



NAVIGATOR QUARTER, LAND ADJACENT TO SOUTHAMPTON AIRPORT

BIRD HAZARD MANAGEMENT PLAN

HYBRID PLANNING APPLICATION

MAY 2025

**blocwork (Eastleigh) LLP
&
Southampton International Airport Ltd**



Southampton Airport, Navigator Quarter

Bird Hazard Management Plan

Prepared on behalf of

Blocwork (Eastleigh) LLP/SIAL

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Southampton Airport, Navigator Quarter

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Southampton Airport, Navigator Quarter

Bird Hazard Management Plan

1. INTRODUCTION

Background

- 1.1 Ecological Planning & Research Ltd (EPR) was commissioned by Blocwork (Eastleigh) LLP & SIAL to produce a Bird Hazard Management Plan (BHMP) for development of land adjacent to Southampton International Airport to provide new employment units. (hereafter referred to as the 'Proposed Development').
- 1.2 The Proposed Development being adjacent to Southampton International Airport (SIA) falls within the safeguarding zone around the airport thereby requiring the submission of a BHMP.
- 1.3 Any UK planning application that falls within the International Civil Aviation Organisation (ICAO) defined 13km bird strike safeguarding zone around safeguarded aerodromes should be assessed for its potential impact on bird number and movements in the area
- 1.4 This report should be read in conjunction with the ecological information presented within Chapter 9 of the Environmental Statement (ES) on Ecology, which outlines the baseline conditions, identifies likely ecological receptors, and describes potential impacts arising from the Development.

Site Description

- 1.5 The application site is 34 ha in size and, is located within the administrative boundaries of Eastleigh Borough Council. It spans land within Southampton International Airport and adjacent National Rail infrastructure. The majority of the Site is comprised of 2 large areas of grassland separated by woodland and scrub. The northern and eastern boundaries consist of scrub and woodland fringe. The Site lies immediately adjacent to the River Itchen, to the east which is designated as a Special Area of Conservation (SAC), Special Protection Area (SPA), and a Site of Special Scientific Interest (SSSI) due to its internationally important freshwater, estuarine and wetland habitats and associated species. To the west is the runway of SIA. The surrounding landscape is urbanised, with transport infrastructure and associated industrial and commercial land uses dominating the wider context.

Outline of the Development

- 1.6 The proposed development comprises the construction of a commercial and/or logistics-led employment scheme within the Navigator Quarter of Southampton International Airport. It includes new buildings, associated hardstanding and access infrastructure, and landscaping enhancements. The scheme is designed to improve regional connectivity and support economic growth, with layout and drainage measures incorporated to minimise environmental impacts.
- 1.7 Key components of the development include:

- Commercial/industrial floorspace and associated employment uses;
- Internal access roads and parking;
- Sustainable Drainage Systems (SuDS) for surface water management;
- Buffer zones and green infrastructure enhancements, particularly adjacent to the River Itchen;
- Lighting, servicing and security infrastructure; and
- Landscape planting and habitat enhancement where feasible.

Relevant Legislation and Policy

- 1.1 EC Regulation 139/2014 Article 10 Wildlife hazard management, requiring member states to ensure that wildlife strike hazards are assessed.
- 1.2 SIA is legally obliged to have an active policy of airport safeguarding. The airport's safeguarding team is responsible for making sure that no developments within the 13 km safeguarding zone have an adverse effect on the airport's operation.
- 1.3 Aerodrome safeguarding covers a number of aspects including:
 - Protecting the airspace around the airport by ensuring there are no buildings or structures which may cause danger to aircraft either in the air or on the ground; and
 - Wildlife and in particular, bird strikes, pose a serious threat to flight safety. The safeguarding team is responsible for ensuring that proposed developments for example, landscaping, waste disposal facilities etc. do not attract and encourage birds to congregate and cause a potential hazard for aircraft.
- 1.4 Information for developers is given in the Government (DfT/ODPM) Circular 1/2003 – *advice to local planning authorities on safeguarding aerodromes and military explosives storage areas* sets out the requirements for safeguarding that are detailed in Annexes to the Town and Country Planning (safeguarding aerodromes, etc.) Direction 2002.
- 1.5 In particular, Annex 2 *Arrangements for safeguarding aerodromes etc.* sets out the requirement for Aerodrome safeguarding maps in relation to "Birdstrike" hazard. It states that:

Birdstrikes are one of the major controllable hazards to aviation. Common birds have caused catastrophic accidents to all types of aircraft. Most birdstrikes occur on or near aerodromes but, because birds are very mobile, features far beyond an aerodrome boundary may increase the hazard. If a man-made development provides feeding, roosting or breeding opportunities, or shelter and security, it may, depending on the siting of the development and the species which it attracts, increase the number of birds visiting or overflying an aerodrome or the number of birds in the airspace used by aircraft. Gulls and starlings congregate in very large overnight roosts and travel long distances daily, while waterfowl are large and often fly in close formation. There is only limited scope for taking action on aerodromes to counter these hazards, and safeguarding may be the only effective means of reducing the risk to aircraft in flight.

The primary aim is to guard against new or increased hazards caused by development. The most important types of development in this respect are: facilities intended for the handling, compaction, treatment or disposal of household or commercial wastes, which attract a variety of species, including gulls, starlings, lapwings and corvids; the creation or modification of areas of water such as reservoirs, lakes, ponds, wetlands and marshes, which attract gulls and waterfowl; nature reserves and bird sanctuaries; and sewage disposal and treatment plant and outfalls, which can attract gulls and other species. Planting trees and bushes normally creates a bird hazard only when it takes place relatively near to an aerodrome, but a potential starling roost site further away from an aerodrome can create a hazard. Mineral extraction and quarrying can also create a bird hazard because, although these processes do not in themselves attract birds, the sites are commonly used for landfill or the creation of wetland.

In order to protect aerodromes against these hazards, safeguarding maps include, in addition to the requirements related to the height of buildings and structures, a dotted circle, with a 13 kilometre radius in the case of civil aerodromes and an eight mile (about 12.87 kilometre) radius in the case of military aerodromes, centred on the safeguarded aerodrome reference point to indicate the area within which developments likely to attract birds require similar consultation. Local planning authorities are required to consult the relevant consultee before granting planning permission for any development within the relevant radius of an officially safeguarded civil or military aerodrome which is likely to attract birds. Whether or not a development is likely to attract birds will depend on a number of factors. A local planning authority will need to consider not only the individual potential bird attractant features of a proposed development but also whether the development, when combined with existing land features, will make the safeguarded area, or parts of it, more attractive to birds or create a hazard such as bird flightlines across aircraft flightpaths.

- 1.6 It goes on to state:

It is likely to be necessary for local planning authorities to ask an applicant for any of the types of development listed in paragraph 8 to show by means of a risk assessment that a proposed development would not be likely to increase the number of birds or the bird hazard risk to aircraft.

- 1.7 In Annex 3, Southampton is identified as an 'officially safeguarded civil aerodrome'.
- 1.8 The Civil Aviation Authority (CAA) sets out these provisions for safeguarding aerodromes within the Civil Aviation Policies (CAP) 738 and 772.
- 1.9 CAP 738 Safeguarding of Aerodromes (CAA 2006) guides those responsible for safeguarding when presented with a planning application on how to proceed. One consideration to take into account is Birdstrike Hazard, now Wildlife Hazard (although birdstrike remains the biggest risk). It states:

Birdstrike Hazard. It may be appropriate to place a condition, which would normally be included as a landscaping condition, in your response that gives assurance that the proposal does not include landscaping or water features that may increase the risk of a birdstrike to aircraft using the aerodrome. It is recommended that expert advice be sought on potential bird hazard developments such as landfill sites, wetlands and nature reserves. Further details of birdstrike

hazard and possible mitigation measures are outlined in CAP680, Birdstrike Risk Management (now superseded by CAP 772).

- 1.10 CAA sets out information and guidance to support EC Regulation 139/2014 and to conform to European Aviation Safety Agency (EASA) Aerodrome Rules and Acceptable Means of Compliance in:
- 1.11 CAP 772 Wildlife Hazard Management at Aerodromes (CAA 2014). This presents a list of Wildlife Attractant Habitats: Off-Aerodrome. This includes sand, gravel and clay pits. It states that *'the large voids created by mineral workings sometimes result in ponding. This can create temporary habitats suitable for a range of waterfowl. Similarly, restoration by flooding to provide lakes or nature reserves may provide habitats around an aerodrome'*.
- 1.12 CAP 772 under Risk Management in a section on Safeguarding states that *'virtually all land types and land uses (including natural habitats) attract wildlife in some way. Safeguarding should therefore address developments that could become wildlife attractants with the potential to increase the wildlife strike risk at a nearby aerodrome'*.
- 1.13 It goes on to say that *'the ICAO recommends that the appropriate authority shall take action to eliminate or prevent the establishment of sources which may attract wildlife to the aerodrome, or its vicinity, unless an appropriate wildlife assessment indicates that they are unlikely to create conditions conducive to a wildlife hazard problem'*.
- 1.14 And, *'when an assessment shows that the wildlife strike risk may increase or could increase under certain conditions in the future, and the airport operator and developer are unable to agree a solution, the aerodrome operator may object to the planning application on air safety grounds. Local knowledge of wildlife populations and activities or an appropriate similar safeguarding case to support any objection can be used and objections withdrawn when measures implemented to manage risks are deemed acceptable. It may be possible to modify a development or impose planning conditions, such as wildlife control/reduction management plan'*.

2. ASSESSMENT METHODOLOGY

Introduction

- 2.1 For this assessment reference has been made to the relevant guidance on safeguarding of aerodromes as set out in CAP 772 Wildlife Hazard Management at Aerodromes (CAA 2014) and previously in a series of advice notes produced by the Airport Operators Association (AOA) and the General Aviation Awareness Council, supported by the CAA.
- 2.2 A summary of relevant information from these publications is given below.

AOA Advice Notes

- 2.3 AOA Advice Note (AN) 1 provides an overview on safeguarding. It identifies the steps the Local Planning Authority (LPA) should take in respect of planning applications. The LPA are provided with a safeguarding map and are required to consult with the aerodrome concerned about any Planning Application within this area, should it meet certain criteria relating to the height and location of the proposed development to the aerodrome. In addition, any proposed developments with bird attractant properties within 13 km of the aerodrome will also be referred for consultation.
- 2.4 To enable an accurate assessment of a proposed development, the aerodrome operator requires certain information about the proposals to be provided, namely:
- The location as an OS Grid Reference (to at least 6 figures for each of eastings and northings);
 - The elevation of the site [to an accuracy of 0.25 m Above Ordnance Datum (AOD)];
 - The layout, dimensions and, particularly, heights of the proposed development;
 - Other information as may be necessary, for example, landscaping details to enable the birdstrike potential to be assessed, or the types of cladding materials proposed so that the potential for radar reflection can be modelled.
- 2.5 When determining whether a planning application will increase the birdstrike risk at an aerodrome the following factors will be taken into account by the aerodrome operator:
- What types of development are attractive to which species of bird; and
 - Whether birds will move from existing sites to the proposed one and, in the process, cross aircraft flight paths near to the aerodrome, or indeed move onto the aerodrome itself.

CAP 772 Wildlife Hazard Management at Aerodromes

- 2.6 CAP 772 Wildlife Hazard Management at Aerodromes (CAA 2014) provides advice on the types of hazards associated with different types of development, and some detailed guidance on how to avoid hazards by design.

- 2.7 In terms of landscaping hazards it states that: 'Landscaping may attract birds by providing feeding, nesting and roosting habitat. Almost by definition, landscaping increases and diversifies the habitats available for wildlife that, inevitably, are exploited by larger numbers of more bird species for a wider range of activities. Water features, including the enhancement of existing wet areas or watercourses, or creating new lakes, ponds or drainage channels, also create a wide range of exploitable habitats for birds. The intended effect may be functional, ornamental or the development of some form of local nature reserve. Pressure from conservation groups and local 'Biodiversity Action Plans' often results in moves to enhance many types of water feature and this almost always increases its potential to attract birds'.
- 2.8 Significant hazards associated with landscaping schemes are their potential to:
- a) Create dense vegetation that may become a Starling roost or provide roosting and nesting habitats for Rooks, Woodpigeon and other aviation-hazard bird species.
 - b) Provide an abundant winter food supply in the form of fruits and berries for large flocks of Starlings, Fieldfares and Redwings, which may also move onto an adjacent aerodrome to feed on soil invertebrates.
 - c) Create standing water or watercourses that attract gulls and other waterfowl, which are nearly all large or very large, and cause increased bird movements between existing waters and the new site, over and around the aerodrome.

3. BASELINE CONDITIONS

Habitat Description

- 3.1 The main habitat type (UK Habitats classification) is Other Neutral Grassland managed by an annual cut for hay. On the northern and eastern boundaries areas of Other Woodland Broadleaved, have developed. The two main grassland areas are separated by Hawthorn *Crataegus monogyna* scrub which has developed on rail ballast deposited there in the early to mid 20th century. The scrub is interspersed with occasional Oak *Quercus robur* and Ash *Fraxinus excelsior* trees.

Bird Survey

- 3.2 A breeding bird survey was carried out in April-July 2015 by ornithologists from Ricardo (See ES Appendix 9.4). The methods were based the British Trust for Ornithology (BTO) territory mapping method and set out in Bird Monitoring Methods (Gilbert *et al.* 1998) and Bird Survey Techniques (Bibby *et al.* 2000).
- 3.3 Wintering bird survey was carried out in November 2020 – February 2022 by ornithologists from Ricardo (see ES Appendix 9.5). The surveys were undertaken using the BTO Wetland Bird Survey (WeBS) core count methodology (Gilbert *et al.* 1998).
- 3.4 Full results including species lists can be found in the relevant ES appendices. Breeding bird activity was concentrated within the scrub and woodland habitat and approximately ten Skylark *Alauda arvensis* territories were identified within the grassland areas. A small number of gulls and waterfowl species were recorded during the winter bird surveys. These were largely recorded flying over the site with limited feeding or loafing activity observed on the Site.
- 3.5 The main problems associated with birds which could cause significant risk to aircraft are:
- Large birds such as swans and geese;
 - Large or medium size birds that form flocks of 10 or more birds, typically gulls and ducks, but possibly also corvids and Wood Pigeons *Columba palumbus*; and
 - Smaller birds which form large flocks, especially Starlings *Sturnus vulgaris*.
- 3.1 Two species of goose have been associated with the Site, Canada goose *Branta canadensis* and Greylag goose *Anser anser*. They have only been recorded during winter and breeding bird surveys in low numbers (maximum 8) flying over the Site as have Grey Heron *Ardea cinerea*, and Cormorant *Phalacrocorax carbo* with only 1 of each species recorded flying over the Site in winter.
- 3.2 No large or medium sized birds have been recorded in flock of greater than 10 within the site. A flock of 18 Black-headed gull *Chroicocephalus ridibundus* was recorded during the winter survey flying over the Site. Multiple flocks of 20-30 Starling *Sturnus vulgaris* were recorded roosting in scrub on 1 occasion during the breeding bird survey.

4. ASSESSMENT OF PROPOSALS

- 4.1 The proposed development will result in the loss of large area of grassland being replaced by large logistic/warehouse buildings up to 18m in height with ancillary offices and areas for service yards, car parking, landscaping and the construction of a new access road. The two aspects of the proposals which have the potential to increase bird numbers on the Site are the large, tall buildings and the landscaping proposals.
- 4.2 The landscaping has been designed to minimise its attractiveness to wildlife while maximising biodiversity benefits. Areas of scrub planting has been limited to that required to provide screening and the quantity of species known to attract birds has been limited. An amenity grass mix with floristic diversity has been chosen so that the grassland can be maintained low to dissuade the use of the grassland by small mammals and birds but will have benefit for pollinators. Areas of species rich neutral grassland have been limited in area. There are no permanent water bodies as part of the landscape and SuDs design, which may attract birds.
- 4.3 Bird species considered to be most likely to be attracted to the proposed buildings, and the most likely to pose a strike risk include, but are not limited to the following:
- Gull species;
 - Pigeon species (primarily feral pigeon but also collared dove and woodpigeon);
 - Corvid species (primarily Rook and Carrion Crow); and
 - Starlings (larger flocks).
- 4.4 The Bird Hazard Management Plan (BHMP) will therefore focus on the potential issues associated with the nesting, roosting or loafing of gulls and pigeons on the roofs of buildings, and to a lesser extent Corvids and Starlings. The measures identified below should be implemented for the life of the development to ensure that the site does not pose a bird hazard risk.

5. BIRD HAZARD MANAGEMENT

5.1 Objectives

5.2 The BHMP needs be a realistic and attainable method of controlling bird roosting, loafing or nesting on building. Additionally, it must allow for the results of bird strike risk assessments to be recorded in order to adapt to risk increases or decreases in bird use of the Site; skilled personnel are required to implement the BHMP.

5.3 Habitat management is considered the most effective way to control birds in and around airfields, however there are a variety of other management techniques which are important components of any bird management and control plan, which may be practical for this particular development:

- Auditory repellents (e.g. Distress and predator calls and high intensity sound);
- Visual repellents (e.g. scarecrows, reflectors, predator models, and lights);
- Chemical repellents;
- Exclusion methods (e.g. physical barriers); and
- Removal methods (e.g. disturbance/displacement, live ammunition, lures and traps).

5.4 It is considered unlikely that one single control method will control the risk of bird strike as birds are adaptable and opportunistic; becoming habituated to control techniques in the long-term or using the Site in between periods of control application. Therefore, the use of a variety of techniques should be used to ensure the removal of the risk of bird strikes.

5.5 The use of chemical repellents is not appropriate, neither is exclusion through the use of physical barriers (erecting netting over structures). Additionally, removal of target bird species through the use of traps or live ammunition are not appropriate techniques for use on the College campus. The effectiveness of this technique is also debatable where large flocks of birds are involved.

5.6 While techniques such as auditory and visual repellents are appropriate for the college environment, their permanent presence can lead to bird habituation, making the technique ineffective in the long-term. The use of any auditory and visual repellents will therefore need to occur on a non-routine basis as and when required.

5.7 To minimise the potential risk of bird strike the following management measures are proposed, focusing on the flat roof areas:

- The roofs will be constructed in such a manner as to be safely accessible to allow for any birds to be dispersed and nests or eggs to be removed;
- A representative to be responsible for on-site bird hazard management who will undertake inspections and be a point of contact and accountable to Southampton Airport bird-control staff;
- Inspections of flat roofs will be made monthly (or sooner when bird activity dictates) during the breeding season, which is seen March to August inclusive; and bi-monthly (or sooner if bird activity dictates) from August to February;

- Roof top inspections are particularly important during the breeding season and cold spells in winter to deter breeding and roosting bird species;
- Any birds found nesting, roosting or loafing will be dispersed when discovered or when requested by Southampton Airport bird control staff, dispersal will take the form of physical disturbance by the appointed personnel who will use a hand-held distress call unit in order to undertake bird dispersal at short notice from airport staff (before birds are dispersed contact must first be made with the Southampton Airport operations team);
- Nests or eggs will be removed, under appropriate licences to be obtained from Natural England, as required;
- Appointed personnel will keep a log of all inspections. Bird numbers and species utilising the roofs should be recorded, along with the name of inspector, date and time of inspections and any actions taken. The inspections will include an assessment of nesting, roosting and loafing behaviour, and any bird droppings. The log will be available to the Local Planning Authority and the Southampton Airport bird control staff upon request.
- No-notice inspections of the roof and associated potential attractants by Southampton Airport bird control staff will ensure that the 'bird hazard management plan' is implemented correctly and functions effectively;
- All owners/occupants of the buildings will be instructed not to feed birds with reference to Gulls, Corvids, Starlings, and Pigeons (or otherwise attract them to the site);
- Methods such as auditory and visual repellents will be deployed as and when required, following any changes in bird numbers or activity. This will be used for in the short term only, to avoid birds becoming habituated; and
- Additional bird control measures may be required if regular monitoring identifies any unforeseen features utilised by nesting, roosting or loafing birds or high numbers of birds on campus. These may take the form of additional visual deterrents on roofs or use of subcontracted pest control officers/falconers.

6. SUMMARY

- 6.1 The need for effective bird control measures and management has been highlighted throughout this document. The applicant is aware of the risk of bird strikes associated with the proposals and the proximity of Southampton Airport, in addition to the need for active management.
- 6.2 The buildings will be managed to maintain habitats and features that will not encourage nesting, roosting or loafing birds. Landscaping will be managed creating a balance between creating biodiversity benefits without increasing the bird population on the site.
- 6.3 The management plan will ensure, via regular patrols of the roofs, that any birds nesting, roosting or loafing are recorded and dispersed. Any additional methods to cope with changes in bird numbers or activity on site can be added to the management routine as required.

7. REFERENCES

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MPA. (2015) *Mineral Sites and Bird Strike Hazard and Risk: Practice Guide for Mineral Development and Restoration within Aerodrome Safeguarding Areas* (Revised Version May 2015).

Appendix 1

Legislation & Policy
