Bird Hazard Management Plan

Waterside & Riverview Oxford Road, Uxbridge, UB8 1HS

Completed by Manuel Botero

13/10/2022

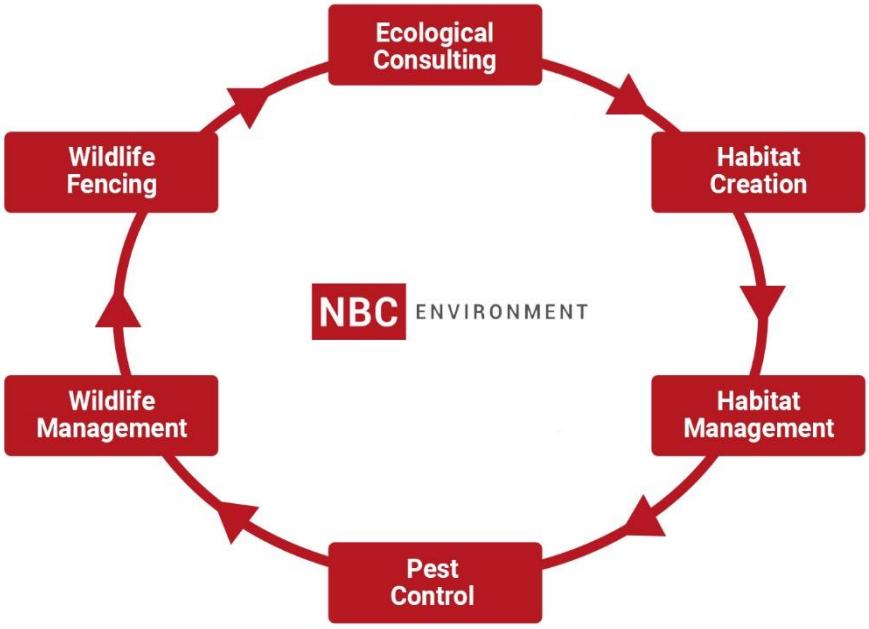
Managing nature. Reducing risk

About NBC Environment

NBC are the modern face of Wildlife Management linking Ecological consulting, environmental contracting, pest control and bird control to provide expert advice and ethical solutions which support and embrace our corporate clients increasing sensitivity towards their legislative requirements and sustainability objectives.

We have embarked on a journey to take NBC Environment beyond the traditional approach of pest exterminators and traditional ecologists to a place where organisations can enjoy a professional holistic approach that links seamlessly all their wildlife management requirements.

NBC's innovation and forward thinking has created a niche where we deliver a unique set of complementary services to the highest level…



…..to a blue chip customer base.

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Thames Water
TESCO
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Ministry of Defence
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Expert – 26 years unrivaled experience and knowledge

Established in 1993 NBC are leading experts in all aspects of wildlife management with vast experience over a huge variety of scenarios providing the knowledge necessary to give you the most effective solution. We have a unique structure with a team of CIEEM accredited ecologists who not only provide consulting advice for clients to ensure compliance on environmental issues but also our operations teams on legislation and the management of wildlife behaviours.

Ethical – With control comes responsibility

NBC believes that pest control companies should operate responsibly and seek sustainable solutions rather than focus on extermination. Regulation, public perception and client requirements now demand a deeper and more integrated approach to managing situations where wildlife conflict occurs to minimise risk to businesses and public health.

Innovation – Delivering measurable value

NBC has spearheaded the development of services based on expertise in wildlife and environmental consulting to drive innovation in our industry to meet the new requirements and ethics of our market place. NBC have invested in a wide breadth of capability enabling an integrated approach to client requirements that includes environmental and ecological consultancy alongside innovation in products and techniques in pest control and bird control to deliver

Value – Quality, cost effective solutions

Each service is designed to complement another providing an unrivalled offering to our clients. Working with a huge number of clients across various sectors including; utility companies, local government authorities, construction, highways, aviation, retail and warehouse outlets and the leisure and tourism industries. Partnering with major companies including Tesco, the RAF and Thames Water.

Our clients are extremely important to us and our employees have real passion for their work which shines through in their dedication to outstanding service.

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Aerodrome Safeguarding Requirements

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 airport or the number of birds in the airspace used by aircraft.

There is only limited scope for airports to take action to counter these hazards, and safeguarding can provide an effective means of reducing or mitigating the risk to aircraft in flight. As such the primary aim is to guard against new or increased hazards resulting from development.

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 several 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.

The UK, as a signatory to the Convention on International Civil Aviation, Chicago 1944, has adopted many of the provisions specified in in relation to wildlife hazard management.

Annex 14, published by the International Civil Aviation Organization (ICAO), includes standards and recommended practices (SARPs) that address the risk of a bird strike and a potential increase of the bird strike risk due to the presence or development of bird-attractant features on, or in the vicinity of, an aerodrome (the term "in the vicinity" is defined as land or water within 13 km of the aerodrome).

Annex 14, Edition 7 states that: when a bird strike hazard is identified at an aerodrome, the appropriate authority shall take action to decrease the number of birds constituting a potential hazard to aircraft operations by adopting measures for discouraging their presence on, or in the vicinity of, an aerodrome.

The Department of Transport has set out guidance on safeguarding of aerodromes in the town and country planning (safeguarding aerodromes, technical sites and military explosives storage areas) direction 2002 Updated 22 December 2016; Arrangements for safeguarding aerodromes, technical sites and military explosives storage areas international and national aviation background. This states that: Bird strikes are one of the major controllable hazards to aviation. Common birds have caused catastrophic accidents to all types of aircraft.

Most bird strikes 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. and 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.

The UK Civil Aviation Authority (CAA) requires all airports to take appropriate measures to deter birds on and around airfields; bird strike is one of the main controllable hazards to aircraft. Most bird strikes occur on or near aerodromes, but bird attractive features far beyond an aerodrome boundary have the potential to increase risk.

CAA guidance is set out in a series of documents referred to as CAPs. CAP772

relates to Wildlife Hazard Management at Aerodromes, and CAP 738 relates to safeguarding at Aerodromes. CAP772 Wildlife Hazard Management at Aerodromes provides information and guidance material to support EC Regulation 139/2014 and to conform to EASA Aerodrome Rules and Acceptable Means of Compliance. It 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. ICAO recommends that the appropriate authority shall take action to eliminate or to prevent the establishment of garbage disposal dumps or any other source 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. And Safeguarding systems need to be put in place to guard against new or increased wildlife hazards caused by developments both on and in the vicinity of an aerodrome.

They should include details of activities employed by the aerodrome operator to control or influence areas beyond the boundary of the airfield, in the vicinity of the aerodrome (up to 13 km and in some instances beyond, or less than 13km, as determined by risk and effectiveness of interventions), and where practicable, could include:

- establishment of a process with the local planning authorities for consultation on proposed developments that have the potential to be wildlife attractant within 13 km of the aerodrome.
- means to influence land use and development surrounding the aerodrome such that the strike risk does not increase and, where practicable, is reduced.
- means to help encourage landowners to adopt wildlife control measures and support landowners' efforts to reduce wildlife strike risks, via land use agreements and.
- procedures to conduct and record the results of off-aerodrome site monitoring visits.

CAP738 third edition 2020 states that:

The common aim of all safeguarding is to assess the implications of any development being proposed within the vicinity of an established aerodrome to ensure, as far as practicable, that the aerodrome and its surrounding airspace is not adversely impacted by the proposal, thus ensuring the continued safety of aircraft operating at the location.

Responsibility for all safeguarding activities at these aerodromes' rests with the aerodrome operator.

Safeguarding is the process by which the Aerodrome Operator can, in consultation with the Local Planning Authority (LPA) and within their capability, protect the environment surrounding the Aerodrome from developments and activities that have the potential to impact on the aerodrome's safe operation. Aerodrome safeguarding covers several aspects. Its purpose is to protect:

The aerodrome from any increased wildlife strike risk. In particular bird strikes, which pose a serious threat to flight safety.

The Airport Operators Association (AOA) have published a series of advice notes for safeguarding. Advice note 3 addresses Wildlife Hazards around Aerodromes and sets out factors that may be considered in wildlife safeguarding and how potential attractants may be mitigated. It states that:

In order to identify whether an application has the potential to increase the bird strike risk at an aerodrome, the geographic location of the application site in relation to other key attractants, should be assessed.

Dependant on proximity or location in relation to other sites, the development may still be permissible or may require an appropriate Bird Hazard Management Plan (BHMP) to enable the development to gain planning permission.

The safeguarding process should take a proactive, precautionary approach

Advise note 3 also lists examples of developments that *may* impact on the bird strike risk at an aerodrome. This includes developments including housing, industrial estates/units and flat and green roofs.

Therefore, in relation to the redevelopment we are seeking to ensure that any potential increase in the bird strike risk at London Heathrow Airport and RAF Station Northolt is appropriately assessed and mitigated though the development of a bird hazard management plan, in order to satisfy the airport operators that the application will not have the potential to increase the bird strike risk to aircraft operating out of the airport.

This management plan is in relation to the potential for birds hazardous to aircraft to utilise the proposed development, thus impacting on the bird strike risk to aircraft operating out of London Heathrow Airport and RAF Station Northolt. It does not address other safeguarding aspects that may impact on the airport.

Client Objectives

- To implement the attached Bird hazard Management Plan developed by NBCs Ecology Consultant and agreed with permitted development investment No7 Limited and the local planning authorities.

- To have the support of an expert Bird Control company in order to advise the Local Planning Authority and carry out the bird control programme at the site. The programme will be designed to support the sites Bird Hazard Management Plan, with particular emphasis on bird species, numbers and activity, in order to reduce the risk of a bird strike on the aircraft.

- Provide confidence and peace of mind that an expert Bird Control company is expertly managing the bird strike risk on their behalf, as part of the Local Planning Authority's duty of care and due diligence requirements.

- To have expert advice and support in areas such as species identification and the management of the specific species licensing rules and regulations.

- To have an expert regularly review the current bird control programme by having accurate measured data, which will help assess the risk from any changes to the bird activity on site. This data is to be analyzed and supported with expert recommendations given to the Local Planning Authority, and if necessary, advise on the further action required to minimize the risk.

- Reduce the risk of damage that can be done by nuisance birds and reduce the cost and impact that guano and nesting materials can have on; cleaning around buildings, windows, gutters, the roof, pathways and people's property i.e. cars.

- Protect people from illness through possible contamination from guano, bird faeces and bird nesting materials, which can also contain mites, which can then travel into other areas.

- To work with a contractor who will help safeguard the sites commercial interests by providing a practical, dependable, and expert service.

- To be supported by a company that have a dedicated team who have a similar aim of operating in a hazard free, compliant, and safe working environment, free from conflict with nature.

The Proposed Development

The proposed development is for the conversion & extension to the existing Waterside & Riverview House buildings to a residential site. The site is approximately 8 Km to RAF Station Northolt and 10 Km to London Heathrow Airport

The Site

On my visit (just after breeding season had come to an end), there was no evidence that birds had been or were roosting or nesting on site. There were significant building activities taking place which in itself deter birds from the premises. Saying this, when the breeding season commences, birds are a very determined species and so if the environment provides them with the three elements required (food, water and shelter) they will find a way to breed and therefore establish on site. In the instance that a schedule 1 bird establishes on site (birds protected by law, please see link for more information: Wildlife and Countryside Act 1981 (legislation.gov.uk) this will have a substantial impact on the project as the works would need to be put on hold until the birds fledge of their own accord.

The site is located between a residential/rural area, in very close proximity to a nature reserve and to London Heathrow Airport and RAF Station Northolt. This means that the site is at high risk of the natural baseline population of various bird species (Gulls, Corvids, Pigeons, etc) being attracted to the site in search of food, water and shelter but also potential risk of a bird strikes

Photo below shows the site and highlights the two buildings (Waterside & Riverview) that the program will focus on:

The development falls within the Aerodrome safeguarding requirements, summarised below:

- *In accordance with Civil Aviation Policies – CAP 738 and 772, the risk of bird strike by aircraft requires active management by the aerodrome operator through development control and consultation on developments that have the potential to attract birds in significant numbers, in addition to on-site habitat management and bird scaring techniques as and when required.*

- *London Heathrow Airport and RAF Station Northolt is officially safeguarded in accordance to the criteria set out by the Civil Aviation Authority (CAA) to ensure that developments on and around aerodromes do not infringe with internationally agreed safety margins around aircraft flight paths, nor interfere with the visual and non- visual aids to navigation which guide aircraft on those flight paths. The safeguarding function is also a condition which forms part of the AIAL's Aerodrome Licence to operate.*

- *As a result, proposed developments on, must undergo a process known as* ***Aerodrome Safeguarding.*** *This process ensures that alterations to the local built-up environment are carefully assessed to check that they have no adverse impact on aircraft safety. Potential aerodrome safeguarding breaches can be identified and, if necessary, amended and/or rejected to ensure that safety on and around the aerodrome is not compromised.*

A bird hazard management plan was therefore required to manage the development to minimise its attractiveness to birds which could endanger the safe movement of aircraft.

The bird deterrent measures presented within this bird hazard plan shall be implemented in strict compliance with the Wildlife and Countryside Act and its General Licensing conditions; namely:

- General License kill or take wild birds for public health or safety (GL41)
- General License to kill or take them for air safety purposes (CL12).

Bird Activity

Incidence of Bird Strikes

Statistics released by the UK Civil Aviation Authority (CAA) in 2009 indicate that registered aircraft strike a bird approximately once in every thousand flights. It is further indicated that between 15 and 20% of bird strikes cause damage to the aircraft.

In terms of altitude, most bird strikes occur at very low altitudes (<500 ft above ground level). Research by the European Aviation Safety Agency in 2008 indicates that approximately 70% of bird strikes occur at altitudes less than 200 ft, 15% occur between 200 and 800 ft and only 15% of bird strikes occur above 800 ft. Aircraft at the point of these operations will be at low level on take-off or final approach which presents the greatest risk to pilots and aircraft.

The CAA additionally outline at which phase of flight bird strikes are most likely to occur. Statistics gathered by the CAA for 2008, indicate that 35% of bird strikes occur on approach to land and 30% occur at take-off. The CAA additionally indicates that 65% of bird strikes occur during the day.

Target Bird Species

Not all bird species pose a significant bird strike risk to aircraft. Species or types of birds specific to bird strike management are those that occur in flocks and/or are large in size.

Typical 'problem' birds are gulls, rooks, crows, jackdaws, waterfowl, wood pigeon, feral pigeons, blackbirds, starlings, and buzzards. From the 2008 bird strike statistics for the UK collated by the CAA, 1480 bird strikes were reported. The top bird species identified from reported bird strikes comprises woodpigeon (93 bird strikes), black-headed gull (73 bird strikes), skylark (71 bird strikes), swallow (64 bird strikes), gull (64 bird strikes), common gull (61 birds strikes), pigeon (59 bird strikes), swift (58 bird strikes), kestrel (45 bird strikes) and herring gull (45 bird strikes).

While there are many species susceptible to bird strikes by aircraft, each species of bird possesses different behavior and habitat preferences. It is therefore essential to outline specific target species in the context of the site.
Gulls, Corvids, Pigeons, and Starlings pose the greatest risk to aircraft leaving/arriving at Waterside & Riverview as the species/sub-species tend to congregate in flocks and have the potential to be attracted by the buildings, landscaped areas and operational activities scheduled on site; when nesting, roosting and food scavenging opportunities present themselves.

Potential species that could establish on site:

Black-headed Gull *(Chroicocephalus ridibundus)*

Not really a black-headed bird, more chocolate-brown - in fact, for much of the year, it has a white head. It is most definitely not a 'seagull' and is found commonly almost anywhere inland. Black-headed gulls are sociable, quarrelsome, noisy birds, usually seen in small groups or flocks, often gathering into larger parties where there is plenty of food, or when they are roosting.

Common Gull *(Larus canus)*

Similar in appearance to the herring gull, the common gull is seen less in inland areas but is seen frequenting urban areas in winter. With a light grey back and black wing tips, the common gull has greenish legs and a yellow bill.

Feral Pigeon *(Columba livia domestica)*

Feral pigeons, also called city doves, city pigeons, or street pigeons, are pigeons that are derived from the domestic pigeons that have returned to the wild. The domestic pigeon was originally bred from the wild rock dove, which naturally inhabits sea-cliffs and mountains.

Herring Gull *(Larus argentatus)*

The herring gull has a light grey back and has a white underneath. The herring gull has black wing tips and their legs are pink with webbed feet. Their bill is large with a slight hook that has a red spot. The herring gull is very noisy and is present in the UK all year round.

House Sparrow *(Passer domesticus)*

Noisy and gregarious, these cheerful exploiters of man's rubbish and wastefulness have managed to colonise most of the world. The ultimate avian opportunist perhaps. Monitoring suggests a severe decline in the UK house sparrow population, recently estimated as dropping by 71 per cent between 1977 and 2008 with substantial declines in both rural and urban populations.

Jackdaw *(Corvus monedula)*

This is a small, black crow with a distinctive silvery sheen to the back of its head. The pale eyes are also noticeable. The jackdaw call is a familiar hard 'tchack' from which it gets its name. It will commonly nest in chimneys, buildings, rock crevices and tree holes.

The Kittiwake Gull *(Rissa tridactyla)*

The kittiwake is of a medium size and has a grey back and a white underneath. Its bill is yellow and short and its legs are short and black. Kittiwakes also have a black tip to their tail.

Lapwing *(Vanellus vanellus)*

The lapwing is black and white in appearance and has a distinctive crest. The lapwing has a 'Red Status' due to its recent and significant population decline. Its normal habitat is farmland such as pasture or ploughed field particularly in the breeding season. A lapwing's nest is a small 'scrape' on bare ground or in short vegetation.

Lesser Black Backed Gull *(Larus fuscus)*

The lesser black backed gull has a dark grey to black back and wings with a white underneath. It has a yellow bill and legs and is indigenous to Europe, with 40% of the population based in the UK. It has an 'Amber' status in the UK due to concerns of a decline in the UK.

Meadow Pipit *(Anthus pratensis)*

Similar in appearance and size to the Skylark but with no crest, the meadow pipit is streaky brown and is found in open habitats usually uncultivated farmland or grassland areas.

Ringed Plover *(Charadrius hiaticula)*

Small and dumpy in appearance the ringed plover has an orange bill that has a black tip. Its underneath is white with a light brown back and distinctive black-and-white markings on its head.

Rook *(Corvus frugilegus)*

Bare, greyish-white face, thinner beak and peaked head make it distinguishable from the carrion crow. Rooks are very sociable birds and you're not likely to see one on its own. They feed and roost in flocks in winter, often together with jackdaws.

Skylark *(Alauda arvensis)*

The Skylark is distinctive streaky brown in appearance, has a small crest and is slightly smaller than a starling in size. Its breeding season is between April and August and nests in lowland farming areas where the vegetation is low.

Starling *(Sturnus vulgaris)*

Smaller than blackbirds, with a short tail, pointed head, triangular wings, starlings look black at a distance but when seen closer they are very glossy with a sheen of purples and greens. Their flight is fast and direct and they walk and run confidently on the ground. Noisy and gregarious, starlings spend a lot of the year in flocks.

Woodpigeon *(Columba palumbus)*

The UK's largest and commonest pigeon, the woodpigeon is largely grey with a white neck patch and white wing patches, clearly visible in flight. Although shy in the countryside it can be tame and approachable in towns and cities. Its cooing call is a familiar sound in woodlands as is the loud clatter of its wings when it flies away.

Risk to the Business With & Without Controls

Business Risk Assessment Matrix					
Description:	Waterside & Riverview				
Current Risk Rating without control					
RATING	Probability				
Severity	Almost Certain	Likely	Possible	Remote	Improbable
Serious risk / cost Litigation or closure					
Major risk / cost Loss of client	All bird species				
Moderate risk / cost Non compliance					
Minor / cost compliant					
Negligible / cost					
Recommended Controls					

Falconry and bird alert disruption program.

Risk following installation of recommended control					
RATING	Probability				
Severity	Almost Certain	Likely	Possible	Remote	Improbable
Serious risk / cost Litigation or closure					
Major risk / cost Loss of client				All bird species	
Moderate risk / cost Non compliance					
Minor / cost compliant					
Negligible / cost					

Relevant Legislation

- **Health and Safety at Work Act 1974** requires that all employees be provided with safe working environments. Rodent infestation within a working environment clearly places workers' health at risk; both from a safety risk with potential for exposed electrical cables as well as diseases.
- **The Prevention of Damage by Pests Act 1949** which places an obligation on owners or occupiers to control rats and mice on their property as well as placing certain responsibilities on the owners to notify the authorities in certain situations.
- **The Food Safety Act 1990** requires that all food sold for humans must be fit for consumption. Any food sold contaminated with rodent urine or faeces will be considered unfit.
- **The Food Hygiene (England) Regulations 2006**
- **Wildlife and Countryside Act (1981)**

Birds & the Law

All birds are protected by law under the Wildlife and Countryside Act 1981 and different birds have different levels of protection.

Understanding bird behaviour and implementing an effective control method can be complex. It is essential that anyone looking to remove nests and/or deal with nuisance birds obtains advice from an experienced 'bird' expert rather than a general pest controller.

In some situations, it is possible to carry out bird control operations under an exemption, the 'General Licence' which can be relied upon if the following criterion is observed:

- Good reason. Preserve Public Health or Public Safety, Prevent serious damage or disease or flight safety.
- You are authorized to do so by the owner or occupier of the land or property.
- The owner or occupier is satisfied that appropriate legal methods of resolving the problem such as scaring and proofing are either ineffective or impracticable.
- Whether intentional or unintentional you can be liable and fined if you do not adhere to legislation. It is essential that if you believe there is a risk bird nesting could impact your business you seek expert advice.

GENERAL LICENCE

To kill or take certain species of wild birds to preserve public health or public safety.

This licence permits landowners, occupiers and other Authorised Persons to carry out a rang eof otherwise prohibited activities against the species of wild birds listed on the licence. **This licence may only be relied upon where the activities are carried out for the purpose of preserving public health or public safety** and uised must comply with licence terms and conditions. These Conditions include the requirement that **the user must be satisfied that legal (including non-lethal) methods of resolving the problem are ineffective or impracticable.**

Registration Users do not need to register to use this licence
Recording & reporting None required
Reference WML-GL05

Can I Prevent Birds from Nesting?

If nesting birds could interfere with business operations and there is no opportunity to work around them during the breeding season (February to August) it is advisable to implement a bird management programme as licensing to remove nests should they occur relies on the need to have explored non-lethal methods.

Programs should ideally begin prior to the nesting season to provide birds with the opportunity to find alternative nest sites so that they may still breed successfully.

The Risks Associated with Nuisance Birds

Birds present a variety of risks to a business. Their presence can be a nuisance interfering with operations or attacking visitors and staff negatively effecting the experience those have with the company. They can also damage property by pecking at insulation, breaking roof lights or causing flooding the result of drains blocked with their nest debris. Perhaps the biggest risk however is that of health and safety from the serious and potentially fatal hazards associated with their droppings and feather debris.

Two patients have died after contracting a fungal infection caused by pigeon droppings at the Queen Elizabeth University Hospital.

Birds and their droppings present a real hazard and a risk assessment should be carried out where birds gather.

There have been hundreds of cases of histoplasmosis in people acquired via the airborne route during work on communal roosts of birds in urban areas.

Histoplasmosis

When dried-out bird droppings are disturbed, a cloud of airborne dust carries micro-organisms into the lungs leading to respiratory difficulties.

Cryptococcosis

Contracted from bird droppings in nesting or roosting areas or wherever there are bird droppings and can result in flu like symptoms, a fever or in extreme cases, death.

Ornithosis

One of the most commonly found diseases it is transmitted by birds such as pigeons and is known as Ornithosis. A flu type disease, fatalities can occur as with normal influenza viruses.

Campylobacterosis

A bacterial infection contracted via ingestion or contact of guano or guano dust. It causes diarrhoea or dysentery syndrome, mostly but can also include cramps, fever and pain.

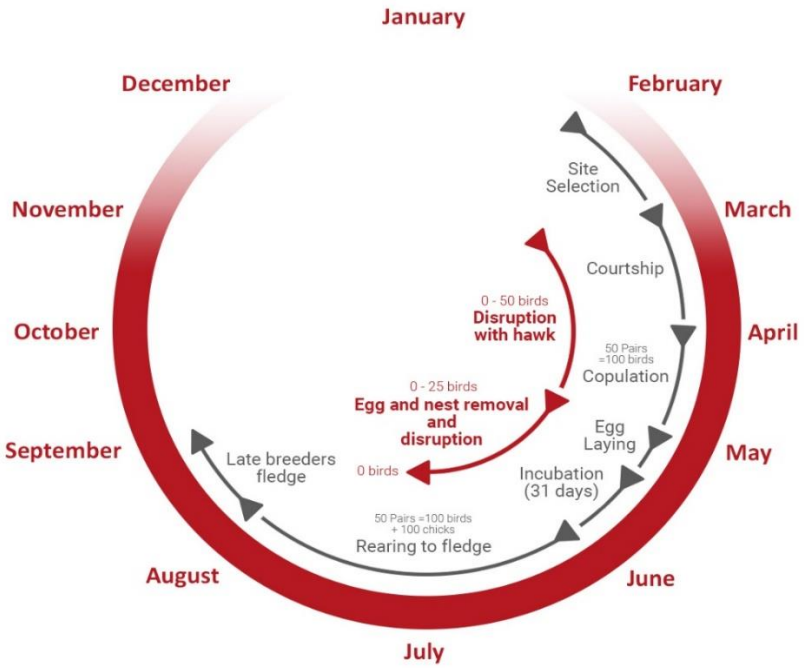
Gull Biology

The below diagram demonstrates the breeding cycle of Herring Gulls and how an intelligent program can optimise results.

Herring Gulls when in the laying phase will attempt to lay a complete clutch typically 3 eggs with each egg being laid at 48-hour intervals. If the adult bird hasn't progressed onto the incubation phase (identified by the adult siting the eggs for at least 7 days) if any eggs are removed the adult will simply lay more.
If however the adult has progressed to the incubation phase if eggs are removed the adult will need to recycle. The recycling process will take approximately 14 days, and a great many will not recycle and those that do will only be able to do so once.

If timings are not carefully planned there is also a risk that eggs may hatch and once Herring Gull eggs hatch a special licence will be required to take or remove the young which is unlikely to be granted.

So you can see the timing and frequency of visits is vitally important to ensure you minimise the number of birds and the length of time they are on your property.



Understanding Bird Behavior:

Breeding Cycle

The 'Bird Nesting Season' is officially from **February until August** (Natural England) and it is recommended that vegetation works (tree or hedge cutting) or site clearance should be done outside of the nesting season. However, in reality the nesting period may start before this and extend beyond it, in some cases. **The busiest time for nesting birds is from 1st March until 31st July** and of course varies according to species, etc.

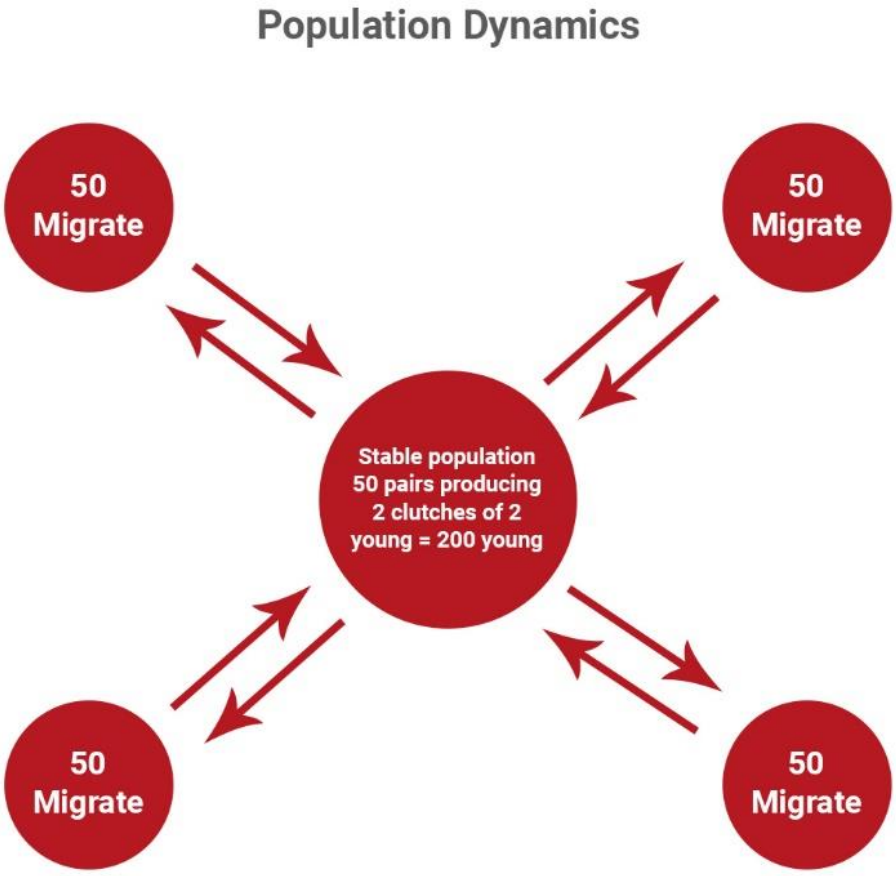
As contractors we must aim to avoid impact to nesting birds and infringement of the *Wildlife and Countryside Act 1981* and breaching the *European Habitats Directive 1992/Nesting Birds Directive*.

Influence on Population

Populations or the number of birds within an area is defined by the abundance of three basic needs, if we can manage these elements, we can reduce the ability for an area to sustain a populations and numbers can be reduced or even eliminated.

Protecting the Void – Stopping them from returning

If we are unable to alter the three basic needs to such a level that will meet our population objectives either population management or falconry can be effective however as birds are constantly migrating in and out of territory if we do not maintain regular observations and react accordingly number can very quickly return to number post treatment and the investment is wasted.



Bird Deterrent Techniques

It is unlikely that one single control method or technique will reduce the risk of bird strike permanently as birds are adaptable and can habituate to any control technique or deterrent in the long-term. Therefore, the use of a variety of different tools and techniques is essential in ensuring reduction or removal of the risk of bird strikes.

Control measures will comprise both building proofing and fixed controls, supported with monitoring and 'harassment'. All harassment will be implemented proactively, and at an early stage to avoid flocking birds congregating in numbers that present risk and would compromise the safety of aircraft.

Harassment is in the form human disturbance, the use of lasers and distress calls from handheld emitters and the use of falcons and hawks depending upon appropriateness of the location. If harassment fails, then Air Traffic Control may be contacted for further action.

Exploring these measures in more detail:

Targeted Proofing: Plant Areas and Ad hoc needs

NBC can help safeguard against the risk of disease

Santitisation / Clean

As bird guano & debris is extremely hazardous it is essential that its removal is dealt with appropriately otherwise these particles can become airbourne or contaminate water courses.

NBC deliver a professional programme
1. A detailed working practice is agreed first with all safety documentation forwarded to the client for approval

2. Waste is first nuetralised with an avicide and dampened.

3. Solids are then double bagged for safe disposal with appropriate documentation.

4. Special vacuums are utilised with particle filters.

5. Reports completed and a certificate of completion issued to the client to demonstrate the area is now safe.

Call Out Service: Including targeted culls

The BYM Capital shall provide an emergency call out service for an approved, licenced and qualified technician to attend high priority requirements, such as a trapping and/or cull of persistent offending birds that may occur from time to time.

Population Control-Shooting

When all non-lethal methods have been found to be ineffective or impractical and there is a significant health and safety risk it may be necessary to remove those birds with lethal control, this should however be a last resort as the activity is not without risk to the client.

Culling is extremely emotive and should be carried out in a way and at a time which will be discrete to avoid complaints from those who oppose such measures.

NBC operatives undergo the most comprehensive training in the industry and utilise the most current weapons with thermal imaging to ensure it is safe, effective and discrete.

Population Control-Trapping

When all non-lethal methods have been found to be ineffective or impractical and there is a significant health and safety risk it may be necessary to remove those birds with lethal control, this should however be a last resort as the activity is not without risk to the client.

Culling is extremely emotive and any traps should be placed in areas where they cannot be seen and access can be controlled.

The welfare of the trapped birds must also be considered and regular visits must be maintained to ensure food, shelter and water is available at all times.

Habitat Management Programme: Grass Roofs, landscapes areas, water courses

It is important that the landscaped areas and grass roofs are maintained to reduce their attraction to birds for nesting, scavenging and roosting purposes. NBCs ecologists and landscape Engineers can advise on these requirements in greater practical detail if required.

Dispersal with Dogs

In situations where it is necessary to prevent birds from nesting on the ground perhaps in an area programed for development in the breeding season dogs are the most effective solution.
Specially trained dogs are regularly worked over the target areas prior to nesting to provide sufficient disruption that they choose an alternative area to nest.

Should birds nest the dogs will point the location without harming them so that the location can be marked and the appropriate action taken.

Housekeeping and Waste Management

The occupants and users of the development shall manage their operations to control bird attractants, specifically:

- Closed bins deployed throughout development at regular spaced intervals.
- Robust waste management contract to ensure all bins and skips are emptied on a regular cycle -no overflow!
- Robust housekeeping by all site operations and tenants.
- Prompt clean up after larger events.
- Good signage and penalties for litter droppers.
- All food waste stored within closed bins and enclosed cages/ rooms.

The proposed strategy:

Bird Management plan:
A successful falconry program relies upon instilling a level of fear in all bird species from our bird of prey (apart from if another bird of prey is present on site) which disrupts their current pattern of activity. As such the program is deliberately designed in its earlier stages to be intensive and deliver a short sharp shock to the pest species that not only reinforces the physical threat, we have introduced by way of our bird of prey but also the security of a safe roosting and nesting location that your premises could offer them. In addition, we recommend the installation of a bird alert system which will compliment the falconry program in order to allow a continual disturbance on site to prevent birds from establishing on site. Without the presence of the bird of prey, the bird alert system will not be effective.

Our strategy will be as follows:

Intensive Program:
We recommend a ten-day intensive falconry program at the start of the program where we will provide a skilled and experienced mobile wildlife management operative with live hawks and supportive deterrents for two hours per day at varying times each day from Monday to Friday. By varying the times that we provide the flights we ensure that birds returning to the site at different times are reminded of its presence more consistently. During summertime and warmer temperatures birds can tire more easily which is why it is important to have a falconer that can change the bird as required to ensure that the method of control remains effective. NBC's falconers plan for these types of circumstances and always have back up birds available nearby should they be required. This program should be carried out at least twice a year to start with and then can be reviewed as the program runs its course.

Seasonal Falconry Disruption Program:
Following the intensive program NBC will provide regular visits throughout the breeding season to prevent a population from establishing on site at this high-risk time. This program will allow 52 visits (2 hours each) that NBC will distribute accordingly depending on activity levels.

About the BirdAlert ®
BirdAlert ® is an intelligent system that recognizes specific bird species by listening to them through the special BirdAlert ® microphone. At distances of up to 250 meters, the system detects gulls, corvids, geese and starlings based on their unique sound. And as soon as unwanted birds are detected, BirdAlert ® can activate connected scare products in a varied pattern that scares just that species as best as possible. BidAlert ® is the complete detection system, consisting of box and microphone. External scare tools are connected to this. To harness the power of the large, built-in library of scare sounds, the system requires the installation of at least one speaker. The box is by default prepared for mounting a speaker arm for this purpose.

BirdAlert ® Web app can be used on IOS and Android to connect directly to the unit therefore allowing you to modify settings to the site. Activations are shown on a graph showing how many times the unit has been activated within the 1 hour slot. This will allow you to build a pest management plan to tackle pest birds accessing the site on any given day. Battery levels also shown with this function allowing you to plan in servicing as and when needed.

Falconry Dispersal with Falcons

Birds of prey are very good at reducing populations in areas where proofing is unsuitable or impractical or where they are is simply too large.

They work by changing the resident bird's patterns of behaviour. An intensive period of falconry will prevent target species access for a period long enough to ensure these birds establish a new pattern of behaviour elsewhere then a less frequent program of visits protect the void left preventing number from returning.

Hawks are very effective in enclosed urban environments however have little effect on large open areas such as airfields or waste sites. In these situations trained peregrine falcons (the fastest creature on earth) are exceptional as no avian species will conflict with them.

NBC are the largest falconry related company in Europe recognised as the leaders in this field NBC have more experience more skills and more resources than anyone else

GPS Falconry Activity Reporting

Many clients have had bad experiences with other service providers who rarely fly their birds of prey. NBC's falconers have the skills and confidence to fly their birds in most situations and have the ability to fit GPS trackers to the birds so that you can see the activity of the birds of prey on your visits.

The example here shows a visit to a marina which thanks to this report you can see has been thoroughly covered.

Handheld Laser

Birds have very sensitive eyesight and can see a wider range of colours than we can and as a result are extremely sensitive to laser technology.

In your situation this technology would be effective and should be added to enhance the wider program.

Reporting

Records shall be kept which may be inspected by the airport or their representatives. This will include:

- Operating times and summary of bird/ wildlife observations and control activity throughout each shift period.
- Target Bird Activity: species, numbers, location, behavior with GPS tagging of locations, and RAG risk assessment rating.
- Deterrent Activity – type of control deployed, target bird's response.
- An environmental change that may affect local bird/ wildlife behavior patterns e.g., unusual weather, etc.

Summary & Conclusion

The bird control content described in this report should ensure that the site does not attract or support popularities of hazardous birds capable of increasing the bird strike risk.

- The need for effective bird control measures and management has been highlighted throughout this report. All are aware of the risk of bird strikes associated with the site and the proximity of low flying aircraft, in addition to the need for active management.

- The situation has been thoroughly considered and this proposal created to reduce the risk of bird strikes. The main elements of the proposal include building construction and operational management procedures to reduce the attraction to prospecting birds.

- Operational management procedures will need to be combined with active management at the site to reduce the risk of bird strike to a safe level. Management involves monitoring the presence of target bird species regularly and the implementation of control measures when species are identified.

Safety considerations

NBC Environment take health and safety and the protection of the environment very seriously demonstrated by the various accreditations our systems have been awarded. On award of works and prior to mobilisation you will receive detailed safety documentation relevant to the task for approval which at the very least will include a risk assessment detailing the hazards we have identified, giving you the opportunity to advise us of any we may have missed as well as a detailed method statement clearly explaining what works we will be carrying out, where and how.