



Proposed Comprehensive Development at Wo Shang Wai, Yuen Long

Biannual EM&A Summary Report on Ecology for
May 2016 – October 2016 (Rev A)

November 2016

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Pursuant to Condition 4.6 of Environmental Permit No. EP-311/2008/D, this Biannual EM&A Report on ecological aspects for May 2016 to October 2016 has been reviewed, certified by Environmental Team Leader (ETL) and verified by the Independent Environmental Checker (IEC).

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1 Introduction

1.1 Background

In March 2005, the Project Proponent, Profit Point Enterprises Limited, acquired the development site in Yuen Long at Wo Shang Wai. An Environmental Impact Assessment (EIA) was then carried out under the EIA Ordinance (EIAO), and the Environmental Permit (EP-311/2008) for construction of the comprehensive development in Wo Shang Wai was first granted by EPD on 9 September 2008 and has been subsequently varied, with the current version (EP-311/2008/D) issued by EPD on 20 March 2013.

The Project involves the residential development and associated infrastructure and wetland restoration area and linear landscape area. The construction works under the Environmental Permit commenced on 12 May 2010. The site formation construction works of the Wetland Restoration Area (hereafter WRA) were completed on 15 November 2010, while the 30-month establishment period of the WRA was concluded in October 2012 – this indicated that planting works as scheduled in the approved Wetland Restoration and Creation Scheme (WRCS; November 2009) was completed, except along the western and southern boundary where the planting is affected by the existing site boundary and noise barrier, and for which a Variation to Environmental Permit (EP-311/2008/C) to defer planting at the location was approved. The current valid EP (EP-311/2008/D) includes specific mitigation measures to minimise certain identified noise impacts during the operation phase of the Project.

Mott MacDonald Hong Kong Ltd. (“MMHK”) has been commissioned by the Contractor, Heng Shung Construction Co. Ltd., to undertake the Environmental Team (ET) services to carry out environmental monitoring and audit (EM&A) for both pre-construction and construction phases of the Proposed Comprehensive Development at Wo Shang Wai, Yuen Long.

According to the EP Condition 4.6, the EM&A results on ecological aspects during the construction phase should be reported to the EIA Subcommittee of the Advisory Council on the Environment (ACE), EPD and Agriculture, Fisheries and Conservation Department (AFCD) on a biannual basis. This is the 13th Biannual EM&A report and it summarises the findings on EM&A results of ecological aspects during the period from 1 May 2016 to 31 October 2016. This report documents surveys and management activities conducted in the Survey Area and WRA from 1 May 2016 to 31 October 2016, which is based on ecological surveys and advices on management which were undertaken by the appointed Non-government Organisations (Green Power / Eco-Education & Resources Centre) during the reporting period.

1.2 Survey Area

Surveys were conducted within 500m of the Project area. The WRA was surveyed since early September 2010. The survey area and transect are provided in **Figure 1.1**.

1.3 EM&A Requirement on Ecological Impact

The EM&A programme requires environmental monitoring of ecology as specified in the approved EM&A Manual. A summary of ecological impact EM&A requirements is presented in **Table 1.1**:

Table 1.1: Summary of Ecological Impact EM&A Requirements

| Descriptions | Locations | Frequencies |
|---|---|--|
| Birds | Within the Project Area and Assessment Area of 500m | Weekly |
| Dragonflies and Butterflies | Within the Project Area and Assessment Area of 500m | Once per month during Mar and Sep to Nov, and twice per month during Apr to Aug |
| Herpetofauna | Within the Project Area and Assessment Area of 500m | Daytime: Once per month during Apr to Nov |
| Water quality of Wetland Restoration Area (WRA) | WRA | After filling of WRA with water, monthly for in situ water quality and every six months (end of wet season and end of dry season) for laboratory testing |
| Site Inspections | Within the Project Area and Assessment Area of 500m | Weekly |

2 Ecological Monitoring

2.1 Ecological Monitoring

In accordance with the EM&A requirements, monitoring of birds, dragonflies and butterflies, and herpetofauna were carried out during the reporting period. In addition, monitoring of mammals was also conducted concurrently with other surveys and the results were reported although it is not required by the EM&A Manual. The dates of surveys are summarised in **Appendix A**.

2.2 Monitoring of Birds

Monitoring was undertaken following the survey methodology in the EM&A Manual (Table 7-1). Since September 2010, monitoring included the newly formed cells to monitor faunal usage of this area. All bird species of conservation importance and/or wetland dependent were identified and enumerated. Flying birds were not recorded unless they were foraging and/or associated with the habitat (such as swifts). Further, notable bird observations during other surveys were also recorded.

Bird surveys were conducted on a weekly basis throughout the period. A total of 54 bird species were recorded in the Survey Area (excluding the WRA) in May 2016 to October 2016, 29 of which were species of conservation importance and/or wetland-dependence. A summary of survey data is provided in **Appendix B**.

A total of 65 species were recorded in the WRA in the survey periods, 32 of which were species of conservation importance and/or wetland-dependent species. All three target species (i.e. Little Egret, *Egretta garzetta*, Eastern Cattle Egret, *Bubulcus coromandus* and Chinese Pond Heron, *Ardeola bacchus*) were recorded in the WRA during regular survey. The WRA continues to attract a number of species of conservation importance, including Grey Heron, *Ardea cinerea*, Black-crowned Night Heron, *Nycticorax nycticorax*, Yellow Bittern, *Ixobrychus sinensis*, Great Cormorant, *Phalacrocorax carbo*, Black Kite, *Milvus migrans*, Eurasian Hobby, *Falco subbuteo*, Black-winged Stilt, *Himantopus himantopus*, Oriental Pratincole, *Glareola maldivarum*, Little Ringed Plover, *Charadrius dubius*, Common Greenshank, *Tringa nebularia*, Wood Sandpiper, *Tringa glareola*, Pied Kingfisher, *Ceryle rudis*, White-throated Kingfisher, *Halcyon smyrnensis*, White-cheeked Starling, *Spodiopsar cineraceus*, White-shouldered Starling, *Sturnia sinensis* and Collared Crow, *Corvus torquatus*. Black-crowned Night Heron, Yellow Bittern, Eurasian Hobby, Oriental Pratincole, Little Ringed Plover, Common Greenshank, Wood Sandpiper, Pied Kingfisher, White-throated Kingfisher, White-shouldered Starling and Collared Crow are listed by Fellowes *et al.* as of “Local Concern” in 2002. Black Kite and Black-winged Stilt are listed by Fellowes *et al.* as of “Regional Concern” in 2002. Great Cormorant, Grey Heron, White-cheeked Starling are listed by Fellowes *et al.* as of “Potential Regional Concern” in 2002.

In addition to wetland dependent birds, the WRA also attracts a number of terrestrial birds including Greater Coucal, *Centropus sinensis* which are listed as vulnerable (VU) in the China Red Data Book and it is protected under terrestrial wildlife state protection (category II). Survey findings indicate that the WRA not only provides important habitat for wetland-dependence birds but also the terrestrial birds.

The fish ponds to the north of the WRA are at a greater distance from the residential portion and any disturbance impact(s) from the construction works would have first affected the WRA.

Further, 32 bird species of conservation importance and /or wetland dependence, were observed using the site during survey period, including some bird species which are highly sensitive to disturbance and three target species (i.e. Little Egret, Eastern Cattle Egret and Chinese Pond Heron). Thus, the WRA is considered to be effective both in acting as a buffer against potential disturbance impacts from the construction site, and in providing suitable wetland habitats at the fringe of the Deep Bay system.

2.3 Monitoring of Herpetofauna

Monitoring was undertaken following the survey methodology in the EM&A Manual. Day-time herpetofauna surveys were conducted once per month in May 2016 and October 2016. One night-time herpetofauna survey was conducted once a month between May 2016 and August 2016. Further, notable herpetofauna observations during other surveys were also recorded.

Gunther's Frog, *Hylarana guentheri*, was recorded in the survey area (excluding WRA) in the survey period. Chinese Skink, *Plestiodon chinensis chinensis* and Red-necked Keelback, *Rhabdophis subminiatus helleri*, were recorded in the survey area within the survey period.

Gunther's Frog and Paddy Frog, *Fejervarya limnocharis* were recorded in the WRA within the survey period. Checkered Keelback, *Xenochrophis flavipunctatus*, was recorded in the WRA within the survey period. A summary of survey data is provided in **Appendix C**.

2.4 Monitoring of Dragonfly and Butterflies

Monitoring of dragonflies and butterflies was conducted once per month in September 2016 and October 2016 and twice per month in May 2016 to August 2016. Further, notable dragonfly and butterfly observations during other surveys were recorded.

A total of eleven dragonfly species and four butterfly species were recorded using the ponds in the Survey Area (excluding WRA) in the reporting period. At the WRA, a higher diversity of dragonfly species (19 species) and butterfly species (15 species) were recorded. A summary of the survey findings is provided in **Appendix C**.

2.5 Monitoring of Mammals

Monitoring of mammals was conducted concurrently with other surveys. No mammal species was recorded in the Survey Area (excluding WRA) within the reporting period.

Meanwhile, four mammal species were recorded in the WRA during the reporting period. A summary of the survey findings is provided in **Appendix C**.

2.6 Monitoring of Water Quality

Monthly water quality monitoring continued during the reporting period. Monitoring parameters followed that in the EM&A Manual. No water quality related issue was observed during the reporting period. Monitoring data are presented in **Appendix D**. Locations for the monitoring of water quality for the ecological monitoring are shown in **Figure 1.2**.

3 Ecological Issues

3.1 Vegetation Management

Removal of exotic vegetation in all cells was undertaken; these included but not limited to *Ipomoea* sp., *Mikania* sp., *Mimosa* sp., *Pennisetum* sp. and *Typha* sp..

Vegetation management activities undertaken at the site primarily involved watering of plants, weeding and grass cutting.

3.2 Wildlife Management

Golden Apple Snails were removed on an “as-seen” basis.

All red fire ant nests were treated with approved pesticide and covered with overturn baskets for a week. All pesticide used was in powder form and the pesticide usage was confined to Fire Ants' nest found on terrestrial area which were further away from the Cells to prevent the contamination of water. All treated fire ant nests were inactive within one week of treatment.

Preliminary actions have been taken to increase the WRA utilization by birds. The mitigation actions are:

1. Lowering the water level of Cell 3 and Cell 4;
2. Restocking the Cell in the WRA with recommended species including Edible Goldfish, *Carassius auratus* and Mosquitofish, *Gambusia affinis*; and
3. Controlling the vegetation at Cell 1 and Cell 4.

The first two measures aim to increase the foraging area and food sources for the target species respectively. The third measure aims to maintain suitable habitat for target species.

4 Summary of Wetland Restoration Area Performance

4.1 Summary of Findings

Ecological monitoring between 1 May 2016 and 31 October 2016 was carried out following the survey methodology and frequency outlined in the EM&A Manual.

Summary of ecological monitoring in the Survey Area and WRA between May 2016 and October 2016 (**Table 4.1**):

Table 4.1: Summary of Ecological Monitoring in WRA and Survey Area

| Species | Number of species recorded in Survey Area (excluding WRA) | Number of species recorded in WRA |
|--|---|-----------------------------------|
| Birds (total) | 54 | 65 |
| Birds (of conservation importance and/or wetland-dependence) | 29 | 32 |
| Amphibians | 1 | 2 |
| Reptiles | 2 | 1 |
| Mammals | 0 | 4 |
| Dragonflies | 11 | 19 |
| Butterflies | 4 | 15 |

A total of 65 bird species, 2 amphibian species, 1 reptile species, 4 mammal species, 19 dragonfly species and 15 butterfly species were recorded in the WRA, including 32 bird species of conservation importance and/or wetland-dependence, while all dragonfly species are wetland-dependent. These findings indicate that the WRA is supporting wetland-dependent birds and other species of conservation importance.

Survey findings indicate that the WRA is attracting the three target species to varying degrees. During the survey period (i.e. May 2016 to October 2016), the site was particularly attractive to Chinese Pond Heron, which was recorded on nearly-weekly basis, with monthly means ranging from 1.2 to 6.3 birds per survey; while Little Egret was also recorded on nearly-weekly basis in regular survey period (May 2016 to October 2016) with monthly means ranging from 1.2 to 6.3 bird per survey. Eastern Cattle Egret was least attracted to the site. Eastern Cattle Egret was recorded in four out of six months survey (One sighting during regular survey on July 2016 and three sightings during outside survey on May 2016, September 2016 and October 2016) within the WRA during the survey period (May 2016 to October 2016). A list of the bird species recorded at the WRA since completion of site formation is provided in **Appendix B (Table B4 to B6)**.

With the completion of planting as scheduled in the approved Habitat Creation and Management Plan (HCMP) in August 2012, establishment work at the WRA is considered complete (except along the western and southern boundary where the planting is affected by the existing site boundary and noise barrier, and for which an approved Variation to Environmental Permit (EP-311/2008/D) to defer planting at the location applies), and the 30 month establishment period concluded in October 2012. A review of the performance of the

WRA during the review period in terms of target species attraction is provided in Section 4.2 below.

It should be noted that the high planting density was intended to ensure a rapid establishment of the site prior to occupation intake, and not intended to be maintained as a long-term tree density at the WRA. It is a standard arboricultural practice to apply appropriate horticultural/ arboricultural maintenance methods in the subsequent five or six years after initial planting to remove less desired specimens to facilitate the successful growth of those which are of higher landscape and/or ecological value. Further, some fine tuning of planting locations and tree/shrub mix is required in order to fulfill the design intent of the habitat structure at WRA after reviewing the site configuration following site formation. Vegetation management hereafter should largely consist of maintenance of planted trees and shrubs for the creation of suitable habitats for target species and long-term habitat structure of the site.

4.2 WRA Performance for the Bird Target Species

The provision, maintenance and operation of a WRA are a requirement under the Environmental Permit for compensation for predicted ecological impacts to species of conservation importance. Three bird target species were identified during the EIA process; they are Little Egret, Eastern Cattle Egret and Chinese Pond Heron. Target levels of these species are the annual mean number recorded during the Baseline Ecological Monitoring (i.e. a mean of 5.5 Little Egret, 1.3 Eastern Cattle Egret and 1.3 Chinese Pond Heron over a 12 month period) thus, the ecological impact of the project to the species concerned is considered to have been fully compensated when the target level for each of the three species is achieved. Whilst further discussion and agreement regarding the target level is yet to be undertaken with the relevant Government departments prior to the operation of the WRA, the proposed level offers a clear reference to the effectiveness of the mitigation measures. According to the approved Wetland Creation and Restoration Scheme (Nov 2009, hereafter WCRS), the WRA is anticipated to be fully operational after an establishment period of 2.5 years (30 months).

Of the three target species, all of them were recorded using the site under the reporting period (May 2016 – October 2016). Among all target species, Little Egret and Chinese Pond Heron were recorded in all six months and Eastern Cattle Egret was recorded in four months (Once in regular survey on July 2016 and three times in outside survey on May 2016, September 2016 and October 2016) during the six month survey period.

Table 4.2: Biannual mean & Annual Mean of the three Bird Target Species Recorded at the WRA between May 2010 and Oct 2016

| Common Name | Scientific Name | Conservation status (2) | Baseline Annual Mean (3) | Annual Mean | | | | | | |
|----------------------|----------------------------|-------------------------|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | | | May 10-Apr 11 | May 11-Apr 12 | May 12-Apr 13 | May 13-Apr 14 | May 14-Apr 15 | May 15-Apr 16 | Nov 15-Oct 16 |
| Chinese Pond Heron | <i>Ardeola bacchus</i> | PRC, (RC) | 1.3 | 0.2 | 2.7 | 1.3 | 1.9 | 2.0 | 2.7 | 3.3 |
| Little Egret | <i>Egretta garzetta</i> | PRC, (RC) | 5.5 | 1.6 | 1.0 | 0.9 | 2.3 | 2.0 | 2.6 | 3.1 |
| Eastern Cattle Egret | <i>Bubulcus coromandus</i> | (LC) | 1.3 | 0.0 | 1.2 | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 |

Note:

- (1) Value in **bold** indicated the Target Level was achieved.
- (2) Conservation Status follows that of Fellow *et. al.* (2002). See Appendix B (Table B3).
- (3) Annual mean number recorded during Baseline Ecological Monitoring.

Based on **Table 4.2** above, the target level of the Chinese Pond Heron was achieved between May 2016 and October 2016 while the target levels for Little Egret and Eastern Cattle Egret were not achieved.

As the Proposed Comprehensive Development at Wo Shang Wai is still under construction phase, it is considered acceptable. According to the ecological monitoring data of the Survey Area (excluding the WRA), Eastern Cattle Egret was observed only in 5 of the regular ecological survey (i.e. 5 out of 28) and the annual mean of the Eastern Cattle Egret of the Survey Area (excluding the WRA) is 1.3 birds per survey (May 2016 – October 2016), the results indicated the number of Eastern Cattle Egret in the whole area was low and the low number of Eastern Cattle Egret in the WRA is considered acceptable. However, should this situation continue, a review of the management of the WRA and adaptive management steps will be required.

In addition, though the target levels for Little Egret and Eastern Cattle Egret have not been achieved between May 2016 and October 2016, the WRA continues to attract wetland dependent species. Among all the wetland dependent species, Black-crowned Night Heron, Yellow Bittern, Eurasian Hobby, Oriental Pratincole, Little Ringed Plover, Common Greenshank, Wood Sandpiper, Pied Kingfisher, White-throated Kingfisher, White-shouldered Starling and Collared Crow are listed by Fellowes et al. as of “Local Concern” in 2002. Black Kite and Black-winged Stilt are listed by Fellowes et al. as of “Regional Concern” in 2002. Great Cormorant, Grey Heron, White-cheeked Starling is listed by Fellowes et al. as of “Potential Regional Concern” in 2002.

Among all 21 species of conservation importance and/or wetland-dependence recorded in previous baseline ecological monitoring, 17 of them were recorded during the ecological monitoring between May 2016 and October 2016. A summary of the annual mean of bird species of conservation importance and/or wetland-dependence recorded in the WRA from May 2016 to October 2016 is shown in **Table 4.3**.

The increase of the number of the species of conservation interest indicates the WRA is providing suitable habitat for them.

Table 4.3: Mean number of bird species of conservation importance and/or wetland-dependence in the WRA during reporting period

| Common Name | Scientific Name (3) | Wetland Dependence | Conservation Status (1) | Annual mean number recorded during the Baseline Ecological Monitoring (2) | Mean number recorded between May 2016 & Oct 2016 (2) |
|---------------------------|-------------------------------|--------------------|-------------------------|---|--|
| Little Grebe | <i>Tachybaptus ruficollis</i> | Y | LC | - | 1.0 |
| Great Cormorant | <i>Phalacrocorax carbo</i> | Y | PRC | 0.5 | 0.1 |
| Grey Heron | <i>Ardea cinerea</i> | Y | PRC | 0.1 | 0.3 |
| Great Egret | <i>Ardea alba</i> | Y | PRC, (RC) | V | 0.5 |
| Little Egret | <i>Egretta garzetta</i> | Y | PRC, (RC) | 5.5 | 3.5 |
| Eastern Cattle Egret | <i>Bubulcus coromandus</i> | Y | (LC) | 1.3 | 0.1 |
| Chinese Pond Heron | <i>Ardeola bacchus</i> | Y | PRC, (RC) | 1.3 | 3.8 |
| Black-crowned Night Heron | <i>Nycticorax nycticorax</i> | Y | (LC) | 0.2 | 0.4 |

| Common Name | Scientific Name (3) | Wetland Dependence | Conservation Status (1) | Annual mean number recorded during the Baseline Ecological Monitoring (2) | Mean number recorded between May 2016 & Oct 2016 (2) |
|---------------------------|---------------------------------|--------------------|-------------------------|---|--|
| Yellow Bittern | <i>Ixobrychus sinensis</i> | Y | (LC) | - | 1.7 |
| Black Kite | <i>Milvus migrans</i> | Y | (RC) | 1.2 | 0.1 |
| Eurasian Hobby | <i>Falco subbuteo</i> | N | (LC) | - | V |
| White-breasted Waterhen | <i>Amaurornis phoenicurus</i> | Y | - | 0.2 | 0.4 |
| Common Moorhen | <i>Gallinula chloropus</i> | Y | - | - | V |
| Black-winged Stilt | <i>Himantopus himantopus</i> | Y | RC | - | 0.2 |
| Oriental Pratincole | <i>Glareola maldivarum</i> | Y | LC | V | V |
| Little Ringed Plover | <i>Charadrius dubius</i> | Y | (LC) | 0.1 | V |
| Common Greenshank | <i>Tringa nebularia</i> | Y | LC | - | 0.1 |
| Green Sandpiper | <i>Tringa ochropus</i> | Y | - | - | 0.5 |
| Wood Sandpiper | <i>Tringa glareola</i> | Y | (LC) | - | 0.1 |
| Common Sandpiper | <i>Actitis hypoleucos</i> | Y | - | 0.2 | 0.5 |
| Common Snipe | <i>Gallinago gallinago</i> | Y | - | 0.1 | V |
| Savanna Nightjar | <i>Caprimulgus affinis</i> | N | - | - | V |
| Pied Kingfisher | <i>Ceryle rudis</i> | Y | (LC) | - | 0.1 |
| White-throated Kingfisher | <i>Halcyon smyrnensis</i> | Y | (LC) | - | 0.2 |
| Common Kingfisher | <i>Alcedo atthis</i> | Y | - | - | 1.0 |
| Eastern Yellow Wagtail | <i>Motacilla tschutschensis</i> | Y | - | 10.0 | 0.1 |
| White Wagtail | <i>Motacilla alba</i> | Y | - | 2.2 | 0.4 |
| Yellow-bellied Prinia | <i>Prinia Flaviventris</i> | N | - | - | V |
| Oriental Reed Warbler | <i>Acrocephalus orientalis</i> | Y | - | 0.1 | 0.1 |
| White-cheeked Starling | <i>Spodiopsar cineraceus</i> | Y | PRC | - | 0.2 |
| White-shouldered Starling | <i>Sturnia sinensis</i> | N | (LC) | 0.1 | 0.1 |
| Collared Crow | <i>Corvus torquatus</i> | Y | LC | - | 0.1 |
| Pacific Swift | <i>Apus pacificus</i> | N | (LC) | V | |

| Common Name | Scientific Name (3) | Wetland Dependence | Conservation Status (1) | Annual mean number recorded during the Baseline Ecological Monitoring | Mean number recorded between May 2016 & Oct 2016 (2) |
|---------------------|----------------------------|--------------------|-------------------------|---|--|
| Grey Wagtail | <i>Montacilla cinerea</i> | Y | - | 2.2 | - |
| Zitting Cisticola | <i>Cisticola juncidis</i> | Y | LC | 0.1 | - |
| Red-billed Starling | <i>Spodiopsar sericeus</i> | Y | (GC)* | 0.9 | - |

Note:

(1) Conservation status follows that of Fellowes *et al.* (2002) and BirdLife International listing (2010).

(2) Refers to the mean number of individuals recorded between May 2016 – Oct 2016 in the WRA

(3) Follows HK bird list (dated 2015-1-12)

V indicates the species is recorded outside regular surveys

Light grey cells indicate species recorded during baseline ecological monitoring.

*Red billed Starling is considered by Fellowes *et al.* (2002) to be of Global Concern. Since publication, however, the global population estimate has been revised and the species is not now considered globally threatened, it is evaluated as a “Least Concern” species (IUCN, 2013)

4.3 Conclusions

A total of 127 bird species have been recorded within the WRA since completion of site formation. Of the 127 species, 85 were species of conservation importance and/or wetland dependence - indicating that the WRA provides suitable habitats for these species despite the construction work within the residential portion of the Project Site.

The site is also considered achieving the no net loss of wetland in terms of area and function because it continuously attracts bird species of conservation importance, indicating that the WRA not only provides a buffer for potential disturbance during construction phase, but also a valuable habitat for wetland dependent species and species of conservation importance.

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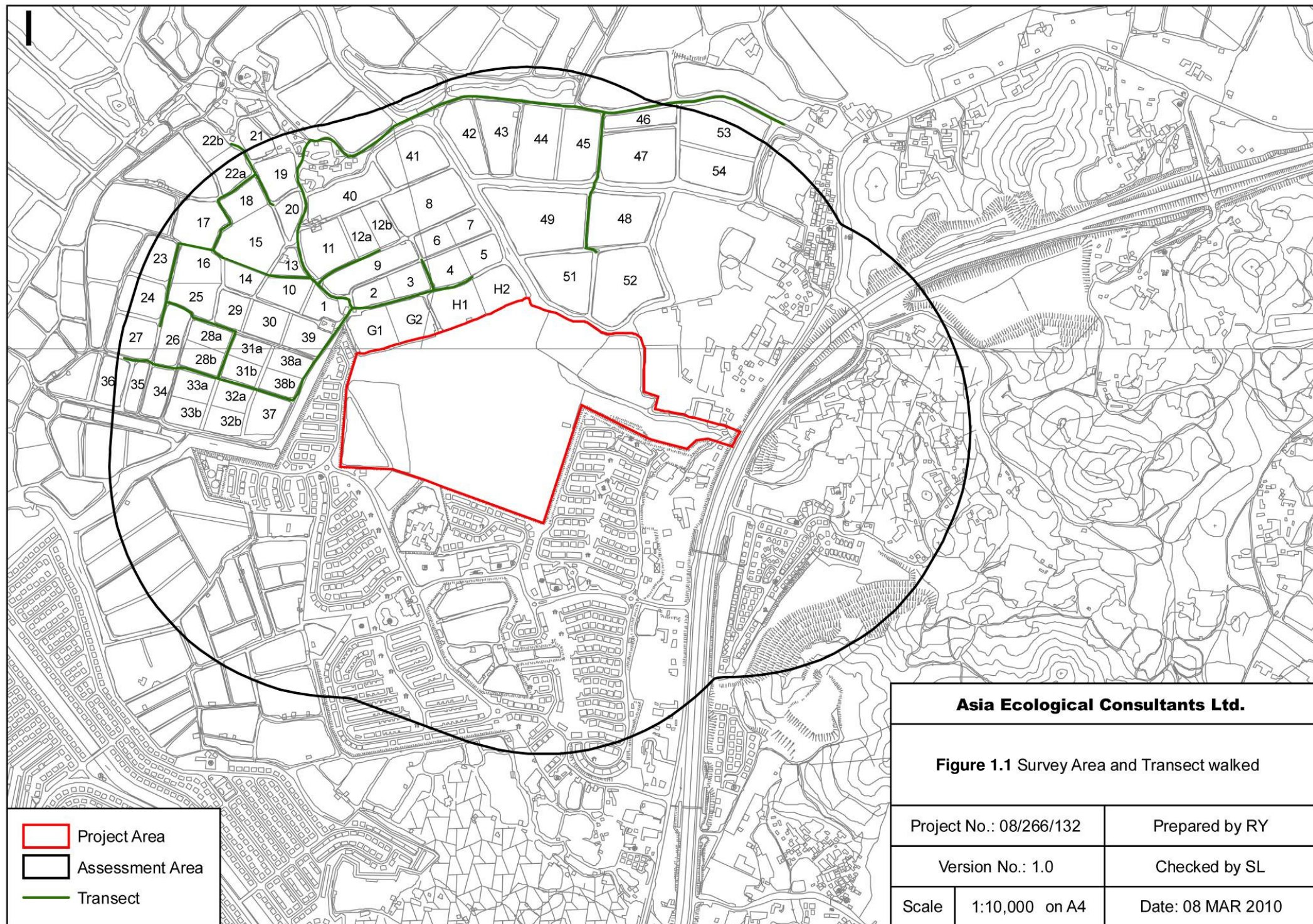
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- Project Area
- Assessment Area
- Transect

Asia Ecological Consultants Ltd.

Figure 1.1 Survey Area and Transect walked

Project No.: 08/266/132

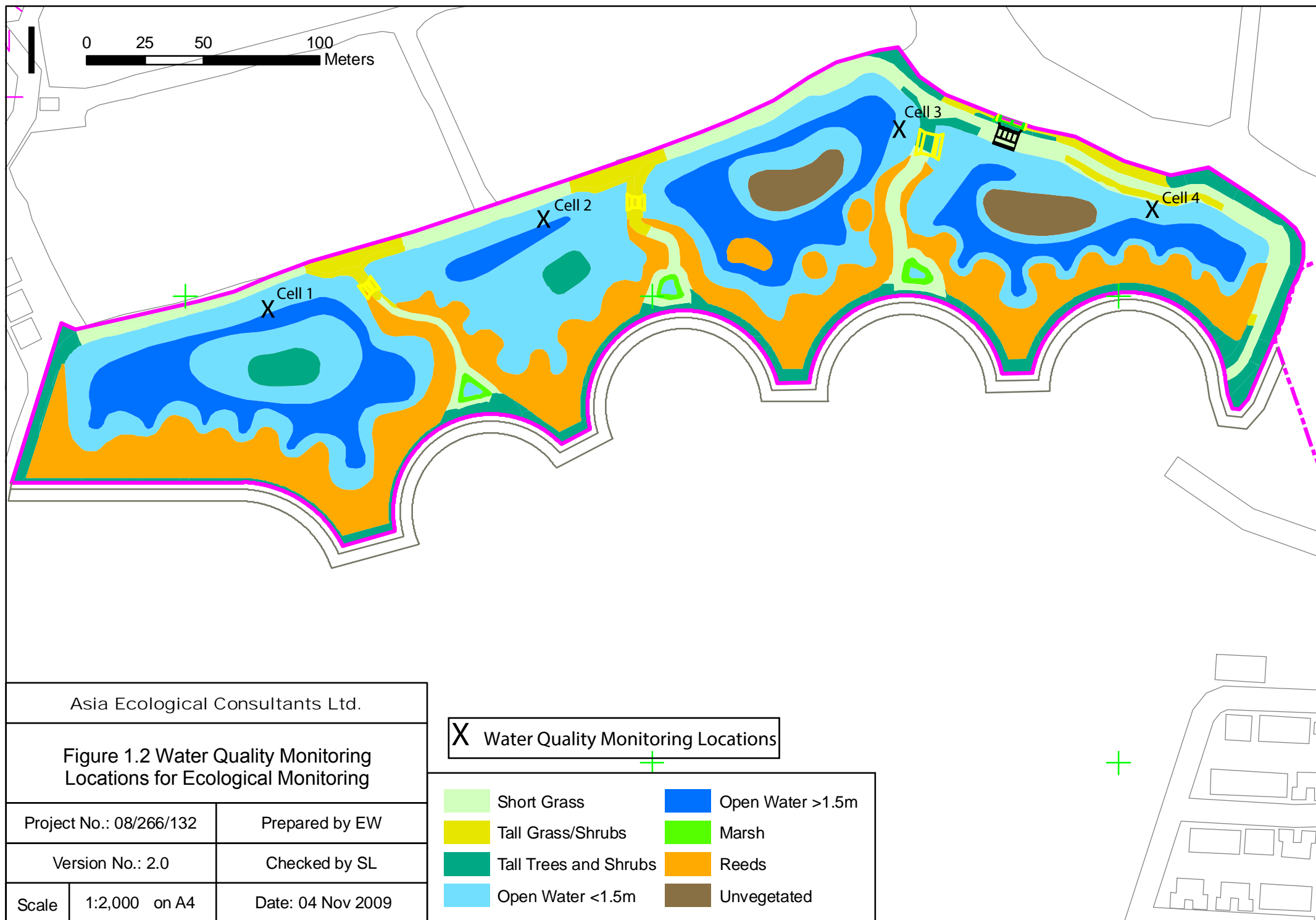
Prepared by RY

Version No.: 1.0

Checked by SL

Scale 1:10,000 on A4

Date: 08 MAR 2010



Appendix A. Schedule of Ecological Monitoring

| May 2016 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Mammals | | | ✓ | | | | | | | | ✓ | | | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ |
| Birds | | | ✓ | | | | | | | | ✓ | | | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ |
| Herpetofauna | | | | | | | | | | | ✓ | | | | | | | | | | | | | ✓ | | | | | | | |
| Dragonflies & butterflies | | | | | | | | | | | ✓ | | | | | | | | | | | | | ✓ | | | | | | | |
| Water Quality | | | | | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | |
| Inspection Visits | | | ✓ | | | ✓ | | | | | ✓ | | ✓ | | | | ✓ | | | ✓ | | | | ✓ | | | ✓ | | | | ✓ |
| Jun 2016 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
| Mammals | | | ✓ | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | |
| Birds | | | ✓ | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | |
| Herpetofauna | | | | | | | ✓ | | | | | | | | | | | | | | ✓ | | | | | | | | | | |
| Dragonflies & butterflies | | | | | | | ✓ | | | | | | | | | | | | | | ✓ | | | | | | | | | | |
| Water Quality | | | | | | | | | | | | | | | | | | | | | | ✓ | | | | | | | | | |
| Inspection Visits | | | ✓ | | | | ✓ | | | ✓ | | | | ✓ | | | ✓ | | | | ✓ | | | ✓ | | | | ✓ | | | |
| Jul 2016 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Mammals | | | | | ✓ | | | | | | ✓ | | | | | | | | ✓ | | | | | | ✓ | | | | | | |
| Birds | | | | | ✓ | | | | | | ✓ | | | | | | | | ✓ | | | | | | ✓ | | | | | | |
| Herpetofauna | | | | | ✓ | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | |
| Dragonflies & butterflies | | | | | ✓ | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | |
| Water Quality | | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | |
| Inspection Visits | | | | | ✓ | | ✓ | | | | ✓ | | | ✓ | | | | | ✓ | | | ✓ | | | ✓ | | ✓ | | ✓ | | |

Note: 1. Light grey cells indicate public holidays, Saturdays or Sundays.

| Aug 2016 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---------------------------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Mammals | ✓ | | | | | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | | | | | | ✓ |
| Birds | ✓ | | | | | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | | | | | | ✓ |
| Herpetofauna | | | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | ✓ |
| Dragonflies & butterflies | ✓ | | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | ✓ |
| Water Quality | | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | |
| Inspection Visits | ✓ | | | | ✓ | | | | ✓ | | | ✓ | | | | ✓ | | | ✓ | | | | ✓ | | | ✓ | | | | | ✓ |
| Sep 2016 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | |
| Mammals | | ✓ | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | | | | ✓ | | | | | |
| Birds | | ✓ | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | | | | ✓ | | | | | |
| Herpetofauna | | | | | | | | | | | | | | | | | | | | ✓ | | | | | | | | | | | |
| Dragonflies & butterflies | | | | | | | | | | | | | | | | | | | | ✓ | | | | | | | | | | | |
| Water Quality | | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | |
| Inspection Visits | | ✓ | | | | ✓ | | | ✓ | | | | ✓ | | ✓ | | | | | ✓ | | ✓ | | | | ✓ | | | | ✓ | |
| Oct 2016 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| Mammals | | | | ✓ | | | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | | | | | |
| Birds | | | | ✓ | | | | | | ✓ | | | | | | | ✓ | | | | | | | ✓ | | | | | | | |
| Herpetofauna | | | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dragonflies & butterflies | | | | ✓ | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Water Quality | | | | | | | | | | | | | ✓ | | | | | | | | | | | | | | | | | | |
| Inspection Visits | | | | ✓ | | | ✓ | | | | ✓ | | | ✓ | | | ✓ | | | ✓ | | | | ✓ | | ✓ | | ✓ | | | |

Note: 1. Light grey cells indicate public holidays, Saturdays or Sundays.

Appendix B. Summary of Bird Surveys

Table B1: Summary of bird monitoring (for species of conservation importance and/or wetland-dependence) within the Survey Area (excluding the WRA)

| Common Name | Scientific Name (3) | Wetland Dependent | Conservation Status (1) | May Mean (2) | Jun Mean (2) | Jul Mean (2) | Aug Mean (2) | Sep Mean (2) | Oct Mean (2) |
|---------------------------|-------------------------------|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Little Grebe | <i>Tachybaptus ruficollis</i> | Y | LC | 5.6 | 3.2 | 5.8 | 5.2 | 10.5 | 10.0 |
| Great Cormorant | <i>Phalacrocorax carbo</i> | Y | PRC | | | | | | 8.0 |
| Grey Heron | <i>Ardea cinerea</i> | Y | PRC | | | | | 0.5 | 1.8 |
| Great Egret | <i>Ardea alba</i> | Y | PRC, (RC) | 9.0 | 4.0 | 3.8 | 4.8 | 4.8 | 8.0 |
| Little Egret | <i>Egretta garzetta</i> | Y | PRC, (RC) | 12.0 | 6.4 | 5.3 | 13.0 | 16.0 | 18.8 |
| Eastern Cattle Egret | <i>Bubulcus coromandus</i> | Y | LC | | | V | 0.2 | 10.3 | 7.8 |
| Chinese Pond Heron | <i>Ardeola bacchus</i> | Y | PRC, (RC) | 9.2 | 10.2 | 14.5 | 15.8 | 21.8 | 12.8 |
| Black-crowned Night Heron | <i>Nycticorax nycticorax</i> | Y | (LC) | 2.0 | 0.6 | 0.8 | 1.2 | V | |
| Yellow Bittern | <i>Ixobrychus sinensis</i> | Y | LC | 0.2 | 0.2 | | | | |
| Black Kite | <i>Milvus migrans</i> | Y | RC | V | 0.2 | 1.0 | 0.2 | V | |
| Peregrine Falcon | <i>Falco peregrinus</i> | N | LC | | | | | 0.3 | |
| White-breasted Waterhen | <i>Amauornis phoenicurus</i> | Y | - | 0.2 | 1.0 | 1.0 | 0.8 | 0.5 | 0.8 |
| Common Moorhen | <i>Gallinula chloropus</i> | Y | - | | V | | | | |

| Common Name | Scientific Name (3) | Wetland Dependent | Conservation Status (1) | May Mean (2) | Jun Mean (2) | Jul Mean (2) | Aug Mean (2) | Sep Mean (2) | Oct Mean (2) |
|--------------------------------|---------------------------------|----------------------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Black-winged Stilt | <i>Himantopus himantopus</i> | Y | (RC) | | | | | V | 0.3 |
| Little Ringed Plover | <i>Charadrius dubius</i> | Y | (LC) | | | | | V | 3.8 |
| Green Sandpiper | <i>Tringa ochropus</i> | Y | - | | | | 0.2 | 0.3 | |
| Wood Sandpiper | <i>Tringa glareola</i> | Y | (LC) | | | | | | 0.8 |
| Common Sandpiper | <i>Actitis hypoleucos</i> | Y | - | | | | 0.4 | 2.0 | 3.0 |
| Whiskered Tern | <i>Chlidonias hybrida</i> | Y | LC | 2.8 | | | | | 0.5 |
| White-winged Tern | <i>Chlidonias leucopterus</i> | Y | LC | 2.2 | | | | | |
| Pied Kingfisher | <i>Ceryle rudis</i> | Y | (LC) | 0.6 | 0.4 | V | 0.4 | V | 0.3 |
| White-throated Kingfisher | <i>Halcyon smyrnensis</i> | Y | LC | | V | 1.0 | 0.4 | 0.5 | V |
| Common Kingfisher | <i>Alcedo atthis</i> | Y | - | | | V | 1.2 | 1.3 | 1.0 |
| Eastern Yellow Wagtail | <i>Motacilla tschutschensis</i> | Y | - | 0.2 | | | V | | 0.3 |
| Grey Wagtail | <i>Motacilla cinerea</i> | Y | - | | | 0.3 | | | |
| White Wagtail | <i>Motacilla alba</i> | Y | - | 1.4 | 0.6 | 0.8 | 0.6 | 0.5 | 4.0 |
| White-cheeked Starling | <i>Spodiopsar cineraceus</i> | Y | PRC | 1.8 | | 2.0 | 0.2 | | |
| White-shouldered Starling | <i>Sturnia sinensis</i> | N | (LC) | 1.4 | 0.4 | | V | | 0.8 |
| Collared Crow | <i>Corvus torquatus</i> | Y | LC | 0.4 | 0.2 | | | V | V |
| No. of Species Recorded | | | | 16 | 14 | 14 | 17 | 19 | 20 |

(1) Conservation status follows that of Fellowes *et al.* (2002) and BirdLife International listing (2010).

(2) Refers to the mean number of individuals recorded in each survey in the Survey Area (excluding the WRA)

(3) Follows HK bird list (dated 2015-1-12)

V indicates the species is recorded outside regular surveys

Table B2: Summary of bird monitoring (for species of conservation importance and/or wetland-dependence) in the WRA

| Common Name | Scientific Name (3) | Wetland Dependent | Conservation Status (1) | May Mean (2) | Jun Mean (2) | Jul Mean (2) | Aug Mean (2) | Sep Mean (2) | Oct Mean (2) |
|---------------------------|-------------------------------|-------------------|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Little Grebe | <i>Tachybaptus ruficollis</i> | Y | LC | 1.4 | 0.8 | 1.5 | 1.4 | 0.8 | V |
| Great Cormorant | <i>Phalacrocorax carbo</i> | Y | PRC | | | | | | 0.5 |
| Grey Heron | <i>Ardea cinerea</i> | Y | PRC | | | | | 0.8 | 0.8 |
| Great Egret | <i>Ardea alba</i> | Y | RC, LC | 0.2 | 0.2 | 0.3 | 0.6 | 1.0 | 0.8 |
| Little Egret | <i>Egretta garzetta</i> | Y | PRC, (RC) | 1.2 | 2.4 | 2.8 | 4.6 | 3.6 | 6.3 |
| Eastern Cattle Egret | <i>Bubulcus coromandus</i> | Y | LC | | V | 0.3 | | V | V |
| Chinese Pond Heron | <i>Ardeola bacchus</i> | Y | PRC, (RC) | 1.2 | 1.6 | 5.3 | 2.6 | 5.6 | 6.3 |
| Black-crowned Night Heron | <i>Nycticorax nycticorax</i> | Y | (LC) | 0.2 | V | 1.8 | 0.4 | V | |
| Yellow Bittern | <i>Ixobrychus sinensis</i> | Y | LC | 0.6 | 1.4 | 4.8 | 2.0 | 0.8 | 0.8 |
| Black Kite | <i>Milvus migrans</i> | Y | RC | V | 0.2 | V | 0.4 | | |
| Eurasian Hobby | <i>Falco subbuteo</i> | N | LC | | | | | | V |
| White-breasted Waterhen | <i>Amaurornis phoenicurus</i> | Y | - | 0.8 | 0.2 | 0.3 | 0.4 | 0.6 | 0.3 |
| Common Moorhen | <i>Gallinula chloropus</i> | Y | - | | V | | V | | |
| Black-winged Stilt | <i>Himantopus himantopus</i> | Y | (RC) | | | | | 1.0 | 0.3 |
| Oriental Pratincole | <i>Glareola maldivarum</i> | Y | LC | | | | | | V |

| Common Name | Scientific Name (3) | Wetland Dependent | Conservation Status (1) | May Mean (2) | Jun Mean (2) | Jul Mean (2) | Aug Mean (2) | Sep Mean (2) | Oct Mean (2) |
|---------------------------|---------------------------------|-------------------|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Little Ringed Plover | <i>Charadrius dubius</i> | Y | (LC) | | V | | | | |
| Common Greenshank | <i>Tringa nebularia</i> | Y | LC | | | | | | 0.3 |
| Green Sandpiper | <i>Tringa ochropus</i> | Y | - | | | | | 2.4 | 0.8 |
| Wood Sandpiper | <i>Tringa glareola</i> | Y | (LC) | | | V | V | 0.6 | V |
| Common Sandpiper | <i>Actitis hypoleucos</i> | Y | - | 1.0 | | 0.5 | V | 0.2 | 1.5 |
| Common Snipe | <i>Gallinago gallinago</i> | Y | - | | | | | 0.2 | |
| Savanna Nightjar | <i>Caprimulgus affinis</i> | N | - | V | | | | | |
| Pied Kingfisher | <i>Ceryle rudis</i> | Y | (LC) | 0.2 | | | | V | |
| White-throated Kingfisher | <i>Halcyon smyrnensis</i> | Y | LC | V | V | 0.5 | 0.2 | 0.4 | V |
| Common Kingfisher | <i>Alcedo atthis</i> | Y | - | 2.0 | 0.6 | 2.0 | 0.2 | 0.6 | 0.8 |
| Eastern Yellow Wagtail | <i>Motacilla tschutschensis</i> | Y | - | | | | | | 0.3 |
| White Wagtail | <i>Motacilla alba</i> | Y | - | 0.2 | V | 0.3 | 0.4 | 0.6 | 1.0 |
| Oriental Reed Warbler | <i>Acrocephalus orientalis</i> | Y | - | | | | V | 0.4 | |
| Yellow-bellied Prinia | <i>Prinia Flaviventris</i> | N | - | | | | | V | |
| White-cheeked Starling | <i>Spodiopsar cineraceus</i> | Y | PRC | V | 1.0 | | | | |

| Common Name | Scientific Name (3) | Wetland Dependent | Conservation Status (1) | May Mean (2) | Jun Mean (2) | Jul Mean (2) | Aug Mean (2) | Sep Mean (2) | Oct Mean (2) |
|---------------------------|-------------------------|-------------------|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| White-shouldered Starling | <i>Sturnia sinensis</i> | N | (LC) | 0.2 | V | | V | | V |
| Collared Crow | <i>Corvus torquatus</i> | Y | LC | | V | V | V | 0.4 | |
| No. of Species Recorded | | | | 16 | 17 | 15 | 17 | 21 | 21 |

- (1) Conservation status follows that of Fellows et al. (2002) and BirdLife international listing (2010). See Table B3.
(2) Refers to mean number of individuals recorded in each survey in the Survey Area (excluding the WRA).
(3) Follows HK bird list (dated 2015-1-12).

Table B3: Conservation Status Categories of Bird Species

| Code | Category | Brief Description | Source |
|------|----------------------------|---|-------------------------------|
| GC | Global Concern | Habitat loss/ damage in Hong Kong would pose significant threat to global survival. | Fellowes <i>et al.</i> (2002) |
| RC | Regional Concern | Habitat loss/ damage in Hong Kong would pose significant threat to regional survival. | |
| LC | Local Concern | Habitat loss/ damage in Hong Kong would pose significant threat to local survival. | |
| PGC | Potential Global Concern | Large, secure population in Hong Kong is of global significance. | |
| PRC | Potential Regional Concern | Large, secure population in Hong Kong is of regional significance. | |
| CR | Critically Endangered | Best available evidence indicates that it meets any of the criteria A to E for Critically Endangered, and it is therefore considered to be facing an extremely high risk of extinction in the wild. | BirdLife International (2010) |
| EN | Endangered | Best available evidence indicates that it meets any of the criteria A to E for Endangered, and it is therefore considered to be facing a high risk of extinction in the wild. | |
| VU | Vulnerable | Best available evidence indicates that it meets any of the criteria A to E for Vulnerable, and it is therefore considered to be facing a high risk of extinction in the wild. | |
| NT | Near Threatened | Does not qualify for Critically Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future. | |

Table B4: Summary of Bird Species Recorded at WRA and their Respective Monthly Mean between September 2010 and October 2012

| Common name | Scientific name | Wetland Dependence | Conservation status | Sep- 10 | Oct- 10 | Nov- 10 | Dec- 10 | Jan- 11 | Feb- 11 | Mar- 11 | Apr- 11 | May- 11 | Jun- 11 | Jul- 11 | Aug- 11 | Sep- 11 | Oct- 11 | Nov- 11 | Dec- 11 | Jan- 12 | Feb- 12 | Mar- 12 | Apr- 12 | May- 12 | Jun- 12 | Jul- 12 | Aug- 12 | Sep- 12 | Oct- 12 | |
|---------------------------|-------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----|
| Little Grebe | <i>Tachybaptus ruficollis</i> | Y | LC | | | | 0.5 | | | | | | | 1.0 | 3.8 | 0.8 | 0.5 | 0.5 | | 0.6 | | 1.4 | 1.6 | 0.8 | 1.0 | 1.3 | 0.2 | | 0.2 | |
| Great Cormorant | <i>Phalacrocorax carbo</i> | Y | PRC | | | | 0.8 | | | | | | | | | | 0.3 | 0.3 | 0.4 | 1.2 | 0.7 | 0.2 | | | | | | | | |
| Grey Heron | <i>Ardea cinerea</i> | Y | PRC | | | 1.0 | 1.6 | 2.0 | 2.0 | 0.4 | | | | | | | 1.0 | 2.5 | 1.8 | 0.8 | 2.3 | 0.8 | | | | | 0.3 | | 0.4 | |
| Purple Heron | <i>Ardea purpurea</i> | Y | RC | | | | | | | | | | | | | | 0.3 | 0.3 | | | | | | | | | | | | |
| Great Egret | <i>Ardea alba</i> | Y | PRC | | | | 0.4 | 14.0 | 2.0 | 0.2 | 0.5 | 0.3 | 0.5 | 0.3 | | | 1.5 | 1.8 | 0.8 | 1.2 | 0.6 | 0.7 | 0.6 | 0.6 | 1.0 | 0.3 | | 0.4 | 0.5 | 1.5 |
| Intermediate Egret | <i>Egretta intermedia</i> | Y | RC | | | | 1.7 | 0.8 | 0.2 | | | | | | | | 1.5 | 1.5 | 1.5 | 1.0 | 0.6 | 0.7 | 0.6 | 0.6 | | | | 0.3 | 0.9 | |
| Little Egret | <i>Egretta garzetta</i> | Y | PRC | | | | 1.8 | 8.0 | 2.0 | 0.4 | 0.5 | 0.8 | 0.3 | 0.3 | 1.0 | 1.0 | 0.5 | 1.5 | 1.6 | 1.4 | 2.0 | 1.6 | | | | | 0.8 | 0.3 | 1.2 | |
| Eastern Cattle Egret | <i>Bubulcus coromandus</i> | Y | (LC) | | | | | | | | | | 0.3 | 11.8 | | | 1.3 | 0.3 | | 0.4 | | | | | 0.3 | | 0.2 | | | |
| Chinese Pond Heron | <i>Ardeola bacchus</i> | Y | PRC | | | 1.0 | 0.2 | | | | 0.3 | 0.3 | 0.3 | 1.5 | 4.2 | 7.8 | 4.5 | 5.3 | 2.4 | 0.3 | 2.3 | 2.6 | 1.4 | 0.8 | 1.0 | 0.8 | 2.0 | 1.8 | 2.2 | |
| Yellow Bittern | <i>Ixobrychus sinensis</i> | Y | (LC) | | | | | | | | | | | | | | 0.3 | 0.3 | | | | | | | | | | | | |
| Cinnamon Bittern | <i>Ixobrychus cinnamomeus</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-crowned Night Heron | <i>Nycticorax nycticorax</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Spoonbill | <i>Platalea leucorodia</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-faced Spoonbill | <i>Platalea minor</i> | Y | PGC, EN | | | | | 0.3 | 10.3 | | | | | | | | | | | 0.4 | | | | | | | | | | |
| Mandarin Duck | <i>Aix galericulata</i> | Y | - | | | | | | | | | | | | | | 0.3 | | | | | | | | | | | | | |
| Eurasian Wigeon | <i>Anas penelope</i> | Y | RC | | | | 1.6 | 2.5 | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Teal | <i>Anas crecca</i> | Y | RC | | | | 1.0 | | | | | | | | | | | | | | | | | | | | | | | |
| Northern Pintail | <i>Anas acuta</i> | Y | RC | | | | 0.2 | 7.0 | | | | | | | | | | | | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Sep- 10 | Oct- 10 | Nov- 10 | Dec- 10 | Jan- 11 | Feb- 11 | Mar- 11 | Apr- 11 | May- 11 | Jun- 11 | Jul- 11 | Aug- 11 | Sep- 11 | Oct- 11 | Nov- 11 | Dec- 11 | Jan- 12 | Feb- 12 | Mar- 12 | Apr- 12 | May- 12 | Jun- 12 | Jul- 12 | Aug- 12 | Sep- 12 | Oct- 12 |
|-------------------------|-------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Northern Shoveler | <i>Anas clypeata</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tufted Duck | <i>Aythya fuligula</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Garganey | <i>Anas querquedula</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Western Osprey | <i>Pandion haliaetus</i> | Y | RC | | | | 0.2 | | | | | | | | | | | | | | | | | | | | | | |
| Black-winged Kite | <i>Elanus caeruleus</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Black Kite | <i>Milvus migrans</i> | N | (RC) | | | | | 0.8 | 0.3 | 0.2 | | 0.3 | | | | 0.3 | | | | 0.2 | | | 0.2 | 0.5 | | | | | 0.4 |
| Crested Serpent Eagle | <i>Spilornis cheela</i> | N | (LC) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eastern Buzzard | <i>Buteo japonicus</i> | N | - | | | | | | | 0.2 | | | | | | | | | | | | | | | | | | | |
| Common Kestrel | <i>Falco tinnunculus</i> | N | - | | | 1.0 | 0.4 | 1.0 | 0.3 | 0.4 | | | | | | | | | | | | | | | | | | | |
| Eurasian Hobby | <i>Falco subbuteo</i> | Y | (LC) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peregrine Falcon | <i>Falco peregrinus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Greater Spotted Eagle | <i>Clanga clanga</i> | N | GC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eastern Imperial Eagle | <i>Aquila heliaca</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Japanese Quail | <i>Coturnix japonica</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Baillon's Crake | <i>Porzana pusilla</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| White-breasted Waterhen | <i>Amaurornis phoenicurus</i> | Y | - | | | | | | | | | 0.5 | 0.8 | 1.3 | 2.6 | 1.3 | 1.5 | 0.3 | | | 0.4 | | | | 0.5 | 1.0 | 0.5 | | |
| Watercock | <i>Gallicrex cinerea</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Common Moorhen | <i>Gallinula chloropus</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | 0.2 | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Sep- 10 | Oct- 10 | Nov- 10 | Dec- 10 | Jan- 11 | Feb- 11 | Mar- 11 | Apr- 11 | May- 11 | Jun- 11 | Jul- 11 | Aug- 11 | Sep- 11 | Oct- 11 | Nov- 11 | Dec- 11 | Jan- 12 | Feb- 12 | Mar- 12 | Apr- 12 | May- 12 | Jun- 12 | Jul- 12 | Aug- 12 | Sep- 12 | Oct- 12 |
|------------------------------|---|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Pheasant-tailed Jacana | <i>Hydrophasianus chirurgus</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | | 0.3 |
| Greater Painted-snipe | <i>Rostratula benghalensis</i> | Y | LC | | | | | | | | | 0.5 | | | | | | | | | | | | | | | | | |
| Black-winged Stilt | <i>Himantopus himantopus</i> | Y | RC | 8.0 | | | | | | | | | | | | | | | | 1.0 | | | | | | | | | |
| Pied Avocet | <i>Recurvirostra avosetta</i> | Y | RC | | | | 0.2 | | | | | | | | | | | | | | | | | 0.2 | | | | | |
| Oriental Pratincole | <i>Glareola maldivarum</i> | Y | LC | | | | | | | | | 2.5 | | | | | | | | | | | | | | | | | |
| Little Ringed Plover | <i>Charadrius dubius</i> | Y | LC | 3.0 | | 24.5 | 7.4 | 3.8 | 9.0 | 6.8 | 10.5 | 5.5 | 0.5 | | 0.2 | | | | | | | 1.0 | 0.6 | | | | | | |
| Kentish Plover | <i>Charadrius alexandrinus</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spotted Redshank | <i>Tringa erythropus</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Common Redshank | <i>Tringa totanus</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Marsh Sandpiper | <i>Tringa stagnatilis</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Common Greenshank | <i>Tringa nebularia</i> | Y | RC | | | 0.5 | | | | | | | | | | | | | 0.3 | 0.8 | 0.2 | | | | | | | | |
| Green Sandpiper | <i>Tringa ochropus</i> | Y | - | | | 1.0 | 0.4 | 0.5 | 0.5 | 0.4 | | | | 0.3 | | | | | | | 0.2 | | 0.2 | 0.4 | | | 0.2 | | |
| Wood Sandpiper | <i>Tringa glareola</i> | Y | LC | | | | | | 0.5 | 1.2 | | | | | | | | | | | 0.8 | 0.3 | | | | | 0.6 | | |
| Common Sandpiper | <i>Actitis hypoleucos</i> | Y | - | 1.0 | | 0.5 | 1.0 | | 0.5 | 0.6 | 1.0 | 0.3 | | | 0.2 | | | | | | | | 0.4 | 0.2 | | | | | 0.9 |
| Eurasian Woodcock | <i>Scolopax rusticola</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pintail/ Swinhoe's Snipe* | <i>Gallinago stenura/ G. megala</i> | Y | LC* | | | 0.5 | | | | | | | | | | | | | 0.3 | | | | | | | | | | |
| Common Snipe | <i>Gallinago gallinago</i> | Y | - | | | | | | 0.3 | 0.2 | | | | | | | | | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Sep- 10 | Oct- 10 | Nov- 10 | Dec- 10 | Jan- 11 | Feb- 11 | Mar- 11 | Apr- 11 | May- 11 | Jun- 11 | Jul- 11 | Aug- 11 | Sep- 11 | Oct- 11 | Nov- 11 | Dec- 11 | Jan- 12 | Feb- 12 | Mar- 12 | Apr- 12 | May- 12 | Jun- 12 | Jul- 12 | Aug- 12 | Sep- 12 | Oct- 12 |
|---------------------------|-----------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Red-necked Stint | <i>Calidris ruficollis</i> | Y | LC | 3.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temminck's Stint | <i>Calidris temminckii</i> | Y | LC | | | 0.5 | | | 2.5 | 0.4 | 1.3 | | | | | | | | | | | | | | | | | | |
| Long-toed Stint | <i>Calidris subminuta</i> | Y | LC | | | | | | | | | | | | | | | | | | 0.3 | | | | | | | | |
| Whiskered Tern | <i>Chlidonias hybrida</i> | Y | - | | | | | | | | | | | | | | | | | | | | | 1.3 | | | | | |
| Domestic Pigeon | <i>Columba livia</i> | N | - | | | | | | | | | | | | | | | | | DS | | | | | | | | | |
| Eurasian Collared Dove | <i>Streptopelia decaocto</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oriental Turtle Dove | <i>Streptopelia orientalis</i> | N | - | | | | | | | | | | | | | | 0.2 | | | | | | | | | | | | |
| Red Turtle Dove | <i>Streptopelia tranquebarica</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spotted Dove | <i>Spilopelia chinensis</i> | N | - | | | | | | | | | | | | | | | | | DS | | DS | DS | | DS | | | DS | 0.6 |
| Asian Koel | <i>Eudynamys scolopaceus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Greater Coucal# | <i>Centropus sinensis</i> | N | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Eagle Owl | <i>Bubo bubo</i> | N | RC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Savanna Nightjar | <i>Caprimulgus affinis</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pacific Swift | <i>Apus pacificus</i> | N | (LC) | | | | | | | | 0.3 | | | | | | | | | | | | | | | | | | |
| House Swift | <i>Apus nipalensis</i> | N | - | 10.0 | | | | | 0.2 | | | | | | | | | | | | DS | DS | | | | | | | |
| Pied Kingfisher | <i>Ceryle rudis</i> | Y | (LC) | | | | 0.2 | 0.3 | 0.5 | 0.2 | | | 0.3 | | | | | | | | | 0.2 | | | | | 0.5 | | |
| Common Kingfisher | <i>Alcedo atthis</i> | Y | - | | | | 0.4 | 0.5 | 0.3 | | 0.3 | 0.5 | 1.0 | 0.3 | 1.0 | 0.8 | 0.5 | 0.8 | 1.0 | 0.4 | | 0.8 | | | | | 0.6 | | 0.4 |
| White-throated Kingfisher | <i>Halcyon smyrnensis</i> | N | (LC) | | | | | | | | | | | | | | | 0.3 | | | | | | | | | 0.3 | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Sep- 10 | Oct- 10 | Nov- 10 | Dec- 10 | Jan- 11 | Feb- 11 | Mar- 11 | Apr- 11 | May- 11 | Jun- 11 | Jul- 11 | Aug- 11 | Sep- 11 | Oct- 11 | Nov- 11 | Dec- 11 | Jan- 12 | Feb- 12 | Mar- 12 | Apr- 12 | May- 12 | Jun- 12 | Jul- 12 | Aug- 12 | Sep- 12 | Oct- 12 |
|-----------------------------|-------------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Eurasian Hoopoe | <i>Upupa epops</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Barn Swallow | <i>Hirundo rustica</i> | N | - | 25.0 | | | | | 1.5 | | | | | | | | | | | | DS | DS | | DS | | DS | DS | 3.0 | |
| Red-rumped Swallow | <i>Hirundo daurica</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eastern Yellow Wagtail | <i>Motacilla tschutschensis</i> | Y | - | | | 14.5 | 10.2 | 15.0 | 23.5 | 8.2 | 11.8 | 1.8 | | | 0.2 | 0.8 | 1.5 | 2.0 | 1.2 | 0.6 | | 4.0 | 1.0 | | | | | | |
| Grey Wagtail | <i>Motacilla cinerea</i> | Y | - | | | | 0.2 | | 0.3 | 0.2 | | | | | | 0.3 | | | | | | | | | | | | | |
| White Wagtail | <i>Motacilla alba</i> | Y | - | 3.0 | | | 1.8 | | | | | | | | | | | | DS | DS | DS | DS | DS | | | | DS | 1.8 | 3.2 |
| Richard's Pipit | <i>Anthus richardi</i> | Y | - | | | 1.5 | 0.8 | 0.5 | 1.0 | 1.0 | 1.8 | 0.5 | | | | | 0.3 | | DS | | DS | DS | DS | | | | | | |
| Olive-backed Pipit | <i>Anthus hodgsoni</i> | N | - | | | 0.5 | | | | | | | | | | | | DS | | | | | | | | | | | |
| Red-throated Pipit | <i>Anthus cervinus</i> | N | LC | | 2.0 | 2.5 | 1.2 | 0.5 | 0.5 | 0.2 | | | | | | | | | | | | 0.4 | | | | | | 0.7 | |
| Buff-bellied Pipit | <i>Anthus rubescens</i> | N | LC | | 1.0 | 1.5 | | | | | | | | | | | | | | | | | | | | | | | |
| Red- whiskered Bulbul | <i>Pycnonotus jocosus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chinese Bulbul | <i>Pycnonotus sinensis</i> | N | - | | | | | | | | | | | | | | | | | | | DS | | DS | | DS | | | |
| Bull-headed Shrike | <i>Lanius bucephalus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brown Shrike | <i>Lanius cristatus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Long-tailed Shrike | <i>Lanius schach</i> | N | - | | | | | | | | | | | | | | | | | DS | DS | | | | | DS | DS | | |
| Oriental Magpie Robin | <i>Copsychus sauralis</i> | N | - | | | | | | | | | | | | | | | | | | DS | | | | | | | | |
| Daurian Redstart | <i>Phoenicurus aureus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stejneger's Stonechat | <i>Saxicola stejnegeri</i> | N | - | | 3.0 | 0.5 | 1.0 | 1.0 | 0.8 | 0.2 | 0.3 | | | | | | 1.0 | | DS | DS | | DS | | | | | | | |
| Masked Laughingthrush | <i>Garrulax perspicillatus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | DS | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Sep- 10 | Oct- 10 | Nov- 10 | Dec- 10 | Jan- 11 | Feb- 11 | Mar- 11 | Apr- 11 | May- 11 | Jun- 11 | Jul- 11 | Aug- 11 | Sep- 11 | Oct- 11 | Nov- 11 | Dec- 11 | Jan- 12 | Feb- 12 | Mar- 12 | Apr- 12 | May- 12 | Jun- 12 | Jul- 12 | Aug- 12 | Sep- 12 | Oct- 12 |
|------------------------------|----------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Lanceolated Warbler | <i>Locustella lanceolata</i> | Y | - | | | | | | | | | | | | | | 0.3 | | | | | | | | | | | | |
| Pallas's Grasshopper Warbler | <i>Locustella certhiola</i> | Y | LC | | | | | | | | | | | | | | 0.3 | | | | | | | | | | | | |
| Oriental Reed Warbler | <i>Acrocephalus orientalis</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thick-billed Warbler | <i>Acrocephalus aedon</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-browed Reed Warbler | <i>Acrocephalus bistrigiceps</i> | Y | - | | | | | | | | | | | | | | 0.3 | | | | | | | | | | | | |
| Common Tailorbird | <i>Orthotomus sutorius</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zitting Cisticola | <i>Cisticola juncidis</i> | Y | LC | | | | | | | 0.2 | 1.5 | 2.5 | 2.5 | 1.0 | 0.4 | | 0.3 | 0.8 | 1.8 | 0.2 | 0.3 | 0.6 | | | | | 0.2 | | |
| Yellow-bellied Prinia | <i>Prinia flaviventris</i> | N | - | | | | | | | | | | | | | | | | | DS | | DS | | DS | | DS | DS | 0.8 | 0.4 |
| Plain Prinia | <i>Prinia inornata</i> | N | - | | | | | | | | | | | | | | | | | | DS | | DS | | DS | DS | | | |
| Dusky Warbler | <i>Phylloscopus fuscatus</i> | N | - | | | | | | | | | | | | | | 0.5 | | DS | | | | | | | | | | |
| Pallas's Leaf Warbler | <i>Phylloscopus proregulus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yellow-browed warbler | <i>Phylloscopus inornatus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | 1.4 |
| Chinese Penduline-Tit | <i>Remiz consobrinus</i> | Y | RC | | | | | | | | | | | | | | | | | | 1.2 | 0.2 | | | | | | | |
| Japanese White-eye | <i>Zosterops japonica</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Little Bunting | <i>Emberiza pusilla</i> | N | - | | | 0.5 | | | | | | | | | | | | | | | | | | | | | | | |
| Black-faced Bunting | <i>Emberiza spodocephala</i> | N | - | | | | | | | | 0.5 | | | | | | | | | | | | | | | | | | |
| Chinese Grosbeak | <i>Eophona migratoria</i> | N | LC | | | | | | | | | | | | | | 0.3 | | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Sep- 10 | Oct- 10 | Nov- 10 | Dec- 10 | Jan- 11 | Feb- 11 | Mar- 11 | Apr- 11 | May- 11 | Jun- 11 | Jul- 11 | Aug- 11 | Sep- 11 | Oct- 11 | Nov- 11 | Dec- 11 | Jan- 12 | Feb- 12 | Mar- 12 | Apr- 12 | May- 12 | Jun- 12 | Jul- 12 | Aug- 12 | Sep- 12 | Oct- 12 |
|---------------------------|----------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Scaly-breasted Munia | <i>Lonchura punctulata</i> | N | - | 20.0 | | | | 2.5 | | 15.0 | 7.5 | | | | | | | | | | | | | DS | | DS | DS | 1.5 | |
| Eurasian Tree Sparrow | <i>Passer montanus</i> | N | - | | | | | | | | | | | | | | | | | | | DS | | DS | | DS | | | |
| Red-billed Starling | <i>Spodiopsar sericeus</i> | N | GC | | | | | | | | | | | | | 0.3 | | 0.8 | 1.6 | 6.6 | 39.0 | 17.4 | | | | | | | |
| White-cheeked Starling | <i>Spodiopsar cineraceus</i> | N | PRC | | | | | | | | | | | | 6.6 | | | | | | | | | | | | | | |
| Black-collared Starling | <i>Gracupica nigricollis</i> | N | - | | | | | | | | | | | | | | | | DS | DS | DS | DS | | | | | DS | | |
| White-shouldered Starling | <i>Sturnia sinensis</i> | N | (LC) | | | | | | | | | 0.3 | | 0.5 | 2.4 | | | | | | | | | | | | | | |
| Common Myna | <i>Acridotheres tristis</i> | N | - | | | | | | | | | | | | | | | | | | DS | | | | | | | | |
| Crested Myna | <i>Acridotheres cristatellus</i> | N | – | 3.0 | | | | | | | | | | | | | | | DS | | | | | DS | | DS | | | V |
| Black-napped Oriole | <i>Oriolus chinensis</i> | N | LC | | | | | | | | | | | | | 1.0 | | | | | | | | | | | | | |
| Black Drongo | <i>Dicrurus macrocercus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | DS | DS | | |
| Azure-winged Magpie | <i>Cyanopica cyanus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Magpie | <i>Pica pica</i> | N | - | | | | | | | | | | | | | | | | | | | DS | | | | DS | | 0.3 | |
| Large-billed Crow | <i>Corvus macrorhynchos</i> | N | - | | | | 0.4 | | | 0.2 | | | | | | | | | | | | | | | | | | | |
| Collared Crow | <i>Corvus torquatus</i> | N | LC, NT | | | | 0.2 | 0.3 | | | 0.5 | | 0.3 | | 0.8 | 0.8 | 0.8 | 0.5 | | | | | | | 0.8 | | | | |

Note: Conservation Status follows that of Fellows et. al. (2002)

* Pintail Snipe and Swinhoe's Snipe cannot be distinguished in field, conservation status refers to Swinhoe's Snipe.

V Indicates the species is recorded outside regular surveys.

DS Indicates species recorded during survey.

Greater Coucal is listed as vulnerable (VU) in China Red Data Book and it is protected terrestrial wildlife state protection (category II).

Table B5: Summary of Bird Species Recorded at the WRA and their Respective Monthly Mean between November 2012 and October 2014

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov- 12 | Dec- 12 | Jan- 13 | Feb- 13 | Mar- 13 | Apr- 13 | May- 13 | Jun- 13 | Jul- 13 | Aug- 13 | Sep- 13 | Oct- 13 | Nov- 13 | Dec- 13 | Jan- 14 | Feb- 14 | Mar- 14 | Apr- 14 | May- 14 | Jun- 14 | Jul- 14 | Aug- 14 | Sep- 14 | Oct- 14 |
|---------------------------|-------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Little Grebe | <i>Tachybaptus ruficollis</i> | Y | LC | 1.0 | 1.0 | 1.2 | 0.4 | 0.6 | 0.4 | 1.5 | 0.5 | | 0.6 | 0.5 | 1.2 | 0.6 | 2.2 | 1.8 | 5.3 | 4.5 | 2.4 | 0.8 | 2.0 | 3.2 | 1.8 | 1.6 | 1.4 |
| Great Cormorant | <i>Phalacrocorax carbo</i> | Y | PRC | 0.8 | 3.2 | 0.8 | 1.0 | 0.0 | 0.0 | | | | | | 0.2 | V | 0.4 | 0.6 | 0.5 | | | | | | | | V |
| Grey Heron | <i>Ardea cinerea</i> | Y | PRC | 0.8 | 1.4 | 0.8 | 1.4 | 0.0 | 0.0 | | | | | V | 1.0 | 2.8 | 2.6 | 1.6 | 2.5 | | | | | | | 1.0 | 1.6 |
| Purple Heron | <i>Ardea purpurea</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Great Egret | <i>Ardea alba</i> | Y | PRC | 1.4 | 0.6 | 1.0 | 0.8 | 0.2 | 0.6 | | 0.8 | 0.6 | | | 0.6 | 0.6 | 2.4 | 1.2 | 1.8 | 0.8 | 0.2 | V | 0.5 | V | V | 0.2 | V |
| Intermediate Egret | <i>Egretta intermedia</i> | Y | RC | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | | | V | | | | | | | | V |
| Little Egret | <i>Egretta garzetta</i> | Y | PRC | 0.8 | 2.0 | 2.2 | 1.4 | 0.6 | 1.2 | 0.6 | 1.8 | 0.4 | 3.4 | 0.5 | 2.2 | 1.4 | 2.4 | 4.4 | 4.0 | 3.8 | 3.2 | 1.2 | 3.3 | 1.8 | 1.3 | 2.6 | 1.6 |
| Eastern Cattle Egret | <i>Bubulcus coromandus</i> | Y | (LC) | | | | | | | | | | | | | | | | | 1.6 | V | | | | | | |
| Chinese Pond Heron | <i>Ardeola bacchus</i> | Y | PRC | 1.6 | 2.2 | 2.4 | 0.4 | 0.0 | 0.0 | | | 0.8 | 2.0 | 0.5 | 1.4 | 1.4 | 2.6 | 6.8 | 3.5 | 2.5 | 1.0 | 1.6 | 1.0 | 1.4 | 1.5 | 4.2 | 1.4 |
| Yellow Bittern | <i>Ixobrychus sinensis</i> | Y | (LC) | | | | | | V | 1.0 | 2.5 | 0.2 | 1.4 | 1.3 | 0.8 | 0.4 | 0.2 | | | V | V | 0.4 | 1.3 | 1.0 | 0.8 | 0.2 | 0.2 |
| Cinnamon Bittern | <i>Ixobrychus cinnamomeus</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-crowned Night Heron | <i>Nycticorax nycticorax</i> | Y | LC | V | | 0.2 | | | | | 0.3 | | | | V | | | | | V | | V | | | | | V |
| Eurasian Spoonbill | <i>Platalea leucorodia</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-faced Spoonbill | <i>Platalea minor</i> | Y | PGC, EN | | | | | | | | | | | | | | | | V | V | | | | | | | |
| Mandarin Duck | <i>Aix galericulata</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Wigeon | <i>Anas penelope</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Teal | <i>Anas crecca</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Northern Pintail | <i>Anas acuta</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov- 12 | Dec- 12 | Jan- 13 | Feb- 13 | Mar- 13 | Apr- 13 | May- 13 | Jun- 13 | Jul- 13 | Aug- 13 | Sep- 13 | Oct- 13 | Nov- 13 | Dec- 13 | Jan- 14 | Feb- 14 | Mar- 14 | Apr- 14 | May- 14 | Jun- 14 | Jul- 14 | Aug- 14 | Sep- 14 | Oct- 14 |
|-------------------------|------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Northern Shoveler | <i>Anas clypeata</i> | Y | RC | | | V | | | | | | | | | | | 1.2 | 7.0 | 5.5 | V | | | | | | | |
| Tufted Duck | <i>Aythya fuligula</i> | Y | LC | | | V | | | | | | | | | | | | | | | | | | | | | |
| Garganey | <i>Anas querquedula</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Western Osprey | <i>Pandion haliaetus</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-winged Kite | <i>Elanus caeruleus</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black Kite | <i>Milvus migrans</i> | N | (RC) | 0.0 | 0.2 | 0.0 | 0.0 | 0.6 | 0.0 | 0.2 | 0.3 | | 1.2 | 0.8 | 0.2 | 0.2 | | V | 0.5 | 0.8 | 0.4 | 0.6 | 0.3 | 0.6 | | | 0.4 |
| Crested Serpent Eagle | <i>Spilornis cheela</i> | N | (LC) | | | | | | | | | | | | | | | | V | | | | | | | | |
| Eastern Buzzard | <i>Buteo japonicus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | V |
| Common Kestrel | <i>Falco tinnunculus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Hobby | <i>Falco subbuteo</i> | Y | (LC) | | | | | | | | | | | | | | | | | | | | | | V | | |
| Peregrine Falcon | <i>Falco peregrinus</i> | N | - | | V | | | | | | | | | | | | V | | | | | | | | | | |
| Greater Spotted Eagle | <i>Clanga clanga</i> | N | GC | | | | | | | | | | | | | | | | | | | | | | | | |
| Imperial Eagle | <i>Aquila heliaca</i> | N | - | | | V | | | | | | | | | | | | | | | | | | | | | |
| Japanese Quail | <i>Coturnix japonica</i> | Y | LC | | | | | | | | | | | | V | | | | | | | | | | | | |
| Baillon's Crake | <i>Porzana pusilla</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| White-breasted Waterhen | <i>Amauornis phoenicurus</i> | Y | - | 0.2 | | 0.2 | 0.0 | 0.4 | 0.2 | V | 1.8 | 0.2 | 0.2 | V | 0.8 | 0.4 | | | V | 0.2 | 0.2 | | V | 1.4 | 0.5 | 0.5 | 0.2 |
| Watercock | <i>Gallicrex cinerea</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov- 12 | Dec- 12 | Jan- 13 | Feb- 13 | Mar- 13 | Apr- 13 | May- 13 | Jun- 13 | Jul- 13 | Aug- 13 | Sep- 13 | Oct- 13 | Nov- 13 | Dec- 13 | Jan- 14 | Feb- 14 | Mar- 14 | Apr- 14 | May- 14 | Jun- 14 | Jul- 14 | Aug- 14 | Sep- 14 | Oct- 14 |
|--------------------------|-------------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Common Moorhen | <i>Gallinula chloropus</i> | Y | - | | | | | | | | | | | | | | | | V | 0.2 | | | | | | | |
| Pheasant-tailed Jacana | <i>Hydrophasianus chirurgus</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Greater Painted-snipe | <i>Rostratula benghalensis</i> | Y | LC | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | | | | | | | | | | | |
| Black-winged Stilt | <i>Himantopus himantopus</i> | Y | RC | | | | | | | | | 0.2 | 0.6 | V | 0.2 | V | | | | | | | | | V | V | |
| Pied Avocet | <i>Recurvirostra avosetta</i> | Y | RC | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | | | | | | | | | | | |
| Oriental Pratincole | <i>Glareola maldivarum</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Little Ringed Plover | <i>Charadrius dubius</i> | Y | LC | 0.0 | 0.0 | 0.4 | 1.0 | 0.2 | 0.0 | | | | | | V | 0.4 | | V | 0.5 | 0.8 | | | 0.3 | | | | 1.2 |
| Kentish Plover | <i>Charadrius alexandrinus</i> | Y | RC | | | | | | | | | 0.8 | | | | V | | | | | | | | | | | |
| Spotted Redshank | <i>Tringa erythropus</i> | Y | RC | | | | | | | | | | | | V | | | | | | | | | | | | |
| Common Redshank | <i>Tringa totanus</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Marsh Sandpiper | <i>Tringa stagnatilis</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Common Greenshank | <i>Tringa nebularia</i> | Y | RC | V | V | V | | V | | | | | | | | | V | V | | V | | | | | | | V |
| Green Sandpiper | <i>Tringa ochropus</i> | Y | - | | | | | | 0.2 | | | | | | 1.0 | 0.6 | V | | 0.5 | | | | | V | | | V |
| Wood Sandpiper | <i>Tringa glareola</i> | Y | LC | | V | | V | V | | | | | | | V | V | V | V | V | V | | | | 0.4 | 0.3 | | 0.2 |
| Common Sandpiper | <i>Actitis hypoleucos</i> | Y | - | 0.2 | | | | | 0.2 | 0.2 | | V | 0.6 | V | 0.8 | 1.6 | 0.2 | V | 0.3 | 1.3 | 0.2 | 0.4 | V | V | 0.3 | 2.6 | 4.4 |
| Eurasian Woodcock | <i>Scolopax rusticola</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Pintail/Swinhoe's Snipe* | <i>Gallinago stenura/ G. megala</i> | Y | LC*, - | | | | | | | | | | | | | V | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov- 12 | Dec- 12 | Jan- 13 | Feb- 13 | Mar- 13 | Apr- 13 | May- 13 | Jun- 13 | Jul- 13 | Aug- 13 | Sep- 13 | Oct- 13 | Nov- 13 | Dec- 13 | Jan- 14 | Feb- 14 | Mar- 14 | Apr- 14 | May- 14 | Jun- 14 | Jul- 14 | Aug- 14 | Sep- 14 | Oct- 14 |
|------------------------|-----------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Common Snipe | <i>Gallinago gallinago</i> | Y | - | | V | | | | V | | | | | | | | | | | | | | | | | | |
| Red-necked Stint | <i>Calidris ruficollis</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Temminck's Stint | <i>Calidris temminckii</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | 0.6 |
| Long-toed Stint | <i>Calidris subminuta</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Whiskered Tern | <i>Chlidonias hybrida</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Domestic Pigeon | <i>Columba livia</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Collared Dove | <i>Streptopelia decaocto</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | V |
| Oriental Turtle Dove | <i>Streptopelia orientalis</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Red Turtle Dove | <i>Streptopelia tranquebarica</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Spotted Dove | <i>Spilopelia chinensis</i> | N | - | 0.4 | 1.2 | 0.4 | | 0.2 | 0.2 | 0.4 | 0.5 | 0.8 | 2.8 | 2.0 | 2.6 | 2.6 | 3.0 | 6.2 | 2.3 | 2.0 | 1.0 | 0.6 | 1.6 | 1.2 | 1.3 | 2.2 | 3.6 |
| Asian Koel | <i>Eudynamys scolopaceus</i> | N | - | | | | | | | | | | | | | | | | | V | | | | | | | |
| Greater Coucal# | <i>Centropus sinensis</i> | N | | | | | | | | 0.2 | 0.3 | 0.2 | 0.2 | | 0.2 | 0.2 | | | | 0.4 | 0.8 | 0.3 | 0.8 | 0.5 | 0.2 | 0.2 | |
| Eurasian Eagle Owl | <i>Bubo bubo</i> | N | RC | | | | | | | | | | | V | | V | | | V | | | | | | | | |
| Savanna Nightjar | <i>Caprimulgus affinis</i> | N | - | | | | V | | | | V | | | | | | | | V | | | | | | | | |
| Pacific Swift | <i>Apus pacificus</i> | N | (LC) | | | | | | | | | | | | | | | | | | | | | | | | |
| House Swift | <i>Apus nipalensis</i> | N | - | 0.4 | | V | | | | | | | | | | | | V | 0.5 | | | | | | | | |
| Pied Kingfisher | <i>Ceryle rudis</i> | Y | (LC) | | | | | | V | | | | V | | | 0.4 | V | 0.3 | V | | | | | V | | | |
| Common Kingfisher | <i>Alcedo atthis</i> | Y | - | 0.2 | 0.2 | 0.5 | 0.4 | 0.2 | 0.2 | 0.6 | 0.3 | 0.4 | 0.4 | 0.8 | 1.0 | 2.0 | 1.6 | 1.2 | 2.3 | 0.8 | 1.0 | | | | V | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov- 12 | Dec- 12 | Jan- 13 | Feb- 13 | Mar- 13 | Apr- 13 | May- 13 | Jun- 13 | Jul- 13 | Aug- 13 | Sep- 13 | Oct- 13 | Nov- 13 | Dec- 13 | Jan- 14 | Feb- 14 | Mar- 14 | Apr- 14 | May- 14 | Jun- 14 | Jul- 14 | Aug- 14 | Sep- 14 | Oct- 14 |
|---------------------------|---------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| White-throated Kingfisher | <i>Halcyon smyrnensis</i> | N | (LC) | | | | | | | | | | | | | V | 0.2 | | | | | 1.2 | 1.8 | 0.6 | 1.3 | 1.4 | 1.8 |
| Eurasian Hoopoe | <i>Upupa epops</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Barn Swallow | <i>Hirundo rustica</i> | N | - | 0.2 | 1.0 | | 0.2 | 9.2 | 23.0 | 11.2 | | 1.4 | 1.8 | 1.0 | | V | | | 0.5 | 7.8 | 15.4 | 18.0 | 1.5 | 1.0 | 1.5 | 0.4 | V |
| Red-rumped Swallow | <i>Hirundo daurica</i> | N | - | 1.2 | 1.2 | | | | | | | | | | | | | 0.6 | | | | | | | | | |
| Eastern Yellow Wagtail | <i>Motacilla tschutschensis</i> | Y | - | 0.2 | 0.2 | 1.4 | 2.8 | 2.2 | 2.2 | 0.2 | | | | | 0.4 | 0.2 | 0.6 | 0.6 | 1.0 | 0.3 | 0.2 | | | | | 0.6 | 0.2 |
| Eurasian Hoopoe | <i>Upupa epops</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Grey Wagtail | <i>Motacilla cinerea</i> | Y | - | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | | | | | | | | | | | | |
| White Wagtail | <i>Motacilla alba</i> | Y | - | 2.6 | 1.0 | 1.0 | 3.0 | 4.8 | 2.0 | 1.0 | | 1.2 | 0.4 | 3.5 | 2.8 | 3.6 | 2.6 | 1.2 | 1.3 | 2.5 | 1.6 | 0.6 | 1.2 | 0.8 | 1.8 | 1.8 | 3.2 |
| Richard's Pipit | <i>Anthus richardi</i> | Y | - | 0.2 | 0.4 | 1.2 | 0.4 | 0.4 | | | | | | | | | 0.4 | 0.8 | 2.0 | 2.3 | 3.0 | V | | | | | V |
| Olive-backed Pipit | <i>Anthus hodgsoni</i> | N | - | | | | 0.6 | 1.2 | 1.4 | | | | | | | | | | | 0.2 | | | | | | | |
| Red-throated Pipit | <i>Anthus cervinus</i> | N | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Buff-bellied Pipit | <i>Anthus rubescens</i> | N | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Red-whiskered Bulbul | <i>Pycnonotus jocosus</i> | N | - | | | | | | 0.2 | | 0.3 | | 0.2 | | | V | | 0.8 | 1.3 | 0.3 | 0.2 | | | 0.2 | 0.3 | 1.2 | |
| Chinese Bulbul | <i>Pycnonotus sinensis</i> | N | - | | 0.2 | 2.0 | 0.2 | 0.2 | 3.2 | 2.0 | 3.8 | | 2.4 | 3.5 | 0.2 | 1.8 | 4.0 | 3.8 | 0.5 | 0.8 | 1.6 | 1.8 | 2.3 | 2.2 | 2.3 | 0.4 | 4.6 |
| Bull-headed Shrike | <i>Lanius bucephalus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | V |
| Brown Shrike | <i>Lanius cristatus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Long-tailed Shrike | <i>Lanius schach</i> | N | - | 0.2 | | 0.4 | | | 0.2 | | V | 0.4 | 0.2 | 0.3 | 0.2 | | 0.2 | V | 0.3 | | | 0.2 | 0.3 | 0.4 | 0.5 | V | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov- 12 | Dec- 12 | Jan- 13 | Feb- 13 | Mar- 13 | Apr- 13 | May- 13 | Jun- 13 | Jul- 13 | Aug- 13 | Sep- 13 | Oct- 13 | Nov- 13 | Dec- 13 | Jan- 14 | Feb- 14 | Mar- 14 | Apr- 14 | May- 14 | Jun- 14 | Jul- 14 | Aug- 14 | Sep- 14 | Oct- 14 |
|------------------------------|----------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Oriental Magpie Robin | <i>Copsychus saularis</i> | N | - | | 0.2 | | | | | 0.2 | 0.5 | | 0.2 | 0.3 | V | 0.2 | 0.2 | 0.4 | | | 0.2 | | 0.3 | V | V | V | |
| Daurian Redstart | <i>Phoenicurus aureus</i> | N | - | | | 0.2 | | | | | | | | | | 0.2 | 0.2 | 0.4 | | | | | | | | | V |
| Stejneger's Stonechat | <i>Saxicola stejnegeri</i> | N | - | 0.4 | 0.4 | 0.8 | | | 0.6 | | | | | | V | 0.2 | 0.2 | 0.4 | 0.5 | 0.3 | V | 0.2 | | | | | 0.4 |
| Masked Laughingthrush | <i>Garrulax perspicillatus</i> | N | - | | | | | 0.6 | 1.2 | | | | | 1.0 | | | 0.4 | 0.8 | V | 0.5 | 0.2 | 0.2 | 0.5 | V | 1.5 | 0.8 | |
| Lanceolated Warbler | <i>Locustella lanceolata</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Pallas's Grasshopper Warbler | <i>Locustella certhiola</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Oriental Reed Warbler | <i>Acrocephalus orientalis</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | V | |
| Thick-billed Warbler | <i>Acrocephalus aedon</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-browed Reed Warbler | <i>Acrocephalus bistrigiceps</i> | Y | - | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | | | | | | | | | | | |
| Common Tailorbird | <i>Orthotomus sutorius</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | 0.2 |
| Zitting Cisticola | <i>Cisticola juncidis</i> | Y | LC | | 0.2 | | | | V | | | | | | | | | 0.4 | | 0.3 | 0.2 | | | | | | |
| Yellow-bellied Prinia | <i>Prinia flaviventris</i> | N | - | | 0.8 | 0.6 | 0.8 | 1.4 | 4.6 | 4.4 | 5.0 | 2.4 | 1.8 | 3.0 | 2.4 | 0.8 | 1.0 | 0.8 | 1.3 | 2.8 | 0.8 | 0.8 | 0.4 | | | 0.4 | |
| Plain Prinia | <i>Prinia inornata</i> | N | - | 1.2 | 0.4 | V | 1.4 | 0.2 | 0.2 | 0.2 | 0.5 | 0.8 | 0.4 | 0.3 | | 0.4 | | 0.2 | V | 0.8 | 2.0 | 1.0 | | 2.6 | 4.3 | 3.4 | |
| Dusky Warbler | <i>Phylloscopus fuscatus</i> | N | - | | | | | | | | | | | | V | 0.4 | | 0.4 | 0.8 | 1.5 | V | | | | | V | V |
| Pallas's Leaf Warbler | <i>Phylloscopus proregulus</i> | N | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yellow-browed warbler | <i>Phylloscopus inornatus</i> | N | - | 0.8 | 0.6 | | | | | | | | | | | | | | | | | | | 0.8 | 0.5 | | V |
| Chinese Penduline-Tit | <i>Remiz consobrinus</i> | Y | RC | | | | | | | | | | | | | | V | | 4.5 | V | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov- 12 | Dec- 12 | Jan- 13 | Feb- 13 | Mar- 13 | Apr- 13 | May- 13 | Jun- 13 | Jul- 13 | Aug- 13 | Sep- 13 | Oct- 13 | Nov- 13 | Dec- 13 | Jan- 14 | Feb- 14 | Mar- 14 | Apr- 14 | May- 14 | Jun- 14 | Jul- 14 | Aug- 14 | Sep- 14 | Oct- 14 |
|---------------------------|----------------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Japanese White-eye | <i>Zosterops japonica</i> | N | - | | | | | | | | | | | | | | 0.2 | | 0.6 | | | | V | | | | |
| Little Bunting | <i>Emberiza pusilla</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-faced Bunting | <i>Emberiza spodocephala</i> | N | - | | | | | | | | | | | | | | | | V | | | | | | | | |
| Chinese Grosbeak | <i>Eophona migratoria</i> | N | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Scaly-breasted Munia | <i>Lonchura punctulata</i> | N | - | | | | 1.0 | 2.2 | 1.0 | | | 2.0 | 0.4 | 0.3 | | | 1.8 | 1.8 | V | 1.8 | V | 3.2 | 5.8 | 0.8 | 1.5 | 1.3 | |
| Eurasian Tree Sparrow | <i>Passer montanus</i> | N | - | | | | | | | | | | | | 0.8 | V | | | | | | | | V | 8.8 | 3.6 | |
| Red-billed Starling | <i>Spodiopsar sericeus</i> | N | GC | | | | | | | | | | | | | | | | V | | | V | | | | V | |
| White-cheeked Starling | <i>Spodiopsar cineraceus</i> | N | PRC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-collared Starling | <i>Gracupica nigricollis</i> | N | - | | | 0.8 | 0.4 | 0.2 | 0.2 | 0.2 | | | | 0.8 | | 0.8 | 1.6 | 0.8 | 0.5 | 1.8 | 0.2 | 0.2 | V | 1.0 | 1.0 | 1.2 | 1.4 |
| White-shouldered Starling | <i>Sturnia sinensis</i> | N | (LC) | | | | | | | | | 0.2 | | | | | | | | | | | V | | V | | V |
| Common Myna | <i>Acridotheres tristis</i> | N | - | | | | | | | | | | | | | | | | | | | | | | V | | |
| Crested Myna | <i>Acridotheres cristatellus</i> | N | – | 0.6 | | | | | | 0.2 | 0.3 | 0.8 | 0.2 | | | 2.0 | 1.8 | 1.4 | 0.5 | 1.3 | 1.0 | 0.6 | 1.0 | 1.2 | 3.5 | 0.2 | 1.8 |
| Black-naped Oriole | <i>Oriolus chinensis</i> | N | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black Drongo | <i>Dicrurus macrocercus</i> | N | - | | | | | | | | | | | 0.3 | 0.4 | V | | | | V | | | | 1.5 | | 0.2 | |
| Azure-winged Magpie | <i>Cyanopica cyanus</i> | N | - | | | | | | | | | | | | | V | | | | | | | | | | | |
| Eurasian Magpie | <i>Pica pica</i> | N | - | | | | | | | | 0.3 | | | | | V | | 0.8 | V | 0.3 | 0.2 | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov- 12 | Dec- 12 | Jan- 13 | Feb- 13 | Mar- 13 | Apr- 13 | May- 13 | Jun- 13 | Jul- 13 | Aug- 13 | Sep- 13 | Oct- 13 | Nov- 13 | Dec- 13 | Jan- 14 | Feb- 14 | Mar- 14 | Apr- 14 | May- 14 | Jun- 14 | Jul- 14 | Aug- 14 | Sep- 14 | Oct- 14 |
|-------------------|-----------------------------|-----------------------|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Large-billed Crow | <i>Corvus macrorhynchos</i> | N | - | | | | | | | | 1.0 | | | | | | | | | | | | 0.3 | | | | |
| Collared Crow | <i>Corvus torquatus</i> | N | LC, NT | | | | | | V | | | | | | 0.2 | 0.2 | | | V | 0.5 | 0.8 | 0.4 | | 0.6 | | 0.4 | V |

Note: Conservation Status follows that of Fellows et. al. (2002)

* Pintail Snip and Swinhoe's Snipe cannot be distinguished in field, conservation status refers to Swinhoe's Snipe.

V Indicates the species is recorded outside regular surveys.

DS Indicates species recorded during survey.

Greater Coucal is listed as vulnerable (VU) in China Red Data Book and it is protected terrestrial wildlife state protection (category II).

Table B6: Summary of Bird Species Recorded at the WRA and their Respective Monthly Mean between November 2014 and October 2016

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 |
|---------------------------|-------------------------------|--------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Little Grebe | <i>Tachybaptus ruficollis</i> | Y | LC | 2.5 | 1.2 | 2.0 | 2.0 | 2.0 | 0.8 | 1.2 | 2.8 | 1.6 | 1.8 | 1.0 | 2.0 | 2.3 | 2.4 | 3.2 | 3.3 | 3.8 | 2.4 | 1.4 | 0.8 | 1.5 | 1.4 | 0.8 | V |
| Great Cormorant | <i>Phalacrocorax carbo</i> | Y | PRC | 0.5 | 1.8 | 2.0 | 0.8 | 0.6 | | | | | | | 0.2 | | 0.6 | 0.2 | V | V | | | | | | | 0.5 |
| Grey Heron | <i>Ardea cinerea</i> | Y | PRC | 2.3 | 2.6 | 5.3 | 4.8 | 0.8 | V | | | | | | 0.4 | 1.8 | 1.3 | 2.0 | 1.2 | 2.0 | | | | | | 0.8 | 0.8 |
| Purple Heron | <i>Ardea purpurea</i> | Y | RC | | | | | | | | | | | | 0.2 | | | | | | | | | | | | |
| Great Egret | <i>Ardea alba</i> | Y | PRC | 0.5 | 1.6 | 0.8 | 0.3 | V | 0.3 | V | | 0.2 | 0.3 | 1.8 | 1.0 | 0.3 | 0.4 | 0.8 | 0.3 | 0.6 | 0.2 | 0.2 | 0.2 | 0.3 | 0.6 | 1.0 | 0.8 |
| Intermediate Egret | <i>Egretta intermedia</i> | Y | RC | | | | | | | | | | | | V | | | V | V | | | | | | | | |
| Little Egret | <i>Egretta garzetta</i> | Y | PRC | 3.0 | 3.6 | 5.3 | 3.5 | 4.6 | 6.3 | 1.4 | 0.6 | 0.2 | 1.8 | 2.0 | 1.8 | 2.3 | 4.8 | 8.2 | 3.0 | 1.6 | 2.6 | 1.2 | 2.4 | 2.8 | 4.6 | 3.6 | 6.3 |
| Eastern Cattle Egret | <i>Bubulcus coromandus</i> | Y | (LC) | | | V | | | | | | | | | 0.8 | | | | | V | | | V | 0.3 | | V | V |
| Chinese Pond Heron | <i>Ardeola bacchus</i> | Y | PRC | 2.0 | 2.8 | 2.3 | 2.8 | 1.2 | 1.8 | 0.6 | 0.8 | 1.8 | 1.3 | 2.8 | 5.4 | 3.3 | 8.2 | 3.6 | 2.0 | 1.8 | 0.6 | 1.2 | 1.6 | 5.3 | 2.6 | 5.6 | 6.3 |
| Yellow Bittern | <i>Ixobrychus sinensis</i> | Y | (LC) | 0.3 | 0.2 | | | 0.2 | 0.5 | 0.4 | 1.6 | 0.6 | 1.0 | 0.6 | 2.6 | 0.3 | 0.8 | 0.4 | 0.5 | 0.2 | 0.6 | 0.6 | 1.4 | 4.8 | 2.0 | 0.8 | 0.8 |
| Cinnamon Bittern | <i>Ixobrychus cinnamomeus</i> | Y | LC | | | | | | V | | | | | | | | | | | | | | | | | | |
| Black-crowned Night Heron | <i>Nycticorax nycticorax</i> | Y | LC | | | | | | | | V | V | V | | V | | | | V | | | 0.2 | V | 1.8 | 0.4 | V | |
| Eurasian Spoonbill^ | <i>Platalea leucorodia</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-faced Spoonbill | <i>Platalea minor</i> | Y | PGC, EN | | V | V | | V | | | | | | | | | | | V | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 |
|------------------------|------------------------------|--------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mandarin Duck | <i>Aix galericulata</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Wigeon | <i>Anas penelope</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Teal | <i>Anas crecca</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Northern Pintail | <i>Anas acuta</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Northern Shoveler | <i>Anas clypeata</i> | Y | RC | 0.2 | | | | | | | | | | | | | | | 1.8 | 0.2 | | | | | | | |
| Tufted Duck | <i>Aythya fuligula</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Garganey^ | <i>Anas querquedula</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Western Osprey | <i>Pandion haliaetus</i> | Y | RC | | | | | | | | | | | | | | 0.4 | | | | | | | | | | |
| Black-winged Kite | <i>Elanus caeruleus</i> | Y | LC | | | | | | | | | | | | V | | | | | | | | | | | | |
| Black Kite | <i>Milvus migrans</i> | Y | (RC) | 0.4 | | 0.3 | 0.4 | 0.5 | 0.2 | 0.2 | | | | 0.2 | 0.4 | 0.3 | 0.8 | 0.2 | 0.5 | 1.0 | 0.2 | V | 0.2 | V | 0.4 | | |
| Crested Serpent Eagle | <i>Spilornis cheela</i> | N | (LC) | | | | | | 0.4 | | | | | | | | | | 0.6 | | | | | | | | |
| Crested Goshawk | <i>Accipiter trivirgatus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | V |
| Greater Spotted Eagle | <i>Clanga clanga</i> | Y | GC | 0.3 | | | | | | | | | | | | 0.3 | | | | | | | | | | | |
| Eastern Imperial Eagle | <i>Aquila heliaca</i> | Y | - | | | 0.3 | | | | | | | | | | | | | | | | | | | | | |
| Eastern Buzzard | <i>Buteo japonicus</i> | Y | - | | | V | 0.2 | | | | | | | | 0.2 | 0.3 | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 |
|-------------------------|---------------------------------|--------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Common Kestrel | <i>Falco tinnunculus</i> | N | - | | | | | | | | | | | | V | 0.3 | | | | | | | | | | | |
| Peregrine Falcon | <i>Falco peregrinus</i> | Y | - | | | | | | | | | V | | | | | V | | | | | | | | | | |
| Eurasian Hobby^ | <i>Falco subbuteo</i> | Y | (LC) | | | | | | | | | | | | | 0.3 | | | | | | | | | | | V |
| Japanese Quail | <i>Coturnix japonica</i> | N | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Baillon's Crake | <i>Porzana pusilla</i> | Y | LC | | | | | | | | | | | | 0.2 | | | | | | | | | | | | |
| White-breasted Waterhen | <i>Amauornis phoenicurus</i> | Y | - | 0.5 | V | 0.8 | 1.0 | 0.8 | 0.3 | V | V | 0.2 | V | 0.2 | 0.6 | | 0.8 | 0.4 | V | 0.4 | 0.4 | 0.8 | 0.2 | 0.3 | 0.4 | 0.6 | 0.3 |
| Watercock | <i>Gallicrex cinerea</i> | Y | RC | | | | | | | | 0.2 | | | | | | | | | | | | | | | | |
| Common Moorhen | <i>Gallinula chloropus</i> | Y | - | V | | V | | 0.2 | | | | | | | V | | | | V | | 0.2 | | V | | V | | |
| Pheasant-tailed Jacana | <i>Hydrophasianus chirurgus</i> | Y | LC | | | | | | | | | | | | 0.2 | V | | | | | | | | | | | |
| Greater Painted-snipe | <i>Rostratula benghalensis</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-winged Stilt | <i>Himantopus himantopus</i> | Y | RC | | | | 0.3 | 0.2 | | | | | | V | | 0.8 | | V | V | | 1.6 | | | | 1.0 | 0.3 | |
| Pied Avocet | <i>Recurvirostra avosetta</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | |
| Oriental Pratincole | <i>Glareola maldivarum</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | V |
| Pacific Golden Plover | <i>Pluvialis fulva</i> | Y | LC | | | | | | | | | | | | | | | | | | 0.4 | | | | | | |
| Little Ringed Plover | <i>Charadrius dubius</i> | Y | LC | 1.8 | 0.2 | 0.8 | 0.5 | 1.6 | 1.8 | 2.0 | | | | | | | | V | V | | V | | V | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 | |
|---------------------------|------------------------------------|--------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----|
| Kentish Plover^ | <i>Charadrius alexandrinus</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spotted Redshank^ | <i>Tringa erythropus</i> | Y | RC | | | | | | | | | | | | | | | | | | 0.2 | | | | | | | |
| Common Redshank^ | <i>Tringa totanus</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | | |
| Marsh Sandpiper ^ | <i>Tringa stagnatilis</i> | Y | RC | | | | | | | | | | | | | | | | | | | | | | | | | |
| Common Greenshank | <i>Tringa nebularia</i> | Y | RC | V | V | V | | | | | | | | | | | V | V | V | | V | | | | | | 0.3 | |
| Green Sandpiper | <i>Tringa ochropus</i> | Y | - | 0.3 | 0.2 | | 0.3 | 0.2 | | | | | | | V | 0.8 | 0.4 | 0.2 | V | V | V | | | | | 2.4 | 0.8 | |
| Wood Sandpiper | <i>Tringa glareola</i> | Y | LC | | 2.2 | V | V | V | 1.0 | | | | | | | | 1.0 | V | 0.5 | | 0.4 | | | V | V | 0.6 | V | |
| Common Sandpiper | <i>Actitis hypoleucos</i> | Y | - | 0.8 | 1.2 | 3.0 | 2.0 | 2.2 | 0.5 | | | | | 0.3 | 1.2 | 0.6 | 0.3 | 1.2 | 1.4 | 0.5 | 0.6 | 1.0 | 1.0 | | 0.5 | V | 0.2 | 1.5 |
| Eurasian Woodcock ^ | <i>Scolopax rusticola</i> | Y | - | | V | | | | | | | | | | | | | | | | | | | | | | | |
| Pintail/ Swinhoe's Snipe* | <i>Gallinago stenura/G. megala</i> | Y | LC* | | | | | | | | | | | | | | | | | | | | | | | | | |
| Common Snipe | <i>Gallinago gallinago</i> | Y | - | | | | | V | | | | | | | | | 0.2 | V | V | | | | | | | 0.2 | | |
| Red-necked Stint | <i>Calidris ruficollis</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temminck's Stint | <i>Calidris temminckii</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | |
| Long-toed Stint | <i>Calidris subminuta</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | | |
| Whiskered Tern | <i>Chlidonias hybrida</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 |
|---------------------------|-----------------------------------|--------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Domestic Pigeon | <i>Columba livia</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Oriental Turtle Dove | <i>Streptopelia orientalis</i> | N | - | | | | | | | | | | | | | | 0.2 | V | | V | | | | | | | |
| Red Turtle Dove^ | <i>Streptopelia tranquebarica</i> | N | - | | | | | | | 0.4 | | | | | | | | | | | | | | | | | |
| Spotted Dove | <i>Spilopelia chinensis</i> | N | - | 1.5 | 4.2 | 3.8 | 1.3 | 2.2 | 6.0 | 3.6 | 1.6 | 2.2 | 2.0 | 3.0 | 3.4 | 1.3 | 4.8 | 6.0 | 3.5 | 3.4 | 2.2 | 2.2 | 1.8 | 3.0 | 3.4 | 2.2 | 2.5 |
| Eurasian Collared Dove | <i>Streptopelia decaocto</i> | N | - | | | | | | 0.5 | 0.4 | | | | | | | 1.2 | 4.6 | 11.0 | 0.2 | | 0.4 | | | 0.6 | 0.4 | 0.5 |
| Asian Koel | <i>Eudynamis scolopacea</i> | N | - | | | | | V | | 0.2 | 0.2 | | 0.3 | V | | | | | | | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | V | |
| Greater Coucal# | <i>Centropus sinensis</i> | N | - | V | 0.2 | 0.3 | 0.3 | 0.6 | 1.0 | 0.4 | 0.2 | 0.2 | V | V | | 0.5 | 1.0 | | 0.8 | V | 0.2 | 0.6 | 0.6 | 0.8 | 0.4 | 0.2 | 0.3 |
| Eurasian Eagle Owl* | <i>Bubo bubo</i> | N | RC | | | | V | | | | | | | | | | | | | | | | | | | | |
| Savanna Nightjar^ | <i>Caprimulgus affinis</i> | N | - | | | | V | | | | | | | | | | | | V | | | V | V | | | | |
| Pacific Swift | <i>Apus pacificus</i> | N | (LC) | | | | | | | | | | | | | | | | | | | | | | | 0.2 | |
| House Swift | <i>Apus nipalensis</i> | N | - | | | 14.5 | 105.8 | 14.4 | 0.8 | | 0.2 | | | | | | | | V | | | | | | | | |
| Pied Kingfisher | <i>Ceryle rudis</i> | Y | (LC) | | 0.4 | 0.5 | 0.3 | 0.2 | | 0.2 | | | 0.8 | | | 0.3 | | 0.2 | 0.3 | | V | 0.2 | | | | V | |
| White-throated Kingfisher | <i>Halcyon smyrnensis</i> | Y | (LC) | | 0.2 | | | | 0.3 | | | | | 0.2 | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 | | 0.2 | V | V | 0.5 | 0.2 | 0.4 | V |
| Common Kingfisher | <i>Alcedo atthis</i> | Y | - | 1.3 | 0.8 | 1.8 | 2.8 | 1.4 | 1.5 | 0.8 | 0.8 | 0.2 | 0.5 | 0.6 | 2.2 | 1.5 | 3.0 | 3.0 | 1.3 | 1.6 | 1.4 | 2.0 | 0.6 | 2.0 | 0.2 | 0.6 | 0.8 |
| Eurasian Hoopoe | <i>Upupa epops</i> | N | - | | | | 0.3 | | | | | | | | | | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 |
|------------------------|---------------------------------|--------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Barn Swallow | <i>Hirundo rustica</i> | N | - | 0.5 | | 13.0 | 15.3 | 14.4 | 9.8 | 0.2 | 2.2 | 0.8 | V | 0.8 | V | 2.0 | V | | V | 1.6 | 1.6 | V | 1.4 | V | V | 0.2 | |
| Red-rumped Swallow | <i>Hirundo daurica</i> | N | - | | | | | | | | | | | | | | 2.4 | | V | | | | | | | | |
| Eastern Yellow Wagtail | <i>Motacilla tschutschensis</i> | Y | - | 1.8 | 0.4 | 2.0 | 4.3 | 2.0 | 1.0 | | | | | | | V | 1.8 | 1.4 | 2.0 | 1.2 | 1.0 | | | | | | 0.3 |
| Grey Wagtail | <i>Motacilla cinerea</i> | Y | - | | | | | | | | | | | | | | V | 0.2 | 0.3 | | | | | | | | |
| White Wagtail | <i>Motacilla alba</i> | Y | - | 4.0 | 5.6 | 6.3 | 9.5 | 4.8 | 3.3 | 1.4 | V | | 0.3 | 0.4 | 0.4 | 0.8 | 3.8 | 4.0 | 2.0 | 1.0 | 1.2 | 0.2 | V | 0.3 | 0.4 | 0.6 | 1.0 |
| Richard's Pipit | <i>Anthus richardi</i> | Y | - | 0.3 | | 0.5 | V | | | | | | | | | | | 0.2 | 0.3 | 0.4 | 0.2 | | | | | | |
| Olive-backed Pipit | <i>Anthus hodgsoni</i> | N | - | 0.3 | 2.2 | 0.3 | 1.5 | 0.4 | | | | | | | | | 0.2 | | 2.8 | 0.2 | V | | | | | | |
| Red-throated Pipit | <i>Anthus cervinus</i> | N | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Buff-bellied Pipit | <i>Anthus rubescens</i> | N | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Red-whiskered Bulbul | <i>Pycnonotus jocosus</i> | N | - | 0.8 | 3.4 | 7.3 | 1.3 | 0.6 | 0.8 | 1.0 | 2.6 | 5.8 | 4.5 | 1.4 | 1.0 | 5.3 | 11.0 | 20.0 | 6.5 | 1.6 | 4.6 | 2.6 | 4.6 | 1.8 | 4.0 | 4.4 | 8.0 |
| Chinese Bulbul | <i>Pycnonotus sinensis</i> | N | - | 5.3 | 3.0 | 24.8 | 10.0 | 4.8 | 6.3 | 5.6 | 4.6 | 2.6 | 1.8 | 2.6 | 1.4 | 3.0 | 10.2 | 9.0 | 5.8 | 1.0 | 1.8 | 2.2 | 3.0 | 7.8 | 7.8 | 0.4 | 1.5 |
| Sooty-headed Bulbul | <i>Pycnonotus aurigaster</i> | N | - | | | | | | | | | | | | | | | V | | V | 0.4 | 2.0 | | | | | |
| Bull-headed Shrike | <i>Lanius bucephalus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Brown Shrike | <i>Lanius cristatus</i> | N | - | | | | | | 0.3 | | | | | | | | | | | | | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 |
|------------------------------|----------------------------------|--------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Long-tailed Shrike | <i>Lanius schach</i> | N | - | | 0.2 | 0.8 | 0.5 | 0.4 | | | | | 0.3 | 0.4 | 0.4 | 0.3 | 0.6 | 0.2 | 0.3 | V | 0.6 | 0.4 | V | 0.5 | 0.4 | 0.4 | |
| Oriental Magpie Robin | <i>Copsychus saularis</i> | N | - | | 0.2 | 0.5 | 0.8 | 0.6 | 0.5 | 0.2 | 1.2 | 0.2 | | | 0.2 | 0.5 | 0.2 | 0.4 | 0.5 | 1.0 | 0.6 | V | V | 1.3 | 1.2 | 0.2 | |
| Daurian Redstart | <i>Phoenicurus aureus</i> | N | - | 0.3 | 1.6 | 0.8 | 0.5 | 0.6 | | | | | | | | 0.3 | 1.0 | 0.8 | 0.8 | V | | | | | | | |
| Stejneger's Stonechat | <i>Saxicola stejnegeri</i> | N | - | 0.3 | 0.2 | 0.3 | 0.8 | 0.8 | 0.3 | | | | | | 2.2 | 0.5 | 1.0 | 0.6 | 0.5 | V | V | | | | 0.4 | V | |
| Grey-backed thrush | <i>Turdus hortulorum</i> | N | - | | | | | | | | | | | | | | | | 0.3 | | | | | | | | |
| Masked Laughingthrush | <i>Garrulax perspicillatus</i> | N | - | | 1.2 | | 1.5 | 1.0 | 1.3 | 1.2 | 0.4 | 2.4 | 3.0 | 1.2 | V | V | 2.6 | 2.0 | 2.5 | 2.6 | 1.6 | 2.8 | 1.6 | 0.8 | 1.4 | 0.4 | |
| Lanceolated Warbler | <i>Locustella lanceolata</i> | Y | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Pallas's Grasshopper Warbler | <i>Locustella certhiola</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Oriental Reed Warbler | <i>Acrocephalus orientalis</i> | Y | - | | | | | | | | | | | | | | | | | | | | | V | 0.4 | | |
| Thick-billed Warbler | <i>Acrocephalus aedon</i> | Y | LC | | | | | | | | | | | V | | | | | | | | | | | | | |
| Black-browed Reed Warbler | <i>Acrocephalus bistrigiceps</i> | Y | - | | V | | | | | | | | | | V | | | | | | | | | | | | |
| Common Tailorbird | <i>Orthotomus sutorius</i> | N | - | 0.5 | 1.2 | 1.0 | 1.5 | 0.4 | | | | | 0.8 | | | | V | | | | 0.2 | | | | 0.2 | 0.3 | |
| Dusky Warbler | <i>Phylloscopus fuscatus</i> | N | - | | | | V | V | | | | | | | | 0.3 | | 0.2 | V | | V | | | | | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 |
|------------------------|--------------------------------|--------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Pallas's Leaf Warbler | <i>Phylloscopus proregulus</i> | N | - | | V | | | | | | | | | | | | 0.4 | 0.2 | | | | | | | | | |
| Yellow-browed warbler | <i>Phylloscopus inornatus</i> | N | - | 0.3 | 0.2 | 0.3 | | | | | | | | | | 0.3 | | | 0.8 | | | V | | V | | | |
| Zitting Cisticola | <i>Cisticola juncidis</i> | Y | LC | | | | | | | | | | | | | | 0.6 | | | 0.2 | | | | | | | |
| Yellow-bellied Prinia | <i>Prinia flaviventris</i> | N | - | 0.5 | | 0.3 | 0.3 | 2.6 | 0.8 | 2.0 | 1.5 | | | | | | | 0.2 | 0.8 | 0.6 | 0.8 | | 0.2 | 1.3 | 0.2 | V | V |
| Plain Prinia | <i>Prinia inornata</i> | N | - | 2.8 | 0.2 | 1.3 | 3.5 | 1.6 | 2.8 | 1.2 | 1.0 | 1.6 | 1.5 | 0.6 | 0.6 | 2.3 | 1.0 | 0.6 | 0.8 | 1.0 | 0.6 | 2.8 | 1.8 | 0.8 | 1.0 | 0.2 | 0.5 |
| Asian Brown Flycatcher | <i>Muscicapa dauurica</i> | N | - | | | | | | | | | | | | | | 0.2 | | | | | | | | | | |
| Chinese Penduline-Tit | <i>Remiz consobrinus</i> | Y | RC | | 0.4 | 1.5 | 4.5 | 3.2 | V | | | | | | | | | 0.2 | V | 0.2 | | | | | | | |
| Great Tit | <i>Parus major</i> | N | - | | | | | | | | | | | | | | | | 0.5 | 0.2 | | | | | | | |
| Japanese White-eye | <i>Zosterops japonica</i> | N | - | | 1.0 | V | V | 0.2 | | 0.2 | V | 3.8 | 4.3 | | | | 0.4 | 3.2 | V | V | | 1.4 | 0.4 | V | 0.8 | 0.8 | V |
| Little Bunting | <i>Emberiza pusilla</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Black-faced Bunting | <i>Emberiza spodocephala</i> | N | - | | | | | V | | | | | | | | | | | V | | | | | | | | |
| Chinese Grosbeak | <i>Eophona migratoria</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Scaly-breasted Munia | <i>Lonchura punctulata</i> | N | - | 3.3 | 0.6 | V | V | 4.0 | 11.3 | 0.6 | V | V | 3.3 | 1.6 | 0.4 | 2.3 | 2.2 | 1.4 | | 0.2 | V | | | | 2.2 | V | |
| Eurasian Tree Sparrow | <i>Passer montanus</i> | N | - | | V | 4.5 | 4.0 | 1.4 | | 0.2 | | 0.4 | | 0.6 | 0.4 | V | | | | | 1.4 | 1.4 | | V | V | | |

| Common name | Scientific name | Wetland Dependence | Conservation status | Nov-14 | Dec-14 | Jan-15 | Feb-15 | Mar-15 | Apr-15 | May-15 | Jun-15 | Jul-15 | Aug-15 | Sep-15 | Oct-15 | Nov-15 | Dec-15 | Jan-16 | Feb-16 | Mar-16 | Apr-16 | May-16 | Jun-16 | Jul-16 | Aug-16 | Sep-16 | Oct-16 |
|---------------------------|----------------------------------|--------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Red-billed Starling | <i>Spodiopsar sericeus</i> | Y | GC | | | | 24.5 | V | | V | 0.4 | | | | | | | 2.0 | 8.0 | | | | | | | | |
| White-cheeked Starling | <i>Spodiopsar cineraceus</i> | Y | PRC | | V | | | | | | | | | 0.2 | | | V | | V | | 0.8 | V | 1.0 | | | | |
| Black-collared Starling | <i>Gracupica nigricollis</i> | N | - | 0.3 | 3.0 | 1.3 | 2.0 | 4.2 | 2.3 | 2.0 | 1.0 | 1.6 | 1.8 | 0.4 | 1.6 | V | 2.2 | 1.0 | 3.5 | 0.4 | 1.0 | 1.0 | 0.8 | 0.8 | 2.2 | 0.6 | 1.8 |
| White-shouldered Starling | <i>Sturnia sinensis</i> | Y | (LC) | | | | | | | | 0.8 | V | V | | | | | | | V | 0.2 | V | | V | | V | V |
| Common Myna | <i>Acridotheres tristis</i> | N | - | | | | | | | | | | | 0.4 | | | | | V | | | | 0.5 | V | | | |
| Crested Myna | <i>Acridotheres cristatellus</i> | N | – | 2.8 | 4.0 | | 0.5 | 2.2 | 2.3 | 2.8 | 6.8 | 0.4 | 1.8 | 0.2 | 0.6 | V | 4.8 | 1.2 | 3.8 | 1.2 | 4.6 | 0.6 | 1.8 | 0.3 | 4.4 | 1.0 | |
| Black-naped Oriole | <i>Oriolus chinensis</i> | Y | LC | | | | | | | | | | | | | | | | | | | | | | | | |
| Black Drongo | <i>Dicrurus macrocercus</i> | N | - | | V | | | | | | | | 2.3 | 1.6 | 0.6 | | V | 0.2 | 0.3 | | | | | 1.0 | 1.2 | 1.5 | |
| Azure-winged Magpie | <i>Cyanopica cyanus</i> | N | - | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurasian Magpie | <i>Pica pica</i> | N | - | | | 0.3 | 0.8 | V | 0.5 | | | V | | | | | | 0.2 | 1.0 | 0.2 | 0.2 | V | | V | | V | V |
| Large-billed Crow | <i>Corvus macrorhynchos</i> | N | - | | | | | | | | | | 0.5 | | | | | | 0.2 | 0.8 | 0.6 | | | | | | |
| Collared Crow | <i>Corvus torquatus</i> | Y | LC, NT | | | | | | V | 0.2 | | | | V | 0.4 | | V | 0.4 | | V | 0.2 | | V | V | V | 0.4 | |

(1) Conservation Status follows that of Fellowes et. al. (2002)

*Pintail Snipe and Swinhoe's Snipe cannot be distinguished in field, conservation status refers to Swinhoe's Snipe

V indicates the species is recorded outside regular surveys

DS indicates species recorded during surveys

Greater Coucal is listed as vulnerable (VU) in China Red Data Book and it is protected under terrestrial wildlife state protection (category II).

Appendix C. Summary of Herpetofauna Monitoring, Mammals and Insect Surveys

Table C1: Summary of herpetofauna monitoring within the Survey Area (excluding the WRA)

| Common Name | Scientific Name | Conservation Status(1) | Mean(2) | | | | | |
|-------------------------|---------------------------------------|------------------------|---------|-----|-----|-----|-----|-----|
| Amphibians | | | May | Jun | Jul | Aug | Sep | Oct |
| Gunther's Frog | <i>Hylarana guentheri</i> | - | 1.0 | 2.5 | 2.0 | 1.0 | | |
| No. of Species Recorded | | | 1 | 1 | 1 | 1 | 0 | 0 |
| Reptiles | | | May | Jun | Jul | Aug | Sep | Oct |
| Chinese Skink | <i>Plestiodon chinensis chinensis</i> | - | | | | | V | |
| Red-necked Keelback | <i>Rhabdophis subminiatus helleri</i> | - | | | | 0.5 | | |
| No. of Species Recorded | | | 0 | 0 | 0 | 1 | 1 | 0 |

(1) Conservation status follows that of Fellows that of Fellowes et al. (2002), Chan et al. (2005) and Karsen et al. (1998).

(2) Refers to the mean number of individuals recorded in the reporting period (excluding the WRA)

V Indicates the species is recorded outside regular surveys.

Table C2: Summary of herpetofauna monitoring in the WRA

| Common Name | Scientific Name | Conservation Status | | | | | | Mean |
|-------------------------|------------------------------------|---------------------|-----|-----|-----|-----|-----|------|
| Amphibians | | | May | Jun | Jul | Aug | Sep | Oct |
| Gunther's Frog | <i>Hylarana guentheri</i> | - | 1.0 | 0.5 | | 1.0 | | |
| Paddy Frog | <i>Fejervarya limnocharis</i> | - | | | | 0.5 | | |
| No. of Species Recorded | | | 1 | 1 | 0 | 2 | 0 | 0 |
| Reptiles | | | May | Jun | Jul | Aug | Sep | Oct |
| Checked Keelback | <i>Xenochrophis flavipunctatus</i> | - | | | | | | V |
| No. of Species Recorded | | | 0 | 0 | 0 | 0 | 0 | 1 |

(1) Conservation status follows that of Fellows that of Fellowes et al. (2002), Chan et al. (2005) and Karsen et al. (1998).

(2) Refers to the mean number of individuals recorded in the reporting period at WRA.

V Indicates the species is recorded outside regular surveys.

Table C3: Summary of mammal monitoring in the Survey Area (excluding the WRA)

| Common Name | Scientific Name | Conservation Status (1) | | | | | | Max (2) |
|---|-----------------|-------------------------|-----|-----|-----|-----|-----|---------|
| Mammal | | | May | Jun | Jul | Aug | Sep | Oct |
| (No mammal was record during the survey period) | | | | | | | | |

(1) Conservation status follows that of Fellows et al. (2002) and Shek (2006).

(2) Refers to the maximum number of individuals recorded in each month in the survey area (excluding WRA).

V Indicates the species is recorded outside regular surveys.

Table C4: Summary of mammal monitoring in the WRA

| Common Name | Scientific Name | Conservation Status (1) | Max (2) | | | | | |
|-------------------------|---------------------------------|-------------------------|---------|-----|-----|-----|-----|-----|
| Mammal | | | May | Jun | Jul | Aug | Sep | Oct |
| Bat | <i>indet. sp. 1</i> | - | | V | V | | | V |
| Japanese Pipistrelle | <i>Pipistrellus abramus</i> | - | V | | | | | |
| #Leopard Cat | <i>Prionailurus bengalensis</i> | - | | | V | | | |
| Small Asian Mongoose | <i>Herpestes javanicus</i> | - | | V | | | | |
| No. of Species Recorded | | | 1 | 2 | 2 | 0 | 0 | 1 |

(1) Conservation status follows that of Fellows et al. (2002) and Shek (2006).

(2) Refers to the maximum number of individuals recorded in each month at WRA.

V Indicates the species is recorded outside regular surveys.

(3) #Leopard Cat is listed on CITES Appendix II and vulnerable (VU) in China Red Data Book and it is protected under the Wild Animals Protection Ordinance (Cap. 170)

Table C5: Summary of dragonfly and butterfly monitoring in the Survey Area (excluding the WRA)

| Common Name | Scientific Name | Conservation Status(1) | Mean(2) | | | | | |
|-------------------|---|------------------------|---------|-----|-----|-----|-----|-----|
| Odonate | | | May | Jun | Jul | Aug | Sep | Oct |
| Asian Amberwing | <i>Brachythemis contaminata</i> | - | | 0.5 | | | | |
| Blue Dasher | <i>Brachydiplax chalybea flavovittata</i> | - | | 1.0 | | | | |
| Common Bluetail | <i>Ischnura senegalensis</i> | - | | 0.5 | | | | |
| Common Flangetail | <i>Ictionogomphus pertinax</i> | - | 0.5 | 2.5 | 1.0 | | | |

| Common Name | Scientific Name | Conservation Status(1) | Mean(2) | | | | |
|-------------------------|--------------------------------------|------------------------|---------|------|-----|-----|-----|
| Common Red Skimmer | <i>Orthetrum pruinatum neglectum</i> | - | 0.5 | | | | |
| Golden Flangetail | <i>Sinictinogomphus clavatus</i> | - | 1.0 | | | | |
| Green Skimmer | <i>Orthetrum sabina</i> | - | 0.5 | 6.0 | 1.0 | 0.3 | |
| Pied Skimmer | <i>Pseudothemis zonata</i> | - | 0.5 | 0.5 | | | |
| Saddlebag Glider | <i>Tramea virginia</i> | - | 1.0 | | | | |
| Variegated Flutterer | <i>Rhyothemis variegata arria</i> | - | 2.0 | 28.0 | | | |
| Wandering Glider | <i>Pantala flavescens</i> | - | 2.0 | | | | |
| No. of Species Recorded | | | 4 | 11 | 2 | 1 | 0 |
| Butterfly | | | May | Jun | Jul | Aug | Sep |
| Common Mormon | <i>Papilio polytes</i> | - | 1.5 | | | | |
| Common Sailer | <i>Neptis hylas hylas</i> | - | 0.5 | | | | |
| Dark-brand Bush Brown | <i>Mycalesis mineus</i> | - | 0.5 | | | | |
| Indian Cabbage White | <i>Pieris canidia canidia</i> | - | 0.3 | 1.5 | | | |
| No. of Species Recorded | | | 2 | 3 | 0 | 0 | 0 |

(1) Conservation status follows that of Fellows et al. (2002) and Shek (2006), Lo & Hui (2004), Wilson (2004) and Young & Yiu (2002).

(2) Refers to the mean number of individuals recorded in each month in the survey area (excluding the WRA)

Table C6: Summary of dragonfly and butterfly monitoring in the WRA

| Common Name | Scientific Name | Conservation Status(1) | | | | | | Mean (2) |
|-------------------------|---|------------------------|-----|-----|-----|-----|-----|----------|
| Odonate | | | May | Jun | Jul | Aug | Sep | Oct |
| Asian Amberwing | <i>Brachythemis contaminata</i> | - | 1.0 | | 0.5 | 1.3 | 5.0 | 1.0 |
| Asian Pintail | <i>Acisoma panorpoides</i> | - | 1.0 | | | | | |
| Black-kneed Featherlegs | <i>Pseudocoptera ciliata</i> | - | | | | | | 4.0 |
| Blue Dasher | <i>Brachydiplax chalybea flavovittata</i> | - | 1.0 | 1.0 | 1.0 | | 1.0 | 2.0 |
| Blue Percher | <i>Diplacodes trivialis</i> | - | | | | | 1.0 | |
| Common Bluetail | <i>Ischnura senegalensis</i> | - | 1.0 | 0.5 | 1.0 | 3.3 | 2.0 | |
| Common Flangetail | <i>Ictionogomphus pertinax</i> | - | 5.5 | 1.0 | 3.5 | 3.0 | | 4.0 |
| Eastern Lilysquatter | <i>Paracercion melanotum</i> | - | 6.0 | | | | | |
| Green Skimmer | <i>Orthetrum sabina</i> | - | 5.0 | | 1.5 | 0.3 | | 1.0 |
| Lesser Emperor | <i>Anax parthenope julius</i> | - | | 0.5 | | 0.3 | | |
| Marsh Skimmer | <i>Orthetrum luzonicum</i> | - | 0.5 | | | | | |
| Orange-tailed Midget | <i>Agriocnemis femina oryzae</i> | - | 3.0 | | | | | |
| Orange-tailed Sprite | <i>Ceriagrion auranticum ryukyuanum</i> | - | 2.0 | | | | 2.0 | 4.0 |
| Pied Percher | <i>Neurothemis tullia tullia</i> | - | 0.5 | | | 0.3 | | |

| Common Name | Scientific Name | Conservation Status(1) | Mean (2) | | | | |
|--------------------------|-------------------------------------|------------------------|----------|------|------|-----|-----|
| Pied Skimmer | <i>Pseudothemis zonata</i> | - | 6.5 | 1.0 | 1.0 | | |
| Ruby Darter | <i>Rhodothemis rufa</i> | - | 1.0 | | | | |
| Saddlebag Glider | <i>Tramea virginia</i> | - | 2.5 | 0.5 | | 0.7 | 1.0 |
| Variegated Flutterer | <i>Rhyothemis variegata arria</i> | - | 16.0 | 37.0 | 10.0 | 6.3 | 2.0 |
| Wandering Glider | <i>Pantala flavescens</i> | - | | 3.0 | | 1.0 | 2.0 |
| No. of Species Recorded | | | 15 | 8 | 7 | 8 | 6 |
| Butterfly | | | May | Jun | Jul | Aug | Sep |
| Blue Spotted Crow | <i>Euploea midamus</i> | - | | | 0.5 | | |
| Ceylon Blue Glassy Tiger | <i>Ideopsis similis</i> | - | | 0.5 | | | |
| Chocolate Royal | <i>Remelana jangala mudra</i> | - | | | 0.5 | | |
| Common Jay | <i>Graphium doson axion</i> | - | 1.0 | | | | |
| Common Mormon | <i>Papilio polytes</i> | - | 0.5 | 0.5 | | | |
| Common Sailer | <i>Neptis hylas hylas</i> | | | | 0.5 | | 1.0 |
| Dark-brand Bush Brown | <i>Mycalesis mineus</i> | - | | | 0.5 | | |
| Great Egg-fly | <i>Hypolimnas bolina kezia</i> | - | | | | | 2.0 |
| Great Orange Tip | <i>Hebomoia glaucippe glaucippe</i> | - | | | 0.5 | 0.7 | |

| Common Name | Scientific Name | Conservation Status(1) | Mean (2) | | | | |
|--------------------------------|-------------------------------------|------------------------|----------|----------|----------|----------|----------|
| Green Flash | <i>Artipe eryx</i> | - | 0.5 | | | | |
| Indian Fritillary | <i>Argyreus hyperbius hyperbius</i> | - | 0.5 | | 1.0 | | |
| Lemon Emigrant | <i>Catopsilia pomona</i> | - | 1.0 | | | | |
| Paris Peacock | <i>Papilio paris</i> | - | 0.5 | | | | |
| Red Ring Skirt | <i>Hestina assimilis assimilis</i> | - | 0.5 | | | | |
| Rustic | <i>Cupha erymanthis</i> | - | 1.0 | | | | |
| No. of Species Recorded | | 3 | 4 | 8 | 1 | 2 | 1 |

(1) Conservation status follows that of Fellowes et al. (2002), Lo & Hui (2004), Wilson (2004) and Young & Yiu (2002).

(2) Refers to the mean number of individuals recorded in each month in the survey area at WRA

Appendix D. Summary of Water Quality Monitoring

Table D1. Water quality at WRA

May 2016

| Cell No. | Temp. (°C) | pH | Salinity (ppt) | Turbidity (NTU) | DO (mg/L) | Water Level (cm) |
|----------|------------|------|----------------|-----------------|-----------|------------------|
| 1 | 27.7 | 7.90 | 0.39 | 11.7 | 6.0 | 200 |
| 2 | 28.2 | 7.92 | 0.46 | 23.2 | 7.4 | 180 |
| 3 | 28.2 | 7.95 | 0.46 | 25.1 | 7.2 | 190 |
| 4 | 28.1 | 7.99 | 0.46 | 20.0 | 7.3 | 200 |

June 2016

| Cell No. | Temp. (°C) | pH | Salinity (ppt) | Turbidity (NTU) | DO (mg/L) | Water Level (cm) |
|----------|------------|------|----------------|-----------------|-----------|------------------|
| 1 | 30.7 | 7.88 | 0.41 | 13.8 | 6.3 | 200 |
| 2 | 31.4 | 7.86 | 0.43 | 16.6 | 6.0 | 180 |
| 3 | 31.6 | 7.77 | 0.44 | 27.3 | 5.9 | 190 |
| 4 | 30.9 | 7.91 | 0.46 | 22.8 | 6.7 | 150 |

July 2016

| Cell No. | Temp. (°C) | pH | Salinity (ppt) | Turbidity (NTU) | DO (mg/L) | Water Level (cm) |
|----------|------------|------|----------------|-----------------|-----------|------------------|
| 1 | 32.1 | 7.82 | 0.24 | 13.1 | 4.2 | 210 |
| 2 | 32.6 | 7.84 | 0.29 | 15.6 | 3.7 | 180 |
| 3 | 32.6 | 7.87 | 0.30 | 14.8 | 3.5 | 210 |
| 4 | 32.5 | 7.91 | 0.31 | 13.6 | 3.6 | 210 |

| | | | | | | |
|--------------|---|--------------|----|---|----|--------------|
| Action Level | - | <6.5 or >8.0 | >2 | - | <2 | <150 or >250 |
| Limit Level | - | <6.0 or >8.5 | >5 | - | <1 | - |

Note: Values highlighted in **bold** indicate that action level is reached; whereas values in **bold and underline** indicate that limit level is reached.

August 2016

| Cell No. | Temp. (°C) | pH | Salinity (ppt) | Turbidity (NTU) | DO (mg/L) | Water Level (cm) |
|----------|------------|------|----------------|-----------------|-----------|------------------|
| 1 | 31.8 | 7.78 | 0.23 | 11.8 | 4.4 | 210 |
| 2 | 32.0 | 7.82 | 0.26 | 12.7 | 3.6 | 180 |
| 3 | 31.6 | 7.86 | 0.31 | 13.6 | 3.6 | 210 |
| 4 | 31.8 | 7.79 | 0.29 | 12.8 | 3.8 | 210 |

September 2016

| Cell No. | Temp. (°C) | pH | Salinity (ppt) | Turbidity (NTU) | DO (mg/L) | Water Level (cm) |
|----------|------------|------|----------------|-----------------|-----------|------------------|
| 1 | 33.2 | 8.47 | 0.12 | 10.1 | 6.7 | 180 |
| 2 | 33.5 | 8.14 | 0.12 | 8.7 | 7.7 | 170 |
| 3 | 33.3 | 7.89 | 0.12 | 8.8 | 7.9 | 180 |
| 4 | 33.2 | 8.02 | 0.15 | 8.3 | 7.8 | 170 |

October 2016

| Cell No. | Temp. (°C) | pH | Salinity (ppt) | Turbidity (NTU) | DO (mg/L) | Water Level (cm) |
|----------|------------|------|----------------|-----------------|-----------|------------------|
| 1 | 24.0 | 7.92 | 0.21 | 13.1 | 7.0 | 180 |
| 2 | 24.1 | 7.90 | 0.19 | 9.2 | 6.9 | 160 |
| 3 | 24.1 | 7.88 | 0.18 | 8.9 | 7.4 | 170 |
| 4 | 24.2 | 8.00 | 0.17 | 7.6 | 7.1 | 170 |

| | | | | | | |
|--------------|---|--------------|----|---|----|--------------|
| Action Level | - | <6.5 or >8.0 | >2 | - | <2 | <150 or >250 |
|--------------|---|--------------|----|---|----|--------------|

| | | | | | | |
|-------------|---|--------------|----|---|----|---|
| Limit Level | - | <6.0 or >8.5 | >5 | - | <1 | - |
|-------------|---|--------------|----|---|----|---|

Note: Values highlighted in **bold** indicate that action level is reached; whereas values in **bold and underline** indicate that limit level is reached.