



**Contractor's Compound, BAE Systems, Samlesbury,
Blackburn, BB2 7LF
Preliminary Ecological Appraisal**

Simply Ecology Limited

Ref: SE/WMQ034/01

December 2023

For:

**Wilson Mason,
Upland House,
Spring Lane,
Samlesbury,
Preston
PR5 0UX**

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Control Sheet

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1.0 INTRODUCTION

1.1 Background Information

1.1.1 In October 2023, Simply Ecology Limited was commissioned by Wilson Mason to undertake a Preliminary Ecological Appraisal of a site at BAE Systems, Blackburn, BB2 7LF (OS Grid Reference SD622314). See Plan 1 for site location.

1.2 Aims

1.2.1 The aims of this ecological assessment were to:

- Provide clear advice to the client, the Local Planning Authority and third parties, on the nature conservation value of the site and surrounding area.
- Confirm the presence or absence of protected species, such as badgers, bats, great crested newts, otter, etc) within the proposed development site.
- Enable the client to comply with legislation afforded to protected sites and species.
- Highlight the presence of any habitats or species of ecological importance, including Habitats and Species of Principal Importance (NERC Act, 2006).
- Identify any ecological constraints on future development.
- Establish the need for any further surveys and assessments.
- Make nature conservation recommendations.

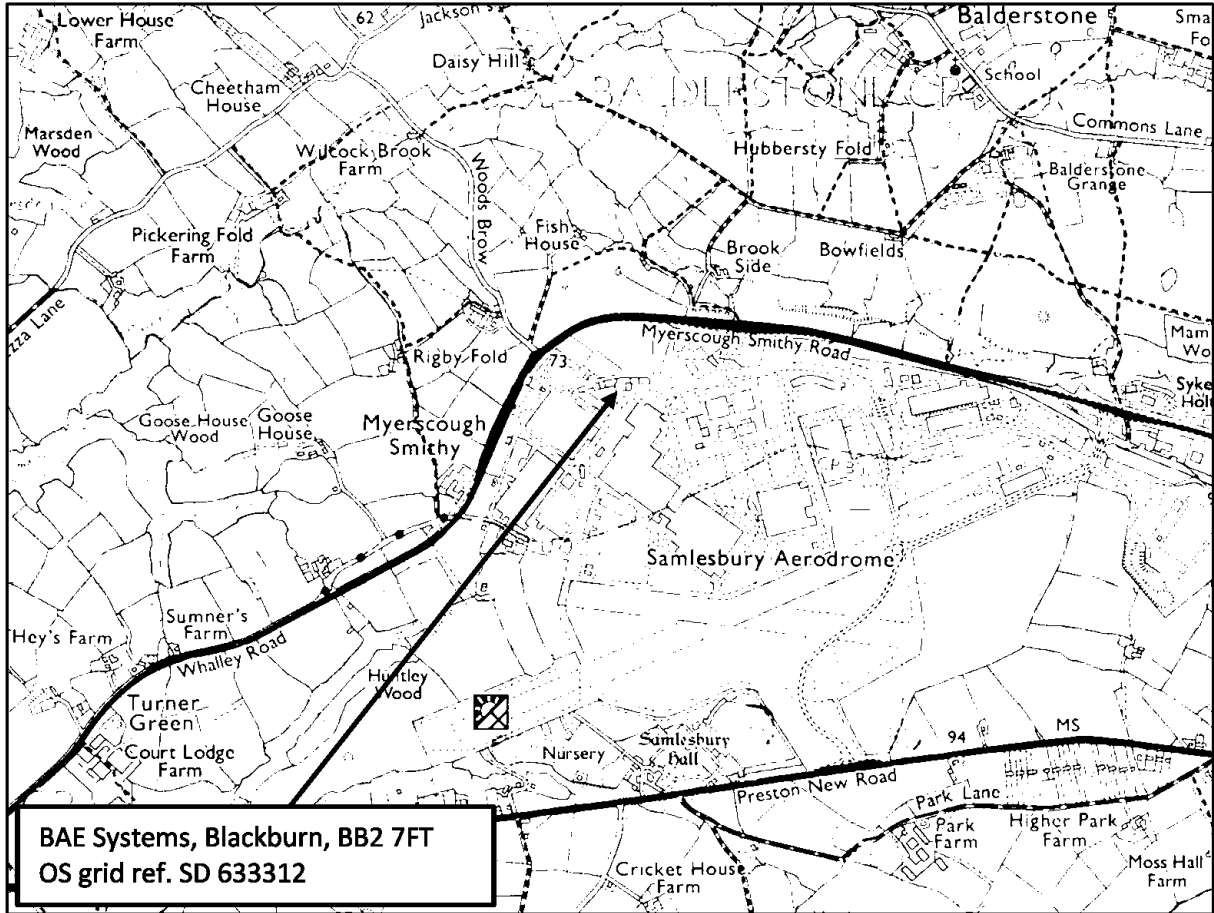
1.2.2 To achieve this, an ecological appraisal of the building and any protected species on the site was undertaken on 26th October 2023. This submission presents the results of the surveys at the site.

1.3 Site Description and Proposed Works

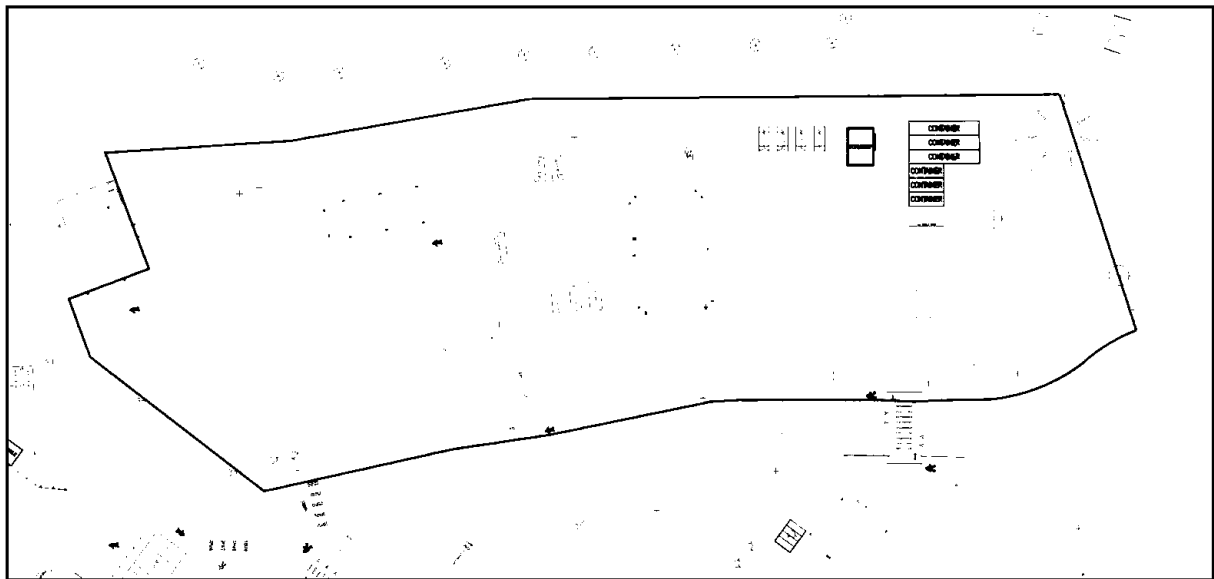
1.3.1 The Site is located within the BAE Samlesbury Aerodrome site (See Plan 1), approximately 3km to the west of the village of Samlesbury and approximately 6km from the north-western limits of the town of Blackburn. The site for development comprises grassland and hardstanding within the larger BAE Samlesbury site. The wider environment surrounding the BAE site is largely agricultural, with arable fields and pastures separated by hedgerows, treelines with a number of small villages and farms scattered across the landscape.

1.3.2 The surveys described in this report were commissioned to inform a planning application by BAE systems. The proposed work is to reconfigure the arrangement of the contractor's cabins and storage containers on the site (see Plan 3 and Plan 4). The planning process requires up-

to-date survey data in order to assess the ecological value of the site and the presence of any notable habitats or protected wildlife.

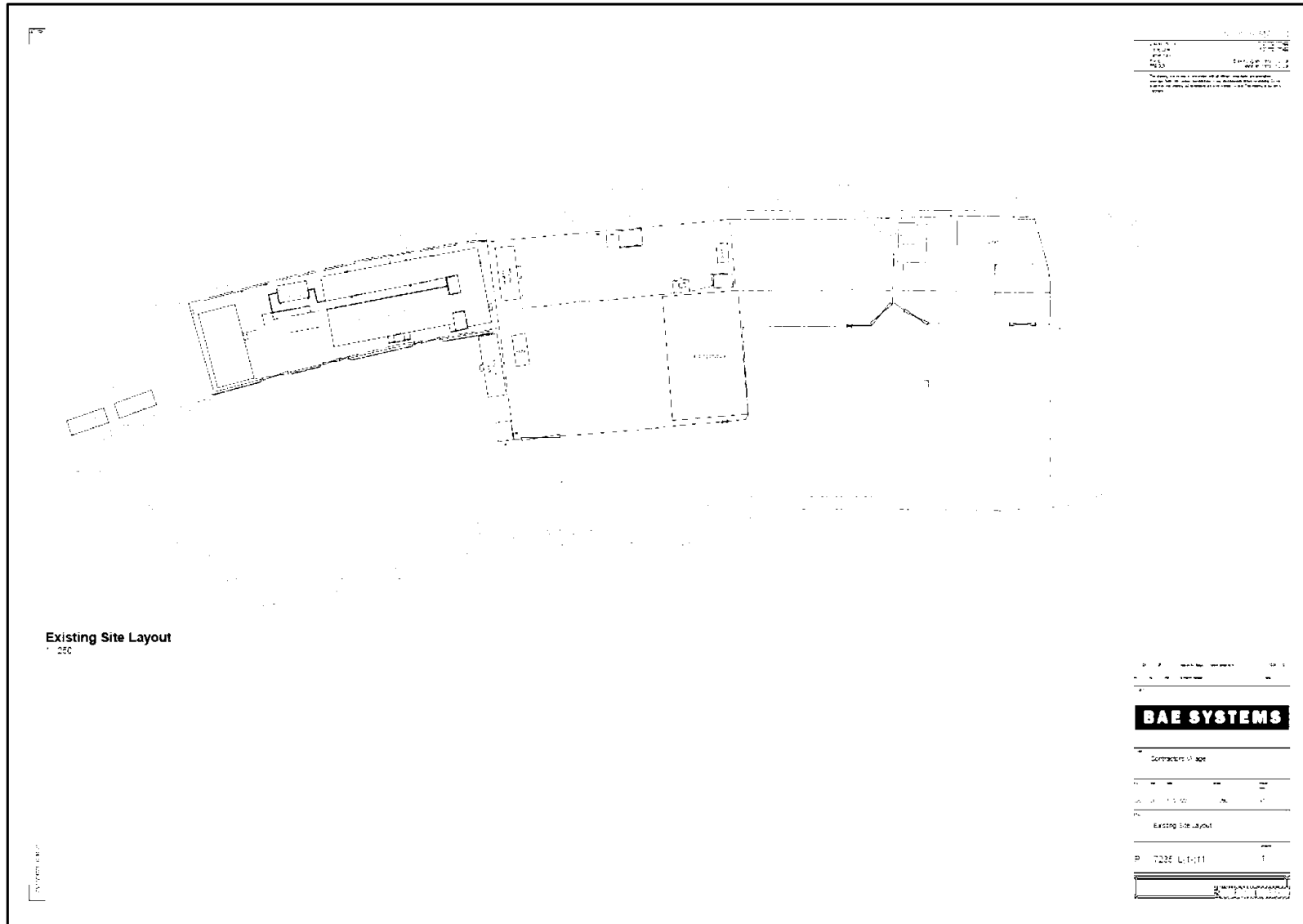


Plan 1: Site location.

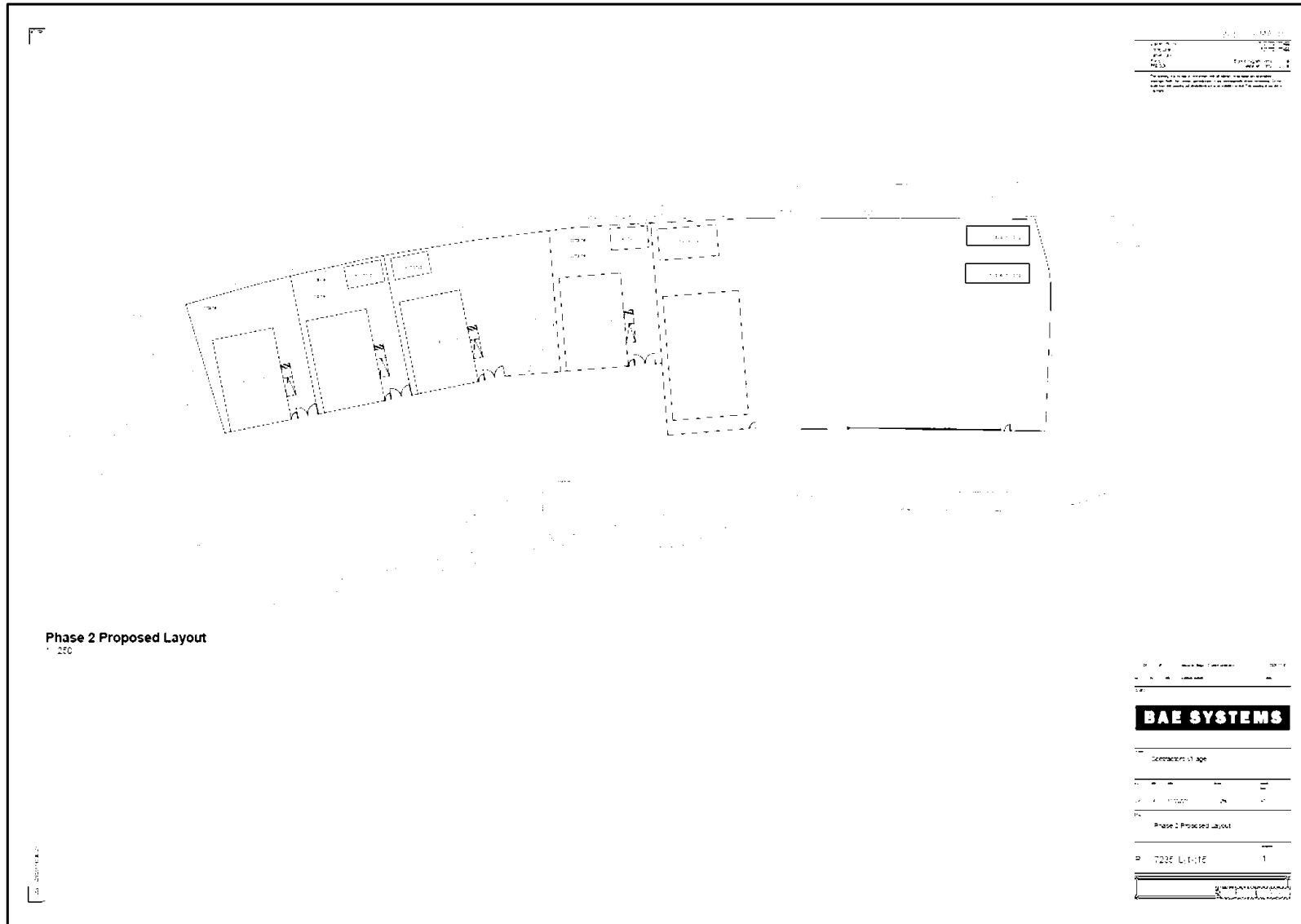


Plan 2: The Site Boundary.

Contractor's Compound, BAE Systems, Samlesbury, BB2 7LF



Plan 3: Existing Site Plan.



Plan 4: Proposed Site Plan.

2.0 SURVEY METHODOLOGY

2.1 Desk Study

- 2.1.1 An online search of the Multi Agency Geographical Information Centre (www.magic.gov.uk) was undertaken to identify the presence of nationally or internationally important sites receiving statutory protection. These included sites designated under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017. This covers Sites of Special Scientific Interest (SSSI), Special Protection Areas (SPA) and Special Areas of Conservation (SAC) all of which have legal protection.
- 2.1.2 No paid commercial desk study was required in this case due to the nature of the site and scale of the development proposals. Impacts on wildlife and conservation sites were considered based on information gleaned from the Habitat Survey.

2.2 Habitat Survey

- 2.2.1 A habitat survey of the site was undertaken by Richard Lowe BSc (Hons) on 26th October 2023. The survey followed a modified UKHab / Phase 1 habitat (JNCC 2010) survey methodology which are standard technique for recording and mapping habitats. During the habitat survey the presence or potential for presence of protected species was recorded and assessed.
- 2.2.2 The survey involved walking the whole site, mapping and describing different habitats (for example: woodland, grassland, urban). Evidence of fauna and faunal habitat is also recorded (for example droppings, tracks, or habitat such as ponds for breeding amphibians). The methods used for ecological survey are in accordance with those established and generally accepted methodologies for field survey, as published by the professional body, the Chartered Institute of Ecology and Environmental Management (CIEEM).

2.3 Invasive Alien Plants

- 2.3.1 During the Phase 1 habitat survey, observations of invasive alien plants listed under Schedule 9 of The Wildlife and Countryside Act 1981 (as amended) were made. The search included species such Giant Hogweed (*Heracleum mantegazzianum*), Japanese knotweed (*Fallopia japonica*) and Himalayan balsam (*Impatiens glandulifera*).

2.4 Bat Building Inspection

- 2.4.1 An inspection of the buildings on the site was specifically carried out to search for bats. The building survey was undertaken in accordance with the standard methods described in the

'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (BCT 2023). In accordance with best practice, the survey comprised the following elements:

- An inspection of the exterior of the building to look for obvious signs of bat activity (such as droppings) and assessing the potential for entry/exit into the property. Lighting was provided by a Bikehut 1600 (1600 lm). Any cracks or inaccessible areas were inspected using a ProVision PV-636 endoscope and/or a DJI Mini 3 camera drone.

2.4.2 The following signs were searched for, as these would indicate bat presence:

- Staining around a hole, caused by natural oils in the bats' fur.
- Stains beneath a hole, caused by bat urine.
- Scratch marks around a hole, caused by bat claws.
- Bat droppings beneath a hole.
- Audible squeaking from within a hole, especially on hot days or at dusk.
- Insects (especially flies) around a hole.

2.4.3 An assessment of the surrounding habitat quality for bats was carried out by walking the area on foot and later from reference to OS maps aerial images (Bing Maps). These searches were used to identify important land use and habitat features known to be favoured by bats.

2.4.4 Subsequent advice/action would depend on the findings of the building surveys. If potential was found, then subsequent bat activity surveys would be required in accordance with standard methods described in the 'Bat Worker's Manual' (JNCC 2004) and 'Bat Surveys – Good Practice Guidelines' (Bat Conservation Trust 2016).

2.4.1 Where there was evidence bat presence found (e.g., droppings found below a cavity, bats heard inside a feature or observed flying to or from a feature) or actual bat presence, the feature was categorised as a **confirmed** roost.

1.1.1 Unless a bat roost was confirmed, once surveyed each structure was categorised into one of four categories, namely high, moderate, low or negligible suitability according to its **potential** to support roosting bats. These categories are determined in line with Bat Conservation Trust guidelines for assessing habitat and feature suitability (see Table 1).

Table 1: Guidelines for assessing the potential suitability of proposed development sites, using BCT Good Practice Guidelines (BCT 2023).

Potential Suitability	Description	
	Roosting habitats in structures	Commuting and foraging habitats
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels)	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats)
Negligible	No obvious habitat features on site likely to be used by roosting bats although an element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used by commuting or foraging bats although an element of uncertainty remains for bats with non-standard behaviour.
Low	A structure or a tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only limited potential (aligns with BS8596: 2015 Surveying for bats in trees and woodland (BSI, 2015).	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection conditions (e.g. temperature, humidity, height above ground level, light levels, levels of disturbance) and surrounding habitat but unlikely to support a roost of high conservation status – the assessments in this table are made irrespective of species conservation status, which is established once presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by a larger number of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourse and grazed parkland

2.5 Great Crested Newt Field Survey

- 2.5.1 A daylight walkover survey was undertaken to establish the location of all waterbodies within the survey area and the surrounding 250m. In addition, the surrounding land was assessed for likelihood of representing terrestrial habitat.

2.6 Biodiversity Net Gain Assessment

- 2.6.1 The site was subject to a Biodiversity Impact Assessment and Biodiversity Net Gain calculation (BNG) using Defra's Biodiversity Metric 4.0. The Metric helps quantify the biodiversity value of habitats as it converts habitats into 'biodiversity units' as a way of quantifying the Natural Capital of the site. The BIA and BNG calculation were undertaken in accordance with the methodology detailed within the Biodiversity Metric 4.0 User Guide published by Natural England (March 2023).
- 2.6.2 The Metric Excel™ spreadsheet tool requires the measurement and inputting of habitat types and quality 'before' and 'after' development and then calculates a biodiversity value for a site in Units before and after development. The resulting value can be either positive (net gain) or negative (net loss) which indicates whether the development will meet local targets for biodiversity at the site. If a negative impact upon Biodiversity Units arises then consideration can be given to any additional measures in order to meet the neutral or positive targets. This then helps to ensure that there is no loss of biodiversity units or deliver Biodiversity Net Gain at development sites.

2.7 Personnel

- 2.7.1 The habitat survey was undertaken by Richard Lowe BSc (Hons) PGCE. Richard studied Environmental Management at The University of Central Lancashire and graduated in 1996. He has worked as an ecologist since that time in a variety of consultant roles, including as a Senior Ecologist at ERAP and latterly as a freelance contractor. Richard holds a great crested newt science and education licence. He has a broad range of experience of ecological survey and reporting knowledge, covering habitat mapping, protected species surveys and Environmental Impact Assessments. Richard is also an enthusiastic environmental educator, and regularly takes out school groups in Lancashire for the RSPB in his role as a Field Teacher.
- 2.7.2 Report verification was by Jason Reynolds MSc MCIEEM. Jason started Simply Ecology Limited in 2007. Jason is an experienced ecologist who has been continuously employed in the field of nature conservation since 1995 (28 years' experience) and has a wealth of experience in both the statutory nature conservation agencies and private consultancy.

During his career has worked in Conservation Officer roles for the Joint Nature Conservation Committee, English Nature, Environment Agency, Cumbria Wildlife Trust and Durham Wildlife Trust prior to setting up Simply Ecology ecological consultancy in 2007, where he is the Lead Ecologist. He has an MSc from The University of Aberdeen and his thesis investigated the relationship between habitat type and complexity and the foraging behaviour of Pipistrelle bats. Jason holds protected species survey licences for all British bats, white-clawed crayfish and great crested newts.

2.8 Timing and Constraints

- 2.8.1 The Habitat survey was undertaken on 26th October 2023. Whilst this is not the most optimal time to record flora, typically key indicator species can readily be identified using vegetative material and using dead plant matter. The timing posed no problems for the protected species assessment, and no constraints were encountered.
- 2.8.2 The timing of the protected species assessment was during an active time of the year for many wildlife species and any signs should readily be seen. The weather was fine and no constraints were encountered with regards to conducting a rigorous and proper assessment of the ecological value/quality of the site.

3.0 DESK STUDY RESULTS

3.1 Nature Conservation Sites

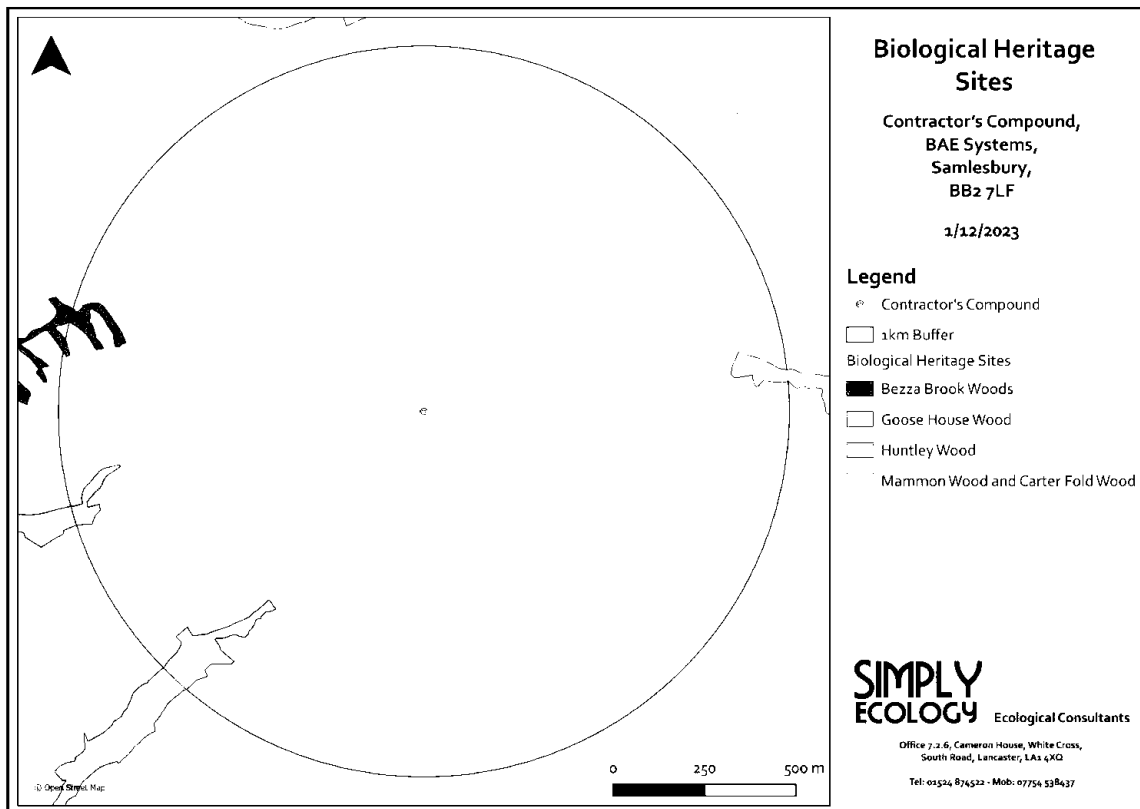
3.1.1 The search for conservation sites within and around the site included both nationally important sites, (Sites of Special Scientific Interest) and internationally important sites (Natura 2000 and Ramsar sites). A search of Lancashire Maps and Related Information Online (MARIO) along with reference to OS maps and aerial imagery was also made.

3.1.2 The desk study revealed no statutory designated nature conservation sites on the site and there were no designated sites within 1km of the application site. The closest designated sites were Darwen River Section SSSI and Red Scar and Tun Brook Woods SSSI both over 2km distant.

3.1.3 The site is within the Impact Risk Zones (IRZ) of these SSSIs.

3.2 Non-Statutory Sites

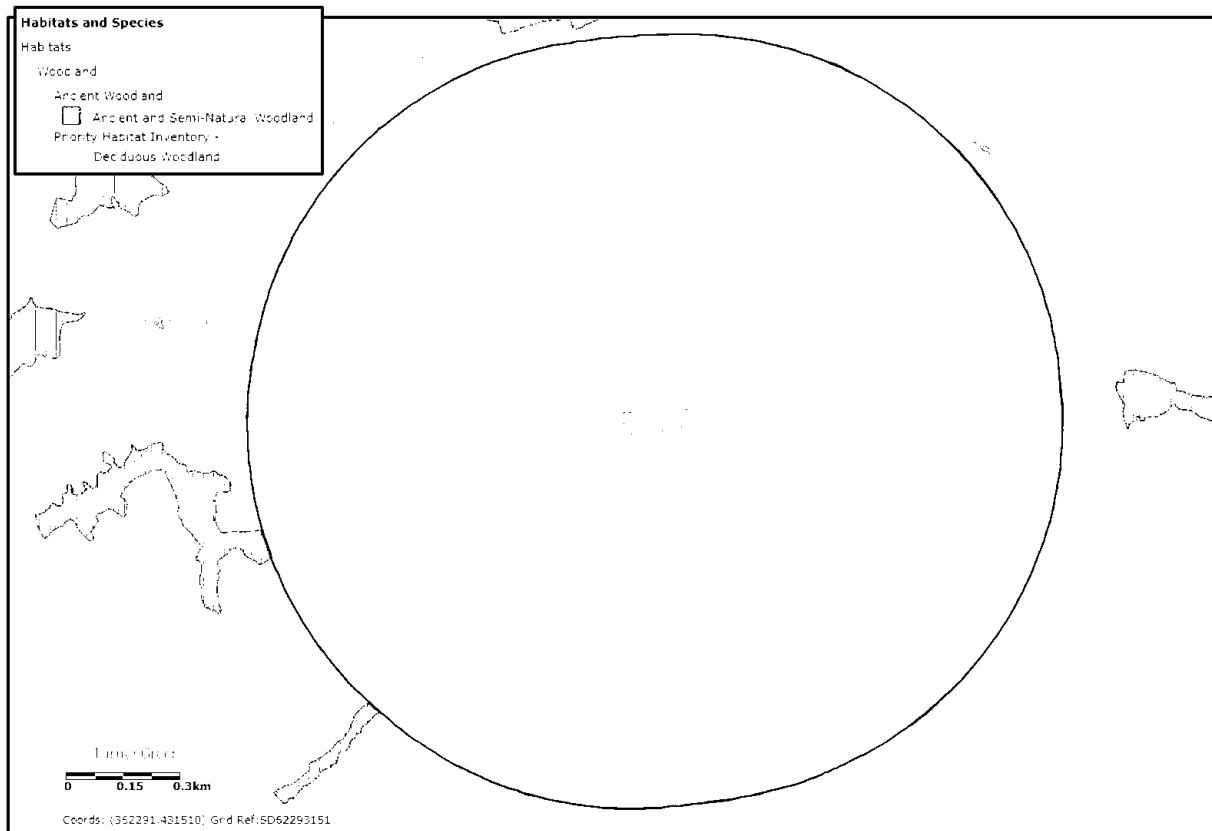
3.2.1 No non-statutory Biological Heritage Sites (BHS) were present on site, although 4 BHSs were identified in the surrounding 1km. These were Mammon Wood & Carter Fold Wood, Goose House Wood and Huntley Wood and Hermitage Meadows Biological Heritage Sites (See Plan 5).



Plan 5: Biological heritage Sites within 1km of the site.

3.3 Other Protected/Noteworthy Habitats

3.3.1 A search was carried out for any Priority Habitats were located within 1km of the site. There was 45 ha of deciduous woodland (see Plan 6), predominantly north of the A59 Myerscough Smithy Road that included a 7ha parcel of Ancient & Semi-Natural Woodland (Goose House Wood).



Plan 6: Priority Habitats within 1km of Site.

3.4 Protected/Noteworthy Species

3.4.1 The presence or absence within the site of any protected species was taken into account when carrying out the detailed site-specific searches as part of the walkover survey. In addition, any habitat which had clear potential for any protected species, or protected species groups was also taken into account when undertaking the site survey.

3.4.2 There were records of a number of protected species on MAGIC within 1km of the proposed development site; common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle and (*Pipistrellus pygmaeus*), whiskered bats (*Myotis mystacinus*) as well as great crested newt (*Triturus cristatus*).

- 3.4.3 A report by Pennine Ecological (2015) ¹ indicated that a 'small' population of great crested newt (GCN) was previously present on the airfield further to the south of the proposed development site.
- 3.4.4 The Pennine ecological statement also reports "substantial numbers of ground-nesting birds" using the grasslands around the runways, the nearby woodlands for nesting and using the site for passage and foraging.

¹ Pennine Ecological (May 2015): Lancashire Enterprise Zone - Samlesbury Site Ecological Statement Under Condition 11 of the Local Development Order.
https://webportal.ribblevalley.gov.uk/planx_downloads/15_0196_Ecology_statement.pdf

4.0 HABITAT SURVEY RESULTS

4.1 Habitats Results

4.1.1 The site comprised of grassland with buildings and large areas of tarmac hardstanding. A Habitat Plan is included (see Plan 7).

4.1.2 The following UKHab habitat types were present at the proposed development site:

- Modified grassland (UKHab g4)
- Developed land, sealed surface (UKHab u1b) buildings and hardstanding.

Modified Grassland

4.1.3 The habitats on site with any botanical interest were principally maintained and rank grassland.

4.1.4 An area extending along the northern boundary of the site consisted of a strip of frequently mown grassland (**UKHab Secondary Code 107**) varying from 3m-9m wide with a cut of approximately 5cm depth (see Plate 1). The sward contained grass species such as abundant perennial ryegrass (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*), red fescue (*Festuca rubra*), frequent common bent (*Agrostis capillaris*), false oat-grass (*Arrhenatherum elatius*), false brome (*Brachypodium sylvaticum*), with rarely occurring common couch (*Elymus repens*) and annual meadow-grass (*Poa annua*).

4.1.5 The common forb species present included dominant creeping buttercup (*Ranunculus repens*) with abundant ribwort plantain (*Plantago lanceolata*), dandelion (*Taraxacum officinale* agg), white clover (*Trifolium repens*), great willowherb (*Epilobium hirsutum*), field horsetail (*Equisetum arvense*), daisy (*Bellis perennis*), broad-leaved dock (*Rumex obtusifolius*), common mouse-ear (*Cerastium fontanum*), with frequently occurring hogweed (*Heracleum sphondylium*), dove's-foot crane's-bill (*Geranium molle*), selfheal (*Prunella vulgaris*), groundsel (*Senecio vulgaris*), shepherd's-purse (*Capsella bursa-pastoris*), and occasional common vetch (*Vicia sativa*), creeping thistle (*Cirsium arvense*), common sorrel (*Rumex acetosa*), herb Robert (*Geranium Robertianum*), greater plantain (*Plantago major*), and rarely occurring common ragwort (*Senecio jacobaea*).

4.1.6 An area of grassland at the eastern end of the site had been left uncut with an approximate sward height of 1m high (**UKHab Secondary Code 128**). The composition of this grassland was very similar in species to the managed grassland, with a slight difference in species occurrence. The difference being the dominance of false oat-grass, abundance of red fescue,

the frequent occurrence of cock's-foot (*Dactylis glomerata*), rough meadow-grass (*Poa trivialis*), perennial rye-grass, Yorkshire fog, and the rarely occurring common couch (*Elymus repens*), and annual meadow-grass (*Poa annua*).

- 4.1.7 The common forb species present included abundant creeping thistle, frequent great willowherb, common sorrel, hogweed, common ragwort and occasional ribwort plantain, dandelion, broad-leaved dock, common mouse-ear shepherd's-purse. Rarely occurring species not found in the maintained amenity grassland included common knapweed (*Centaurea nigra*), field forget-me-not (*Myosotis arvensis*), bush vetch (*Vicia sepium*), silverweed (*Potentilla anserina*) and soft rush (*Juncus effusus*).
- 4.1.8 Within the grassland were narrow bands of scrub vegetation with scattered trees, ephemeral flora and an area of disturbed land.
- 4.1.9 The scattered trees (**UKHab Secondary Code 32**) and scrub areas (**UKHab Secondary Code 10**) were also located along the 1.5m high wall close to the northern boundary of the site. The tree species noted were goat willow (*Salix caprea*), young pedunculate oak (*Quercus robur*), elder (*Sambucus nigra*), Buddleja sp. (*Buddleja davidii*) and dogwood (*Cornus sanguinea*). The scrub consisted of dominant bramble (*Rubus fruticosus*) with common nettle (*Urtica dioica*).
- 4.1.10 Ephemeral vegetation (**UKHab Sec. Code 81**) was present along a 1.5m high wall close to the northern boundary of the site. Grass species such as false oat-grass, red fescue, wild oat (*Avena fatua*), common couch, perennial rye-grass and Yorkshire fog were present including common forb species including occasional dandelion, broad-leaved dock, groundsel, smooth sow-thistle, great willowherb, creeping thistle, silverweed, common chickweed, dove's-foot crane's-bill, field horsetail, herb Robert, smooth sow-thistle (*Sonchus oleraceus*), rosebay willowherb (*Chamerion angustifolium*), hawkweeds (*Hieracium agg*), soft rush, common nettle, pendulous sedge (*Carex pendula*), wavy bitter-cress (*Cardamine flexuosa*), greater plantain (*Plantago major*) and bristly ox-tongue (*Picris echioides*).
- 4.1.11 The disturbed land was located on the eastern boundary of the site and consisted of a mound of topsoil, tree branches and stumps and building materials. This area consisted of red fescue, Yorkshire fog, perennial ryegrass, cocksfoot with abundant rosebay willowherb, creeping thistle and common nettle, frequent dandelion, broad-leaved dock, groundsel, smooth sow-thistle, silverweed, occasional pendulous sedge, herb Robert, smooth sow-thistle, hogweed, hedge bindweed (*Calystegia sepium*), and rarely occurring but abundant hedge woundwort (*Stachys sylvatica*), broad buckler fern (*Dryopteris dilatata*) and scattered dogwood.



Plate 1: The modified grassland to the north of the site with a band of scrub.



Plate 2: Elsewhere the modified grassland was bounded by a narrow band of ephemeral flora.



Plate 3: To the east of the site the modified grassland had more rank growth with a mound of disturbed ground.

Developed land, sealed surface (UKHab u1b) buildings and hardstanding.

- 4.1.12 The surveyed site was dominated by buildings (UKHab ub15) and hardstanding (UKHab ub16) - these had no floral interest or value.

4.2 Invasive Alien Species

- 4.2.1 No invasive alien species were identified on the site.

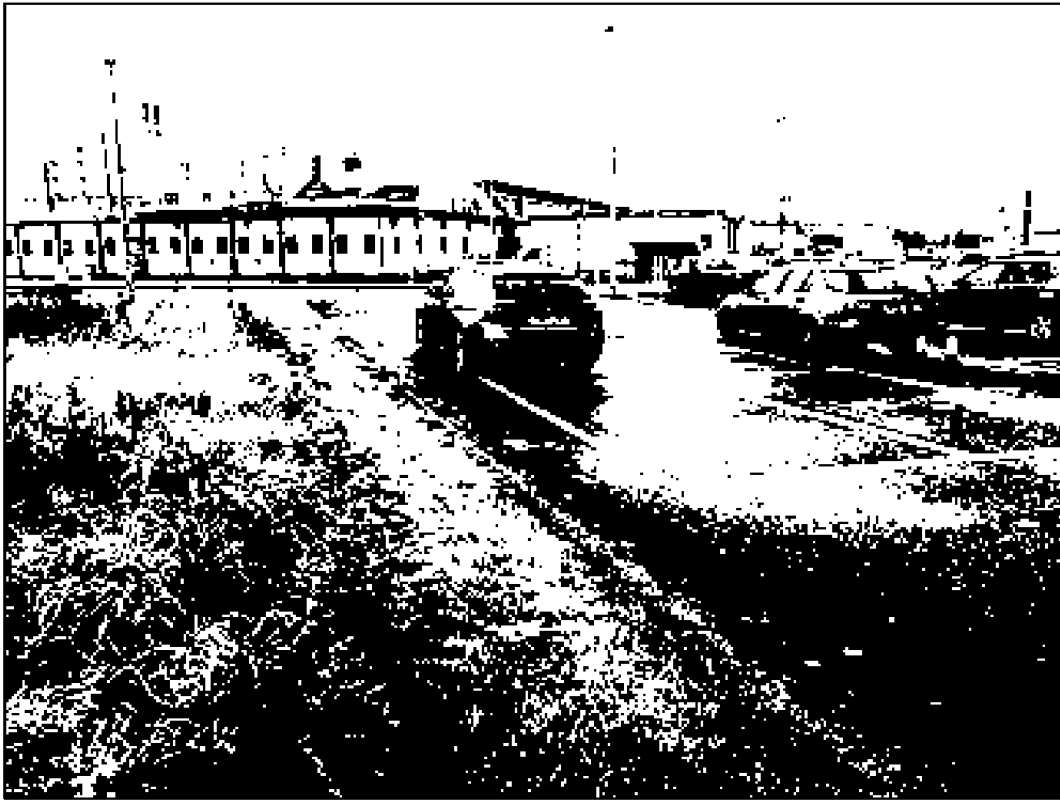
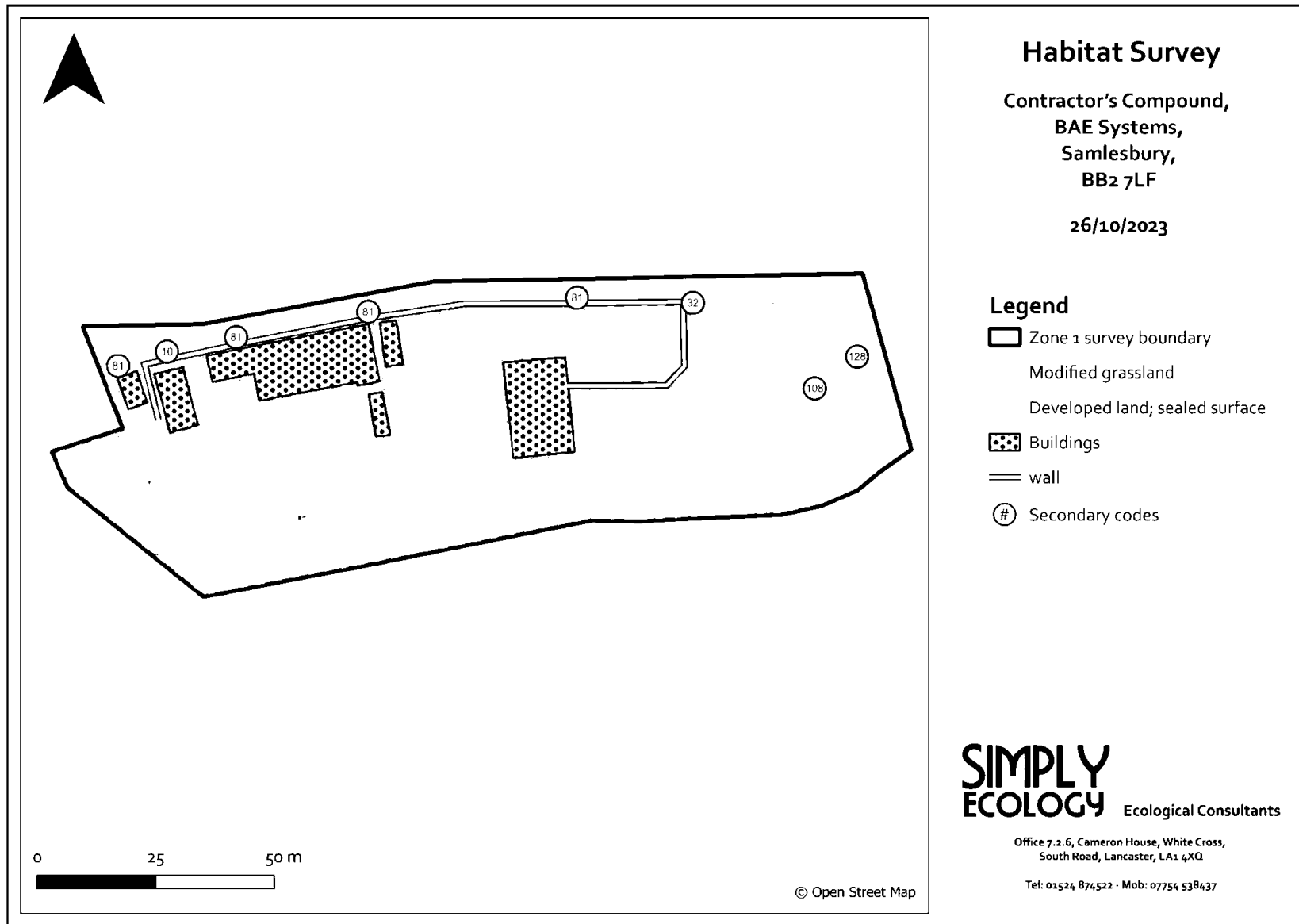


Plate 4: Across the remaining site the modified grassland gave way to hard standing and buildings.



Plate 5: The only other features on site were the areas of hardstanding, buildings and storage structures.



Plan 7: Habitats at the site.

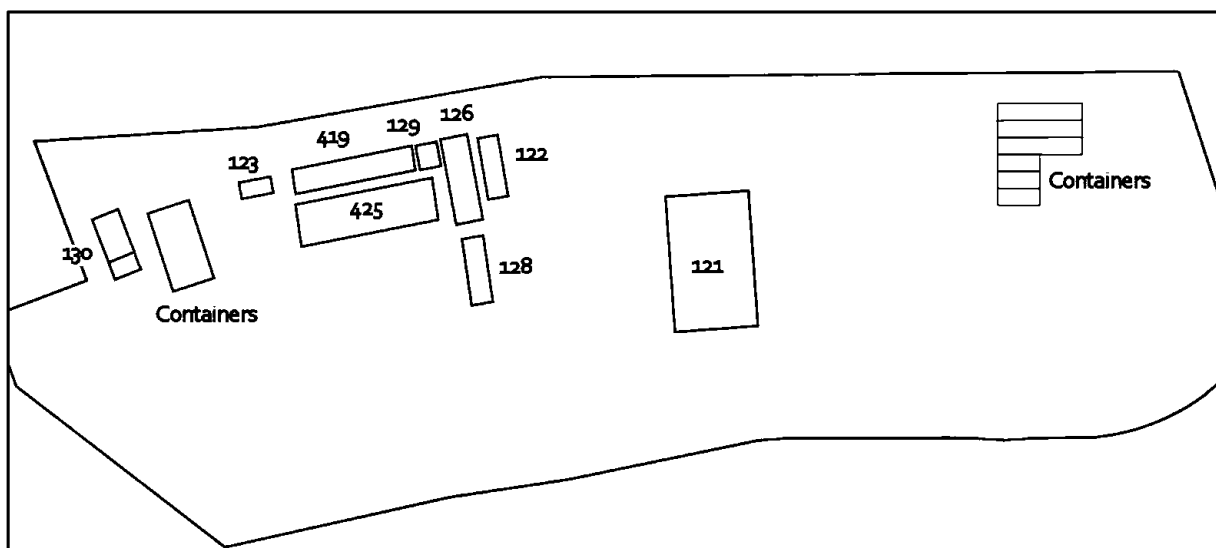
5.0 PROTECTED SPECIES

5.1 Building Inspection for Bats

5.1.1 Within the site there were several single pre-fabricated style buildings (see Plate 6); these buildings were predominantly to the north of the site and within the car parking hardstanding areas (see Plan 8). All buildings were inspected for potential for roosting bats and breeding birds and are described below.



Plate 6: The buildings on site, including Building 128, were a selection of demountable structures and a steel portal frame building.



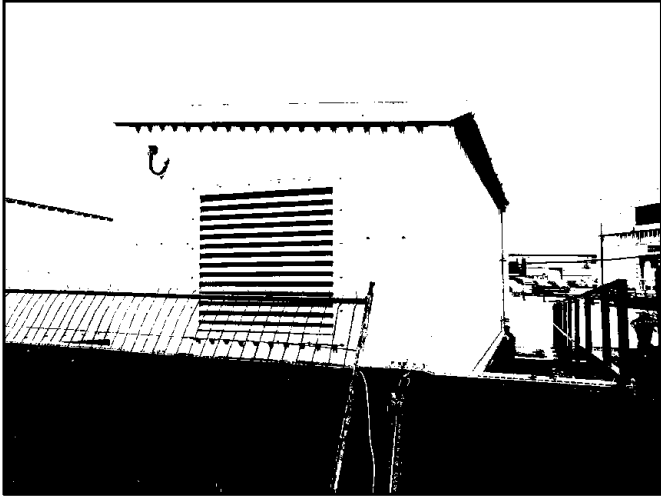

Plan 8: Buildings and semi-permanent structures within Zone 6.

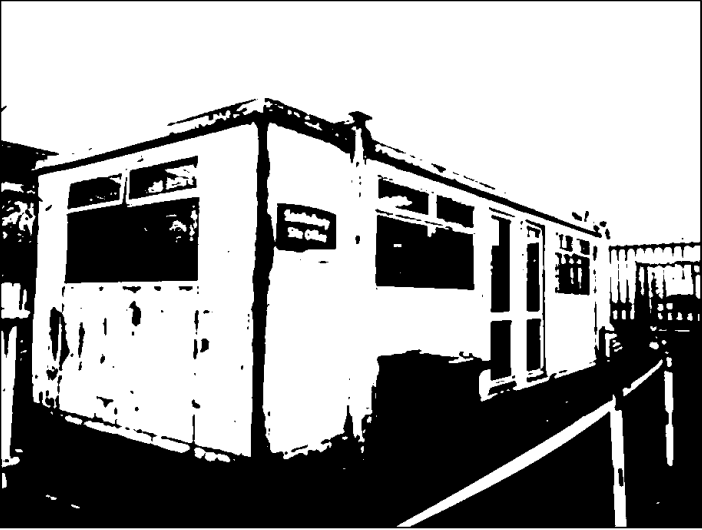

5.1.2 Following a thorough and systematic survey of the buildings, an appraisal of their potential to support roosting bats was made (see Table 2). A 'traffic light' system of generic guidance is


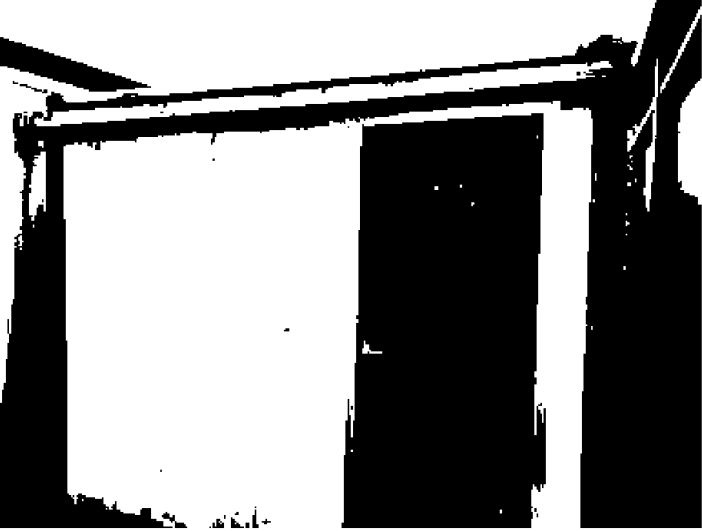
provided to clearly indicate to the client the nature of risk associated with bats in each part of the building.


- ' ' indicates that no further bat surveys are necessary and the works can commence.
- ' ' indicates that absence of bats cannot be proven, so further investigations are necessary.
- 'Red light' indicates confirmed signs of bats **OR** areas where only summer time bat surveys will suffice to demonstrate presence or absence of bats.

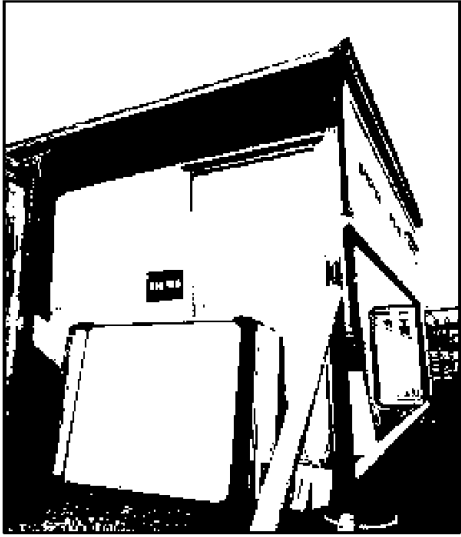
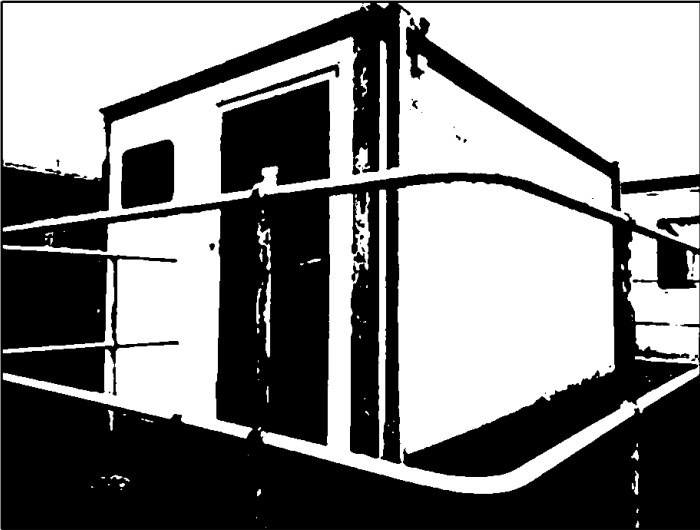
Table 2: Scoping assessment of buildings' potential to support bat roost(s).

Building	Image	Structure for bats	Potential for bats
130		<p>Consisted of a single breezeblock base, with vertical corrugated metal sheet walls, a single pitched metal roof, metal bargeboards with gutter on the western side only. This building had a vent on the northern vertical wall which may allow birds to access the building for nesting. This building was considered to have no potential for bat roosting.</p>	<p>Green light: no further bat surveys are necessary.</p>
121		<p>A steel portal frame building and was constructed of 4 courses of breezeblock at the base, then vertical corrugated metal walls, metal bargeboards and guttering. The roof had a single pitch and metal roof with metal trim extending over the vertical wall top. This building was considered to have no potential for bat roosting or bird nesting.</p>	<p>Green light: no further bat surveys are necessary.</p>

<p>122 and 128</p>		<p>Demountable structures with a similar container style structure of metal base, metal vertical panel walls which were tightly fitting to each other, metal framed window and doors and flat roofs. The metal trim extending over the vertical wall top on both buildings, but had been replaced on building 128 more recently. A gap in the roofing trim on the south-eastern corner which would be suitable for nesting birds, but not suitable for bats. Building 122 was considered to have no potential for bats or birds.</p>	<p>Green light: no further bat surveys are necessary.</p>
<p>425</p>		<p>A prefabricated building with a flat roof which has had a single-pitched roof added more recently. There was an open gap at the gable ends between the flat roof and the added pitched roof which allowed access for breeding birds. The building had metal vertical walls and metal window and door fittings that were in good condition. Metal bargeboards and plastic gutters had been added once the pitched roof was constructed. Building 425 was considered to have potential for breeding birds and has no potential for roosting bats.</p>	<p>Green light: no further bat surveys are necessary.</p>

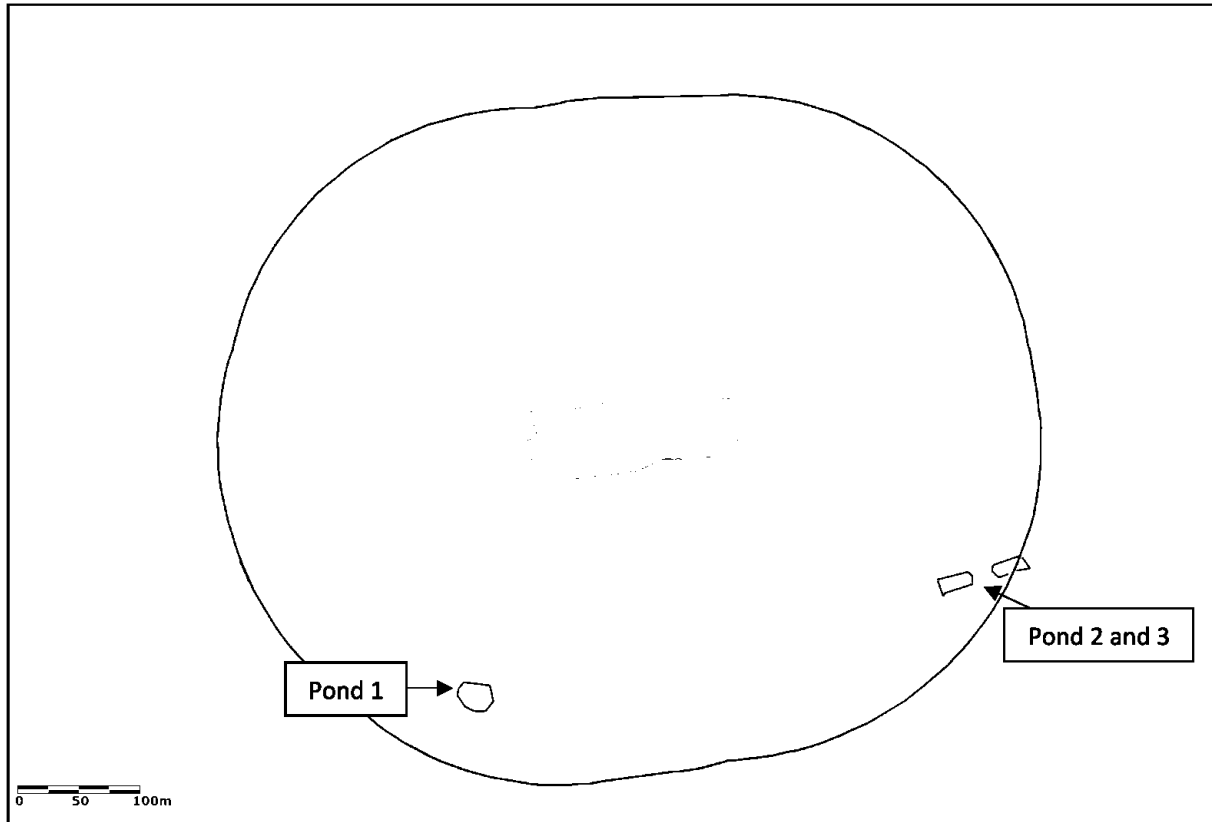
419		<p>A large flat roofed prefabricated building, consisting of metal walls, windows and doors. This building had no gaps for bat or bird access and was considered to have no potential for bat roosting and bird nesting.</p>	<p>Green light: no further bat surveys are necessary.</p>
129		<p>A small flat roofed prefabricated building, consisting of metal walls, window and door. This building had no gaps for bat or bird access and was considered to have no potential for bat roosting and bird nesting.</p>	<p>Green light: no further bat surveys are necessary.</p>

<p>425 - 126 connecting building</p>		<p>A small flat roof building connecting the buildings together. It is constructed of broad vertical wooden plywood panels and a strip of wood forming a bargeboard.</p> <p>This building was considered to have no potential for roosting bats or nesting birds.</p>	<p>Green light: no further bat surveys are necessary.</p>
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<p>126</p>		<p>A more modern flat roofed prefabricated building, consisting of metal walls, window and door. This building had no gaps for bat or bird access and was considered to have no potential for bat roosting and bird nesting.</p>	<p>Green light: no further bat surveys are necessary.</p>
<p>123</p>		<p>A small flat roofed prefabricated building, consisting of metal walls, window and door. This building had no gaps for bat or bird access and was considered to have no potential for bat roosting and bird nesting</p>	<p>Green light: no further bat surveys are necessary.</p>

5.2 Great Crested Newts

- 5.2.1 There were no water bodies within the search area and no features suitable for hibernation although the rank grassland is considered optimal for GCN in their terrestrial phase.
- 5.2.2 The closest waterbodies were over 180m away beyond areas of hardstanding and site buildings (see Plan 9). No access was available to these ponds at the time of survey.



Plan 9: Ponds Within the Local Landscape.

5.3 Breeding Birds

- 5.3.1 The rank grassland would provide a suitable habitat for ground-nesting birds although none were noted during the walkover survey. There were no trees that would offer any other nesting opportunities.
- 5.3.2 It was considered that the site would offer opportunities for foraging birds. Only a small number of common species were seen during the walkover survey including blackbird, (*Turdus merula*), jackdaw (*Corvus monedula*), magpie (*Pica pica*) and house sparrow (*Passer domesticus*).

6.0 PRELIMINARY IMPACT ASSESSMENT

6.1 Designated Sites

- 6.1.1 The desk study found that there are no statutory designated nature conservation sites on the site or within 2km of the site. The closest designated sites were >2km from the application site and these were Darwen River Section SSSI and Red Scar and Tun Brook Woods SSSI.
- 6.1.2 The proposed development site lies within the Impact Risk Zones (IRZ) for these designated sites. However, given the distance from the designated sites, it is considered that there is no likelihood that likely development of the site would reach the threshold that would require the LPA to consult Natural England (see Table 3). Taking into account the small scale of the proposed works, (in accordance with Natural England Guidance), the nature of the proposed works and the distance from these SSSIs, it is not considered that there will be any foreseeable impact on these designated sites and **this requires no further consideration.**

Table 3: Assessment for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England).

Does planning proposal fall into one or more of the categories below?	If yes, check the corresponding description(s) below. LPA should consult Natural England on likely risks from the following:
Infrastructure	Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.
Wind & Solar Energy	Solar schemes with footprint > 0.5ha, all wind turbines.
Minerals, Oil & Gas	Planning applications for quarries: new proposals or extensions, outside or extending outside existing settlements/urban areas affecting greenspace, farmland or semi natural habitats. Oil & gas exploration/extraction.
Rural Non Residential	Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha.
Residential	N/A
Rural Residential	Any residential development of 50 or more houses outside existing settlements/urban areas.
Air Pollution	Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m ² , slurry lagoons & digestate stores > 750m ² , manure stores > 3500t).
Combustion	General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
Waste	Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.
Composting	N/A

Discharges	Any discharge of water or liquid waste of more than 5m ³ /day to ground (ie to seep away) or to surface water, such as a beck or stream.
Water Supply	N/A
Notes 1	New residential developments in this area should consider recreational disturbance impacts on the coastal designated sites. Please consider this issue in the HRA screening

6.2 Non-Statutory Nature Conservation Sites

Biological Heritage Sites

- 6.2.1 4 BHS were present within 1km of the site. Taking into account the small scale of the proposed works, the nature of the proposed works and the intervening habitat from these BHS, it is not considered that there will be any foreseeable impact on these designated sites and this requires no further consideration.
- 6.2.2 As such, it is concluded that there is no reasonably foreseeable likelihood of any impacts or significant effects upon the nearby Biological Heritage Sites as a result of the development.

6.3 Priority Habitats

- 6.3.1 There were no Priority Habitats within the site boundary although there were approximately 40ha of Priority Habitats within 1km of the site (see Plan 6).
- 6.3.2 Given the nature of the proposed development to re-configure areas of hard standing, there is no reasonably foreseeable likelihood of impact upon any off-site priority habitats and this requires no further consideration.

6.4 Habitats

Modified Grassland

- 6.4.1 The site contains a small parcel of modified grassland; a common and widespread habitat of low ecological value.
- 6.4.2 No loss of grassland is proposed, so there would be a **neutral effect upon** a habitat of '**Site**' **level value**.

Hardstanding

- 6.4.3 The site comprised large areas of existing hardstanding. This is a zero value habitat, so losses are not a material consideration in the ecological impact assessment. As such, these habitats lend themselves to biodiversity enhancement as the baseline is effectively 'nil'. No soft landscaping proposal have yet been drawn up. This report will be updated once these plans are finalised and Natural Capital assessment is undertaken in order to deliver Biodiversity Net Gain.

6.5 Natural Capital Assessment

- 6.5.1 A BNG calculation was undertaken on the site using the DEFRA Metric 4.0.
- 6.5.2 The baseline calculation indicates that prior to development the site had 0.08 habitat units (see Figure 1 and Figure 2). No hedgerows or waterbodies are present on the site and so there was no requirement for the BNG impact assessment to be undertaken for these habitat types.
- 6.5.3 At the time of writing there no proposed biodiversity enhancement plans were available. No estimate of the post development habitat units has therefore been undertaken as currently the replacement of hardstanding with further hardstanding would produce a 0.00% change in Biodiversity Units.
- 6.5.4 It is advised that habitat enhancement or creation is essential if it is to deliver biodiversity net gain, as required through legislation as well as National and Local Planning Policy. Once there is soft landscaping design, then the complete assessment will be possible.
- 6.5.5 Bearing in mind the lack of any habitat within the working area, even the most marginal of green space creation will deliver Biodiversity Net Gain. It is advised that are opportunities for onsite enhancement can readily be met.

BAE Salmesbury Contractors Compound		
Headline Results		
On site baseline	Habitat units	0.08
	Hedgerow units	0.00
	Watercourse units	0.00
On site post intervention <small>(No Green Infrastructure, trees or grass sown)</small>	Habitat units	0.08
	Hedgerow units	0.00
	Watercourse units	0.00
On site net change <small>(0.00% percentage)</small>	Habitat units	0.00
	Hedgerow units	0.00
	Watercourse units	0.00

Figure 1: Headline BNG Metric Results.

Project Name: BAE Salmesbury Contractors Compound Map Reference:				Area habitat summary				
A-1 On-Site Habitat Baseline				Total Net Unit Change		0.00		
				Total Net % Change		0.00%		
				Trading Rules Satisfied		Yes ✓		
Condense / Show Columns		Condense / Show Rows						
Main Menu		Instructions						
	Existing area habitats			Distinctiveness	Condition	Strategic significance	Required Action to Meet Trading Rules	Ecological baseline
Ref	Broad Habitat	Habitat Type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units
1	Grassland	Modified grassland	0.00	Low	Undersite	Area compensation not in local strategy; no local strategy	Same distinctiveness or better habitat required B	0.08
2	Urban	Developed/land sealed surface	0.65	Very Low	Off-site	Area compensation not in local strategy; no local strategy	Compensation Not Required	0.00
3								
4								
5								
6								
7								
		Total habitat area	0.65					0.08
		Site Area (Excluding area of individual trees and Green walls)	0.65					

Figure 2: Site Habitat Baseline.

6.6 UKHabitat Classification

6.6.1 Using the UK Habitat Classification Field Key, the habitats on site are:

- Modified grassland
- Broadleaf woodland
- Bramble scrub

6.6.2 The habitats on site were matched to UK Habitats. As can be seen in Figure 3, the existing modified grassland habitats on site can be matched well to the UK Habitats used in the Metric under the 'Neutral and improved Grasslands' division and the Buildings and 'Other developed land woodland are classified under the 'Built-up Areas and Gardens' Broad Habitat (see Figure 4). Given these broad habitat descriptions, it is clear that the Metric accurately reflects the existing site ecological value.

29a-b	DIVISION OF NEUTRAL AND IMPROVED GRASSLANDS	Numbered links plus Broad and Priority Habitats	Scottish EUNIS Code	UK Hab Code	NVC units (indicative list only)
29a	Palatable grasses dominate mainly Rye grasses (<i>Lolium</i> spp.), Timothy (<i>Phleum pratense</i>), Cocksfoot (<i>Dactylis glomerata</i>), Crested Dog's-tail (<i>Cynosurus cristatus</i>), Yorkshire Fog (<i>Holcus lanatus</i>). Grass cover usually over 75%. Broadleaved species restricted mainly to White Clover (<i>Trifolium repens</i>), Creeping Buttercup (<i>Ranunculus repens</i>), Greater Plantain (<i>Plantago major</i>), Dandelion (<i>Taraxacum</i>), Broad-leaved Dock (<i>Rumex obtusifolius</i>) and Chickweed (<i>Stellaria media</i>). Fertile but wetter situations may support occasional Soft Rush (<i>Juncus effusus</i>) or Hard Rush (<i>J. inflexus</i>), Floating Sweet Grass (<i>Glyceria fluitans</i>), Creeping Bent (<i>Agrostis stolonifera</i>) and Rough Meadow Grass (<i>Poa trivialis</i>), but accompanying species will always indicate high fertility. Species poor <9 species m ² .	Improved Grassland (BH)	E2.6	g4	MG6, MG7
29b	Palatable grasses predominate, usually Rye Grasses (<i>Lolium</i> spp.), White Clover (<i>Trifolium repens</i>) and Timothy (<i>Phleum pratense</i>) 40% or below and other grasses more prominent such as Crested Dog's-tail (<i>Cynosurus</i>), Common Bent (<i>Agrostis capillaris</i>), Yellow Oat Grass (<i>Festuca ovina</i>), Soft Brome (<i>Bromus hordeaceus</i>) and Sweet Vernal Grass (<i>Anthoxanthum odoratum</i>). Semi-improved but wetter situations may support abundant Soft Rush (<i>Juncus effusus</i>) or Hard Rush (<i>J. inflexus</i>), Floating Sweet Grass (<i>Glyceria fluitans</i>), Creeping Bent (<i>Agrostis stolonifera</i>) and Rough Meadow Grass (<i>Poa trivialis</i>). Total grass cover usually between 50 and 75%. Forbs up to 50% cover and associated with less fertile soil e.g. Ribwort Plantain (<i>Plantago lanceolata</i>), Sorrel (<i>Rumex acetosa</i>), Meadow Buttercup (<i>Ranunculus acris</i>), Creeping Buttercup (<i>R. repens</i>), Self-heal (<i>Prunella vulgaris</i>), Yarrow (<i>Achillea millefolium</i>), Silverweed (<i>Potentilla anserina</i>), Meadow Thistle (<i>Cirsium palustre</i>) and Lady's smock (<i>Cardamine pratensis</i>). However, indicators of the two hay meadow Priority Habitats will be rare or absent.	30			
29c	False Oat Grass (<i>Arrhenatherum elatius</i>) abundant. Total grass cover usually between 50 and 75%. Forbs up to 50% cover and associated with less fertile soil e.g. Ribwort Plantain (<i>Plantago lanceolata</i>), Sorrel (<i>Rumex acetosa</i>), Meadow Buttercup (<i>Ranunculus acris</i>), Creeping Buttercup (<i>R. repens</i>), Self-heal (<i>Prunella vulgaris</i>), Yarrow (<i>Achillea millefolium</i>), Silverweed (<i>Potentilla anserina</i>). Often associated with formerly disturbed sites, road verges etc.	Neutral Grassland	E2.2	g3c5	

Figure 3: Excerpt from UK Habitat Classification Field Key.

<p>u1b5 Buildings</p> <p>A relatively permanent enclosed construction over a plot of land. It has a roof, usually windows and often more than one level, and it is used for any of a wide variety of activities, such as living, entertaining or manufacturing.</p> <p>Buildings with green roofs.</p>	<p>u1b6 Other developed land</p> <p>Developed land that does not meet the definition of u1b5.</p> <p>Roads (see 800).</p>
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Figure 4: Adapted from UK Habitat Classification Version 2.

6.7 Protected Species

Bats

- 6.7.1 Given the nature of the surveyed habitats it is considered that there are no opportunities for roosting bats although the site only offers very limited foraging potential. Loss of the grassland would represent a minor negative impact on foraging bats and should be mitigated for in any soft landscaping proposals.

Great Crested Newts

- 6.7.2 Although the rank grassland represents good great crested newt terrestrial habitat, the scarcity of known GCN in the local landscape is significant; Pennine Ecological reported a 'small' population of GCN with a maximum count of 1 GCN in 2012 in a pond ~850m to the south east.
- 6.7.3 Furthermore, given the distance from the know population and the nature of the intervening habitats with hardstanding and buildings, it is considered that there is no foreseeable likelihood on GCN being present within the proposed development site.
- 6.7.4 Taking into account all of the findings from the site visit and an assessment of the surrounding area, the key points are as follows:
- The site contained no pond or other aquatic habitat suitable for GCN.
 - The development area had a parcel of modified grassland. Whilst this was suitable for foraging GCN, no tussocks or other foraging, shelter or hibernation features were present.
 - The nearest known GCN record is from 850m away.
 - The intervening habitats (hardstanding and buildings) represent a significant barrier to migration, reducing foreseeable likelihood of movement from the known GCN pond. No direct impact or loss of the waterbodies would arise from the works.
 - In order to further assess possible impacts, use was made of Natural England's Licensing Risk Assessment tool. This recorded 'Green' that an offence was 'Highly Unlikely' (see Table 4). Although the tool is simplistic, in addition to the other considerations of this site, it was considered to be a useful exercise.
 - Overall, it was concluded that no GCN were likely to be present on site and the proposed development would not have any impact upon this protected species.

Table 4: Natural England's GCN Risk Assessment tool for the site.

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	0.5 - 1 ha lost or damaged	0.03
Individual great crested newts	No effect	0
	Maximum:	0.03
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Birds

- 6.7.5 The rank grassland did not offer suitability for ground-nesting birds, although it is likely that it offers some limited foraging suitability for passerines. There are no grounds to consider that this small site will support an unusual assemblage of birds, and so the value is judged to have foraging value at the 'Site Level'.
- 6.7.6 As above, no soft landscaping proposal has yet been developed. It essential to ensure that this report is updated, and a soft landscaping and Natural Capital assessment is undertaken in order to deliver biodiversity net gain which may benefit species such as breeding birds.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Summary

7.1.1 In October 2023, Simply Ecology Limited was commissioned by Wilson Mason to undertake a preliminary ecological appraisal at BAE Systems, Blackburn, BB2 7LF. The findings of the habitat survey will inform the reconfiguration of the contractor's cabins and storage containers on the site (see Plan 3 and Plan 4)

7.2 Nature Conservation Sites

7.2.1 The desk study found that there are no designated nature conservation sites within 2km of the development site. For the SSSI and Biological Heritage Sites within the wider search area, all were quite some distance away and there will be no direct or indirect impacts on any of these sites. Consequently, it was concluded that there is no reasonably foreseeable likelihood that any impacts will arise.

- ***It is advised that*** all works can continue with no further consideration of statutory or non-statutory nature conservation sites. No impact upon any site is predicted. **Reason:** This will deliver compliance with The Wildlife & Countryside Act 1981 (as amended), The Conservation of Habitats and Species Regulations 2017 and Section 15 of The National Planning Policy Framework and the Local Plan.

7.3 Habitats

7.3.1 The site was dominated by developed land (buildings and hard standing) and the habitat areas comprised mown and rank modified grassland. These are common and widespread habitats. The site was considered to have relatively limited intrinsic ecological value, with the grassland habitat judged as having 'Site' level value.

7.3.2 Priority habitats were also taken into consideration. There were none within the site. The assessment concluded that there is no foreseeable likelihood of any direct or indirect impact on any nearby Priority Habitats.

- ***It is advised that*** all works can continue with no further consideration of statutory or non-statutory nature conservation sites. No impact upon any site is predicted. **Reason:** This will ensure compliance with and the Local Authority's statutory duty to conserve and enhance biodiversity under The Natural Environment and Rural Communities Act 2006 and The Environment Act (2021), as reflected Section 15 (paras 180 - 188) of the National Planning Policy Framework (2023) and in the Local Plan.

7.3.3 Development of a soft landscaping proposal to deliver Biodiversity Net Gain will be required. A simple soft landscaping plan is required to demonstrate the delivery of Biodiversity Net Gain. Subject to the implementation of the below recommended nature conservation measures for species and habitat retention, enhancement and creation, the development would maintain the ecological interest of the site.

- ***It is recommended*** that a soft landscaping scheme is developed that delivers appropriate levels of enhancement of the site and compensation for any loss of the grassland. **Reason:** This will ensure compliance with the Local Authority's statutory duty to conserve and enhance biodiversity under The Natural Environment and Rural Communities Act 2006 and Section 15 (para 180- 188) of the National Planning Policy Framework (2023), as reflected in the Local Plan.

7.3.4 This could be achieved through the inclusion of a selection of the following measures:

- Enhancement of the retained grassland strip around the north of the site to make it a better quality grassland
- Introduction of ground level planters or individual street trees within the contractors compound
- Use native species appropriate to the local area for all planting,
- Prioritise use of nectar and pollen rich plants and fruit and nut producing species within formal planting schemes,
- Enhancement of connective habitats through planting of new hedgerow and/ or treelines along the site boundary,
- Provide new features for roosting bats and nesting birds within the MSCP or through provision of boxes on retained trees,
- ***It is recommended*** that, once there is a soft landscaping plan, the DEFRA BNG Matric 4.0 should be finalised to calculate the biodiversity net gain for the scheme. This should be incorporated into an update of this report. **Reason:** This will ensure compliance with the Local Authority's statutory duty to conserve and enhance biodiversity under The Natural Environment and Rural Communities Act 2006 and The Environment Act (2021) as reflected in Section 15 (paras 180-188) of the National Planning Policy Framework (2023) and the Local Plan.

7.4 Great Crested Newt

7.4.1 This small site contained no waterbodies or any within 250m. However, there were records of GCN within the wider landscape and the site contained rank grassland that would provide

suitable terrestrial habitats for amphibians. After completing a thorough risk assessment, on balance, any potential of GCN being present was scoped out.

- ***It is advised*** that no Natural England licence or mitigation is necessary in this instance as the potential for impact upon any great crested newts or other amphibians is *de minimis*.

7.4.2 To cover any residual risk that GCN are encountered, the following is advised by way of an informative.

- The principal contractor should be made aware of the slight risk that great crested newts could be encountered on the site. If great crested newts are found during the course of the works, the Appointed Ecologist must be contacted immediately, and work ceased until further advice to ensure legal compliance can be given. **Reason:** This will deliver compliance with: Section 9 (1 & 4) of The Wildlife & Countryside Act 1981 (as amended), Part 3 (4; 1 & 2) of The Conservation of Habitats and Species Regulations 2017 (as amended) and Section 15 (paras 180-188) of the National Planning Policy Framework (2023), as reflected in the Local Plan.

7.5 Breeding Birds

7.5.1 Given the possibility of ground-nesting birds using the rank grassland, the existing site presents potential opportunities for breeding birds.

- ***It is recommended*** that all site clearance work should be carried out outside of the bird breeding season (March to August inclusive). Where this is not possible, a suitably qualified ecologist should carry out a check to confirm the absence of nesting birds immediately prior to clearance works commencing. If a bird nest in current use is discovered, then an appropriate buffer zone around the nest should be created where clearance works can only continue after the nest is vacated. This should be implemented by way of a Planning Condition. **Reason:** This will ensure that no offences are committed under The Wildlife and Countryside Act 1981 (as amended). The bird-nesting season is generally regarded to extend between March and August inclusive.

7.5.2 There could be a small potential loss of foraging habitat, and this would be appropriately compensated within the landscaping scheme above.

- ***It is recommended*** that the new soft landscaping scheme should incorporate new foraging habitat for birds, such as fruiting trees/shrubs. **Reason:** This will ensure compliance with the Local Authority's statutory duty to conserve and enhance biodiversity under The Natural Environment and Rural Communities Act 2006, The Environment Act 2021 and

Section 15 (179 & 180) of the National Planning Policy Framework (2023), as reflected in the Local Plan.

8.0 REFERENCES

UKHab Ltd (2023): *UK Habitat Classification Version 2.0*

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Butcher B, Carey P, Edmonds R, Norton L and Treweek J (2020): *UK Habitat Classification – Habitat Definitions V1.1* at <http://ukhab.org>

Joint Nature Conservation Committee (2010): *Handbook for Phase 1 Habitat Survey - a technique for environmental audit*. JNCC, Peterborough Revised 2016.

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National Planning Policy Framework 2023:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1182577/NPPF_Sept_23.pdf

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The Conservation of Habitats and Species Regulations 2017:

https://www.legislation.gov.uk/uksi/2017/1012/pdfs/uksi_20171012_en.pdf

Wildlife and Countryside Act 1981:

<http://www.legislation.gov.uk/ukpga/1981/69/contents>

ANNEX A: STATUTORY AND PLANNING CONTEXT

A.0.1 The client is advised that many species of British wildlife are legally protected. The following section provides a brief overview of the protection afforded to species commonly encountered during development. The Recommendations at the end of this report will advise as necessary, but it is also useful for the client to have an understanding of the legal protection as this helps to ensure that the law is complied with.

A.1 Badgers

A.1.1 Badgers are protected under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) (WCA), and the Protection of Badgers Act 1992. It is illegal to:

Kill, injure, take, possess or cruelly ill-treat a badger or to attempt to do so;

Interfere with a badger sett by damaging or destroying it;

Obstruct access to or any entrance of a badger sett;

Disturb a badger when it is occupying a sett

A.1.2 A badger sett is "any structure or place that displays signs indicating current use by a badger". Natural England, the Government's statutory nature conservation body, classifies a sett as active if it has been occupied within the last 12 months.

A.1.3 Operations that might cause disturbance of an active sett entrance can be carried out under licence from Natural England. If any badgers are found during the course of the survey, this will be highlighted in this report.

A.2 Birds

A.2.1 All wild birds are protected against killing or injury under The WCA 1981 (as amended). This protection extends to bird's nests during the breeding season, which makes it an offence to damage or destroy nests or eggs. Birds that are listed on Schedule 1 of the Act receive additional protection against intentional or reckless disturbance during the breeding season. This makes it an offence to disturb these species at or near to their nesting site.

A.3 European Protected Species (includes bats, otter, hazel dormouse, great crested newts, and others)

A.3.1 The client is advised that all bats and great crested newts are European Protected Species (EPS). These EPS are protected under European legislation that is implemented in England via The Conservation of Habitats and Species Regulations 2010 (Regulation 41). A full list of EPS is provided in Schedule 2 of the Regulations. In addition, these EPS also receive the protection of the Wildlife and Countryside Act 1981 (as amended) in respect of Section 9 (4)(b & c) and (5).

A.3.2 If both national and international legislation are taken together, the legislative protection afforded to these species makes it an offence to:

Intentionally/ deliberately kill, disturb, injure or capture them.

Intentionally or recklessly damage, destroy or obstruct access to any breeding site or resting place.

Possess or control any live or dead specimen or anything derived from a European Protected Species.

A.3.3 If an activity is likely to result in any of the above offences, derogation from the legal protection can be issued in the form of a European Protected Species licence issued by Natural England. Licences for development purposes are issued under The Conservation Of Habitats And Species Regulations (2010) and only allow what is permitted within the terms and conditions of the licence. If any EPS are found during the course of the survey, this will be highlighted in this report.

A.4 Protected Mammals and Reptiles (includes water vole, red squirrel, reptiles and others)

A.4.1 All native reptiles and a variety of British mammals also receive protection under The WCA 1981 (as amended). Schedule 5 of The WCA lists animals that are protected. The degree of protection varies. Water voles and red squirrel are examples of species with full protection. The Act makes it an offence to intentionally kill, injure, take, possess, or trade in any wild animal listed in Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places.

A.4.2 All native reptiles in the UK are protected. The commoner species such as grass snake, common lizard, slow worm and adder are protected only from unlawful killing and injuring. In practice this may require a reptile protection scheme before implementing a planning permission but no specific licence is required. Sand lizard and smooth snake listed as EPS (see A3.3 above).

A.4.4 If any protected species are found during the course of the survey, this will be highlighted in this report.

A.5 Non-native invasive species

A.5.1 A number of non-native plant species growing wild in the UK are listed on Schedule 9 of the WCA due to their invasive nature and the detrimental impact they can have on native habitats and wildlife. This legislation makes it an offence to plant or otherwise cause to grow in the wild any plant species which is included in Part II of Schedule 9.

A.5.2 This legislation should be considered during site clearance works which could lead to the spread of Schedule 9 listed plant species from the site if plant material is not properly handled and disposed of. Development proposals should also consider the removal of invasive species from areas of site that would otherwise remain unaffected by works in order to avoid the risk of these invasive plants spreading from the site in the future and enhance habitats within the site. This would in turn free up space for wildlife friendly planting, prioritising use of native species within planting schemes where appropriate.

A.6 Planning Considerations

A.6.1 When considering each planning application, the presence of protected species, such as those listed above, is a material consideration which must be fully considered by the Local Authority when granting planning permission. If a licence from Natural England is required, then prior to issuing any planning consent, the local planning authority will need to be satisfied that there is no reason why such a licence would not be issued. Therefore, in reaching the planning decision the local planning authority will need to have regard to the requirements of the Conservation of Habitats and Species Regulations 2010. The three licensing tests given in the Regulations must be considered. In summary, these are that:

1. The development is required for the purpose of:

Preserving public health or public safety;

For other imperative reasons of over-riding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment;

For preventing serious damage to property.

2. There is no satisfactory alternative.

3. The proposal will not be detrimental to the maintenance of the population of the species at a favourable conservation status.

A.6.2 All necessary information would need to be provided to the planning authority as part of the planning application in order to address the above tests.

A.6.3 The Natural Environment and Communities Act (NERC Act) 2006 extended the biodiversity duty set out in the Countryside and Rights of Way (CROW) Act to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. The Duty is set out in Section 40 of the Act, and states that:

"Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity"

A.6.4 The Duty applies to all local authorities, community, parish and town councils, police, fire and health authorities and utility companies. Section 41 (S41) of this Act (the 'England Biodiversity List') also requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. This list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40(1) of the Act.

A.6.5 Also, Local Authorities must follow the National Planning Policy Framework (NPPF) which provides guidance on the interpretation of the law in relation to wildlife issues and development. For each development proposal considered by the Local Planning Authority the NPPF states that the authority must aim to conserve and enhance biodiversity. If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

UK Biodiversity Action Plan (UK BAP)

A.6.6 The UK BAP, which was first published in 1994, was the UK government response to the 1992 Convention on Biological Diversity. It sets priorities for nationally important 'priority species' and 'priority habitats'. Each species and habitat action plan has costed actions and targets, and is used to inform the compilation of national lists such as the Section 41 List described above.

ANNEX B: IMPACT ASSESSMENT CRITERIA

Table 1: Valuing Ecological Features

Level of Value	Examples
International	An internationally designated site or candidate site (SPA, pSPA, SAC, cSAC, pSAC, Ramsar site, Biogenetic Reserve). A viable area of a habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat which are essential to maintain the viability of a larger whole. Any regularly occurring population of an internationally important species, which is threatened or rare in the UK, i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (Categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP. A regularly occurring, nationally significant population of any internationally important species.
National	A nationally designated site (SSSI, ASSI, NNR, Marine Nature Reserve) or a discrete area, which meets the published selection criteria for national designation. A viable area of a priority habitat identified in the UK BAP, or of smaller areas of such habitat which are essential to maintain the viability of a larger whole. Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP). A regularly occurring, regionally or county significant number of a nationally important species.
Regional	Viable areas of key habitat identified in the Regional BAP or smaller areas of such habitat which are essential to maintain the viability of a larger whole. Viable areas of key habitat identified as being of Regional value in the appropriate Natural Area profile. Any regularly occurring population of a nationally important species which is not threatened or rare in the region. Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation. A regularly occurring, locally significant number of a regionally important species.
County	Semi-natural ancient woodland greater than 0.25ha. County/Metropolitan sites and other sites which the designating authority has determined meet the published ecological selection criteria for designation, including Local Nature Reserves selected on County/metropolitan ecological criteria. A viable area of habitat identified in the County BAP. A regularly occurring, locally significant number of a County/Metropolitan 'red data book' or BAP species, designated on account of its regional rarity or localisation. A regularly occurring, locally significant number of a County/Metropolitan important species.
District/Borough	Semi-natural ancient woodland smaller than 0.25ha. Areas of habitat identified in a sub- County (District/Borough) BAP or in the relevant Natural Area profile. Sites/features that are scarce within the District/Borough or which appreciably enrich the District/Borough habitat resource. A diverse and/or ecologically valuable hedgerow network. A population of a species that is listed in a District/Borough BAP, because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation. A regularly occurring, locally significant number of a District/Borough important species during a critical phase of its life cycle.
Site	Areas of habitat or populations/communities of species considered to appreciably enrich the habitat resource within the context of the parish or neighbourhood, e.g. species-rich hedgerows. NB: Where species or habitats occur in more than one category, the highest value is applicable.

Table 2: Impact Magnitude

Impact Magnitude	Examples
Major	Loss of over 50% of a site feature, habitat or population. Adverse change to all of a site feature, habitat or population. For benefits, an impact equivalent in nature conservation terms to gain of over 50% of a site feature, habitat or population.
Moderate	Loss affecting 20-50% of a site feature, habitat or population. Adverse change to over 50% of a site feature, habitat or population. For benefits, an impact equivalent in nature conservation terms to a gain of 20-50% of a site feature, habitat or population.
Slight	Loss affecting 5-19% of a site feature, habitat or population. Adverse change to 20-50% of a site feature, habitat or population. For benefits, an impact equivalent in nature conservation terms to a gain of 5-19% of a site feature, habitat or population.
Negligible	Loss affecting up to 5% of a site feature, habitat or population. Adverse change to less than 20% of a site feature, habitat or population. For benefits, an impact equivalent in nature conservation terms to a gain of up to 5% of a site feature, habitat or population.

ANNEX C: IMPACT RISK ZONES FOR SSSIS (2023)



Natural England's Impact Risk Zones for Sites of Special Scientific Interest

(For use by Local Planning Authorities to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites and determine when to consult Natural England)

User Guidance

Version: v4.1

Issue Date: 7 March 2023

Purpose: To provide guidance on the interpretation and use of the **Impact Risk Zones for Sites of Special Scientific Interest** GIS dataset available to download from the [Natural England Open Data Geoportal](#) and the [Defra Data Services Platform](#) and to use online on the [Magic website](#)

Enquiries: For further information please email the Natural England Impact Risk Zones mailbox: neirzs@naturalengland.org.uk

www.gov.uk/natural-england

SSSI Impact Risk Zones User Guidance

Impact Risk Zones for Sites of Special Scientific Interest

Purpose of the Impact Risk Zones for SSSIs

As the government's conservation advisory body, Natural England has a number of statutory duties and general responsibilities in relation to SSSIs. These include providing advice to local planning authorities (LPAs) and developers on the potential impacts of development on SSSIs to ensure their protection and enhancement in line with the policies in the NPPF and development plans.

The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. The IRZs also cover the interest features and sensitivities of European sites, which are underpinned by the SSSI designation and "Compensation Sites", which have been secured as compensation for impacts on European /Ramsar sites.

Local planning authorities (LPAs) have a duty to consult Natural England before granting planning permission on any development that is in or likely to affect a SSSI. The SSSI IRZs can be used by LPAs to consider whether a proposed development is likely to affect a SSSI and determine whether they will need to consult Natural England to seek advice on the nature of any potential SSSI impacts and how they might be avoided or mitigated. The IRZs do not alter or remove the requirements to consult Natural England on other natural environment impacts or other types of development proposal under the Town and Country Planning (Development Management Procedure) (England) Order 2015 and other statutory requirements - see the gov.uk website for further information.

The SSSI IRZs can be used by developers, consultants and members of the public, who are preparing to submit a planning application. They will help them to consider whether a proposed development is likely to affect a SSSI and choose whether to seek pre-application advice from Natural England. This will allow any potential impacts to be taken into account within the planning application and so minimise the risk of delays at the formal planning stage. Further information on Natural England's pre-application Discretionary Advice Service (DAS) is available on the gov.uk website.

Access to the data and further information

The SSSI IRZ dataset can be downloaded in various formats or accessed via API from the [Natural England Open Data Geoportal](#) and the [Defra Data Services Platform](#) and used in combination with other spatial data in the users GIS. It is also available to use online on [Magic](#). We have set up an Impact Risk Zones team on Microsoft (MS) Teams, a secure online collaboration and file sharing platform, to allow us to share data, news and information about the SSSI IRZs with colleagues within and outside of Natural England. Team members and guests will receive a notification when an update has taken place and there is an area to post questions and answers.

If you would like to join the IRZs team on MS Teams, or require further information and/or advice on the SSSI IRZs please email the NE Impact Risk Zones mailbox: neirzs@naturalengland.org.uk.

Update of the SSSI Impact Risk Zone Dataset

The SSSI IRZ Dataset is updated regularly to reflect improvements in our evidence and understanding of the sensitivities and potential risks to SSSIs. Updates are undertaken every two months and users should ensure that they are always using the most up to date version of the dataset.

Step by step guide to using the SSSI IRZs Dataset

Switch on the SSSI IRZs layer, zoom to the location of the proposed development and interrogate the SSSI IRZs layer at that location.

If using the SSSI IRZs on Magic, set the map scale to 1:10,000 and use the Identify tool to click on the map at the location of the proposed development. To define an area of interest, use the Site Check tool.

The area of a proposed development may coincide with more than one SSSI IRZ and care should be taken to ensure all IRZs are checked and all potential risks are identified.



The results table will show a list of development categories in the left hand margin with a corresponding development description in the right hand margin. In some areas there is also a Note.



Does the nature and scale of the proposed development match one or more of the development descriptions listed in the right hand margin of the results table alongside a development category?



The proposed development has the potential to impact upon a SSSI.

The Local Planning Authority should consult Natural England for advice on how impacts might be avoided or mitigated.

Consultations should be sent to consultations@naturalengland.org.uk

If you are a developer, consultant or member of the public preparing to submit a planning application, Natural England can be consulted for pre-application advice on how impacts might be avoided or mitigated.

See the gov.uk website for further information on our pre-application discretionary advice service (DAS).



Is there a Note that contains advice relevant to the proposed development?



The proposed development has the potential to impact upon a SSSI.

The Note provides additional advice that should be followed.



The proposed development is unlikely to pose a risk to SSSIs.

The Local Planning Authority does not normally need to consult Natural England on this proposal regarding likely impacts on SSSIs (but see Important Notes on the following page).

Important Notes

1. The SSSI IRZs do not currently cover potential risks from coastal schemes such as coastal defences, cliff stabilisation, cross beach structures, harbour and marina development. Natural England should be consulted on any such development which is likely to affect a coastal SSSI.
2. The SSSI IRZs seek to guide consultations relating to the likely impacts of development on SSSIs under Schedule 4 (w) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 and section 281 of the Wildlife and Countryside Act 1981 (as amended). They do not alter or remove the requirements to consult Natural England on other natural environment impacts or other types of development proposal under the Town and Country Planning (Development Management Procedure) (England) Order 2015 and other statutory requirements.
3. It is important to note that the SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of SSSIs. Where they indicate such a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment.

Questions and Answers

Purpose and Use

What are Natural England's SSSI IRZs?

The SSSI IRZs are a GIS tool/dataset. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

How does Natural England use the SSSI IRZs?

Natural England is a statutory consultee on development proposals that might impact on SSSIs. When a consultation is received, the SSSI IRZs are used to make a rapid initial assessment of the potential risks to SSSIs posed by development proposals. This allows Natural England to quickly determine which consultations are unlikely to pose risks and which require more detailed consideration.

How can Local Planning authorities use the SSSI IRZs?

Local Planning Authorities (LPAs) have a duty to consult Natural England before granting planning permission on any development that is in or likely to affect a SSSI. The SSSI IRZs can be used by LPAs to consider whether a proposed development is likely to affect a SSSI and determine whether they will need to consult Natural England to seek advice on the nature of any potential SSSI impacts and how they might be avoided or mitigated. For a step-by-step guide to using the SSSI IRZs see the flow chart in [Appendix 1](#).

Do the SSSI IRZs reflect the interest features and sensitivities of European sites?

European sites are underpinned by the SSSI designation and their interest features and sensitivities are covered by the SSSI IRZs. Where the notified features of the European site and SSSI are different, the SSSI IRZs have been set so that they reflect both. The SSSI IRZs can therefore be used as part of a Habitats Regulations Assessment (HRA) to help determine whether there are likely to be significant effects from a particular development on the interest features of the European site. The SSSI IRZs also cover "Compensation Sites" which have been secured as compensation for impacts on European/Ramsar sites. Each Compensation Site has been given the same IRZs as the European/Ramsar site(s) it is providing compensation for.

Do the IRZs alter the arrangements to consult Natural England?

The IRZs seek to guide consultations relating to the likely impacts of development on SSSIs under Schedule 4 (w) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 and section 28I of the Wildlife and Countryside Act 1981 (as amended). They do not alter or remove the requirements to consult Natural England on other natural environment impacts or other types of development proposal under the Town and Country Planning (Development Management Procedure) (England) Order 2015 and other statutory requirements.

For further information on when to consult Natural England on planning proposals see the [gov.uk website](#).

All consultations should be sent to consultations@naturalengland.org.uk.

How can developers, consultants and members of the public use the SSSI IRZs?

The SSSI IRZs can be used by developers, consultants or members of the public, who are preparing to submit a planning application. They will help them to consider whether a proposed development is likely to affect a SSSI and choose whether to seek pre-application advice from Natural England. This will allow any potential impacts to be taken into account within the planning application and so minimise the risk of delays at the formal planning stage.

For a step-by-step guide to using the SSSI IRZs see the flow chart in [Appendix 1](#).

Further information on Natural England's pre-application Discretionary Advice Service (DAS) is available on the gov.uk website.

What types of development are covered by the SSSI IRZs?

Potential impacts from most types of development requiring planning permission are covered by the SSSI IRZs. One important exception is any development proposal with the potential to impact on coastal processes. The SSSI IRZs do not currently cover potential risks from coastal schemes such as coastal defences, cliff stabilisation, cross beach structures, harbour and marina development. Natural England should be consulted on any coastal scheme which is likely to affect a coastal SSSI.

What does it mean when a development is indicated by the SSSI IRZs?

If the development descriptions in the SSSI IRZs at a chosen location match the nature and scale of a proposed development, this indicates the potential for impact and means that more detailed consideration is required. In this case Natural England should be consulted for advice on any potential impacts on SSSIs and how these might be avoided or mitigated.

What does it mean when there is advice in the Notes field(s)?

A Note in the SSSI IRZs at a chosen location provides additional advice for particular development types that should be followed. It does not remove the requirement to consult Natural England where other SSSI IRZs indicate consultation is necessary.

What does it mean when a development is not indicated by the SSSI IRZs?

If the development descriptions in the SSSI IRZs at a chosen location do not match the nature and scale of a proposed development and there is no relevant advice in the Notes fields, this signifies that the development, as proposed, is unlikely to pose a significant risk to the notified features of any SSSI(s) and normally no further consultation with Natural England regarding likely effects on SSSIs is required (see *Coastal Schemes* exception above).

When using the SSSI IRZs and interpreting the information they provide, it is important to note that they only indicate Natural England's assessment of likely risk to the notified features of SSSIs. Where they indicate such a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment.

Maintenance and Development

How often is the SSSI IRZ dataset updated?

A new version of the dataset is uploaded onto the [Natural England Open Data Geoportal](#), [Defra Data Services Platform](#) and [Magic](#) every two months.

Do the SSSI IRZs reflect the site specific sensitivities of each SSSI?

Yes. The SSSI IRZs for each SSSI have been drawn to reflect the specific features for which the site is notified. Natural England's local team staff have reviewed the SSSI IRZs and where necessary the IRZs have been varied to reflect locally specific site sensitivities. Ensuring that the SSSI IRZs continue to reflect our understanding of locally specific site sensitivities is an ongoing process which will depend on the input of Natural England's area teams and our local partners.

Do the SSSI IRZs take into account local circumstances?

Yes. Natural England's local team staff have reviewed the SSSI IRZs and where necessary the IRZs have been varied to reflect specific local circumstances such as known water quality issues or particular development pressures. Ensuring that the SSSI IRZs continue to reflect local circumstances is an ongoing process which will depend on the input of Natural England's area teams and our local partners.

How are the SSSI IRZs kept up to date with emerging evidence and improvements of our understanding of SSSI sensitivities?

Natural England's specialists continue to review the evidence and advise the IRZ project on changes required to ensure the IRZs reflect our current understanding of SSSI sensitivities. We also welcome input from Natural England's area teams and their local partners, and encourage them to contribute to the update and development of SSSI IRZs in their area.

What can I do if I think the IRZs of a particular SSSI do not accurately reflect the sensitivities of the site?

Ensuring that the SSSI IRZs continue to reflect our current understanding of specific site sensitivities is an ongoing process which will depend on the input of Natural England's specialists, area teams and our local partners. If you think the IRZs for one or more SSSIs need to be reviewed and/or updated you should either speak to the area team IRZ lead or contact the IRZ project team directly through the Impact Risk Zones mailbox: neirzs@naturalengland.org.uk.

What can I do if I think that the potential impacts of a particular type of development are not adequately reflected in the SSSI IRZs?

Ensuring that the SSSI IRZs continue to reflect our current understanding of the potential risks posed to SSSIs by different types of development is an ongoing process which will depend on the input of Natural England's specialists, area teams and our local partners. If you think there is a significant risk which is not reflected in the SSSI IRZs you should contact the IRZ project team directly through the Impact Risk Zones mailbox: neirzs@naturalengland.org.uk.