roosting Site for Great Egrets and other Ardeid Species (Revision 1)

We refer to the email of 14 March 2025, attaching the captioned report.

We have no adverse comments and hereby verify the captioned Report in accordance with Clause 2.12 of the Environmental Permit no. EP-517/2017/A.

Should you have any queries, please do not hesitate to contact the undersigned or our Mr Alex Chan on 2618 2831.

Yours faithfully
ANewR CONSULTING LIMITED

James Choi
Independent Environmental Checker

CPSJ/LCCR/CYCA/thy

cc DSD – Mr Alex Leung (email: alexleung_dsd@dc1803.com.hk)
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Name	David Stanton	Name	Kevin Li
Title	Lead Ecologist	Title	Environmental Team Leader

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1 INTRODUCTION

1.1 Background

1.1.1 The Project in Sha Tau Kok mainly comprises of the following items:

- (i) Increase the treatment capacity of Sha Tau Kok Sewage Treatment Works (STKSTW) to 5,000m³/day at Average Dry Weather Flow (ADWF) in Phase 1, with suitable allowance to cater for a further increase of treatment capacity to 10,000m³/day at ADWF in Phase 2;
- (ii) Construct a temporary sewage treatment plant (TSTP);
- (iii) Demolish the existing Sha Tau Kok Sewage Pumping Station (STKSPS) and decommission the rising main between STKSPS and STKSTW;
- (iv) Construct a new gravity sewer; and
- (v) Decommission the existing submarine outfall and construct a new one.

1.1.2 The following elements of the Project are classified as Designated Projects under the environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and are addressed in the EIA Report:

- (i) Schedule 2, Part I, Item F.2 (a) and (b)(i) - Sewage Treatment Works with an installed capacity of more than 5,000m³ per day; and a boundary of which is less than 200m from the nearest boundary of the existing residential area; and
- (ii) Schedule 2, Part I, Item F.6 - a submarine outfall.

1.1.3 An Environmental Impact Assessment (EIA) Report, AEIAR-207/2017 - Expansion of Sha Tau Kok Sewage Treatment Works, was prepared for the Project and was approved on 14 February 2017. An Environmental Permit (EP-517/2017) was issued on 15 February 2017. Moreover, a Variation of an Environmental Permit EP-517/2017/A (the "EP") was issued on 18 October 2019; and it is the current permit for the Project.

1.1.4 Aurecon Hong Kong Limited (Aurecon) has been appointed as the Environmental Team (ET) by Drainage Services Department (DSD). As the ET, part of the scope is to carry out surveys of the Night Roosting Site (NRS) for Great Egret *Ardea alba* to collect data on the number of Great Egrets and other ardeids using the site as a night roosting site and submit a Survey Report of the NRS for Great Egrets to relevant government departments.

1.2 Previous Surveys of the Night Roosting Site for Great Egrets and other Ardeid Species conducted for the Project

- 1.2.1 In compliance with EP Condition 2.12 and Section 7.1.2 of the EM&A Manual, a pre-construction survey of the NRS for Great Egrets and other ardeid species for the Project was conducted in October 2019. The corresponding Pre-construction Survey Report (Report No.: 0118/18/ED/0382 03) was submitted to Environmental Protection Department (EPD) on 12 December 2019, and was consequently accepted by Agriculture, Fisheries and Conservation Department (AFCD) on 30 December 2019. During this survey, no roosting ardeids were recorded.
- 1.2.2 In December 2019, however, as part of a territory-wide study on roosting sites for ardeids undertaken by AFCD in winter 2019/20, a night roost was found on an island near the coast of Sha Tau Kok (AFCD 2020). Hence, an updated pre-construction survey was conducted in December 2021 to reconfirm the usage of the NRS by Great Egrets or other ardeid species. During this survey, ardeid night roosting site composed of two tree groups which are 30m apart, and a total of 201 night-roosting ardeids, including 179 Great Egrets and 22 Little Egrets, were recorded.
- 1.2.3 The latest survey was conducted in December 2022 by Fugro to reconfirm the usage of the NRS by Great Egrets or other ardeid species. During this survey, ardeid night roosting site composed of two tree groups which are 30m apart, and a total of 186 night-roosting ardeids, including 141 Great Egrets and 45 Little Egrets, were recorded.

1.3 Objectives of the Survey

- 1.3.1 The objective of the pre-construction survey is to reconfirm the usage of the NRS for Great Egret and other ardeid species before the commencement of the demolition of the TSTP and the existing STKSPS. Taking into account the findings of the previous surveys, and as a precautionary measure, the pre-construction survey is required to:
- confirm compliance with the requirements in EP Condition 2.12 and Section 7.1.2 of the EM&A Manual; and
 - prepare a survey report which includes recommendations on the monitoring of NRS during the construction phase, if necessary. If the pre-construction survey report shows the NRS is used by Great Egrets or other ardeids species, no works shall be undertaken within 100m from the NRS from 1600 to 0700 of the following day.

2 METHODOLOGY

This section details the approach and methodology of the additional survey of the NRS for Great Egrets and other ardeid species for the expansion of STKSTW in compliance with EP Condition 2.12 and Section 7.1.2 of the EM&A Manual and in accordance with Sections 4.20 to 4.23 of the Contract Specifications. Further, this section was prepared with reference to the previous surveys that were conducted for the Project.

2.1 Personnel

- 2.1.1 The survey was carried out by a team of ecologists who are experienced with avifauna monitoring, including ardeid NRS and egretty surveys. The CV of the lead ecologist is attached in **Appendix A**.

2.2 Survey Area

- 2.2.1 The survey was conducted in areas within the 100m boundary from the NRS of Great Egret near Sha Tau Kok Town centre as shown in Figure 2 of the EP and the NRS identified by AFCD (2020). The Survey Area and vantage point for direct observation of any active night roost(s) are shown in **Appendix B**. The Survey Area was proposed taking into consideration the findings of the pre-construction survey (DSD 2019, DSD 2023), surveys conducted by AFCD (2020) and recent findings by AUES (Build King - Kum Shing Joint Venture 2021).
- 2.2.2 Special attention was given to the area immediate south of the bus terminal at the Sha Tau Kok Town centre and 30m northeast of this location and the entire islet near the coast of Sha Tau Kok, as these are the areas where roosting ardeids were recently observed (AFCD 2020, Build King - Kum Shing Joint Venture 2021, DSD 2023).

2.3 Field Surveys

- 2.3.1 Survey effort focused on the Great Egrets and other ardeid species which previously utilised the NRS. Nomenclature of species follows the updated List of Hong Kong Birds published by the Hong Kong Bird Watching Society.
- 2.3.2 Surveys were conducted between one hour before and after sunset time as per Hong Kong Observatory (HKO), which cover the period when most egrets return to a night roosting site (Stanton & Klick 2018, AFCD 2020). Direct observations using 7x and 10x binoculars were conducted from a vantage point with clear view of each roosting site. The exact sunset time of the survey dates are listed in **Section 2.4.2**.
- 2.3.3 Pre-roosting sites (PRS), i.e. sites utilised by ardeids to form aggregations before departing to their night roost, were searched within the 100m radius of the reported NRS. Species composition and abundance (number of individuals) of ardeid species utilising the PRS, as well as other site observations, were recorded.

- 2.3.4 For the NRS, species composition and abundance of ardeid species, as well as locations, species, and height of roost trees of the NRS, were recorded. The species and abundance of ardeids returning to the NRS were recorded at 15-minute interval, with returning flightline marked as far as possible.
- 2.3.5 Site observations, including bird droppings on the ground which indicate possible presence of night roost(s), were noted.

2.4 Survey Schedule

- 2.4.1 The NRS surveys were conducted on 21 and 24 January 2025. The surveys were conducted with 2 to 3 days interval as bird using roosting sites may be affected by weather conditions.
- 2.4.2 According to HKO, the sunset time on 21 and 24 January 2025 was 1804 and 1806, respectively.

3 SURVEY RESULTS AND DISCUSSION

- 3.1.1 Two active PRSs – PRS1 and PRS2 – were observed during the survey. PRS1 was recorded on an islet off the coast adjacent to Shun Hing Street, within the Survey Area. This was historically recorded as a NRS by AFCD (2020) and a 'possible' PRS by DSD (2023). Great Egret and Grey Heron *Ardea cinerea* used PRS1 during this survey (**Appendix C.1**). PRS2 was located on the breakwater of Sha Tau Kok Typhoon Shelter adjacent to Shun Lung Street outside the Survey Area. It was not recorded from previous studies. Little Egret *Egretta garzetta* and Grey Heron were recorded pre-roosting in this PRS during the survey. (**Appendix C.2**).
- 3.1.2 A total of three NRS were observed within the Survey Area near the bus terminal and were classified as Tree Group 1, Tree Group 2 and Tree Group 3 (**Appendix C.3**). General observations of the PRS and NRS are presented in **Table 3.1**. Tree Group 1 and 2 were previously recorded by DSD in 2021 and 2023. Tree Group 1 was approximately 12m tall and composed of *Ficus microcarpa*, *Ficus virens*, and *Liquidambar formosana*. The roost trees in Tree Group 2 were *F. macrocarpa* and *Melaleuca cajuputi* with an approximate height of 14m. Tree Group 3, which was located 15m east of Tree Group 2, was newly recorded during this study. The roost trees were *M. cajuputi* with an approximate height of 15m. Ardeid droppings were observed in all three sites (**Appendix C.4**). Tree Group 1 was currently utilized by Great Egret and Little Egret, while Tree Group 2 and 3 were utilized by Great Egret only (**Appendix C.5**).

Table 3.1 General observations of the Pre-roosting Sites and Night Roosting Sites

Dates		21 January 2025		24 January 2025	
Sunset Times:		1804		1806	
Survey Start Times:		1704		1706	
Survey End Times:		1904		1906	
Weather Conditions:		Hazy at first, drizzling later		Clean sky	
Parameters	Pre-roosting Site/s(PRS)		Night roosting Site/s (NRS)		
	PRS1	PRS2	Tree Group 1	Tree Group 2	Tree Group 3
Tree Species:	<i>Leucaena leucocephal</i> and <i>Thespesia populnea</i>	- (Ardeids were pre-roosting on the breakwater)	<i>F. microcarpa</i> , <i>F. virens</i> , and <i>L. formosana</i>	<i>F. macrocarpa</i> and <i>M. cajuput</i>	<i>M. cajuputi</i>
Substrate Height(m):	7	-	12	14	15
Breeding Activity(Y/N):	N	N	N	N	N
Ardeid Droppings (Y/N):	Y	N	Y	Y	Y
Ardeid Species	Great Egret, Grey Heron	Little Egret, Grey Heron	Great Egret, Little Egret	Great Egret	Great Egret

3.1.3 A total of 95 and 108 individuals of ardeid were recorded in the three Tree Groups on 21 and 24 January 2025, respectively (**Appendix D**). Tree Group 1 supported 19 Great Egrets and 44 Little Egrets during the first survey, and 25 Great Egrets and 36 Little Egrets during the second survey. Tree Group 2 was used by 31 Great Egrets during the first survey, and 45 Great Egrets during the second survey. Tree Group 3 was used by one and two Great Egrets during the two surveys, respectively. No other ardeid species was recorded using these roosting sites.

3.1.4 The peak period of ardeids returning to the Tree Groups was noted at 0-15 minutes after sunset for Tree Group 1, and 16-30 minutes after sunset for Tree Group 2 and 3. Percentages of ardeids returning to Tree Groups in each period are presented in **Table 3.2**.

Table 3.2 Arrival period of ardeids to the night roosting sites within the Survey Area

Tree Group	Period	% of Great Egret	% of Little Egret	% of Other ardeids	% of all ardeids
Tree Group 1					
	Before the start of survey	0	0	0	0
	46-60 min before sunset	0	0	0	0
	31-45 min before sunset	0	0	0	0
	16-30 min before sunset	0	0	0	0
	0-15 min before sunset	30	24	0	26
	0-15 min after sunset	50	40	0	44*
	16-30 min after sunset	20	35	0	30
	31-45 min after sunset	0	1	0	1
	46-60 min after sunset	0	0	0	0
Tree Group 2					
	Before the start of survey	0	0	0	0
	46-60 min before sunset	0	0	0	0
	31-45 min before sunset	0	0	0	0
	16-30 min before sunset	0	0	0	0
	0-15 min before sunset	1	0	0	1
	0-15 min after sunset	38	0	0	38
	16-30 min after sunset	50*	0	0	50*

Tree Group	Period	% of Great Egret	% of Little Egret	% of Other ardeids	% of all ardeids
	31-45 min after sunset	11	0	0	11
	46-60 min after sunset	0	0	0	0
Tree Group 3					
	Before the start of survey	0	0	0	0
	46-60 min before sunset	0	0	0	0
	31-45 min before sunset	0	0	0	0
	16-30 min before sunset	0	0	0	0
	0-15 min before sunset	0	0	0	0
	0-15 min after sunset	33	0	0	33
	16-30 min after sunset	67	0	0	67*
	31-45 min after sunset	0	0	0	0
	46-60 min after sunset	0	0	0	0

Note:

All numbers have been rounded to the nearest integer.

Numbers may not add up due to rounding.

* Peak period of arrival

3.1.5 All ardeids were observed returning to the Tree Groups from the southwest direction. Indicative returning flightlines of roosting ardeids were mapped in **Appendix C.6**.

3.1.6 No departure surveys were conducted for these night roosts. It is generally accepted that diurnal ardeids commence departure from their night roosts in the 30 minutes prior to sunrise and a steady decrease in departure activity thereafter (Stanton & Leader 2021). Non-breeding night roost departures is usually *en masse* (pers. obs.). The latest sunrise time (per HKO) is 0705 during January.

4 CONCLUSION

The previously identified night roosting sites (i.e. Tree Group 1 and 2 within the Survey Area) remained active. Tree Group 3 was newly recorded. Tree Group 1 was utilised by Great Egret and Little Egret, while Tree Group 2 and 3 were used by Great Egret only. A total of 95 and 108 individuals of ardeid were recorded during the two surveys, respectively. Peak period of ardeids returning to the Tree Groups was noted at 0-15 minutes after sunset for Tree Group 1 and 2, and 16-30 minutes after sunset for Tree Group 3. Two active PRSs were observed on the breakwater of the Sha Tau Kok Typhoon Shelter and on the islet off the coast adjacent to Shun Hing Street. The surveys were conducted in compliance with the requirements in EP Condition 2.12 and Section 7.1.2 of the EM&A Manual.

5 RECOMMENDATIONS

No additional night roost monitoring is recommended during the construction phase of the project. However, it is recommended to adhere to E.P. Condition 2.12, which states that no work shall be undertaken within 100m of the night roosting sites between 1600 to 0700 of the following day to avoid disturbance to night roosting ardeids. Additionally, strong artificial lighting should not be used at night in the roosting sites to avoid disturbance to the roosting ardeids. Clear signs should also be erected on-site to alert all staff and workers, as required by Section 7.1.2 of the EM&A Manual. Specific actions to be undertaken for works near night roost shall make reference to the Guidelines for Planning and Carrying out Construction Works at Egrettries by (HKBWS 2018).

6 REFERENCES

Agriculture, Fisheries and Conservation Department (AFCD). 2020. Territory-wide Study on Roosting Sites of Ardeids in Winter 2019/20. *Hong Kong Biodiversity* Issue No. 26 December 2020. Available online at https://www.afcd.gov.hk/english/publications/publications_con/files/Issue.No.26.pdf. [Accessed on 24 January 2025].

Build King - Kum Shing Joint Venture. 2021. *Survey on Night Roosting Site for Great Egret and other Ardeid Species at Sha Tau Kok Town for the Expansion of Sha Tau Kok Sewage Treatment Works Phase I and Village Sewerage in Tong To*. Prepared by AUES for Build King - Kum Shing Joint Venture.

Drainage Services Department (DSD). 2019. *Pre-construction Survey of the Night Roosting Site for Great Egrets and other Ardeid Species for the Expansion of Sha Tau Kok Sewage Treatment Works*. Prepared by Fugro Technical Services Limited for DSD.

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Stanton, D. J. and P. J. Leader. 2021. Egret Flightline Surveys: towards a standardised methodology. *Journal of Heron Biology and Conservation* 6:2 Available online at www.HeronConservation.org/JHBC/vol06/art02/ [Accessed on 20 February 2025].

Appendices

Appendix A

Lead Ecologist – CV





STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

Nationality

British / Irish / Hong Kong
Permanent Resident

Qualifications

IUCN Certificate Finance
for Nature – 07/2024

Professional Certificate on
the IUCN Global Standard
for Nature-based Solutions
– 07/2024

IUCN Red List Assessor
Training Workshop, 2018

M. Sc. Ecology and the
Management of the
Natural Environment,
University of Bristol,
01/2006

B. Sc. (Hons) Science and
the Environment, De
Montfort University,
Leicester, 06/1997

Professional Memberships

CEcol 07/2020

CHKIEIA 06/2018

AMP - HKIEIA 08/2017

HKIQEP 2016

MHKIEIA 06/2010

Licensed Bird Ringer in
Hong Kong (Cap. 170)
since 2007

CEnv 10/2005

Ringling in UK under the
British Trust for
Ornithology between 2003
- 2006

MCIEEM 06/2003

Profession

Professional Ecologist

Specialisation

Ecological Surveys, Impact
Assessment and Design
and Implementation of
Mitigation Measures

Years of Experience

26 [with 21 years post
qualification]

David has worked as a professional ecologist for over 25 years and has been working in Hong Kong since 2006. David is adept in a range ecological of surveys, impact assessment and design and implementation of mitigation measures. He has expertise in survey and analysis of impacts on mammals (including bats), birds, herpetofauna and aquatic fauna as well as translocation of herpetofauna and fish. He has experience in Ecological and Fisheries Impact Assessments involving terrestrial, freshwater and marine habitats.

David has been involved in the formulation of the Biodiversity Strategy and Action Plan (BSAP) for Hong Kong and is currently supporting the update of this in 2024 with a focus on Nature-based Solutions. He has been a reviewer for fish as part of the development of the Hong Kong List of Threatened Species and is a Commission Member of the IUCN SSC Heron Specialist Group. David is a former ExCo member of the Hong Kong Institute of Environmental Impact Assessment (HKIEIA) and the Environment and Energy Committee for the British Chamber of Commerce in Hong Kong.

Expert Witness

Hong Kong Golf Club | High Court Judicial Review: *Hong Kong Golf Club v Director of Environmental Protection* (HCAL 1258/2023) | Hong Kong | 06/2023 – 09/2024 (Anticipate) | Expert Witness on Ecology / Chiroptera

David was an expert witness providing affidavit evidence on ecological issues for the Hong Kong Golf Club in a judicial review challenge of an EIA report for the proposed housing development on the old course of the Fanling Golf Club.

Project Experience

Nam Sang Wai Development Company Limited | Proposed Residential Development in Nam Sang Wai and Nature Reserve at Lut Chau: Detailed Design of Nam Sang Wai Wetland Enhancement Area and Lut Chau Nature Reserve | 12/2023 - 12/2024 (Anticipated) | Project Ecologist

The Project proposes to develop part of Nam Sang Wai for comprehensive residential development with wetland enhancement and construction of a road bridge. We provide a team of wetland specialist/ ecologist to provide detailed wetland design and tender specification at Nam Sang Wai Wetland Enhancement Area and Lut Chau Nature Reserve.

Responsible for providing detailed design of built structures e.g. bat boxes and input into wetland ponds and marsh.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

DSD | Contract No. DC/2022/02 Drainage Improvement Works at Yuen Long - Stage 2 (Subcontract No. DC/2022/02/SC/004 Provision, Operation and Maintenance of Environmental Services) | Hong Kong | 11/2024 - 07/2026 (Anticipate) | Project Ecologist

Project involves Freshwater Crab Translocation and subsequent Ecological Monitoring in river channels of Lin Fa Tei and Ha Che prior to commencement of construction works.

Responsible for overseeing project and reviewing Freshwater Crab Translocation Plan, translocation surveys, baseline vegetation surveys, reporting work, project management and co-ordination.

The Hong Kong Golf Club | Fanling Golf Course - Provision of Ecological Consultancy Services 2023 - 2024 | Hong Kong | 07/2023- 07/2024 | Project Director and Ecologist

Development of Conservation Management Plan for the Fanling Golf Course, with specific focus on Eastern Cattle Egret use of the site and planting of Indian Birthwort to encourage spread of butterflies of conservation importance.

Responsible for overseeing project programme, ecological surveys and providing technical input to the relevant survey reports.

The Hong Kong Golf Club | Fanling Golf Course - Provision of Ecological Consultancy Services Specific Bat and Moth Surveys | Hong Kong | 09/2022 - 03/2023 | Project Manager

Additional surveys for Fanling Golf Course targeted towards locating bat roost resources within the Fanling Golf Course with a specific focus on sub-area 1 of the proposed housing development. A comparative study between the survey methods of using walkaround detector and static bat recorders was also conducted, as well as a series of dry season moth surveys.

Responsible for overseeing the design of survey methodology of the bat-related studies, co-ordinating manpower needed for the survey, conducting roost-related surveys, walk-around bat surveys, assisting moth surveys and reporting the study findings.

Ove Arup & Partners HK Ltd. [CEDD] / [PlanD] | Agreement No. CE 31/2022 (CE) Land Use Review Study for Lau Fau Shan, Tsim Bei Tsui and Pak Nai Areas - Feasibility Study | Hong Kong | 08/2022 - 08/2024 (Anticipate) | Project Director

The Project mainly looks to provide a preliminary demarcation of a Coastal Protection Park and a PODP for the Lau Fau Shan, Tsim Bei Tsui and Pak Nai Areas as part of the Northern Metropolis Development Strategy. Ecological advices and impact prediction/assessment are provided for both key tasks.

Responsible for overseeing project implementation; and providing technical input to the ecological baseline review, demarcation of the Coastal Protection Park proposed under the NMDS, and formulation of the ROPD for the study area.

AECOM [HyD] | Agreement No. CE 17/2022 (HY) Widening of Yuen Long Highway (Section between Lam Tei Quarry and Tong Yan San Tsuen Interchange) - Investigation, Design and Construction | Hong Kong | 12/2022 - 12/2023 | Project Director

The Project looks to increase the traffic flow of the section of Yuen Long Highway between Lam Tei Quarry and Tong Yan San Tsuen Interchange by road widening. Ecological advices were provided, with ecological baseline surveys and impact assessments carried out as part of the statutory EIA.

Responsible for overseeing project implementation and survey programme.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

Meinhardt Infrastructure and Environment Ltd. [HyD] | Agreement No. CE 4/2022 (HY) Upgrading of Nim Wan Road (North) - Investigation, Design and Construction | Hong Kong | 07/2022 - 12/2024 (Anticipated) | Project Director

The Project serves as the IDC study following the Agreement No. CE 4/2015 (HY) West New Territories Landfill - Study of Road Access (Upgrading of Nim Wan Road and Deep Bay Road) - Feasibility Study, with a view to increase the capacity of vehicular access to and from the WENT Landfill by upgrading of Nim Wan Road and Deep Bay Road. Ecological advices were provided, with ecological baseline surveys and impact assessments carried out as part of the statutory EIA.

Responsible for overseeing project implementation and survey programme.

Atkins China Ltd. [WSD] | Agreement No. CE 87/2021 (WS) Relocation of Tsuen Wan No. 2 Fresh Water Service Reservoir to Caverns - Investigation, Design and Construction (Contract No. PMS 01/2022 Ecological Baseline Survey for Relocation of Tsuen Wan No.2 Fresh Water Service Reservoir to Caverns) | Hong Kong | 08/2022 - 07/2023 | Project Director

The Project looks to relocate the existing Tsuen Wan No. 2 Fresh Water Service Reservoir into a cavern system to be developed near Shing Mun and Kam Shan Country Parks. Ecological baseline surveys were carried out for the Ecological Impact Assessment as part of the Preliminary Environmental Review.

Responsible for overseeing project implementation and survey programme.

CEDD | Agreement No. CE 15/2020 (CE) Artificial Islands in the Central Waters - Investigation (Service Contract No. SLO 27/202 Terrestrial Ecological Surveys for the Central Waters) | Hong Kong | 09/2021 - 08/2024 (Anticipated) | Ecological Project Director

The Project serves as the early ecological baseline studies for the development of the artificial islands in the central waters. Ecological baseline surveys were carried out.

Responsible for overseeing project implementation and survey programme. Also conducting seabird and egret surveys.

DSD | Agreement No. CE 54/2020 (DS) Drainage Improvement Works in Mui Wo - Investigation: Contract No. PM 03/2021 Ecological Survey in Mui Wo | Hong Kong | 09/2021 - 09/2023 | Project Director

The Project looks to improve drainage network in the lower Mui Wo area. Ecological baseline surveys were carried out for Ecological Impact Assessment as part of the statutory EIA.

Responsible for overseeing project implementation and survey programme.

Ove Arup & Partners HK Ltd. [WSD] | Agreement No. CE 78/2020 (WS) Ngai Tam Mei Water Treatment Works and Primary Service Reservoir Extension - Investigation, Design and Construction | Hong Kong | 06/2021 - 12/2024 (Anticipated) | Project Director

The Project looks to increase the water treatment capacity of the existing Ngai Tam Mei Water Treatment Works and Primary Service Reservoir. Ecological Impact Assessment was carried out as part of the statutory EIA process.

Responsible for overseeing project implementation and survey programme. Technical input to the Environmental Impact Assessment.

Ove Arup & Partners HK Ltd. [CEDD] | Agreement No. CE 1/2020 (CE) - Hung Shui Kiu / Ha Tsuen New Development Area Package A Works for Second Phase Development - Design and Construction | Hong Kong | 02/2021 - 12/2024 (Anticipate) | Project Director

The Project mainly looks to increase the population capacity of the HSK/HT NDA by revising the development parameters following the approval of the HSK NDA EIA study. Ecological/fisheries advice and impact assessment were provided.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

Providing technical input to the preliminary environmental review.

Ove Arup & Partners HK Ltd. [HyD] | Agreement No. CE 6/2020 (HY) Upgrading of Deep Bay Road - Investigation | Hong Kong | 09/2020 - 12/2024 (Anticipate) | Ecological Project Director

The Project serves as the IDC study following the Agreement No. CE 4/2015 (HY) West New Territories Landfill - Study of Road Access (Upgrading of Nim Wan Road and Deep Bay Road) - Feasibility Study, with a view to increase the capacity of vehicular access to and from the WENT Landfill by upgrading of Nim Wan Road and Deep Bay Road. Ecological advices were provided, with ecological baseline surveys and impact assessments carried out as part of the statutory EIA.

Responsible for overseeing ecological & fisheries surveys for terrestrial, freshwater and intertidal faunal species, project implementation and survey programme.

Binnies HK Ltd. [CEDD] | Agreement No. CE 10/2020 (CE) - Site Formation and Infrastructure Works for Proposed Public Housing Developments at Sha Po, Shap Pat Heung and Tai Kei Leng, Yuen Long - Feasibility Study | Hong Kong | 09/2020 - 12/2023 | Project Director

The Project is the feasibility study of the captioned public housing development in northwest New Territories. Ecological/fisheries advices and impact assessment were provided.

Responsible for overseeing project implementation and survey programme.

Ove Arup & Partners HK Ltd. [HyD] | Agreement No. CE 4/2015 (HY) West New Territories Landfill - Study of Road Access (Upgrading of Nim Wan Road and Deep Bay Road) - Feasibility Study | Hong Kong | 01/2016 - 02/2021 | Ecological Project Director

The Project looks to increase the capacity of vehicular access to and from the WENT Landfill by upgrading of Nim Wan Road and Deep Bay Road. Ecological advices were provided, with ecological baseline surveys and impact assessments carried out as part of the statutory EIA.

Responsible for conducting/overseeing ecological baseline surveys for terrestrial, freshwater and intertidal faunal species groups in the coastal area from Sheung Pak Nai to Nim Wan and review of impact assessment reports.

Meinhardt Infrastructure and Environment Ltd. [CEDD] | Agreement No. CE 22/2020 (GE) Revitalization of Lin Ma Hang Lead Mine Caves - Investigation, Design and Construction | Hong Kong | 04/2021 - 11/2022 | Project Director and Bat Specialist

The Project looks to stabilise and revitalise the Lin Ma Hang Lead Mine Caves as a tourist attraction of the planned Robin's Nest Country Park in northeast New Territories. Ecological advice and impact assessment were provided.

Responsible for overseeing project implementation and survey programme; coordinating and conducting ecological surveys; and providing technical input to the preliminary environmental review for the revitalisation of LMH Lead Cave as part of the Robin's Nest Country Park initiatives.

Playright Children's Play Association [DSD] | Agreement No. HATS 01/2020 Review and Enhancement for Children's Play Area and Rooftop Open Space on the Landscape Deck of Kwun Tong Sewage Pumping Station | Hong Kong | 08/2020 - 11/2022 | Fauna Specialist

Landscaped and play area is planned on the rooftop of the Kwun Tong Sewage Pumping Station. Ideas on biodiversity enhancement e.g. ecological planting, water treatment wetland, bird nest box, dragonfly spring are provided. Rapid ecological baseline survey was also conducted.

Responsible for carrying out fauna survey and providing technical advice on biodiversity landscaping.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

DSD | Agreement No. CE 15/2019 (DS) Drainage Improvement Works in Sha Tin and Sai Kung - Investigation: Contract No. DP 02/2020 Baseline Ecological Survey for Drainage Improvement Works at Sha Tin and Sai Kung | Hong Kong | 06/2020 - 06/2022 | Project Director

The Project looks to improve drainage network in a number of sites in Sha Tin and Sai Kung. Ecological baseline surveys were carried out for Ecological and Fisheries Impact Assessments as part of the Preliminary Environmental Review.

Responsible for overseeing project implementation and survey programme.

Otherland [WSD] | Environmental Study for the Project - Water Supply to Remote Village - Tai Long, Chi Ma Wan Peninsula, South Lantau (Ecological Impact Assessment) | Hong Kong | 05/2020 - 02/2023 | Project Director

The Project looks to provide potable water supply to Tai Long, Chi Ma Wan Peninsula, South Lantau, via minor upgrading works. Ecological baseline surveys were carried out for the Ecological Impact Assessment as part of the Preliminary Environmental Review

Responsible for overseeing project implementation and survey programme.

Ove Arup & Partners HK Ltd. [CEDD] | Agreement No. CE 28/2019 (CE) Study on Phase One Development of New Territories North - San Tin / Lok Ma Chau Development Node - Feasibility Study | Hong Kong | 10/2019 - 12/2022 | Project Director

The Project serves as the next stage of studies focusing on the ST/LMC development node following the Preliminary Feasibility Study of Developing New Territories North, with the aim of producing a PODP for the Node. Ecological, agricultural and fisheries advices and impact assessment were provided, with early baseline ecological field surveys conducted.

Responsible for overseeing project implementation and survey programme.

WWF-HK | Specific Mitigation for Bat Roosts for WWF Hong Kong's Peter Scott Field Studies Centre at Mai Po Prior to Demolition | Hong Kong | 04/2019 - 11/2019 | Bat Specialist

The Peter Scott Field Studies Centre at Mai Po is required to be upgraded for meeting the needs of Mai Po Community, and the centre has to be demolished and re-built. Prior to the demolishment works, bat roosts were identified in the vicinity of this centre, as well as in the noticeboard and in the bicycle shed at the centre. AEC conducted bat surveys, propose and implement mitigation strategies to minimise the construction impact on the bat colonies.

Responsible to developing and implementing mitigation strategies for bat roosts, with close liaison with AFCD and following good ecological practice and demonstrate due diligence.

WWF-HK | Precautionary Ecological Checks for WWF Hong Kong's Peter Scott Field Studies Centre at Mai Po Prior to Demolition | Hong Kong | 05/2019 - 05/2021 | Specialist Ecologist

The Peter Scott Field Studies Centre at Mai Po is required to be upgraded for meeting the needs of Mai Po Community, and the centre has to be demolished and re-built. Prior to the demolishment works, specific site checks of any breeding and roosting birds, bat surveys and assessment were conducted, and relevant mitigation strategies were proposed to minimise the demolishment impact.

Responsible for conducting site checks, bat surveys and assessment of breeding and roosting birds.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

CEDD | Agreement No. CE 85/2017 (GE) Technical Study on the Potential Quarry Site at Tsing Yi Southwest - Feasibility Study: Contract No. TYQ 01/2019 Ecological Survey of Potential Quarry Site at Tsing Yi Southwest | Hong Kong | 06/2019 - 11/2020 | Ecological Project Director

The Project looks to develop a quarry site in Tsing Yi Southwest for government facilities. Ecological baseline surveys were carried out for the Ecological Impact Assessment that forms part of the Preliminary Environmental Review.

Responsible for overseeing terrestrial and freshwater ecological surveys and reviewing technical assessments.

DSD | Agreement No. CE 93/2017 (DS) Yuen Long Barrage Scheme - Investigation, Design and Construction: Contract No. PM 04/2019 Ecological Survey in Yuen Long | Hong Kong | 06/2019 - 09/2021 | Ecological Project Director and Fauna Specialist

The Project looks to develop a tidal barrage at Yuen Long and provide other drainage improvement in Kam Tin River and Shan Pui River. Ecological baseline surveys were carried out for Ecological and Fisheries Impact Assessments as part of the Preliminary Environmental Review.

Overseeing fisheries assessments and ecological surveys (incl. terrestrial, freshwater, intertidal and benthic surveys) in Kam Tin River and Shan Pui River; and providing technical input to the relevant EcolA report.

Urbis Ltd. [HKU] | Planning Consultancy Service for Western Expansion of Main Campus for the University of Hong Kong - Provision of Ecological Support | Hong Kong | 11/2018 - 12/2021 | Project Director

The Project identifies the development constraints and opportunities of the Site from an ecological perspective, to broadly assess ecological impacts that may potentially arise from the proposed expansion, and to facilitate the development of the optimum Site boundaries and development option.

Responsible for overseeing terrestrial and freshwater ecological surveys at the site and providing input to a preliminary ecological assessment.

DSD | Agreement No. CE 65/2017 (DS) Feasibility Study on Extension of Siu Ho Wan Sewage Treatment Works: Contract No. SPW 17/2018 Ecological Survey for Siu Ho Wan Sewage Treatment Works | Hong Kong | 09/2018 - 03/2020 | Project Director

The Project looks to increase the sewage treatment capacity of the existing Siu Ho Wan Sewage Treatment Works in view of the further development on north Lantau. Ecological baseline surveys were carried out for Ecological Impact Assessment as part of the Preliminary Environmental Review.

Responsible for overseeing project implementation, surveys and ecological impact assessments.

Ove Arup & Partners HK Ltd. [CEDD] | Agreement No. CE 1/2013 (CE) Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium and Related Facilities at Sandy Ridge Cemetery - Design and Construction | Hong Kong | 07/2013 - 08/2016 | Project Manager and Ecologist

The Project looks to develop columbarium, crematorium and related facilities all-inclusively at the existing Sand Ridge Cemetery. Ecological advices were provided, with ecological baseline surveys and impact assessments carried out as part of the statutory EIA.

Responsible for conducting all major fauna surveys, including targeted turtle surveys and fireflies, and preparing ecological and fisheries impact assessment.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

SMEC [HKHS] | Consultancy Services for Ecological and Development Feasibility Study of Identified Sites on the Periphery of Country Parks | Hong Kong | 12/2017 - 10/2021 | Project Director and Ecologist

This is a high-profile Project that looks to investigate the feasibility of providing public housing at two selected sites at Tai Lam and Shui Chuen O, both located immediately next to Country Parks. Ecological baseline surveys were carried out for the Ecological Impact Assessment

Responsible for overseeing project and providing technical input to the relevant ecological feasibility study report.

China Road and Bridge Corporation [DSD] | DC/2013/03 - Reconstruction and Rehabilitation of Kai Tak River from Tung Kwong Road to Prince Edward Road East - Ecological Survey for Kai Tak River (Wong Tai Sin Section) | Hong Kong | 03/2018 - 12/2019 | Project Ecologist

The Project is to reconstruct and rehabilitate Kai Tai River (Wong Tai Sin Section).

Responsible for overseeing survey programme, coordinating and conducting ecological surveys, and providing technical input to the relevant survey reports.

Galaxy Entertainment Group | Galaxy Macau in Cotai City Macau - Contract No. NCA(P3C)040, NCA(P4)040 - Phase 3C Lot 3 Development and Phase 4 Lot 4 Development - Consultancy for Expert Ecological (Ornithologist) Services for Phase 3C and Phase 4 Lot 4 Development | Macau | 03/2018 - 02/2022 | Project Director

The Project involves the development of vacant lots with a proposal of a new mixed use development of a two level podium with five hotel towers facing the Taipa-Coloane Wetland Reserve. An ecological impact assessment with specific reference to birds and impacts to this species group was carried out.

Responsible for providing technical input and participating in liaisons with the Environmental Protection Bureau (DSPA) of the Macau SAR Government for bird-friendly designs.

PlanPlus Consultancy Limited | Section 16 Planning Application for a Temporary Cold Store for Poultry and Distribution Centre - Provision of Ecological Consultancy Services | 03/2018 - 02/2021 | Project Director

The Project is a Section 16 Town Planning Application for the development of the temporary cold storage for poultry and distribution centre at Man Kam To Road, Sandy Ridge. Four-month ecological baseline surveys and impact assessment were carried out by AEC.

Responsible for conducting ecological surveys, and providing technical input to the relevant ecological impact assessment in support of the planning application.

DSD | Agreement No. CE 54/2016 (DS) Drainage Improvement Works at North District - Packages A and C - Investigation: Contract No. DP 02/2018 Baseline Ecological and Fisheries Surveys | Hong Kong | 03/2018 - 03/2020 | Project Director and Ecologist

The Project looks to provide drainage improvement in the Ng Tung River drainage basin. Ecological baseline surveys were carried out for Ecological and Fisheries Impact Assessments as part of the Preliminary Environmental Review.

Responsible for overseeing project implementation and survey programme; coordinating and conducting terrestrial and aquatic ecological surveys; and providing technical input to the relevant reports

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

Allied Environmental Consultants Ltd. | Provision of Ecological Consultancy Services for a Potential Section 12A Rezoning Application at Sheung Kwai Chung - Environmental Due Diligence Study | Hong Kong | 01/2018 - 02/2018 | Project Director

For a potential development site in Sheung Kwai Chung, a preliminary ecological review, appraisal of habitats, and a rapid ecological survey were carried out to provide input into an Ecological Due Diligence Report.

Responsible for carrying out a rapid ecological assessment and preparing the Environmental Due Diligence Report.

Ove Arup & Partners HK Ltd. | Section 16 Planning Application for a CDA zone at Sai Sha - Provision of Ecological Consultancy Services | Hong Kong | 01/2018 - 07/2020 | Project Ecologist

The Project is a planning application for seeking approval for a comprehensive development area with large-scale residential development and wetland restoration scheme in Sai Sha. AEC provides ecological baseline surveys to update the ecological resources and habitat conditions of the Project Site, and prepare an ecological impact assessment.

Responsible for conducting primarily bat detector surveys; and providing technical input to the relevant EcolA report in support of the planning application.

Meinhardt Infrastructure and Environment Ltd. [CEDD] | Agreement No. CE 12/2017 (CE) Improvement Works at Tai O, Phase 2 Stage 2 - Design and Construction | Hong Kong | 01/2018 - 12/2019 | Plant Ecologist of the Ecological Impact Assessment

The Project is to design and construct footbridges at Yim Tin and Po Chue Tam, open space for community and cultural events at Yim Tin, improvement works at Yeung Hau Temple and landscaping and other associated works.

Responsible for overseeing survey programme, coordinating and conducting terrestrial and aquatic ecological surveys, and providing technical input to the environmental review and environmental impact assessment.

SMEC Asia Ltd. | Three Proposed Sites in Hong Kong for Development of Solar Farms - Feasibility Study | Hong Kong | 12/2017 - 11/2018 | Project Director

The Project studies the feasibility of developing solar farms at Black Point, Castle Peak and Penny's Bay.

Responsible for providing ecological technical input to the Land/Planning and Environmental/Ecology Feasibility Study Reports.

Allied Environmental Consultants Ltd. | Provision of Ecological Consultancy Services for a Potential Section 16 Application at Tin Shui Wai - Environmental Due Diligence Study | Hong Kong | 11/2017 - 01/2018 | Project Director

For a potential development for a site in Tin Shui Wai, a preliminary ecological review, appraisal of habitats, and a rapid ecological survey were carried out to provide input into an Ecological Due Diligence Report.

Responsible for carrying out a rapid ecological assessment and preparing the Environmental Due Diligence Report.

Master Trend Development Limited | Proposed International School in D.D. 20, Lo Lau Uk, Pun Shan Chau, Tai Po, New Territories - Provision of Ecological and Landscape Consultancy Services for a Section 12A Rezoning Application or a Section 16 Planning Application/Ecological and Landscape & Visual impact Assessment under the EIAO | Hong Kong | 11/2017 - 02/2021 | Project Director

The Project is to provide preliminary design and to submit planning applications for a proposed international school in Tai Po.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

Responsible for conducting terrestrial and freshwater ecological baseline surveys; and providing technical input to the relevant EcolA report for the rezoning/planning application.

AFCD | Contract Ref. AFCD/SQ/111/17 Provision of Service for Field Trial on Pond-wiring to Reduce Cormorant Predation in Commercial Fishponds 2017-18 | Hong Kong | 10/2017 - 03/2019 | Project Ecologist

The Project is to study the use of pond-wiring system in reducing the fish predation by Great Cormorant in the selected fish pond network system in Northwest New Territories.

Responsible for conducting avifaunal surveys and field inspections in commercial fishponds in the Mai Po Inner Deep Bay Ramsar Site.

Arcadis-ESA JV [CEDD] | Agreement No. CE 40/2015 (GE) Landslip Prevention and Mitigation Programme, 2015, Package F, Landslip Prevention and Mitigation Works - Investigation Design and Construction | Hong Kong | 10/2019 - 12/2023 | Project Director

The Project is to design and implement landscape prevention and ecological mitigation works for a range of slopes/ natural hillside under the Assignment.

Responsible for overseeing rapid ecological survey at the site and reviewing the preliminary ecological appraisal report.

Over Arup & Partners Hong Kong Limited [CEDD] | Agreement No. CE 11/2017 (CE) Site Formation and Infrastructure Works for Public Housing Developments at Tseung Kwan O - Investigation, Design and Construction | Hong Kong | 10/2017 - 12/2023 (Anticipated) | Project Director and Ecologist

The Project consists of site formation and infrastructure works for the public housing developments at North of Tseung Kwan O Village, Northwest of Ying Yip Road, West of Yau Yue Wan Village and East of Movie City.

Responsible for overseeing project implementation and survey programme; coordinating and conducting terrestrial and freshwater ecological baseline surveys in four selected public housing sites; and reviewing preliminary EcolA reports and mitigation plans.

DSD | Agreement No. CE 79/2014 (DS) Energizing Kowloon East - Revitalization of Tsui Ping River - Investigation: Contract No. DP 02/2017 Ecological Survey for Revitalization of Tsui Ping River | Hong Kong | 03/2017 - 01/2018 | Project Director

The Project looks to revitalise the polluted Tsui Ping River and develop the river into a blue-green infrastructure that could benefit both wildlife and the community. Ecological baseline surveys were carried out for Ecological Impact Assessment as part of the Preliminary Environmental Review.

Responsible for overseeing project implementation and survey for terrestrial and aquatic ecological surveys.

Confidential | Ecological Baseline Survey and Impact Assessment for Green Belt Sites | Hong Kong | 01/2017 - 11/2019 | Project Director and Project Ecologist

This Project looks to investigate the feasibility of providing private residential land at three Green Belt sites along Nam Fung Road, Hong Kong Island. Ecological baseline surveys and impact assessment were carried out.

Responsible for overseeing project implementation and survey for terrestrial and aquatic ecological surveys

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

CEDD | Agreement No. CE 49/2015 (GE) Technical Study on Potential Quarry Sites at Tuen Mun West - Feasibility Study: Contract No. TMWQ/01 Ecological Surveys in Lung Kwu Tan | Hong Kong | 12/2016 - 01/2019 | Project Director and Ecologist

This Project looks to develop a quarry site in Lung Kwu Tan for government facilities. Ecological baseline surveys were carried out for the Ecological Impact Assessment that forms part of the Preliminary Environmental Review.

Responsible for overseeing project implementation and survey programme; coordinating and conducting terrestrial and freshwater ecological baseline surveys for main faunal species groups in two selected sites in Black Point and Lung Kwu Tan.

SMEC Asia Limited [WWF] | WWF Hong Kong - Mai Po Nature Reserve Infrastructure Upgrade Project, Environmental & Ecological Consultancy Services for the 21st Century Nature Classroom | 11/2016 - 06/2022 | Hong Kong | Project Ecologist

The Project aims to create a 21st Century Nature Classroom that provides the facilities needed by students, teachers, public visitors, families, community groups, and those interested in wetlands research and wetlands training in Mai Po Nature Reserve. The proposed upgrade works include construction of new tower hides for bird watching, upgrading of existing footpath and refurbishment of Mai Po Education Centre.

Responsible for conducting terrestrial ecological baseline surveys in the Mai Po Nature Reserve and its vicinity.

DSD | Agreement No. CE 3/2015 (DS) Yuen Long Effluent Polishing Plant - Investigation, Design and Construction: Contract No. SPW 8/2016 Ecological Survey for Yuen Long Effluent Polishing Plant | 08/2016 - 11/2017 | Project Director

The Project looks to increase the sewage treatment capacity of the existing Yuen Long Effluent Polishing Plant in view of the ongoing and expect population increase in Yuen Long. Ecological baseline surveys were carried out for Ecological Impact Assessment as part of the Preliminary Environmental Review.

Responsible for overseeing terrestrial and freshwater ecological baseline surveys, including fireflies, in the Study Area covering Fung Lok Wai and Nam Sang Wai. Review of habitat evaluations and impact assessment reports.

DSD | Agreement No. CE 78/2014 (DS) Drainage Improvement Works at North District - Package B - Investigation: Contract No. DP 02/2016 Provision of Services of Ecological Baseline Survey (Contract B) | Hong Kong | 06/2016 - 12/2018 | Project Director and Ecologist

The Project looks to provide drainage improvement in the Lok Ma Chau area. Ecological baseline surveys were carried out for Ecological and Fisheries Impact Assessments as part of the Preliminary Environmental Review.

Responsible for overseeing project implementation and survey programme; coordinating and conducting terrestrial and freshwater ecological baseline surveys in three selected sites near Lok Ma Chau; and providing technical input to the relevant ecological baseline reports.

Airport Authority Hong Kong | RFQ No. PRO/Q702/15/HL Supply and Delivery of Bird Trapping Services and Equipment in Terminal 2 at Hong Kong International Airport | Hong Kong | 01/2016 - 06/2016 | Project Ecologist

The Project is to carry out bird (Tree Sparrows) trapping services in Terminal 2 at the Hong Kong International Airport.

Responsible for carrying out bird trapping of Tree Sparrows.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

Ove Arup & Partners HK Ltd. | Hoi An South Comprehensive Development (Phase 1), Vietnam - ecological baseline studies and eco-enhancement schemes for hotel and residential development | Hong Kong | 04/2016 - 12/2022 | Project Director

The Project involves the development of a Hotel Resort with golf course facility in Hoi An, Vietnam. Ecological assessment of the ecological resources and habitat characteristics of the Project Site was carried out, and provided technical review on the landscape design of the Project.

Responsible for overseeing project implementation and survey programme; ecological input to enhance landscape design and golf course to provide opportunities for local wildlife.

Ove Arup & Partners HK Ltd. [EPD] | Agreement No. CE 4/2015 (HY) West New Territories Landfill - Study of Road Access (Upgrading of Nim Wan Road and Deep Bay Road) - Feasibility Study | Hong Kong | 01/2016 - 02/2021 | Project Director and Ecological

The Project looks to increase the capacity of vehicular access to and from the WENT Landfill by upgrading of Nim Wan Road and Deep Bay Road. Ecological advices were provided, with ecological baseline surveys and impact assessments carried out as part of the statutory EIA.

Responsible for conducting/overseeing ecological baseline surveys for terrestrial, freshwater and intertidal faunal species groups in the coastal area from Sheung Pak Nai to Nim Wan and review of impact assessment reports.

Ove Arup & Partners HK Ltd. [CEDD] | Agreement No. CE 26/2015 (CE) Site Formation and Infrastructural Works for the Development at Long Bin, Yuen Long - Feasibility Study | Hong Kong | 01/2016 - 04/2016 | Project Director

The Project looks to investigate the feasibility of providing public housing and its associated infrastructural development in Long Bin, Yuen Long. AEC conducted a 4-month ecological baseline surveys and impact assessment to support in the Preliminary Environmental Review.

Responsible for overseeing ecological baseline surveys and impact assessment reporting.

Ove Arup & Partners HK Ltd. [CEDD] | Agreement No. CE62/2014 (CE) Site Formation and Infrastructural Works for Proposed Public Housing Developments at Pokfulam South - Feasibility Study | 02/2015 - 10/2017 | Faunal ecologist

The Project looks to investigate the feasibility of providing public housing at several sites in Pok Fu Lam South. Ecological baseline surveys and impact assessment were carried out as part of the Preliminary Environmental Review.

Responsible for conducting terrestrial ecological baseline survey and preparing the environmental impact assessment report.

Ove Arup & Partners HK Ltd. [CEDD] / [PlanD] | Agreement No. CE 10/2015 (CE) Preliminary Feasibility Study of Cable Car System from Ngong Ping to Tai O, and Spa and Resort Development at Cheung Sha and Soko Islands - Feasibility Study | Hong Kong | 07/2015 - 05/2019 | Faunal ecologist

The Project looks to strategically develop and enhance tourism and recreation in the Lantau South and Soko Islands. Ecological advices were provided during land use planning, and baseline surveys and impact assessments that forms part of the Preliminary Environmental Review were conducted.

Responsible for conducting terrestrial ecological baseline survey and preparing the environmental impact assessment report.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

HOK | Ecological Input to a Landscape Master Plan on Hainan Island | 10/2015 - 12/2015 | Project Ecologist

AEC provides ecological input and review for a Landscape Master Plan (LMP) for a private development project on Hainan Island. Technical assessment and ecological review of the existing and proposed habitats within the proposed design themes for LMP were carried out, and recommendation on plant species for suitable habitats were made.

Responsible for providing the technical assessment and ecological review of the LMP.

Ove Arup & Partners HK Ltd. [EPD] | Agreement No. CE 6/2015 (EP) West New Territories (WENT) Landfill Extension - Design and Construction | Hong Kong | 10/2015 - 12/2024 (Anticipated) | Project Ecologist

The Project looks to increase the capacity of the WENT Landfill. Ecological advice were provided, with ecological baseline surveys and impact assessments carried out as part of the statutory EIA.

Responsible for conducting fauna survey.

Ove Arup & Partners HK Ltd. [DSD] | Agreement No. CE 1/2015 (DS) North East New Territories Sewerage Upgrade and North District Sewerage - Investigation, Design and Construction | Hong Kong | 09/2015 - 03/2022 | Project Director

The Project looks to provide drainage improvement in the Ng Tung River drainage basin and other sites in northeast New Territories. Ecological baseline surveys were carried out for Ecological Impact Assessment as part of the Preliminary Environmental Review.

Responsible for overseeing ecological baseline surveys and impact assessment reporting.

C M Wong & Associates Ltd. [CEDD] | Agreement No. CE 28/2013 (GE) Landslip Prevention and Mitigation Programme, 2013, Package B, Landslip Prevention and Mitigation Works - Investigation, Design and Construction: Provision of Ecological Survey | Hong Kong | 09/2015 - 09/2016 | Project Director

The Project is to design and implement landslip prevention and mitigation works to a number of slope features under the Agreement.

Responsible for overseeing the rapid ecological surveys and ecological appraisal report.

Jacobs China Limited [CEDD] | Agreement No. CE34/2013(GE) Landslip Prevention and Mitigation Programme, 2013, Package H, Landslip Prevention and Mitigation Works - Investigation, Design and Construction: Provision of Rapid Ecological (Flora/Fauna) Surveys Services | Hong Kong | 08/2015 - 10/2015 | Project Director and Bird Ecologist

The Project is to design and implement landslip prevention and mitigation works for a range of slope features/ natural terrains under the Agreement.

Responsible for conducting the bird survey, overseeing the rapid ecological surveys and ecological appraisal report.

Hutchison Whampoa Property Management | 23 Coombe Road: assessment of impact on Black Kite roost | Hong Kong | 08/2015 - 04/2017 | Project Ecologist

The Project is to construct a low-rise development at 23 Coombe Road. An ecological assessment is required to assess potential impact on the Magazine Gap Black Kite roost and any rare/ protected plant species at the site.

Responsible for conducting the Black Kite surveys and assessing any impacts on this bird species from the proposed development.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

Kwong Hing Investment (HK) Ltd. | Proposed Residential Development in Nam Sang Wai and Nature Reserve at Lut Chau: EIAO and Section 16 Submissions - Summer 2015 Firefly Surveys | Hong Kong | 04/2015 - 09/2015 | Project Ecologist

The Project involves a series of consultancy contracts in conducting Ecological Impact Assessment and providing detailed wetland design for the wetland systems in Nam Sang Wai and Lut Chau under the large-scale comprehensive residential development. This contract involves ecological baseline surveys of light levels and distribution at known sites of the Mai Po Bent-winged Firefly *Pteroptyx maipo*.

Responsible for conducting the fireflies survey and preparing the relevant survey report to support in the Town Planning Application.

Lands Department | LD/DLO/TP/TI/2015/1 Provision of Arboricultural Services for Tree-related Complaints/Referrals to District Lands Office/Tai Po, Lands Department Study | Hong Kong | 07/2015 - 02/2016 | Project Team Leader

The Project /is to handle tree-related complaints/ referrals received by DLO/TP office.

Responsible for overseeing the project progress, conducting tree risk assessments, providing recommendations for tree remedial works and supervision/ verification of completed tree works.

Ove Arup & Partners Hong Kong Limited [CEDD] | Agreement No. CE 61/2014 (CE) Site Formation and Infrastructural Works for Nine Housing Sites in Tseung Kwan O - Feasibility Study: Preliminary Environmental Study | Hong Kong | 08/2015 - 04/2017 | Project Director and Ecologist

The purpose of the PES is to evaluate the environmental performance of the proposed site formation and associated infrastructure, including the on-site, off-site and cumulative environmental implications of relevant development within and in the vicinity of the nine housing sites in Tsuen Kwan O.

Responsible for overseeing project implementation and survey programme; terrestrial and freshwater ecological surveys for main faunal species groups in nine selected potential housing sites in the Tseun Kwan O area.

DSD | Agreement No. LD 06/2014 Eco-Hydraulics Study on Green Channels - Stage 2 (Contract No. 09/LD/2015 Provision of Services of Ecological Field Survey) | Hong Kong | 06/2015 - 03/2018 | Project Director and Project Ecologist

The Project looks to assess the existing conditions and potential for revitalisation works in a total of 22 selected watercourses on Hong Kong Island, Lantau Island and New Territories. Extensive ecological baseline surveys were carried out for the Study and review of existing watercourses and proposed enhancement measures, including fish ladders.

Responsible for overseeing project implementation and survey programme; terrestrial and freshwater ecological surveys for main faunal species groups in twenty-two selected streams and rivers across Hong Kong; as part of a baseline study for stream enhancements works

SMEC Asia [EPD] | Study of Access Options to Lap Sap Wan in Shek O for Removal of Marine Refuse (Quotation Ref. 18-00999) - Provision of Ecological Consultancy Services | Hong Kong | 03/2019 - 03/2021 | Project Director

The Project investigated the feasibility of providing land-based vehicular access to Lap Sap Wan in Shek O for Removal of Marine Refuse that have built up at the bay. Ecological baseline surveys and impact assessment were conducted as part of the Preliminary Environmental Review.

Responsible for overseeing the ecological baseline surveys, project implementation and reviewing the relevant PER report.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

Mott MacDonald [CEDD] | Agreement No. CE 31/2014 (CE) Engineering Study for Police Facilities in Kong Nga Po - Feasibility Study | Hong Kong | 03/2015 - 12/2015 | Project Director

The Project looks to develop a new police training school and associated facilities in Kong Nga Po, northeast New Territories. Ecological baseline surveys and impact assessment were carried out as part of the statutory EIA process.

Responsible for overseeing the ecological baseline surveys, project implementation and providing technical input to the Ecological Impact Assessment Report.

DSD | Agreement No. CE 50/2007 (DS) North District Sewerage Stage 2 (Remainder) and Sewerage to Chuen Lung, Kau Wa Keng Old Village and Lo Wai - Investigation, Design and Construction: Ecological Survey for the Proposed Site of Lin Ma Hang Sewage Treatment Plant | Hong Kong | 01/2015 - 01/2017 | Project Director

The Project looks to provide sewerage improvement in selected locations in central and eastern New Territories. Ecological baseline surveys were carried out for Ecological Impact Assessment as part of the Preliminary Environmental Review.

Responsible for overseeing ecological baseline surveys, project implementation and providing technical input to the relevant survey reports.

DSD | Agreement No. CE 22/2013 (DS) Drainage Improvement Works in Yuen Long, Stage 1 - Investigation, Design and Construction: Contract No. PM 10/2014 - Ecological Baseline Survey for Drainage Improvement Works in Yuen Long, Stage 1 | Hong Kong | 01/2015 - 02/2016 | Project Director

The Project looks to provide drainage improvement in eight selected watercourses located in Shek Kong, Kam Tin, Pat Heung and Shap Pat Heung areas. Ecological baseline surveys were carried out for Ecological Impact Assessment as part of the Preliminary Environmental Review.

Responsible for overseeing ecological baseline surveys for terrestrial and aquatic community surveys, project implementation and providing technical input to the relevant survey reports.

Lands Department | Contract No.: LD/DLO/YL/STI/2014/1 Provision of Services for Tree Assessment for Village Access Roads/Footpaths within the administration boundary of District Lands Office, Yuen Long | Hong Kong | 08/2014 - 03/2017 | Project Team Leader

The Project is to handle tree-related complaints/ referrals received by DLO/YL office.

Responsible for overseeing the whole project, conducting tree risk assessments, providing recommendations for tree remedial works and supervision/ verification of completed tree works.

Ove Arup & Partners Hong Kong Limited [CEDD] / [PlanD] | Agreement No. CE42/2013 (CE) Preliminary Feasibility Study on Developing the New Territories North | Hong Kong | 01/2014 - 03/2018 | Project Ecologist

The Study aims to formulate a Concept Plan (CP) for the NTN and strategic infrastructure requirements, examine the Broad Land Use Concept Plans (BLCPs) and their preliminary feasibility on individual Potential Development Area (PDA) and Optional Development Area (ODA) identified. The findings and recommendations of this Study form the basis for detailed P&E Studies for the PDAs and the ODA in the future.

Responsible for the multi-fauna survey and impact assessment and evaluation for the Ecological Impact Assessment of the SEA Study.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

SMEC Asia Ltd. | The University of Chicago | University of Chicago Centre in Hong Kong - Mount Davis: Ecological surveys and Assessment Report to Support Section 16 Planning Application | Hong Kong | 05/2014 - 04/2015 | Project Manager and Bat Ecologist

The Project involves a Section 16 Planning Application for The University of Chicago for developing a site at Mount Davis as a purpose-built campus "University of Chicago Centre in Hong Kong". Parts of the proposed Project Site are occupied by the former Jubilee Battery (a wartime structure) and a bat roost has been identified in one of these disused underground magazine underneath the Project Site. AEC conducted 12-month bat survey (May 2014 to April 2015) to summarise the species present and estimate the overall number of bats within the surveyed colony.

Responsible for conducting the monthly bat surveys and reporting the bat survey findings, final Bat Survey Report and proposing mitigation recommendations to be included in the Environmental Assessment Report for the Town Planning Application.

In Yam Development Ltd. | Sun Hung Kai Properties Ltd. | Proposed Residential Development in "R(D)" and "U" Zones at Various Lots in DD 115 and Adjoining Government Land, Tung Shing Lei, Yuen Long | Hong Kong | 04/2014 - 02/2021 | Project Ecologist

The Project involves residential development with the wetland enhancement management scheme for S16 Planning Application.

Responsible for conducting bird survey and preparing the ecological impact assessment report.

SMEC Asia Ltd. [CEDD] | Agreement No. CE42/2012 (EP) Liantang/ Heung Yuen Wai Boundary Control Point and Associated Works - Independent Environmental Checker for the mitigation measures for landscape & visual and ecological impacts | 05/2013 - 12/2024 (Anticipated) | Project Director

The Project includes site formation works and construction of facilities/ buildings and associated road works for Heung Yuen Wai Boundary Control Point which is a Designated Project under EIAO. AEC provides ecological and landscape & visual support for the Independent Environment Checker Team

Responsible for overseeing the review and audit job conducted by the IEC (ecology, landscape & visual) aspects.

Ove Arup & Partners Hong Kong Limited [CEDD] | Agreement No. CE 1/2013 (CE) Site Formation and Associated Infrastructural Works for Development of Columbarium, Crematorium, and Related Facilities at Sandy Ridge Cemetery - Design and Construction (Ecological Input for the Application for VEP due to Changes of the Crematorium Design) | Hong Kong | 04/2018 - 08/2019 | Project Director

The Project (a Designated Project under EIAO) comprises site formation works and infrastructural works for the development of columbarium facilities at Sandy Ridge Cemetery. AEC provides additional ecological surveys to support the application of a VEP due to the changes of the crematorium design.

Responsible for overseeing survey programme, coordinating and conducting ecological surveys, and providing technical input to the relevant reports.

Other Projects

- Agreement No. CE 18/2012 (CE) Development at Anderson Road Quarry - Investigation: Ecological Impact Assessment
- Agreement No. CE 19/2007 (HY) Hiram's Highway Improvement Stage 2 - Investigation, Ecological Input into Option 4 - Tunnel: Ecological Impact Assessment. All major fauna groups and Fireflies.
- Provision of Arboricultural Services in the General Tree Inspection and Detailed Tree Risk Assessment of Problematic Trees to Tree Unit, lands Department, 2013 - 2014

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

- Agreement No. CE 5/2012 (HY) Widening of 2 Sections of Lin Ma Hang Road (Sections between Ping Yuen River and Ping Che Road and between Tsung Yuen Ha and Lin Ma Hang) - Investigation: Ecological and Fisheries Impact Assessment
- Ecological Consultancy Services for Dongshan Urban Forest Park, Suining, Sichuan, 2013: Ecological Assessment and Arboricultural Consultancy Services
- Ecological Monitoring for Construction of Light Rapid Transit (LRT) System on the Taipa Island, Macau (2012-13): Ecological Monitoring of Black-faced Spoonbill *Platalea minor*
- Agreement No. GEO 05/2012 Consultancy Services for Submission under Section 16 of the Town Planning Ordinance (Cap. 131) for Development of a Precasting Yard at Nam Sang Wai, Yuen Long (2012 -2013): Ecological Support and specific avifauna surveys
- Agreement No. CE 35/2012 (CE) Planning and Engineering Study for Housing Sites in Yuen Long South - Investigation: Ecologist and Freshwater Specialist conducting surveys and impact assessment for the Project. Input into Fisheries Impact Assessment
- BEAM Plus Consultancy Services for the Proposed Redevelopment on No. 62 - 76 Main Street, Ap Lei Chau: Ecological Impact Assessment under BEAM Plus (SA 5)
- BEAM Plus Consultancy Services for the Proposed Redevelopment on No. 196 - 202 Ma Tau Wai Road, Kowloon: Ecological Impact Assessment under BEAM Plus (SA 5)
- Shatin to Central Link (SCL) Consultancy Agreement No. C11032 Independent Environmental Checker for Shatin to Central Link: Ecological Specialist to support the IEC work
- Hong Kong Housing Authority, Planning and Engineering Study for the Public Housing Site and Yuen Long Industrial Estate Extension at Wang Chau
- BEAM Plus Consultancy Services for Residential Development at No. 50-64 Ma Tau Kok Road & 162-168 Pau Chung Street: Ecological Impact Assessment under BEAM Plus (SA5)
- BEAM Plus Consultancy Services for Residential Development on 19 - 33 Shing On Street, Sai Wan Ho, Hong Kong: Ecological Impact Assessment under BEAM Plus (SA5)
- Agreement No. CE 3/2012 (HY) Cycle Track between Tsuen Wan and Tuen Mun (Advance and Stage 1 Works) - Design and Construction. Project director and ecologist conducting terrestrial and freshwater surveys and review reports. Responsible for conducting and compiling the Fisheries Impact Assessment (ongoing).
- SP Quotation Ref: PLNQ 73/2011 Ecological Field Survey of Hoo Hok Wai (Planning Department) Responsible for bird, bat and flightline surveys in the assessment area and report writing
- Agreement No. CE 30/2009 (GE) Landslip Prevention and Mitigation Programme, 2009, Package D, Natural Terrain Hazard Mitigation Works, Hong Kong Island and Sai Kung - Investigation, Design and Construction: Preparation of Project Profiles for Direction Application of Environmental Permits for Slope Works within Country Park Areas (Ecological Impact Assessment and Landscape and Visual Impact Assessment). Project ecologist conducting terrestrial and freshwater surveys and review reports.
- Provision of Service for Baseline Environmental Survey and Testing for EIA for Drainage Improvement Works at Ngong Ping (December 2011 - March 2012). Project director and ecologist conducting terrestrial and freshwater surveys and review reports.
- Case No. 324_P106811-03 Ecological Consultancy Services for Section 16 Planning Application Submission and EIAO for OU(CDWRA) Development at D.D. 104 Wing Kei Tsuen, Yuen Long (1) Ecological Input and Ecological Impact Assessment (2) Fisheries Input and Fisheries Impact Assessment

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

Project ecologist responsible for co-ordinating and conducting terrestrial and freshwater surveys, conducting surveys for all main species groups and reporting by way of impact assessment and mitigation measures. Responsible for conducting and compiling the Fisheries Impact Assessment

- Case No. 312_P106812-05 Ecological Consultancy Services for Section 16 Planning Application Submission and EIAO for OU(CDWRA) Development at Various Lots in DD99, 101 & 105 Lin Barn Tsuen, Yuen Long (1) Ecological Input and Ecological Impact Assessment (2) Fisheries Input and Fisheries Impact Assessment Project manager and ecologist responsible for co-ordinating and conducting terrestrial and freshwater surveys, conducting surveys for all main species groups and reporting by way of impact assessment and mitigation measures. Responsible for conducting and compiling the Fisheries Impact Assessment
- Agreement No. CE 33/2011 (CE) Planning and Engineering Study on Future Land Use at Ex-Lamma Quarry Are at Sok Kwu Wan, Lamma Island - Feasibility Study (Ecological Impact Assessment and Fisheries Impact Assessment) Project ecologist responsible for co-ordinating and conducting terrestrial, freshwater and marine surveys, conducting surveys for all main species groups and reporting by way of impact assessment and mitigation measures. Marine surveys conducted include marine mammal, intertidal surveys, along with specific coral and benthic grab surveys in areas off of Lamma Island. Also responsible for Fisheries Impact Assessments.
- Menglun Tourism Resort - Environmental Consultancy Services for Conceptual Planning Project in Xishuangbanna, China Project Manager and ecologist responsible for co-ordinating and conducting Rapid ecological Assessments in order to help guide conceptual masterplan for a tourist town in SW Yunnan.
- South Island Line (East) - Consultancy Agreement No. C912C Ecologist responsible for monitoring of ardeid night roost during the construction of SIL(E).
- Environmental Impact Assessment for Shatin to Central Link - Tai Wai to Hung Hom Section Ecological Baseline: Project Manager and ecologist responsible for co-ordinating terrestrial, freshwater and marine surveys, conducting surveys for all main species groups and reporting by way of impact assessment and mitigation measures. Marine surveys conducted included intertidal surveys along with specific coral and benthic grab surveys in areas of Victoria Harbour, around Kai Tak and Hoi Sum Park, as with investigations at Tseung Kwan O and Tsing Yi.
- Proposed Comprehensive Development in Lots 43s.A.R.P (Part) and 50 in D.D.101, Lots 1266R.P. (Part), 1267 (Part) and 1268 (Part) in D.D.105 and Adjoining Government Land, Wo Shang Wai, Mai Po, Yuen Long, New Territories. Responsible for bird surveys during construction stages and detailed mitigation wetland design.
- Provision of Services for Survey of Terns in Hong Kong (2011). Responsible for conducting boat surveys for nesting terns and seabirds on the open sea of western, southern & eastern waters of Hong Kong.
- Proposed Residential and Golf Course Development at Nam Sang Wai and Nature Reserve at Lut Chau: Avifauna, Ardeid Flight-line Surveys, herpetofauna, butterfly, firefly and dragonfly surveys and development of detail habitat creation and management plan for mitigation wetland design.
- Agreement No. CE 27/2009 (CE) Improvement Works at Tai O - Design and Construction: Project Manager and ecologist responsible for co-ordinating terrestrial, and intertidal surveys, and reporting by way of impact assessment and mitigation measures. Specific surveys involved egret, bird flightline and odonate surveys.
- Planning and Engineering Study on Development of Lok Ma Chau Loop: Avifauna flightline and trapping surveys and Fisheries Impact Assessment.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

- EIA for Comprehensive Residential and Recreational Development at Sai Sha: Project Manager and ecologist responsible for co-ordinating terrestrial, and intertidal surveys, and reporting by way of impact assessment and mitigation measures. Specific surveys involved egretty, bird flightline and odonate surveys.
- Tai O Salt-Pan Restoration (PER): Project Manager and ecologist responsible for co-ordinating terrestrial, and intertidal surveys, and reporting by way of impact assessment and mitigation measures. Specific surveys involved egretty, bird flightline and odonate surveys (2009).
- Trial Trapping of House Crow at identified Sites in Hong Kong - bird trapping services to AFCD in order to control exotic, invasive bird species in Hong Kong.
- Provision of bird control professional services at HK International Airport at Chek Lap Kok - Bird Surveys within controlled areas of airport and surrounding habitats.
- Ecological Assessment (BEAM Plus) for Residential Development at Seymour Road, Mid-levels Hong Kong- Nature Outlook Assessment for BEAM Plus Accreditation.
- Ecological Assessment (BEAM Plus) for Residential Development at Caine Road, Mid-levels Hong Kong- Nature Outlook Assessment for BEAM Plus Accreditation.
- Ecological Surveys for CLP Pylons within Protected Areas: Rapid ecological assessments of remote electricity pylons to assess ecological value of sites with proposed upgrading works.
- Proposed Residential Development at Argyle Street, Kowloon - Nature Outlook Assessment For BEAM Plus Accreditation.
- Consultancy Services for Ecological Surveys and studies for Eco-garden design at Au Tau: Project Director conducting and overseeing ecological surveys and providing conceptual design input into the eco-gardens for a residential development
- Nim Wan Sludge Treatment Works: Project Manager conducting and overseeing ecological surveys during construction stages and detailed mitigation wetland design.
- Drainage Improvement Works in Shuen Wan, Tai Po - baseline surveys for avifauna and other terrestrial fauna.
- Improvement Works at Tai O - Design and Construction - Ecological and Tree Survey Support: Project manager responsible for overseeing wide range of faunal and botanical surveys
- Agreement No. WD 10/2009 Improvement and Extension of Kam Pok Road - Design: Responsible for avifauna surveys
- Ma Hang Headland Park (Hong Kong Housing Authority): Avifauna surveys, 2009 - 2010.
- Preliminary Environmental Review (PER): Ecology for Cycle Track from Tsuen Wan to Tuen Mun: Project Manager and ecologist responsible for co-ordinating terrestrial and inter-tidal surveys and completing avifauna surveys, 2008 - 2010
- HK-Zhuhai-Macao Bridge HK Link Road - Verification Survey for Eco baseline: responsible as project manager and ecologist co-ordinating marine, intertidal and terrestrial surveys in North Lantau and Chek Lap Kok, 2008 - 2009.
- Provision of trapping and Veterinary Service for the Wild Monkeys Contraception Project in Kam Sham and Lion rock Country Parks: responsible for project management for macaque surveys in two country parks and advice on optimum trapping periods, 2008 - 2009.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

- North East New Territories New Development Areas Planning and Engineering Study for Civil Engineering and Development Department, Hong Kong Government: assessment of potential Ecological and Fisheries impacts of areas to be developed for housing and logistics industry with associated infrastructure and community facilities and design of mitigation measures, 2008 - 2013
- Satellite Tracking of Duck wintering in Hong Kong: Coordinator of an international study researching the migration of Hong Kong wintering ducks using satellite telemetry.
- Ecological Monitoring and Adaptive Management Advice for Lok Ma Chau Ecological Compensation Area for KCRC: responsible for herpetofauna and odonate surveys and reporting, 2008 - 2010.
- Ecological Monitoring and Adaptive Management Advice for Wetland Mitigation Areas at KCRC West Rail: responsible for herpetofauna and odonate surveys and reporting. Trapping and marking of Greater Painted-snipe for radio tracking studies, 2008 - 2010.
- Ecological Impact Assessment for residential development at Yau Mei San Tsuen: herpetofauna and dragonfly surveys, 2008.
- Sha Po Residential Development - Ecological Impact Assessment and Wetland Management Plan: herpetofauna and odonate surveys and development of habitat management plan and wetland design
- Ecological Monitoring for Main Drainage Projects (PWP Items Nos. 70CD and 73CD) at Northwest New Territories: project manager co-ordinating surveys for birds, herpetofauna, odonate, benthic invertebrates and reporting
- Proposed Comprehensive Development at Wo Shang Wai, Yuen Long: Avifaunal surveys, 2008.

Atkins China Limited | 10/2006 - 02/2008 | Ecologist

- Ecologist: Ecological surveys of protected species, reporting, mitigation proposal and design.

CSa Environmental Planning, United Kingdom | 10/2004 - 08/2006 | Senior Ecologist

- Providing ecological services and undertaking a wide range of ecological survey and assessment work, largely for the development system.
- Work includes input to EIA, EcoIA, habitat and protected species survey, consultee discussions, mitigation and ecological enhancement work, preparation of management plans, post-development monitoring.
- Protected species license holder for bats, great crested newts and white-clawed crayfish.
- Project management and survey for work including Commercial and Housing Developments; Road, Rail and Waterways; Airports; Utilities and Pipelines; Canal Restoration Projects and Marinas; Quarries and Mineral Extraction.
- Involved in conducting ecological appraisals as part of BREEAM Assessments for developers wanting to provide sustainable buildings and housing schemes.

British Waterways, United Kingdom | 02/2003 - 09/2004 | Conservation Ecologist

- Undertaking a full range of ecological survey and assessment work. Habitat creation and mitigation for protected species including fish ladders, otter holts, badger setts and newt ponds.
- Working in a multi-disciplinary team including engineers, hydrologists, water quality scientists, landscape architects, waste management specialists and heritage specialists.
- Project work involved on-going canal operations, restoration schemes, urban regeneration schemes and eco-enhancements, maintenance of built structures and water resources management i.e. reservoirs and feeders, development of Biodiversity Action Plan for company.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

United Kingdom | 03/2000 - 03/2003 | Freelance Ecologist

- Undertaking a full range of ecological survey, monitoring and assessment work for protected species and habitats.
- Work includes input to EIA, EcoIA, habitat and protected species survey, consultee discussions, mitigation and ecological enhancement work, preparation of management plans, post-development monitoring.
- Project work including Commercial and Housing Developments; Road and Waterways; Airports; Utilities and Pipelines; Canal Restoration Projects and Marinas.

Freshwater Research Department, DeMontfort University, Leicester | 09/1996 - 08/1997 | Research Ecologist

Undertaking laboratory and field studies of native UK amphibians and invertebrates.

Publications

- Stanton, D.J. & Leader, P.J. 2024 | Beyond Mitigation: 20 Years of Biodiversity Gains from Managing a Compensation Wetland in Hong Kong. In Practice 123: 37-42.
- Pang, C.C., D.J. Stanton, P.J. Leader, M.R. Leven and G.J. Carey 2023. White-shouldered Starling *Sturnia sinensis*, version 1.0 In *The Avifauna of HK* (G.J. Carey, Editor). Hong Kong Birdwatching Society, Hong Kong, China. [online]
<https://hkbws.org.hk/avifauna/species/0380/045700>
- Stanton, D.J. & P.J. Leader. 2021. Egret Flightline Surveys: towards a standardised methodology. Journal of Heron Biology and Conservation 6:2 [online]
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- Allcock, J.A., Leader, P.J., Stanton, D.J., Leven, M.R. & Leung, K.K.S 2018. Permanently inundated Phragmites reedbed supports higher abundance of wetland-dependent bird species than drier reedbed during southward migration through Hong Kong. Forktail 34: 9-13.
- Stanton, D.J. & Klick, B. 2018. Flight modifications as a response to traffic by night-roosting egrets crossing a road bridge in Hong Kong. Journal of Heron Biology and Conservation 3:4 [online] URL: www.HeronConservation.org/vol3/art4
- Stanton, D.J., M.R. Leven & T.C.H. Hui. 2018. Distribution of *Nanhaipotamon hongkongense* (Shen, 1940) (Crustacea: Brachyura: Potamidae), a freshwater crab endemic to Hong Kong. Journal of Threatened Taxa 10(1): 11156-11165; <http://doi.org/10.11609/jott.3619.10.1.11156-11165>
- Leader, P.J., Stanton, D.J., Carey, G.J., Li, W. & Ma, M. 2017. Alpine Swift *Tachymarptis melba* in the Ili River Valley, Yining, Xinjiang, a first record for China. BirdingAsia 28:117-118.
- Stanton, D.J. 2017. Notes of the Collared Crow *Corvus torquatus* population structure at Mai Po Nature Reserve, Hong Kong. BirdingAsia 27:43-47.
- Stanton, D.J. 2017. Emergence times and seasonality of the Great Leaf-nosed Bat (*Hipposideros armiger*, Chiroptera: Hipposideridae) in Hong Kong, China. Acta Theriologica Sinica 37 (3): 251-255.
- Stanton, D.J., M.R. Leven & T.C.H. Hui. 2017. Distribution of *Cryptopotamon anacoluthon* (Kemp, 1918) (Crustacea: Brachyura: Potamidae), a freshwater crab endemic to Hong Kong. Journal of Threatened Taxa 9(2): 9786-9794; <http://doi.org/10.11609/jott.3007.9.2.9786-9794>
- Leader, P. J., Stanton, D. J., Martinez, J., & Lewthwaithe, R. W. 2016. A review of the distribution and population size of Collared Crow *Corvus torquatus*. Forktail 32: 41-53.

STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

- Stanton, D.J. 2016. Wader use of an eco-engineered drainage channel in Hong Kong. *Wader Study* 123 (2): 114-121.
- Stanton, D.J. 2016. Predation of Dawn-swarming Bats by Eurasian Hobby (*Falco subbuteo*). *Journal of Raptor Research* 50(3):317-319.
- Stanton, D.J. 2016. Diving as an escape strategy by Common Sandpiper *Actitis hypoleucos*. In: J. Allcock, G. Chow & G. Welch (Eds.) *Hong Kong Bird Report 2014*. The Hong Kong Birdwatching Society, Hong Kong.
- Stanton, D.J. & M.R. Leven. 2016. Distribution, habitat utilisation and conservation status of the freshwater crab, *Somanniathelphusa zanklon* Ng & Dudgeon, 1992 (Crustacea: Brachyura: Gecarcinucidae) endemic to Hong Kong. *Journal of Threatened Taxa* 8(3): 8564-8574.
- Stanton, D. J., Allcock, J.A & Leader, P.J. 2015. Wintering and migratory behaviour of Eurasian Bitterns *Botaurus stellaris* at Mai Po Nature Reserve, Hong Kong, China. *Forktail* 31:92-97.
- Stanton, D.J. 2015. Flock size and nocturnal migration in Grey Herons *Ardea cinerea* at Mai Po Nature Reserve, Hong Kong. In: J. Allcock, G. Chow & G. Welch (Eds.) *Hong Kong Bird Report 2013*. The Hong Kong Birdwatching Society, Hong Kong.
- Stanton, D.J. & Leven, M. R. 2014 Abnormal colour of east Asian starlings: a mystery solved? *BirdingAsia* 22:101-104.
- Stanton, D.J., Smith, B.R & Leung, K.K.S. 2014. Status and roosting characteristics of Collared Crow *Corvus torquatus* at the Mai Po Nature Reserve, Hong Kong. *Forktail* 30:79-83.
- Stanton, D. J. 2014. Sloughed snake skins as nesting material for Crested Mynas *Acridotheres cristatellus*. In Allcock, J.A., Carey, G.J., Chow, G. & Welch, G. (Eds) *The Hong Kong Bird Report 2012*. The Hong Kong Bird Watching Society, Hong Kong.
- Stanton, D. J. 2014. Attempted predation of Chinese Noctule *Nyctalus plancyi* by Large-billed Crow *Corvus macrorhynchos*. In Allcock, J.A., Carey, G.J., Chow, G. & Welch, G. (Eds) *The Hong Kong Bird Report 2012*. The Hong Kong Bird Watching Society, Hong Kong.
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- Stanton, D. J. 2012. Eurasian Roller *Coracias garrulus* near Black Point Power Station, Tuen Mun. The first Hong Kong record. In Allcock, J.A., Carey, G.J., Chow, G. & Welch, G. (Eds) *The Hong Kong Bird Report 2009-10*. The Hong Kong Bird Watching Society, Hong Kong.
- Antonov A.I., Avdeyuk S.V., Leader P., Carey, G., Stanton D. 2012. New data on some of protected and rare birds in Northeastern Primorie. *Far East. J. Orn.* 3: 77—79.
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STANTON David John (David)

Executive Director, Ecology and Biodiversity - Hong Kong

- Stanton, D. J. 2011. Observations at the Wong Chuk Hang Ardeid night roost in 2009. In: Carey, G., Allcock, J., Chow, G. & Welch, G. (Eds.) Hong Kong Bird Report 2007-08. The Hong Kong Bird Watching Society, Hong Kong.
- Stanton, D. J. 2011. White-throated Kingfisher eating Apple Snails. In: Carey, G., Allcock, J., Chow, G. & Welch, G. (Eds.) Hong Kong Bird Report 2007-08. The Hong Kong Bird Watching Society, Hong Kong.
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Conference Proceedings

- Stanton, D.J. 2019. Wader use of eco-engineered drainage channels in Hong Kong. 8th IWA-ASPIRE Conference and Exhibition (the International Water Association), Hong Kong
- Stanton, D.J. & Leven, M.R. 2019. How EIA has furthered the conservation of endemic freshwater crabs in Hong Kong. International Association of Impact Assessment 2019 Proceedings, Brisbane, Australia.
- Allcock, J.A., Leader, P.J., Stanton, D.J., Leven, M.R. & Leung, K.K.S 2018. Management of *Phragmites* reedbed in eastern Asia: Southbound migrants of reedbed-dependent species show a preference for wet compared to dry reedbeds. 27th International Ornithological Congress, Vancouver, Canada

Employment record

03/2008 - Present: Aurecon Hong Kong Limited - Executive Director, Ecology and Biodiversity - Hong Kong (01/2023 - Present); Former AEC Limited - Director (03/2008 - 12/2022)

10/2006 - 02/2008: Atkins China Limited - Ecologist

10/2004 - 08/2006: CSa Environmental Planning, United Kingdom - Senior Ecologist

02/2003 - 09/2004: British Waterways, United Kingdom - Conservation Ecologist

03/2000 - 03/2003: Self-employed - Freelance Ecologist

09/1998 – 11/1999: Mudlogging Engineer – Schlumberger Anadrill

09/1997- 09/1998: NatWest Bank – not relevant to profession

09/1995 - 08/1996: Freshwater Research Department, DeMontfort University - Research Ecologist

Languages

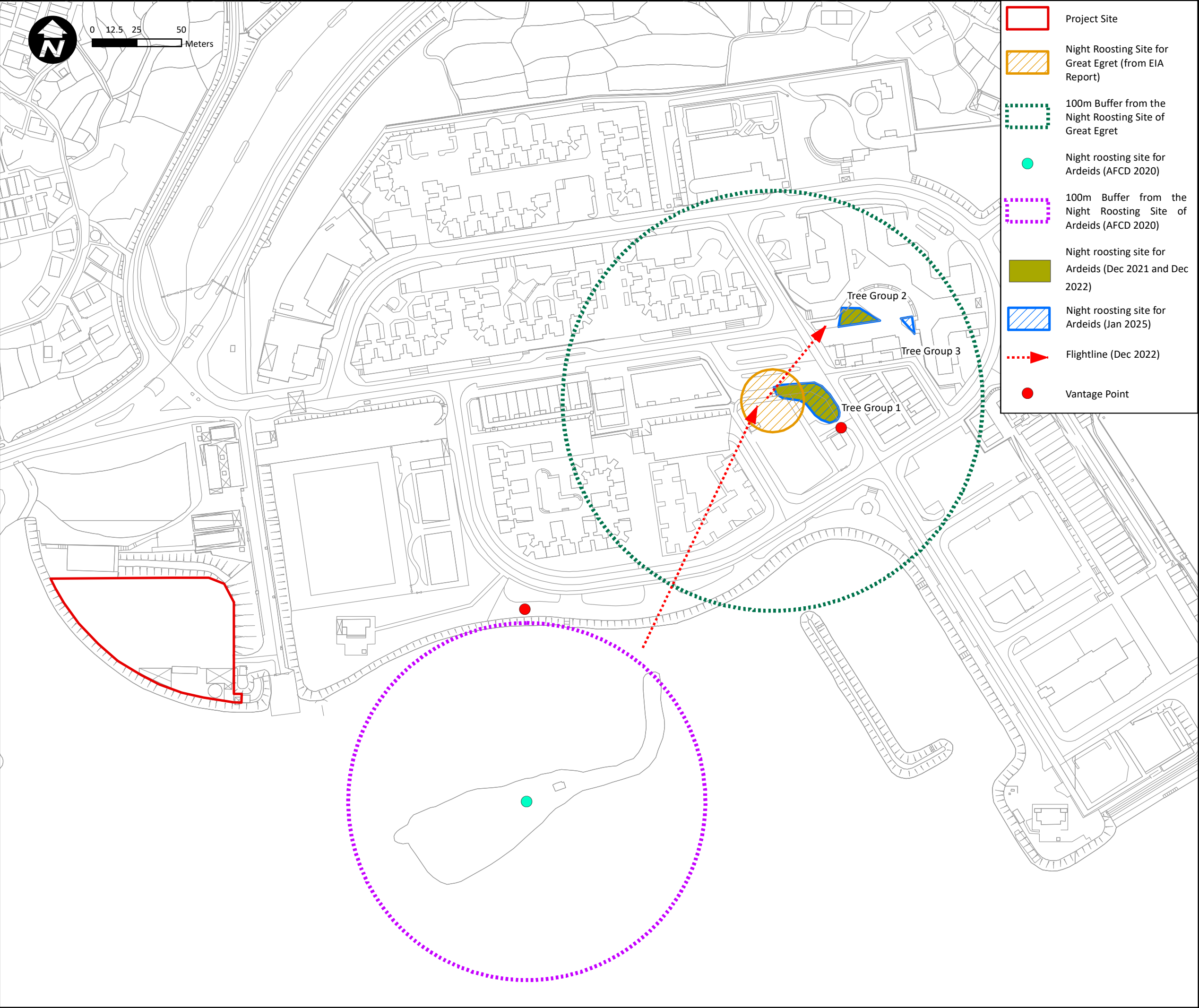
English mother tongue.

Appendices

Appendix B

Survey Area and Vantage Point





- Project Site
- Night Roosting Site for Great Egret (from EIA Report)
- 100m Buffer from the Night Roosting Site of Great Egret
- Night roosting site for Ardeids (AFCD 2020)
- 100m Buffer from the Night Roosting Site of Ardeids (AFCD 2020)
- Night roosting site for Ardeids (Dec 2021 and Dec 2022)
- Night roosting site for Ardeids (Jan 2025)
- Flightline (Dec 2022)
- Vantage Point

PRINT ALL COPIES IN COLOUR

1:300 3 0 6 m
1:500 500 0 1000 mm
1:10 10 0 20 mm

All written dimensions take precedence over scaled dimensions.

REFERENCE DRAWINGS

REFERENCE MODELS

REV	DATE	REVISION DETAILS

REV	DRAWN	DESIGNED	VERIFIED	APPROVED

PREPARED BY

www.aurecongroup.com

CERTIFICATION	No.	CERTIFIER	DATE

CLIENT DOCUMENT NUMBER	REV

CONSTRUCTION STATUS	DRAWN BY
NOT FOR CONSTRUCTION	PC
DESIGNED BY	
SR	

STATUS	CODE	DOCUMENT STATE

PROJECT

Contract No. CM 02/2024 Expansion of Sha Tau Kok Sewage Treatment Works – Environmental Team Services (2024-2026)

TITLE

Study Area and Vantage Point

DOCUMENT CODE

SCALE	SIZE	REFERENCE No.	REV
1:2,000	A3	Appendix B	2

Appendices

Appendix C

Survey Photos and Figure



Appendix C.1 Pre-roosting Site within the Survey Area



Plate C.1 Pre-roosting site (PRS1) on the islet off the coast of Shun Hing Street (Pre-roosting ardeids are circled in red)

Appendix C.2 Newly Recorded Pre-roosting Site outside the Survey Area



Plate C.2 Pre-roosting site (PRS2) on the breakwater of the Sha Tau Kok Typhoon Shelter adjacent to Shun Lung Street (Pre-roosting ardeids are circled in red)

Appendix C.3 Night Roosting Sites within the Survey Area



Plate C.3a Tree Group 1 located immediate south of the bus terminal at the Sha Tau Kok town centre



Plate C.3b Tree Group 2 located 30m northeast of the bus terminal at the Sha Tau Kok town centre



Plate C.3c Tree Group 3 located 15m east of Tree Group 2

Appendix C.4 Ardeid Droppings



Plate C.4a Ardeid Droppings under Tree Group 1



Plate C.4b Ardeid Droppings under Tree Group 2



Plate C.4c Ardeid Droppings under Tree Group 3

Appendix C.5 Night Roosting Individuals of Great Egret and Little Egret



Plate C.5a Night Roosting Individuals of Great Egret and Little Egret at Tree Group 1 (Roosting ardeids are circled in red)



Plate C.5b Night Roosting Individuals of Great Egret at Tree Group 2 (Roosting ardeids are circled in red)

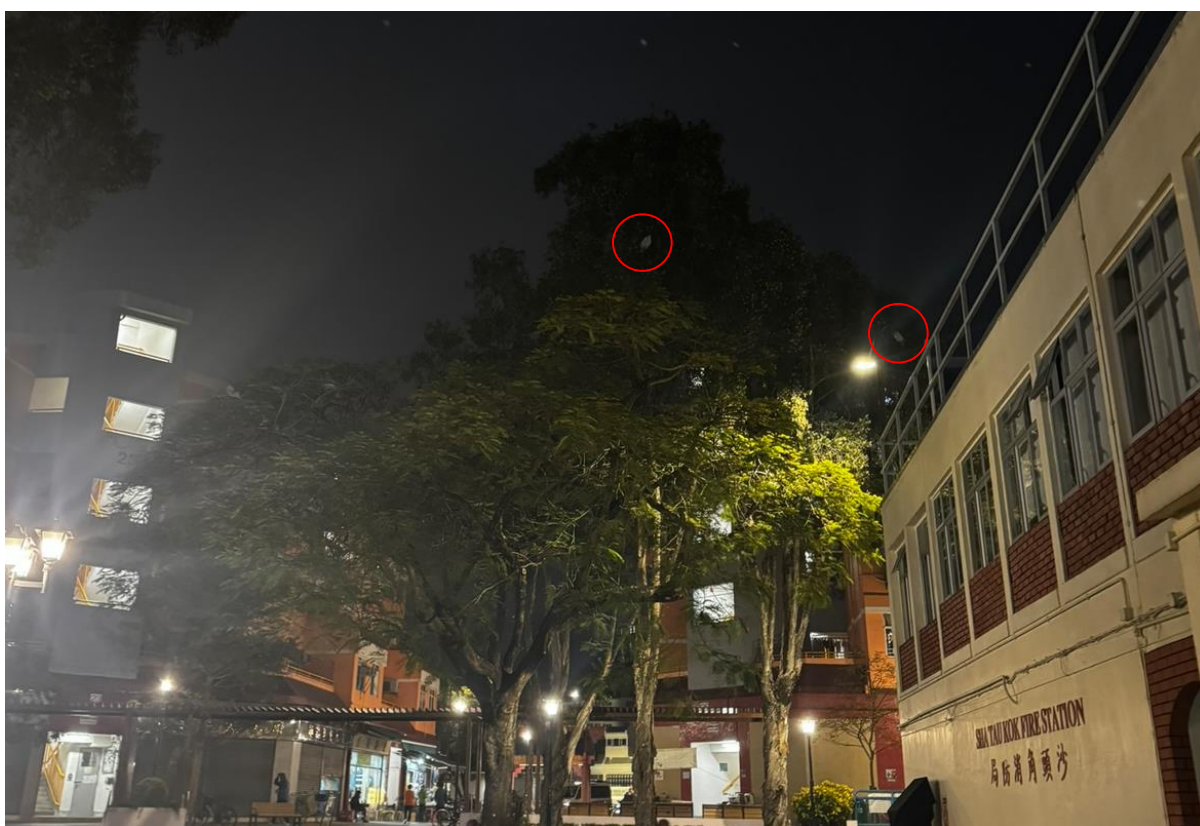
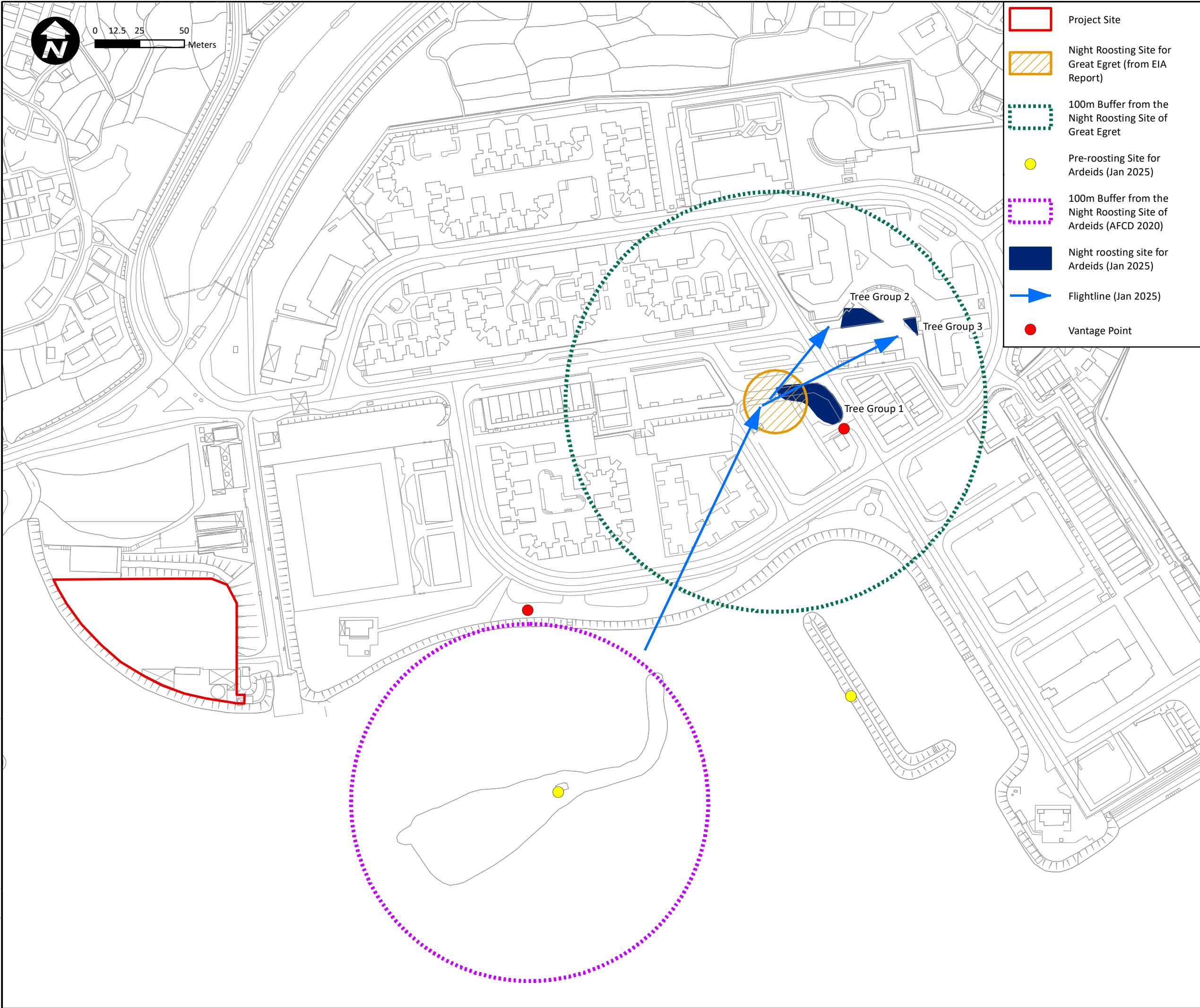


Plate C.5c Night Roosting Individuals of Great Egret at Tree Group 3 (Roosting ardeids are circled in red)

Appendix C.6 Flightlines of the Returning Ardeids

Document Path: C:\Users\Peter.Chan\OneDrive - Aurecon Group\1. ss\Desktop\Work\DSD\dsd-stk\Figure\mxd\20250220\Appendix C.6_Survey Area and Vantage Point_20250220_v1.mxd



- Project Site
- Night Roosting Site for Great Egret (from EIA Report)
- 100m Buffer from the Night Roosting Site of Great Egret
- Pre-roosting Site for Ardeids (Jan 2025)
- 100m Buffer from the Night Roosting Site of Ardeids (AFCD 2020)
- Night roosting site for Ardeids (Jan 2025)
- Flightline (Jan 2025)
- Vantage Point

PRINT ALL COPIES
IN COLOUR

Coordinate system
MGA

Height datum
AHD

1:300 3 0 6 m
1:500 500 0 1000 mm
1:10 10 0 20 mm

All written dimensions
take precedence over
scaled dimensions.

REFERENCE DRAWINGS

REFERENCE MODELS

REV	DATE	REVISION DETAILS

REV	DRAWN	DESIGNED	VERIFIED	APPROVED

PREPARED BY

aurecon

www.aurecongroup.com

CERTIFICATION	No.	CERTIFIER	DATE

CLIENT DOCUMENT NUMBER	REV

CONSTRUCTION STATUS	DRAWN BY	
NOT FOR CONSTRUCTION	PC	
DESIGNED BY		
SR		
STATUS	CODE	DOCUMENT STATE

PROJECT

Contract No. CM 02/2024 Expansion of
Sha Tau Kok Sewage Treatment Works –
Environmental Team Services (2024-2026)

TITLE

Flightlines of the Returning Ardeids
during Survey Period in January 2025

DOCUMENT CODE

SCALE	SIZE	REFERENCE No.	REV
1:2,000	A3	Appendix C.6	1

Appendices

Appendix D

Detailed Results of the Survey



Survey Date: 21 January 2025

Sunset Time: 1804

Survey Start Time: 1704

Survey End Time: 1904

Returning Time	Tree Group								
	1			2			3		
	Great Egret	Little Egret	Other ardeids	Great Egret	Little Egret	Other ardeids	Great Egret	Little Egret	Other ardeids
1755	1	0	0	0	0	0	0	0	0
1800	0	1	0	0	0	0	0	0	0
1801	6	0	0	0	0	0	0	0	0
1803	2	18	0	0	0	0	0	0	0
1805	2	0	0	0	0	0	0	0	0
1807	1	1	0	0	0	0	0	0	0
1809	0	0	0	5	0	0	0	0	0
1810	0	0	0	2	0	0	0	0	0
1812	0	1	0	0	0	0	1	0	0
1815	4	0	0	0	0	0	0	0	0
1816	0	0	0	1	0	0	0	0	0
1818	3	0	0	3	0	0	0	0	0
1821	0	13	0	14	0	0	0	0	0
1822	0	8	0	6	0	0	0	0	0
1825	0	1	0	0	0	0	0	0	0
1830	0	1	0	0	0	0	0	0	0
Grand Total	19	44	0	31	0	0	1	0	0

Survey Date: 24 January 2025

Sunset Time: 1806

Survey Start Time: 1706

Survey End Time: 1906

Returning Time	Tree Group								
	1			2			3		
	Great Egret	Little Egret	Other ardeids	Great Egret	Little Egret	Other ardeids	Great Egret	Little Egret	Other ardeids
1752	1	0	0	0	0	0	0	0	0
1755	2	0	0	0	0	0	0	0	0
1800	1	0	0	0	0	0	0	0	0
1804	0	0	0	1	0	0	0	0	0
1807	0	0	0	6	0	0	0	0	0
1808	0	9	0	5	0	0	0	0	0
1812	0	0	0	2	0	0	0	0	0
1814	2	0	0	0	0	0	0	0	0
1815	3	0	0	0	0	0	0	0	0
1816	0	21	0	0	0	0	0	0	0
1817	2	0	0	0	0	0	0	0	0
1818	4	0	0	4	0	0	0	0	0
1819	1	0	0	0	0	0	0	0	0
1820	0	0	0	1	0	0	0	0	0
1821	0	0	0	2	0	0	0	0	0
1822	0	0	0	4	0	0	1	0	0
1823	0	1	0	0	0	0	0	0	0
1824	0	2	0	1	0	0	0	0	0
1825	0	0	0	2	0	0	0	0	0
1827	4	0	0	3	0	0	0	0	0
1829	4	0	0	1	0	0	0	0	0
1830	1	0	0	0	0	0	0	0	0
1831	0	0	0	3	0	0	1	0	0
1834	0	2	0	2	0	0	0	0	0
1836	0	0	0	4	0	0	0	0	0
1838	0	1	0	0	0	0	0	0	0
1839	0	0	0	2	0	0	0	0	0
1841	0	0	0	1	0	0	0	0	0
1844	0	0	0	1	0	0	0	0	0
Grand Total	25	36	0	45	0	0	2	0	0

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