



Bird Hazard Management Plan

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Report	Bird Hazard Management Plan
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1.0 INTRODUCTION

1.1 Brief

This document supports a planning application for a roof-top solar array (under application number F/23/96049) at the site known as High Wood Reservoir, Allington Lane, Southampton, SO30 3HQ (**Figure 1**). Southampton airport have requested a Bird Hazard Management Plan (BHMP) to ensure that the solar array does not attract birds and lead to aircraft endangerment.

Figure 1. Approximate redline boundary of the site (Google Satellite 2026)



The Purpose of this BHMP is not to create a ‘bird free zone’; rather it has been prepared to ensure that at no stage during the construction or operation of the development, opportunities are provided, whether inadvertently or not, as a result of the design or management of the site and or elements within it. Furthermore, the BHMP has been prepared to ensure that, should such circumstances arise, these can be readily and appropriately addressed.

1.2 Aims and Objectives

It is understood that Southampton Airport have concerns that the development of the new solar array may provide further perching and breeding opportunities for Gulls, Corvids and Feral Pigeons, as per Wildlife Hazards Around Aerodromes, Advice Note 3. This increase could subsequently increase the potential for bird strikes and associated issues within the airports vicinity.

The proposed residential development has been assessed in the context of the guidelines set out in the CAA Guidance (Advice Note 3 Wildlife Hazards around Aerodromes 2016).

This bird hazard management plan aims to set out the measures which will be taken during the operation of the development to reduce any potential increase in bird activity with the specific objective of preventing the solar array increasing opportunities for perching and breeding birds. This will aim to reduce bird strike risk to the lowest practical level.

1.3 Consideration of Cap 772

CAP 772 sets out guidelines for the control of bird hazards in and around aerodromes. It refers to land or water within 13km of an aerodrome and the development site is located within this distance (High Wood Reservoir is 0.96km west of the airport) to which hazards are considered to represent a bird strike risk.

A battery storage container, with a flat roof is due to be constructed under planning application F/25/99979. This flat roof may provide nesting locations for species such as gulls.

Advice note 3 considers that PV arrays may provide perching, breeding and sheltering opportunities, however it notes that peer-reviewed research suggests: "PV arrays would not increase hazards associated with bird-aircraft collisions". Insects that may be attracted to PV arrays are those often preyed upon by passerines, which pose less of a risk for aerodromes. It should also be mentioned that the surrounding habitat is woodland, which provides a larger variety and richness of invertebrates, as well as further nesting, perching and feeding locations that individuals would have been using prior. This is confirmed by the presence of pigeon nests within the woodland. As a result, the birds already have an abundance of habitat surrounding the site, and likely their own niches that they are familiar with, that individuals are more likely to continue utilising rather than a new unknown space. The River Itchen SAC and SSSI is located between Southampton Airport and the site also and this holds preferable habitat that bird populations will already be utilising for foraging and nesting. It is unlikely with these highly suitable habitats adjacent that the solar panels and storage container will increase bird flight within the area.

1.4 Consideration of Bird Strike Risk

The main threat relates to larger species of bird such as Gulls, Corvids and Pigeons that may have increased opportunities with the introduction of the solar array and the battery storage container. Even though the severity is lower, smaller species such as feral pigeons can still create a damage percentage of 6.6%. This needs to be considered in order to create an effective management plan to reduce the risk. The objective of CAP 772 is to reduce the potential for roosting and perching. As stated in CAP 772 multiple birds will have a higher probability of causing damage to an aircraft therefore creating a higher severity rating.

2.0 PROPOSED MANAGEMENT MEASURES

2.1 Introduction

Whilst the proposed solar panels and battery storage container is not considered to result in any increase in bird populations of concern that would present a likely bird strike risk, as a precaution a number of measures will be incorporated into an overall Bird Hazard Management Plan and these are discussed below.

Should there be detection of undesirable bird activity as described above, the Southampton Airport will be informed by the management company. After this consultation, the responsibility will lay with the management company to arrange the dispersal of unwanted bird species.

2.2 Measures

Methods of dispersal that will be employed are as follows:

2.2.1 Disturbance by humans

Human disturbance will naturally occur due to the workers on-site. Additionally, people will continue to walk onto the site to enter the buildings. Furthermore, there is a dog walking route just above the bank adjacent to the building, which was in continual use during the time of the survey. This would cause additional disturbance.

2.2.2 Restriction of food sources through careful site management

All food sources should be collected and properly disposed of on-site and the birds should not be fed, reducing the availability of easily accessible food resources. Pigeons breed all year round and according to the extent of food available to them. If food is readily available, and assuming that good roosting and breeding opportunities exist, the feral pigeon will breed between four and eight times a year (PCGR, 2009).

Any vegetation that does get cut back will be removed from the site to reduce food sources being left and attracting bird species to land for foraging. The vegetation surrounding the building should continue to be managed in the way it is currently to ensure the habitat does not become more appropriate for foraging and nesting birds and thereby to ensure no new flight lines are created.

2.2.3 Bird Scare Equipment

Frightening is a reliable and efficient means of repelling birds. Birds react to unfamiliar sounds and objects. However, they learn to ignore sounds and objects that have proven harmless. Birds should not be allowed to acclimate to a scare device through repeated exposure without an associated adverse effect. In most cases, an integrated approach that incorporates several frightening devices will produce the best results (Williams and Corrigan, 2005).

Techniques, such as shellcrackers and racket bombs, are not applicable to this development due to the close proximity to residential properties and Gleneagles Riding School. The use of a model bird of prey producing low-level distress calls on the two buildings would be appropriate, providing there is no impact to surrounding animals or those utilising the adjacent woodland.

If a particular species is causing an issue for the airport, specific distress calls at a low volume and angled specifically to allow flight away from the airport may be required to aid successful dispersal.

2.2.4 Pest and moss control

The control of pest and moss growth, particularly on the building roofs will be beneficial to reduce invertebrate attraction and thereby reducing the abundance of foraging resources on the buildings.

2.2.5 Other measures

Roof overhang created by the solar panels should be kept to a minimum, reducing the suitability of the solar array to be utilised as a perch. The solar panels can also be close fitted, reducing the creation of perching and nesting space. The roof of the battery storage container can be steeply pitched, making it more unsuitable for nesting on (Advice Note 3).

The bird dispersal process will be closely monitored until the bird hazard has been satisfactorily dealt with. It should be noted that there must be no impact on the River Itchen SAC, SSSI.

2.3 Communication

A communication plan will be established in place to contact Airfield Operations staff at Southampton Airport before any bird dispersal takes place.

A log will be kept which will detail the following:

- Dates and times of any undesirable bird activity
- Who carried out the sighting
- Numbers and species seen
- Details of any dispersal actions taken
- Future recommendations (if necessary)

The log will be available to Southampton Airport Operations team to view upon request.

2.3.1 Timing

During the breeding season, which typically runs from March to June, these inspections will be carried out on a fortnightly basis, or more frequently if bird activity has been observed. During the remainder of the year, inspections will be carried out on a monthly basis or more frequently if bird activity increases.

During the time when ground work takes place, if trenches are to be made, the exposed soil creates temporary havens for birds. These act as a new feeding site where invertebrates have been brought to the surface. However, over time when any trenches are backfilled, this will be less likely to be a feeding site, particularly with the presence of banks and woodland outside of the site boundary, which provide more preferable foraging habitat.

Provided it is carried out regularly, walking through, or otherwise accessing the site itself would reduce the potential for problematic use of the site by such species as this creates disturbance. With disturbances, bird species are less likely to use the area as a feeding or roosting area. In addition this human presence on site will identify any unwanted bird activity, allowing necessary measures to be taken if needed.

2.3.2 Action

If any undesirable bird activity is noted, appropriate dispersal methods (as previously described) will be implemented within 48 hours to ensure minimal dispersal methods are required and the safety risk is reduced. These will be monitored as before and further deployment carried out until bird activity is once again below the relevant threshold.

2.4 Responsible Organisation

Inspections of the site to detect any unwanted bird activity will be completed by Portsmouth Water, while in their control, until a time when the development is in the control of a relevant management company.

3.0 CONCLUSION

The commitments outlined in this report will enable the management company, in consultation with Southampton Airport, to be satisfied that suitable measures are in place to ensure that the management company in control of the proposed development are carrying out appropriate measures in perpetuity to limit risks to local aircraft traffic.

4.0 REFERENCES

Civil Aviation Authority (2024) Safeguarding of Aerodromes Advice note 3, Wildlife Hazards around Aerodromes

Civil Aviation Authority (2017) Wildlife Hazard Management at Aerodromes CAP 772.