



Bird Hazard Management Plan

Bridgepoint, Uxbridge

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living creatures are capable of migration and whilst protected species may not have been located during the survey duration, their presence may be found on a site at a later date.

The views and opinions contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

1.1 The Ecology Partnership was commissioned by Scott White and Hookins (SWH) to complete a Preliminary Ecological Appraisal (PEA) at Bridgepoint, Uxbridge. As part of the planning permission, a Bird Hazard Management Plan (BHMP) has been conditioned.

"Prior to above ground works, a Bird Hazard Management Plan shall be submitted to and approved in writing by the Local Planning Authority in consultation with Heathrow Airport Limited and the Ministry of Defence. The submitted plan shall include details of:

- *management of any flat roofs within the site which may be attractive to nesting, roosting and "loafing" birds. The management plan shall comply with Advice Note 8 'Potential Bird Hazards from Building Design'*

The Bird Hazard Management Plan shall be implemented as approved and shall remain in force for the life of the building".

Site Context

1.2 The site is in the west of Uxbridge (TQ 04818404) and includes industrial/commercial buildings with areas of hardstanding, grassland and trees. The site is surrounded by watercourses, woodland and other industrial/commercial buildings (see Figure 1 below).



Figure 1: Approximate location of the red-line boundary

Safeguarding Aerodromes in relation to Birdstrike

1.3 The Civil Aviation Authority (CAA) oblige all airports to implement suitable measures to discourage birds on and around airfields due to the hazards birds pose to aerodromes by causing birdstrike. The CAA defined a 13km radius around aerodromes in which the potential for bird strike increases due to the low height of incoming and outgoing aircrafts within critical airspace. In order to safeguard the safety of aircrafts, the CAA outlined this 13km area as a safeguarding buffer around all aerodromes in which local planning authorities are required to identify development proposals with potential to retain or create habitats or features that may be able to support or attract hazardous bird species, creating flightlines through the critical airspace. Development proposals identified as having potential to meet this criterion are consequently required to implement a BHMP to remove or reduce the bird hazard risk posed by the site.

Purpose and Objectives

1.4 The site lies approximately *c.* 7.4km northwest of Heathrow Airport and therefore within the 13km safeguarding buffer. This report outlines all bird hazards identified and the recommendations for mitigation measures to minimise and control the risks posed by these hazards.

Methods to Control or Reduce Birdstrike Risk

1.5 For sites with features or habitats suitable for hazardous bird species within the 13km safeguarding zone around aerodromes, there are several standardised methods which could be implemented to control or reduce the risk posed by these species. The methods implemented should be proportional to the risk posed by the species and the main aim of these methods is to reduce and/ or remove the presence of these birds, in particular large or flock of these species.

Habitat management

1.6 Primarily, habitat management should be used to reduce or remove the suitability of habitats and/ or features on a site for hazardous bird species. Methods used would be dependent upon the habitats, features and hazardous bird species present. Measures that

could be used could include scrub removal and regular hedge trimming to remove fruit bearing species and to reduce the quality of these habitats for breeding or foraging birds.

Site landscaping

1.7 Landscaping plans can also be designed to ensure the suitability of a site for hazardous bird species is limited and does not increase as a result of a development. For instance, the designs could exclude the planting fruiting tree or scrub species that may be used by foraging birds or the addition of features such as a pond which may be used by gulls or waterfowl.

Building design

1.8 Buildings can also be designed to limit the number of features suitable for hazardous birds being created such as having an angular roof instead of a flat roof and adding roof spikes to features that may be used by perching birds.

Deterrence

1.9 Noise or visual deterrents could be used to disperse birds from an area in a controlled manner to enable the effective dispersion of individuals. The methods used should be targeted to the hazardous bird species present and would aim to prevent the habituation of the birds on the site. Noise deterrents commonly used includes pre-recorded species-specific predator distress calls or sonic cannons and these can be used to scare the birds towards a specific direction. These should be human regulated to reduce the likelihood of the birds becoming habituated to them.

Pyrotechnic bird scaring cartridges

1.10 Pyrotechnic bird scaring cartridges can be used by trained personnel should the above deterrent methods fail.

Manual dispersion

1.11 Hazardous bird species can also be dispersed by humans by slowly rising and lowering outstretched arms from a vehicle.

Lasers

1.12 Lasers approved by EU safety recommendations could be used to disperse hazardous birds from a site in either daylight or low light conditions such as dusk or dawn.

Repellents

1.13 Repellents such as sticky gel can be used on perching features such as buildings to deter hazardous birds from utilising these features or lines strung over the ground of suitable habitats to prevent usage.

Removal of bird nests or eggs

1.14 Bird nest and egg removal should only be used as one of the last resort methods should habitat management and active risk management techniques have only a minimal impact. These measures can only be completed following the attainment of an appropriate licence(s) from Natural England.

Lethal control

1.15 Lethal control should only be used as a last resort if to support habitat management and active risk management techniques have only a minimal impact. Lethal control techniques can also be used if sick or injured individuals are immovable on a site. Fire arms can be used to initially scare any active birds present, followed by the lethal control of birds. Activities involving this technique can only be used following the attainment of the appropriate certification from the local police/licensing agency.

2.0 Current Suitability of the Site for Birds**Site description**

2.1 The site is currently dominated by hardstanding and buildings with limited grassland and trees. The site is surrounded by commercial/industrial development, with woodland to the west of the site and large waterbodies nearby.

Assessment of Existing Habitats and Features on Site for Birds

2.2 Habitats and features on and directly adjacent to the site were assessed for their potential to support potentially hazardous bird species. No flocks of birds or large bird species were observed within any of the habitats on site or flying over on the day of the survey.

2.3 The site did not support suitable habitats for species such as water birds or waders, or larger species such as swans or geese.

2.4 Due to the built-up nature of the surrounding habitat, species such as skylarks and lapwings, which are often identified as being risk birds, are not considered likely to be present. The habitats on site are also considered to be unsuitable for such species.

Table 1: Habitats and features on and around the site with potential to support hazardous bird species.

Habitat or Feature of Interest	Potentially hazardous bird species
Woodland <ul style="list-style-type: none"> • Woodland is adjacent to the site boundary. • The woodland did not appear to be managed and had a dense understorey layer. 	Potentially provides feeding, breeding and refuge opportunities for several hazardous species including: <ul style="list-style-type: none"> • Birds of prey; • Corvid species; • Pigeon and dove species; • Small bird species e.g. robin or tit species; • Starlings.
Scattered trees <ul style="list-style-type: none"> • Scattered mature broadleaved trees were present across the site. 	Potentially provides feeding, breeding and refuge opportunities for several hazardous species including: <ul style="list-style-type: none"> • Birds of prey; • Corvid species; • Pigeon and dove species; • Small bird species e.g. robin or tit species; • Starlings.

Building <ul style="list-style-type: none"> The site supports buildings, with a small flat roof. 	Potentially provides limited feeding and loafing opportunities for a small number hazardous species including: <ul style="list-style-type: none"> Birds of prey; Corvids; Gull species; Pigeons; Starlings
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3.0 Future Suitability of the Site for Birds

Site proposals

3.1 The proposals for the site involve the development of the entire site to construct a commercial unit, with associated landscaping including amenity grassland and retained trees.

Assessment of New and Retained Habitats and Features on Site for Birds

3.2 Retained and newly created habitats and features on and around the site were assessed for their potential to support potentially hazardous bird species. The results are summarised in Table 2 below.

Table 2: Existing and newly created habitats and features on the site with potential to support hazardous bird species.

Habitat or Feature of Interest	Potentially hazardous bird species
Amenity grassland	Potentially provides feeding opportunities for several hazardous species including: <ul style="list-style-type: none"> Corvid species; Gull species; Pigeon species; Starlings.
Retained trees	Provides potential feeding, breeding and refuge opportunities for hazardous species including:

	<ul style="list-style-type: none"> • Corvid species; • Pigeons and doves; • Starlings; • Small bird species e.g. tit species.
Buildings	<p>Potentially provides loafing and breeding habitats for hazardous species including:</p> <ul style="list-style-type: none"> • Corvid species; • Gull species; • Pigeon and dove species. <p>The buildings to be created on site will have flat roofs but these areas will largely be used as communal, garden terraces which reduces their suitability for birds.</p> <p>The buildings to be retained adjacent to the site have pitched roofs, reducing the potential suitability of these structures for birds.</p>

4.0 Summary of Proposed Changes to the Site

4.1 The development will not result in significant changes to the current site condition and it is not considered that the development will significantly affect the type and number of hazardous bird species on site.

4.2 The development will reduce the amount of suitable habitat. The habitats to be created on site will likely reduce the number of hazardous bird species due to frequent management and disturbance from humans. The site will be used regularly thus significantly reducing the risk of use by birds.

5.0 Mitigation and Management Plan

During Construction

Ground works

5.1 Habitats and topsoil within the construction zone will need to be cleared prior to starting construction and earthworks. This may encourage small mammals and invertebrates to emerge near the soil surface, providing new short-term feeding opportunities for hazardous bird species. Furthermore, the creation of any trenches for earthworks may allow temporary water-bodies to develop across the site, providing loafing or refuge habitats for hazardous birds.

5.2 Species that may utilise these food sources and features may include:

- Birds of prey e.g. kestrels or red kites
- Corvid species e.g. jackdaws, rooks or magpies
- Gulls species e.g. herring gulls
- Pigeons species e.g. collared or turtle doves
- Starlings

Bird Hazard Reduction measures

5.3 Soil works should be completed in stages to ensure only the minimal amount of soil is exposed at a time.

Active Risk Management Techniques

5.4 Should any active risk management techniques be required, Heathrow airport should be notified by telephone at least 30 minutes prior to confirm the type and number of birds to be displaced alongside their predicted flight direction. Additionally, records should be kept on the technique applied, the type and number of birds observed or dispersed, their following flight direction and reaction to the method.

5.5 It is considered unlikely that birds will be present on site during the daytime as movement by humans and machinery close by would likely deter any birds. However, if 10 or more individuals of the above or other bird species remain on site at a time, it is recommended

that deterrence measures are applied. Recommended measures include human deterrence or noise deterrence such as pyrotechnic bird scaring cartridges or transportable predator distress calls. Bird nest and egg removal or lethal control should only be used as a last resort if the other suggested methods are proving ineffective in combination.

Post-development

Landscaping

6.16 Several of the existing habitats are to be removed including a building, hard-standing, trees and grassland. Limited amenity grassland will be created across the site to replace these habitats lost and a small number of existing trees will be retained.

6.17 Hazardous bird species that may utilise these habitats include:

- Birds of prey e.g. kestrels or red kites;
- Corvids e.g. carrion crows or rook;
- Gull species e.g. herring gulls;
- Pigeon and dove species;
- Starlings.

6.18 It is considered that the potential of these habitats for hazardous bird species is limited due to several factors including:

- The proximity of these habitats and features to human habitation and roads will likely result in regular disturbance by humans creating unsuitable conditions for hazardous birds and deterring several species from returning to the site;
- Many of the species listed as hazardous bird species are specialist in their habitat requirements and the site does not support sufficient areas of naturalised habitat or optimal habitat to support such species.

6.19 Due to the above limitations, it is considered that habitat management would be a sufficient deterrent for hazardous birds and the recommended management regimes are outlined in Sections 6.23 to 6.31. This management will predominantly aim to reduce the attractiveness of these habitats for nesting, loafing and foraging hazardous birds.

6.20 These habitats could also provide opportunities for flocks of small bird species including such as robins and tit species, however these species are not considered to pose a hazard to aircrafts as typically they do not utilise the same airspace as aircrafts.

Other features

6.21 The proposals will also create man-made features such as buildings and lampposts that could be suitable for flocks of loafing or nesting hazardous bird species, in particular gulls, corvid and pigeon species.

6.22 It is considered that the below measures would be suffice deterrents for hazardous birds.

Bird Hazard Reduction measures

Buildings and Other Features

6.23 The tops of the lampposts and ledges on any of the buildings should be fitted with ledge spikes to discourage roosting or nesting birds.

6.24 The roof areas will be checked weekly or sooner if bird activity dictates for the presence of bird activity during the breeding bird season. Any birds found nesting, roosting and/or loafing during the breeding season will be dispersed when detected and when requested by Heathrow Airport Airfield Operations staff.

6.25 The roof areas will be inspected regularly for the presence of any roosting or nesting gulls, particularly those present in large numbers. A responsible person should be assigned to complete these checks regularly and checks should be increased during nesting bird season (March to August). If eggs or nests need to be removed, an appropriate licence must first be acquired from Natural England to ensure no offences are caused.

6.26 Roof inspections will also be made on a regularly basis outside of the breeding bird activity which will be dictated by bird activity. Any gulls potted either roosting or loafing will be dispersed when present.

6.27 A log will be maintained of all birds dispersed and must be available to Heathrow Airport Airfield Operations to view upon request. It will outline the following:

- Dates and times of inspections;
- Who carried out the inspections;
- Bird numbers and species seen;
- Details of any dispersal action taken along with details of any nests/eggs removed,
- The log of such activities will be made available to Heathrow Airport Airfield Operations if requested.

Amenity grassland

6.28 The newly created amenity grasslands on site should be frequently managed to maintain a short sward height, reducing their suitability for birds. Regular disturbance from humans utilising these areas will further reduce the suitability of these features for birds, particularly large flocks of birds.

Active Risk Management Techniques

6.29 Should any active risk management techniques be required, Heathrow airport should be notified by telephone at least 30 minutes prior to confirm the type and number of birds to be displaced alongside their predicted flight direction. Additionally, records should also be kept of the technique applied, the type and number of birds observed or dispersed, their following flight direction and reaction to the method.

6.30 It is considered unlikely that large numbers of hazardous birds would be present on site during construction and operation. This is due to the residential nature of the development, the fragmented and small scale retained habitats on site and the location of these habitats.

6.31 However, if 10 or more individuals of the above or any other bird species do remain on site, it is recommended that the below deterrence measures are applied. Recommended measures include noise deterrence such as pyrotechnic bird scaring cartridges and species specific danger distress calls. Visual deterrents such as flying model predators can be retained *in situ* near to these areas or live birds of prey can be flown across these areas to deter large waterfowl in the unlikely event of these being present. Bird nest and egg

removal or lethal control should only be used as a last resort if the other suggested methods are proving ineffective in combination.

6.0 Failure of Bird Hazard Management Plan

- 6.1 If the bird hazard management plan fails to deter birds from the site at any point during or post construction, Heathrow Airport should be informed immediately by telephone and in writing. The site owner may then be instructed by the airport safeguarding authority to take further action which may involve further habitat management, completing more regular site checks or adding further active bird deterrence systems. The site owner has a duty to identify and take action to reduce or remove any new bird hazards which may result following the completion of the development.
- 6.2 This BHMP is to remain in place for this site throughout the existence of the site and the operational existence of Heathrow Airport. No amendments can be made to this plan without being first submitted to and approved to in writing by the Local Planning Authority.
- 6.3 The airport safeguarding authority or their nominated representatives will be allowed access to the site to review any remaining birdstrike hazard and to evaluate the success of the BHMP.

7.0 Conclusions

- 7.1 Habitats and features currently present on site include a building, hard-standing, grassland and trees. These are considered to have some suitability for several potentially hazardous bird species. The proposed development will reduce the amount of natural habitat within the site. Habitats to be created include amenity grassland. The potential of these habitats to support a number of birds is limited by their restricted size and their proximity to humans which would result in regular human disturbance. Furthermore, many of the birds which are considered to be hazardous are unlikely to be present on site due to their specific habitat requirements.

7.2 It is considered that the bird hazard reduction measures and habitat management regimes outlined in Section 6 of this report would be sufficient to minimise the risk posed by the hazardous bird species for works during and post-construction. Recommended measures primarily include habitat management but active risk management techniques such as noise deterrents, ledge spikes have also been outlined if considered necessary. The overall aim of these measures would be to limit the suitability of these areas for hazardous birds to prevent any significant increases to the number nesting, foraging or roosting opportunities for these birds.

7.3 Overall, the bird hazard mitigation and management measures outlined in this report are deemed suffice to reduce the attractiveness and suitability of the site for hazardous birds. Therefore, the site should not result in a significant increase in the bird hazard risk to the nearby Heathrow Airport as long as this Bird Hazard Management Plan is followed.

8.0 **References**

Airport Operators Association & General Aviation Awareness Council. (2018). *Potential Bird Hazards from Sustainable Urban Drainage Systems (SUDS)*. [PDF] Available at: <http://www.cambridgeairport.com/wp-content/uploads/AN06-Birds-SUDS.pdf>. [Accessed on: 5/03/2018].

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