

BURTON REID
ASSOCIATES



Bird Hazard Assessment and Management Plan

STOKE PARK FARM SANG, EASTLEIGH
EASTLEIGH BOROUGH COUNCIL

| August 2023 | Doc Ref: BR0813/BHAMP/A |

DOCUMENT CONTROL

Site name:	Stoke Park Farm SANG, Eastleigh
Project No:	BR0813
Document Title:	Bird Hazard Assessment and Management Plan
Document No:	BR0813/BHAMP/A
Client:	Eastleigh Borough Council
OS Grid:	SU478199
Date of Survey:	June/Jul 2023

☒	Original Document	☐	Revision	☐	A	Revision code
-------------------------------------	-------------------	--------------------------	----------	--------------------------	---	---------------

Prepared by:	Tamsyn Bridger ACIEEM	Ecology Team Coordinator	01364 701150 tamsyn.bridger@burtonreid.co.uk	August 2023
Checked by:	Alex Leishman MCIEEM	Senior Ecologist	01364 701150 alex.leishman@burtonreid.co.uk	August 2023
Approved by:	Jenni Reid CEnv MCIEEM	Founder	01364 701150 jenni.reid@burtonreid.co.uk	August 2023

Revision record:

Rev Code	Date Prepared	Prepared By	Checker/ Approver	Description of Changes

DECLARATIONS OF COMPLIANCE

The report which we have prepared and provided is in accordance with the Chartered Institute for Ecology and Environmental Management's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

This report has been produced in accordance with British Standard 42020:2013 "Biodiversity, Code of practice for planning and development" and the Chartered Institute of Ecology and Environmental Management's Guidelines for Ecological Report Writing (CIEEM, 2017).

DATA VALIDITY

Please note that unless otherwise stated, the contents of this report will remain valid for a maximum period of 12 months from date of issue. Beyond this updated survey work may be required to establish any changes in baseline conditions.

DISCLAIMER

Burton Reid Associates has exercised all reasonable skill and due care in preparing this report. Burton Reid Associates has not, unless specifically stated, independently verified information provided by others. No other warranty, express or implied, is made in relation to the content of this report and Burton Reid Associates assumes no liability for any loss resulting from errors, omissions or misrepresentation made by others.

Any recommendation, opinion or finding stated in this report is based on circumstances and facts as they existed at the time that Burton Reid Associates performed the work (including based on the information provided by the client). Professional judgement and opinion has been utilised where required. All opinion is provided in good faith.

Nothing in this report constitutes legal advice or opinion. If legal opinion is required a qualified legal professional should be contacted for advice.

CONTENTS

1	INTRODUCTION.....	1
1.1	Background.....	1
1.2	Site description.....	1
1.3	Development proposals.....	2
1.4	Purpose of the assessment.....	2
2	METHODOLOGY.....	3
2.1	Bird population baseline surveys.....	3
2.2	Bird strike risk assessment.....	4
3	BASELINE.....	5
3.1	Habitats.....	5
3.2	Spring / summer bird populations.....	5
3.3	Wintering bird populations.....	8
4	IMPACT ASSESSMENT.....	8
4.1	Farmland bird habitat.....	8
4.2	Woodland and hedgerow bird habitat.....	9
4.3	General.....	9
5	MITIGATION AND AVOIDANCE MEASURES.....	10
6	CONCLUSION.....	11
7	REFERENCES.....	12
8	APPENDICES.....	13
	Appendix I: Site photographs.....	13
	Appendix II: Pre-development habitat plan.....	15
	Appendix III: Proposed SANG landscape masterplan.....	17

1 INTRODUCTION

1.1 Background

- 1.1.1 Development in the Eastleigh Borough Council area has the potential to result in increased recreational pressures on the internationally protected New Forest Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar sites (wetlands of international importance).
- 1.1.2 While Eastleigh Borough Council does not directly border the New Forest National Park, technical research commissioned by local authorities in and around the New Forest shows that residents of the Borough choose to visit the area and thus risk contributing towards erosion of the habitats and disturbance of the species they support.
- 1.1.3 In order to offset these potential pressures on the SPA/SAC, Eastleigh Borough Council have acquired land at Stoke Park Farm on the outskirts of Bishopstoke with the aim of providing 21ha of Suitable Alternative Natural Greenspace (SANG), which will create more local recreational space for the residents of Eastleigh Borough.
- 1.1.4 The proposed SANG site lies approximately 2.7km north-east of Southampton Airport. Burton Reid Associates have accordingly been instructed to undertake a Bird Hazard Assessment and Management Plan to assess the potential for landscape and development proposals at Stoke Park Farm to result in an increased risk of bird strike to aircraft using the aerodrome.
- 1.1.5 The purpose of this document is to ensure that the risk of bird strike as a direct result of the development does not significantly increase.

1.2 Site description

- 1.2.1 The Site centre is located at National Grid Reference SU478199 and comprises an area of former agricultural land in use until November 2021 for dairy farming on rotational grazing / occasional silage cuts. The majority of the Site is comprised of grassland habitats. A narrow wooded belt divides the northern portion of the grassland fields. This is situated along a drainage ditch (damp at the time of survey but likely to hold standing water during periods of high rainfall) and includes an overgrown pond.
- 1.2.2 Immediately adjacent to the west and south lies Stoke Park Woods SINC (Forestry Commission Woodland, mix of Ancient Replanted Woodland and Ancient / Semi-natural Woodland). Bow Lake Fish Farm lies immediately to the north of the Site.
- 1.2.3 The flight path for the runway at Southampton Airport (including the approved runway extension now under construction) does not pass directly over the Site itself. The main flight path of aircraft to and from the airport is estimated to be in the region of 1.5km west of the main body of the Site, i.e. excluding the access road (assumed flight path as per runway expansion planning application, Savills, 2021).
- 1.2.4 Pre-development habitats at the Site are shown on the plan in Appendix II.



Figure 1: Site location and extent

1.3 Development proposals

1.3.1 The proposed creation of the SANG at Stoke Park Farm includes the following elements:

- Creation of circular walking routes (bound gravel pathways).
- Provision of bound gravel car park for 20no. vehicles.
- Small SuDS pond (c.110m²) and swales to attenuate car park run-off.
- Installations including benches, picnic tables, interpretation boards and litter bins.
- Creation of vehicles passing places along Sewall Drive.
- Creation of additional access point onto Sewall Drive.
- Enhancement of former farmland grassland with over-seeding and long-term management.
- Planting of 33no. native trees.

1.3.2 The proposed SANG landscape design plans are provided in Appendix III.

1.4 Purpose of the assessment

1.4.1 The Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002, last updated in 2016, comprises Office of the Deputy Prime Minister ("ODPM") Circular 1/2003. This states that within:

"[...] 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 [...]. 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."

- 1.4.2 The proposed SANG development lies within the 13km radius Bird Hazard Safeguarding Zone for Southampton Airport. All developments within the 13km radius require consultation to ensure no potential increases in bird strike risk to low flying aircraft. This document has been produced in support of this consultation process.

2 METHODOLOGY

2.1 Bird population baseline surveys

- 2.1.1 Bird surveys were undertaken at the Site during the 2023 active bird nesting period to establish the baseline use of the habitats pre-development. Surveys methods utilised were based on the Common Bird Census (CBC) methodology (Marchant et al., 1990), and included 4no. survey visits between early June and mid-July.
- 2.1.2 Surveys were undertaken by Alex Leishman MCIEEM and Gareth Knass MCIEEM who are both experienced ornithologists, with over 10 years' and 20 years' experience respectively in the field. All birds seen or heard were recorded onto base maps along with their behaviour (e.g. singing males or family groups), using territory mapping methods (Bibby *et al.*, 2000) and the standardized BTO two-letter species and activity codes/symbols to indicate the location of the sighting along with details of the behaviour being recorded.
- 2.1.3 Surveys were commenced in the early mornings when bird activity is typically highest. The starting point and the direction of travel during each survey was altered on each visit so that different areas of the Site could be surveyed at different times. Days with heavy rainfall and/or strong winds were avoided, as these conditions affect detection of birds. Birds were generally first detected by ear or with the naked eye and then confirmed using high magnification binoculars as required.
- 2.1.4 Post-survey data processing included examining survey maps for potential proof of breeding by the species and behaviour recorded and to help establish likely numbers of territories, in line with territory mapping methods detailed in Bibby et al (2000). Using this method, breeding can often be determined where behaviour associated with nesting or territorial activity is recorded in the same area on multiple surveys within the same breeding season. Recorded breeding activity was then be classified as confirmed, probable and possible with criteria as per Gilbert et al., (1998). The dates of the survey visits completed to date are provided in Table 1 below.

Table 1: Dates and weather conditions of breeding bird surveys

Visit no.	Date	Weather	
1	06/06/2023 (Time: 05:40 - 7:30)	Temp: 15.1 – 16.7°C Cloud cover: 1/8	Wind: 3 - 4 Rain: None
2	18/06/2023 (Time: 05:00 – 07:15)	Temp: 16 - 18°C Cloud cover: 7-2/8	Wind: 1 Rain: None

Visit no.	Date	Weather*	
3	30/06/2023 (Time: 05:00 – 07:00)	Temp: 11.5 – 13°C Cloud cover: 6/8	Wind: 1 – 2 Rain: None
4	12/07/2023 (Time: 05:20 – 07:20)	Temp: 16°C Cloud cover: 2/8	Wind: 1 Rain: None

*cloud cover given in Oktas (/8), wind as per Beaufort scale.

- 2.1.5 Due to delay in project instruction, surveys were commenced relatively late in the breeding bird period, and therefore it is feasible that early-nesting birds / species may have been missed. However, all surveys were completed within the required window dictate by survey guidelines. Given the scope of the proposed works, the constraints are not considered likely to be significant to the overall impact assessment.

2.2 Bird strike risk assessment

- 2.2.1 There are no established criteria for assessing the significance of change in bird strike risk resulting from development sites, and therefore the assessment contained within this document has been based largely on professional judgement in consideration of the recorded baseline bird populations at the Site pre-development and proposed changes in post-development habitats. In accordance with Regulatory Article 3270(1), the following factors have been considered when assessing the potential increase in risk:

- (1) Location - the proximity of the development relative to the aircraft flight paths.
- (2) Numbers - including seasonal variations, size and types of birds that may be attracted to the development.
- (3) The site attractiveness - whether it is used as a source of food, a roost or nesting site, any proposed landscaping or habitat designs.
- (4) Bird flightlines to / from the site in relation to the aerodrome.
- (6) Daily / seasonal factors.

- 2.2.2 It is accepted that most bird species do not pose a significant risk to aircraft. The main problems arise from: (a) large birds e.g. those bigger than 1kg (e.g. some species of geese) and (b) birds that typically flock in groups of more than 10no. individuals (e.g. gulls and some farmland species such as *Sturnus vulgaris*). Small birds (which for the purpose of this report are taken as those being of less than 100g), particularly those which don't flock, or those which rarely take to the air, do not form a significant threat. Studies have shown that where individual birds were involved in bird strikes the risk of damage to aircraft was around 8%. This increased to over 40% in strikes involving flocks of 11 or more birds. Similarly, strikes involving birds of under 100g in weight only result in aircraft damage in under 3% of cases, as opposed to over 22% of cases involving birds of over 1kg (Milsom, 1990).

- 2.2.3 The following species are regarded as the priority group for limiting bird strikes, as they are of medium to large mass, form large flocks and are generally widespread and numerous on UK aerodromes (Milsom 1990):

Common name	Scientific name
Oystercatcher	<i>Haematopus ostralegus</i>
Golden Plover	<i>Pluvialis apricaria</i>
Lapwing	<i>Vanellus vanellus</i>
Black-headed Gull	<i>Chroicocephalus ridibundus</i>
Common Gull	<i>Larus canus</i>
Lesser Black-backed Gull	<i>Larus fuscus</i>
Herring Gull	<i>Larus argentatus</i>
Greater Black-backed Gull	<i>Larus marinus</i>
Feral Pigeon	<i>Columba livia domestica</i>
Stock Dove	<i>Columba oenas</i>
Woodpigeon	<i>Columba palumbus</i>
Jackdaw	<i>Corvus monedula</i>
Rook	<i>Corvus frugilegus</i>

3 BASELINE

3.1 Habitats

3.1.1 The following naturalised habitats are present at the Site, as per Biodiversity Net Gain baseline habitat assessments. Associated habitat condition assessment results are given in parentheses.

- g3c other neutral grassland (poor): 19.7ha
- w1g other woodland; broadleaved (poor): 0.5ha
- r1a pond, Priority Habitat (moderate): 1no., approx. 530m²
- h2a hedgerow, Priority Habitat (moderate)

3.1.2 The Site also includes compacted aggregate field tracks, along with the sealed road surface along Sewall Drive.

3.1.3 The grassland habitats at the Site offer some potentially suitable habitat for ground-nesting bird species such as Skylark, Lapwing and Corn Bunting. However, until November 2021 the Site was managed intensively as part of the dairy farming operations, and therefore the quality of the habitats for ground nesting birds has only relatively recently improved.

3.1.4 The woodland belt within the Site, hedgerows along Sewall Drive and adjacent woodland habitats of Stoke Park Wood offer good quality nesting habitat for a wide array of tree and scrub nesting species.

3.2 Spring / summer bird populations

3.2.1 The table below summarises the results of the baseline bird activity surveys at the Site undertaken in June and July 2023.

Common Name	Scientific Name	Breeding status at or adjacent to Site*	Notes
Blackbird W	<i>Turdus merula</i>	Confirmed	Frequently recorded breeding species associated with wooded habitats and hedgerows within and bordering the Site. Foraging also occasional along grassland margins.
Blue Tit W	<i>Parus caeruleus</i>	Confirmed	Frequently recorded breeding species associated with wooded habitats and hedgerows within and bordering the Site.
Buzzard (Common)	<i>Buteo buteo</i>	Confirmed	Individuals including juvenile recorded foraging over north of Site. Breeding in woodland to west of Site.
Robin W	<i>Erithacus rubecula</i>	Confirmed	Frequently recorded breeding species associated with wooded habitats and hedgerows within and bordering the Site. Foraging also occasional along grassland margins.
Swallow	<i>Hirundo rustica</i>	Confirmed	Frequently recorded around farm buildings to north-east with foraging within the Site.
Blackcap W	<i>Sylvia atricapilla</i>	Probable	Frequently recorded breeding species associated with wooded habitats and hedgerows with trees within and bordering the Site.
Chaffinch W	<i>Fringilla coelebs</i>	Probable	Occasional to frequent records in woodland and hedgerow habitats within and bordering the Site.
Chiffchaff	<i>Phylloscopus collybita</i>	Probable	Frequently recorded breeding species associated with wooded habitats and hedgerows within and bordering the Site.
Coal Tit W	<i>Periparus ater</i>	Probable	Occasion to frequent records along woodland edges bordering Site and once in woodland strip in central north of Site.
Collared Dove	<i>Streptopelia decaocto</i>	Probable	Breeding territory associated with farm buildings to the north-east of the Site. Possible foraging within Site.
Great Tit W	<i>Parus major</i>	Probable	Occasion to frequent records along woodland edges bordering Site and along hedgerows and woodland within Site.
Hobby	<i>Falco subbuteo</i>	Probable	1no. probable breeding territory associated with woodland to south-west of Site. Recorded regularly in south-west corner of Site and over edge of woodland. Use of Site for foraging.
House Sparrow	<i>Passer domesticus</i>	Probable	Breeding territories associated with farm buildings to the north-east of the Site. No breeding activity recorded within the Site, but likely foraging occurs in adjacent hedgerows and scrub.
Long-tailed Tit W	<i>Aegithalos caudatus</i>	Probable	Groups recorded frequently in woodland at north end of Site and occasionally in woodland to south and west.
Magpie	<i>Pica pica</i>	Probable	Occasionally recorded along hedgerows, woodland edges and grassland areas of the Site.
Song Thrush W	<i>Turdus philomelos</i>	Probable	Up to 5no. Territories recorded during surveys, with 1no. Territory associated with hedgerow and woodland strip in north of Site. Remainder of territories associated with off-site woodland and hedgerow lined track to north-east of Site.
Starling F	<i>Sturnus vulgaris</i>	Probable	up to 17no. Starling recorded at farm building to north-east of Site. Probable breeding at this location and use of the Site for foraging.
Woodpigeon F	<i>Columba palumbus</i>	Probable	Up to 31 individuals recorded and around 14no. Breeding territories, mainly within wooded habitats within and bordering the Site with foraging also within grassland areas within the Site.
Wren W	<i>Troglodytes troglodytes</i>	Probable	Up to 10 individuals recorded and around 14no. Breeding territories, mainly within wooded habitats within and bordering the Site with foraging also within grassland areas within the Site. Up to 14no. Territories recorded.
Bullfinch W	<i>Pyrrhula pyrrhula</i>	Possible	Recorded on the first and second visits along the southern woodland edge and central woodland strip in the north of the Site respectively. As such, possibly breeding in

Common Name	Scientific Name	Breeding status at or adjacent to Site*	Notes
			woodland outside of the Site boundary but no territories confirmed.
Carriion Crow	<i>Corvus corone</i>	Possible	Recorded foraging in Site. Possible breeding in adjacent woodland.
Dunnock W	<i>Prunella modularis</i>	Possible	Recorded on separate visits on the western boundary and south-eastern area of the Site. Possible breeding in these areas with use of Site for foraging, but no territories confirmed.
Goldcrest W	<i>Regulus regulus</i>	Possible	Occasion to frequent records along woodland edges bordering Site and once in woodland strip in central north of Site.
Goldfinch F	<i>Carduelis carduelis</i>	Possible	Recorded twice along northern boundary hedgerows.
Green Woodpecker W	<i>Picus viridis</i>	Possible	Only recorded once in grassland just to north-east of Site. Possible breeding nearby and foraging within the Site.
Greenfinch F	<i>Carduelis chloris</i>	Possible	Recorded once along central woodland strip in north of Site. Recorded in suitable breeding habitat, but no confirmed breeding territories.
Grey Wagtail	<i>Motacilla cinerea</i>	Possible	1no. possible breeding territory associated with farm buildings to north-east of Site and likely foraging within the Site.
Jay W	<i>Garrulus glandarius</i>	Possible	Occasionally recorded along hedgerow with trees along northern boundary of Site and within woodland to west of Site.
Mistle Thrush	<i>Turdus viscivorus</i>	Possible	Recorded on two occasions foraging in grassland in eastern and central areas of Site. No activity characteristic of current breeding was recorded, however likely to nest in off-site woodland.
Pied Wagtail	<i>Motacilla alba</i>	Possible	Possible breeding territory associated with farm buildings to north-east of Site and likely foraging within the Site.
Treecreeper W	<i>Certhia familiaris</i>	Possible	Recorded occasionally along woodland edge on western boundary and along hedgerow with trees in the north of Site.
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	-	Fly overs only
Feral Pigeon	<i>Columba livia (domest.)</i>	-	Possible breeding territory associated with farm buildings to the north-east of the Site. No activity recorded within Site.
Firecrest	<i>Regulus ignicapilla</i>	-	2no. probable breeding territories recorded along woodland edge on western boundary of Site but unlikely to depend on Site for breeding or foraging to feed young.
Great Spotted Woodpecker W	<i>Dendrocopos major</i>	-	Recorded in woodland bordering to west. No breeding activity or foraging within Site.
Herring Gull	<i>Larus argentatus</i>	-	Fly overs only
Mallard	<i>Anas platyrhynchos</i>	-	Two birds flying over field on one occasion. No recorded breeding activity associated with Site.
Marsh Tit W	<i>Poecile palustris</i>	-	Recorded on last visit only along the woodland edge on the western boundary of the Site. No breeding activity recorded in association with habitats within the Site.
Nuthatch W	<i>Sitta europaea</i>	-	Occasion to frequent records with breeding in off-Site woodland but no breeding territories within Site.
Pheasant	<i>Phasianus colchicus</i>	-	Recorded twice along track off-Site to east of Site.
Raven	<i>Corvus corax</i>	-	Fly over only
Stock Dove F	<i>Columba oenas</i>	-	1no. Individual recorded on fourth visit only. No breeding activity recorded though may breed within nearby woodland or farm buildings.
Stonechat	<i>Saxicola torquata</i>	-	Recorded on one occasion on woodland edge to the north-west of main field.

Common Name	Scientific Name	Breeding status at or adjacent to Site*	Notes
Swift	<i>Apus apus</i>	-	Individual recorded flying over Site on one visit only. No breeding activity recorded nearby. Likely to occasionally forage in sky over Site.
Whitethroat (Common) F	<i>Sylvia communis</i>	-	Only recorded along hedgerow in field to north of Site on first visit. No territories recorded within Site.

W = Woodland Bird Indicator Species, F = Farmland Bird Indicator Species (as per DEFRA, 2022)

3.2.2 Of the group of priority species highlighted as being at highest risk for significant bird strike (as provided in paragraph 2.2.3), the following species were recorded at or near the site:

- Black-headed Gull (flyover only);
- Herring Gull (flyover only);
- Feral Pigeon (not on site itself but possible breeding in buildings nearby);
- Stock Dove (no breeding activity, single record only); and
- Woodpigeon (up to 31no. individuals recorded, and 14no. possible or probable breeding territories).

3.3 Wintering bird populations

3.3.1 No targeted surveys for wintering bird populations have been undertaken at the Site pre-development. Habitats present at the baseline are considered reasonably unlikely to provide any winter foraging habitat of significant value for the local area, which is dominated by similar intensively managed farmland habitats.

3.3.2 The Site is located c.7.9km from the Solent and Southampton Water Special Protection Area (SPA) and so is unlikely to attract any wintering wader or waterbird species associated with this designated area, such as Dark-bellied Brent Goose *Branta bernicla* which often utilise farmland close to the coastline for foraging or rest.

3.3.3 It is considered unlikely to currently attract large numbers / winter flocks during this period.

4 IMPACT ASSESSMENT

4.1 Farmland bird habitat

4.1.1 No ground-nesting bird species were recorded at the Site during the baseline surveys. Given the recent intensive farming practices at the Site, the grassland habitats are currently considered sub-optimal for the majority of ground nesting species.

4.1.2 Proposals as part of the creation of the SANG and long-term management of the grassland habitats occupying the majority of the Site area will not result in any significant changes to the habitat types available.

4.1.3 An increase in wildflowers within the grass sward may result in a small increase in availability of invertebrate prey and late summer seed foraging, however this in itself is considered unlikely to attract

any significant numbers of flocking birds. Grassland habitats at the Site post-development will remain unsuitable and/or unattractive for large or flocking wader species or significant numbers of gulls.

- 4.1.4 Proposals may result in a small increase in Woodpigeon presence at the Site, particularly following late-summer mowing when good foraging opportunities will be present following grassland seed drops. Studies have shown that pasture and grassland are not a favoured foraging crop, with the species tending to prefer arable cropland (Boyd, 1951).
- 4.1.5 Overall, it is considered that there will be no significant increase to the existing farmland bird populations at the Site and therefore no increase in movements of hazardous farmland birds within the Bird Hazard Safeguarding Zone around Southampton Airport.

4.2 Woodland and hedgerow bird habitat

- 4.2.1 The majority of woodland and hedgerow bird species are not considered to be of major concern in relation to bird strike risk as they are largely small in size and/or non-flocking.
- 4.2.2 Landscape proposals at the Site do not include the addition of any woodland or scrub planting.
- 4.2.3 Proposals at the Site will result in the loss of 14m of existing established hedgerow during creation of new access points and vehicle passing bays. As compensatory and enhancement measures, up to 204m of new hedgerow habitat will be established as part of the biodiversity net gain provisions. The Stoke Park Farm SANG Landscape Ecology Management Plan (EBLA, 2023) for the long-term management of the Site states that these new hedgerow features will be kept approximately 1m wide x 1.8m tall and will therefore likely be of limited attractiveness other than for small passerine species such as finches, tits and Robins.
- 4.2.4 Up to 33no. trees will be planted at the Site as part of the landscaping proposals. These will largely be spread out within the landscape and will not form dense stands of woodland. These features are considered unlikely to significantly increase the carrying load of woodland birds at the Site.
- 4.2.5 Whilst there will be an increase in available nesting habitat for hedgerow bird species, the numbers that this new habitat feature attracts are unlikely to be significant. Overall, it is considered that there will be no significant increase to the existing woodland and hedgerow bird populations at the Site and therefore no increase in movements of hazardous woodland and hedgerow birds within the Bird Hazard Safeguarding Zone around Southampton Airport.

4.3 General

- 4.3.1 The former use of the Site as a cattle dairy farm is likely to historically have provided better foraging opportunities for some bird species than in its current static grassland state. Regular tilling of land for seeding, along with the presence of cattle feed, can potentially attract large numbers of larger bird species including Wood Pigeon, Collared Doves, Feral Pigeons and Starlings. Proposals at the Site as part of the creation of the SANG will involve initial tilling for wildflower seeding, however beyond this initial intervention, no further intensive management is proposed beyond periodic mowing as a hay meadow. Species-rich grassland produces a range of small seeds for birds which provides foraging opportunities for a diversity of small passerines compared to intensive farming, particularly arable.

- 4.3.2 Opening of the Site for public access primarily as a resource for local dog walkers will also result in significant recreational disturbance impacts on bird populations at the Site, particularly those species which ground foraging. This is further likely to limit the attractiveness of the Site long-term to foraging birds.
- 4.3.3 The creation of a new attenuation pond (permanent water level cover of approximately 50m², rising up to a maximum of 110m² during periods of prolonged heavy rainfall) is unlikely to significantly influence the local bird species assemblages due to the existing presence of large established waterbodies at Bow Lake Fish Farm (which cover a total area of 4.6ha) less than 30m away to the north-west. The new attenuation pond is considered highly unlikely to attract any significant flocks of duck and other waterbirds.
- 4.3.4 A scrape / wet flash of up to 0.16ha is proposed in the south of the Site. This is considered unlikely to hold water other than in period of prolonged heavy rain, and will not be of sufficient size to attract any significant numbers of waders or waterbirds.
- 4.3.5 It is also important to note that the Site is located in excess of 1.5km from Southampton International Airport flight paths and runway, and therefore small changes in bird population assemblages at the proposed Stoke Park Farm SANG are considered unlikely to have any significant impact on aggregations of hazardous bird species in the vicinity of the aerodrome and therefore not increase bird strike risk.

5 MITIGATION AND AVOIDANCE MEASURES

No significant measures are considered necessary to mitigate the risk of increased bird strike as a result of the proposed Stoke Park Farm SANG, however as a precaution the following measures are being incorporated in the scheme:

- Bin installations will be of designs with swing or drop-down lids so as to avoid gulls gaining access (as per recommendations in Chapter 5 CAP 772). All bins will be subject to regular collections.
- Regular removal of accumulated litter to avoid attracting scavenging birds (set out within maintenance schedule of LEMP (EBLA, 2023)).
- Bird nest boxes to be installed will have hole sizes of 28-32mm, thereby excluding problem species such as Starlings.
- Allowing the grass sward to grow long during the main nesting period (as per measures set out within the LEMP, EBLA 2023) will limit the attractiveness of the grassland habitats for ground-nesting species such as Lapwing, which prefer tilled arable land or short grassland.

6 CONCLUSION

Although it is not possible to predict with any certainty how numbers and assemblages of hazardous bird strike species will be impacted in the long-term as a result of the minor changes in Site use and management post-development, given the overall habitat types available pre- and post-development will not be significantly altered under the planning application proposals and long-term management under the accompanying LEMP, it is considered reasonably unlikely that the proposed SANG forms any significant threat to aircraft using Southampton Airport.

7 REFERENCES

CIEEM (2017) Guidelines for Ecological Report Writing. CIEEM: Winchester.

CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. CIEEM: Winchester.

Civil Aviation Authority (2017). CAP 772: Wildlife Hazard Management at Aerodromes. Safety Regulation Group. Accessed online 07/08/23.

Civil Aviation Authority (2020). CAP 738: Safeguarding of Aerodromes, 3rd Edition. Safety and Airspace Regulation Group. Accessed online 07/08/23.

DEFRA (2022) England Biodiversity Indicators: A strategy for England's wildlife and ecosystem services, Biodiversity Indicators: 2022 assessment. Indicator 5: Species in the wider countryside: farmland.

DEFRA (2022) England Biodiversity Indicators: A strategy for England's wildlife and ecosystem services, Biodiversity Indicators: 2022 assessment. Indicator 6: Species in the wider countryside: woodland.

Eamonn Byrne Landscape Architects (EBLA) Ltd. (2023). Landscape and Ecology Management Plan (LEMP). EBLA: York.

Milson, T.O. (1990) The use of bird strike statistics to monitor the hazard and evaluate risk on UK civil aerodromes. Working Paper 30, 20th Bird Strike Committee Europe, Helsinki, pp 303-320, National Board of Aviation.

Savills (2021). Environmental Statement Addendum 2, Main Statement: Southampton International Airport, Eastleigh.

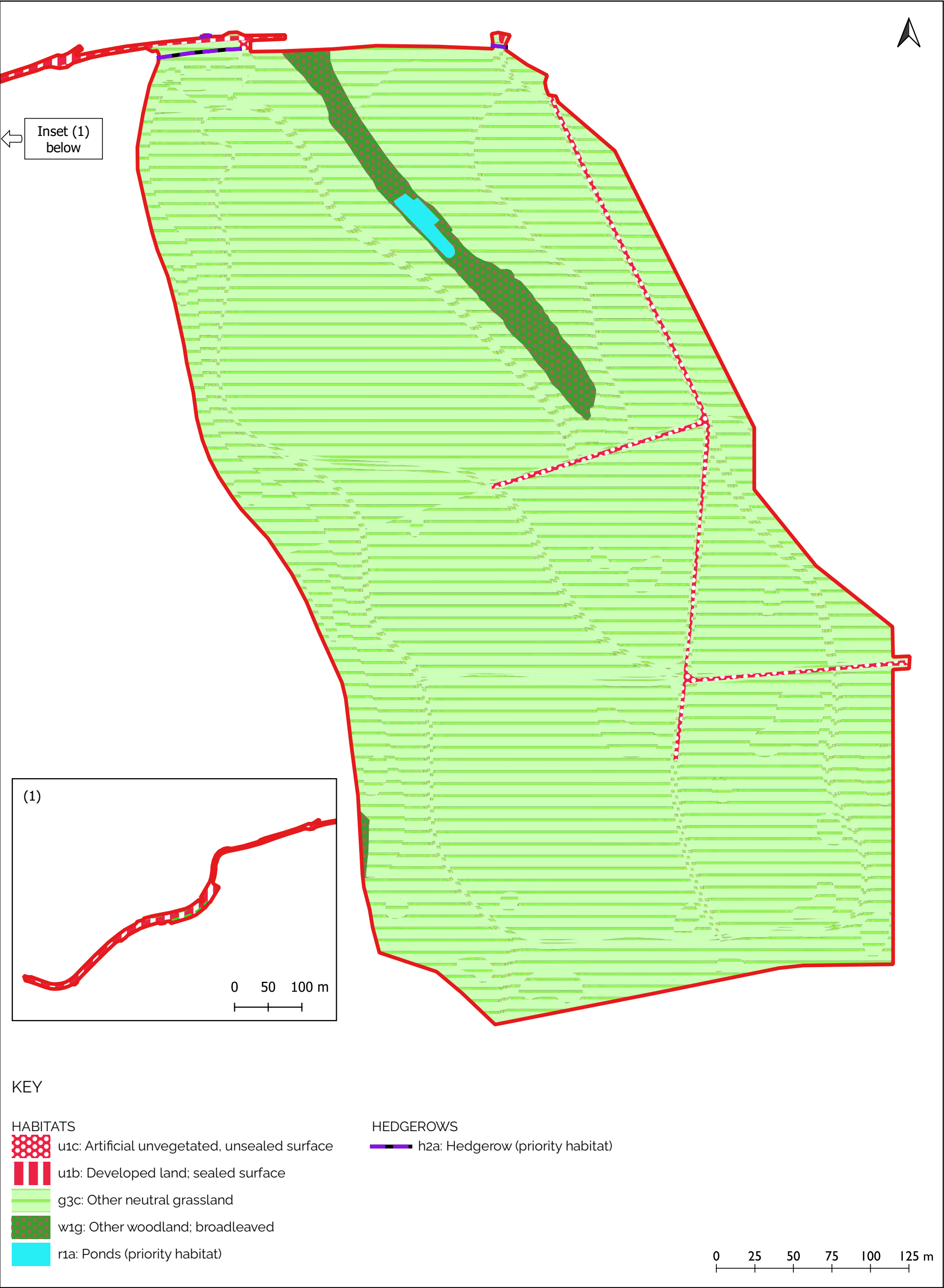
8 APPENDICES

Appendix I: Site photographs

Ref.	Description	Photo
1	Existing neutral grassland and adjacent off-site woodland of Stoke Park Woods	
2	Woodland belt bisecting the north of the Site, situated along a wet ditch and pond	
3	Outgrown hedgebank along northern Site boundary, adjacent Sewall Drive.	

Ref.	Description	Photo
4	Unsealed aggregate tracks within field	
5	Overgrown pond within existing woodland	

Appendix II: Pre-development habitat plan



Appendix III: Proposed SANG landscape masterplan

SYM.	DESCRIPTION
	SITE BOUNDARY
	EXISTING PATH WITH MOWN VERGE- MAINTAIN SURFACE PERIODICALLY WITH MATCHING MATERIALS.
	PROPOSED PATHS WITH 2M MOWN VERGE- 2.25M WIDTH SELF-BOUND GRAVEL, COLOUR TO COMPLEMENT EXISTING.
	PROPOSED MAIN WALKING ROUTE- 2.43KM LENGTH.
	PROPOSED MOWN PATH- 1.2M, CONNECTING NORTH WEST CORNER TO PATH NETWORK.
	PARKING AREA WITH SPACES SEPARATED BY HALF-ROUND TIMBER LOG DIVIDERS- SEE TARGET NOTES BELOW.
	EXISTING CONTOURS- SURVEYED AT 1M INTERVALS.
	PROPOSED CONTOURS- INDICATIVE, AT 0.25M INTERVALS.
	PROPOSED RUN-OFF ATTENUATION- SHALLOW SWALE AND BASIN OUTFALLING TO EXISTING DITCH (OFF SITE). SOWN WITH SPECIES-RICH GRASSLAND SEED MIX.
	PROPOSED SPECIES-RICH GRASSLAND- NEUTRAL GRASSLAND CREATED THROUGH SWARD REMOVAL, SOWING AND NUTRIENT MANAGEMENT.
	TARGET NOTE- SEE LIST BELOW.
	TIMBER PICNIC BENCHES.
	TIMBER SEATING.
	FOOTPATH GATE.
	HABITAT FEATURE- SEE ANNOTATION ON DRAWING.
	LONG DISTANCE VIEWS
	PROPOSED COMBINED LITTER AND DOG BIN.
	EXISTING OVERHEAD CABLE AND 6M BUFFER TO PROPOSED TREE PLANTING.
	EXISTING PUBLIC RIGHTS OF WAY
	EXISTING FENCING AND FENCE POSTS- REMOVE
	EXISTING FENCING- RETAIN WITHOUT MODIFICATION.
	PROPOSED PERMANENT FENCING- 1.2M HEIGHT METAL POST AND WIRE WITH STOCK PROOF MESH.
	PROPOSED PERMANENT FENCING- 1.2M HEIGHT TIMBER POST AND RAIL WITH STOCK PROOF MESH.
	EXISTING / ADJACENT WOODLAND.
	EXISTING / ADJACENT HEDGEROWS.
	EXISTING HEDGEROW TO BE REMOVED.
	PROPOSED HEDGEROW- BASED ON HAWTHORN AND BLACKTHORN.
	PROPOSED TREES- OAK, SWEET CHESTNUT, BIRCH AND SYCAMORE.

1. CAR PARKING FOR UP TO 20 VEHICLES INCLUDING 4 DISABLED SMX3.6M, 16 STANDARD SMX2.8M. SURFACED IN SELF-BINDING MATERIAL. INTERSPERSED WITH OCCASIONAL MOWN GRASS AND TREES.
2. WETLANDS INCLUDING MAPLED BASED INTERPRETATION INDICATING MEASURED WALKING ROUTES.
3. PICTON AREAS WITH TIMBER RENCHES AND TABLES.
4. CENTRAL JUNCTION WIDENED TO A CIRCLE MATCHING EXISTING SURFACE COLOURING.
5. SCULPTURAL TIMBER SEATING.
6. FLASHES: SHALLOW DEPRESSIONS WITH SLOPES NO GREATER THAN 1:20. RESEEDED WITH MIXED MIXTURE, LIGHT TO GOLD STANDING WATER DURING WET PERIODS. THESE AREAS WILL DEVELOP A LOCALLY DISTINCT DAMP GRASSLAND CHARACTER SUPPORTING A RANGE OF BIRD AND INVERTEBRATE SPECIES. SOIL ARISING TO BE EVENLY SPREAD ACROSS NEIGHBOURING AREAS TO DEPTH NO GREATER THAN 10CM.
7. HIGHEST POINT ON PATH NETWORK.



COPYRIGHT

This report is issued to the client for their sole use and for the intended purpose as stated in the agreement between the client and Burton Reid Associates or else as set out within this report. This report may not be relied upon by any other party without the express written agreement of Burton Reid Associates. The use of this report by unauthorised third parties is at their own risk and Burton Reid Associates accepts no duty of care to any such third party.

CONTACT US

Registered Office
Suite 8, Buckfastleigh Business Centre
33 Chapel Street, Buckfastleigh, Devon, TQ11 0AB



Holt
Studio 26, The Glove Factory Studios
1 Brook Lane, Holt, Bradford-on-Avon, BA14 6RL

Registered Office 01364 701150
Holt 01225 251600



hello@burtonreid.co.uk
www.burtonreid.co.uk



BURTON REID
ASSOCIATES

