Preliminary Ecological Assessment & Biodiversity Net Gain Report

Griffin Park Tactical Training Facility

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PRELIMINARY ECOLOGICAL APPRAISAL & BIODIVERSITY NET GAIN REPORT

Griffin Park Tactical Training Facility

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1.0 EXECUTIVE SUMMARY

DWS was commissioned by Avison Young in October 2024 to undertake a desk-based study and a Preliminary Ecological Appraisal (PEA) habitat survey and biodiversity net gain calculation in relation to land within the Griffin Park Tactical Training Facility, Seascale, CA20 1DW. The approximate central grid reference for site is **NY 03392 05235**. The survey is required prior to proposal to add to the existing car park on site and install a memorial garden.

The ecological assessment took place on 30th October 2024 in accordance with the UK Habitat Classification methodology (Butcher et al., 2020), using the most up to date version on the UK Habitat Classification (Version 2.0). The survey work was carried out by Laura Thompson BSc (Hons) ACIEEM, Principal Ecologist employed by DWS. The information collected during the survey was then approximately mapped and can be found in Figures 3 & 4, Appendix A.

Three main habitat land categories were identified on site under the UKHab system of habitat classification. The site is a developed car park with both sealed and unsealed surface present, with modified grassland to the north.

The grassland on site provides some poor opportunities for species such as birds and small mammals to forage. The site is largely unsuitable to support protected species given its location and poor habitats within the surveyed area.

As the works on site will be localised to the area of modified grassland, it is unlikely that impacts will occur on designated sites. The nearby designated sites do not feature similar habitats to those on site and the grassland to be lost is unlikely to support the same species that Terrace Bank Wood and so no indirect effects are expected.

The Biodiversity Metric calculation shows the following:

On-site baseline :	On-site proposals:
• 0.76 habitat units • 0 hedgerow units • 0 watercourse unit	• 0.84 habitat units • 0 hedgerow units • 0 watercourse units

This results in an **10.86% gain** of biodiversity on site. Further works are recommended to create a net gain.

Working methods should be followed to ensure that all mammals are safeguarded.

The recommendations made in this report are relevant for 18 months from the date of issue of this report and are in line with current proposals. Changes to these proposals may lead to a change in recommendations.

2.0 INTRODUCTION

2.1 Background

DWS was commissioned by Avison Young in October 2024 to undertake a desk-based study and a Preliminary Ecological Appraisal (PEA) habitat survey and biodiversity net gain calculation in relation to land within the Griffin Park Tactical Training Facility, Seascale, CA20 1DW. The approximate central grid reference for site is **NY 03392 05235**. The survey is required prior to proposal to add to the existing car park on site and install a memorial garden.

2.2 Site Description

The site is an area of grassland and existing car park within the Griffin Park Tactical Training Facility within Seascale, Cumbria. The site sits adjacent to the north of Sellafield, a large area of industrial units forming a Nuclear plant on the Cumbrian coast. To the west of the training facility is a large area of car parking. Other than these 2 features, the remainder of the surrounding area is open pasture fields, woodland, or the River Calder which runs along the western elevation of the training site. The A595, a relatively major road running through the western lakes, is around 1.4 kilometres east of site. The site is also around 2.4km north-east of the coast of the Irish Sea.

2.3 Survey Objectives

The principal objective of the ecological assessment was to characterise and map the habitats present within the site. In addition, the study area was assessed for features that would indicate the presence of protected species, habitats of nature conservation importance and the presence of non-native invasive species that could represent a constraint to development. Any trees and surrounding habitats were assessed in terms of their potential to support, or actual evidence of, roosting bats. This assessment will form the basis of recommendations for further survey work and/or mitigation and compensation for the species.

This report will also show the site baseline biodiversity, in habitat units, and demonstrate the gain / loss in biodiversity brought about by site proposals.

3.0 PLANNING POLICY AND LEGISLATION

3.1 Habitat and Species Legislation

Species and habitats receive legal protection in the UK under various legislation, including:

- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Conservation of Habitats and Species Regulation 2017 (as amended) (also known as the Habitat Regulations, it implements the EU Habitats Directive in England and Wales);
- The Countryside Rights of Way (CRoW) Act 2000;
- The Hedgerows Regulations 1997;
- The Protection of Badgers Act 1992;
- The Natural Environment and Rural Communities (NERC) Act 2006;
- Town and Country Planning Act 1990;
- Environment Act 2021; and
- The Biodiversity Gain Site Register Regulations 2024

Where relevant, this report takes into account the legislative protection afforded to specific habitats and species.

3.2 National Planning Policy Framework

The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how local planning authorities should incorporate them into their own policies and plans. Section 11 of the NPPF contains several policies targeted at enhancing the natural environment and requires local authorities to consider how impacts on biodiversity can be minimised and provide net gains in biodiversity. Additional Planning Practice Guidance (PPGs) supports the NPPF and includes guidance on:

- Landscape;
- Biodiversity, ecosystems and green infrastructure; and
- Brownfield land, soils and agricultural land.

3.3 UK Post-2010 Biodiversity Framework

The UK Biodiversity Action Plan (UK BAP) was succeeded in 2012 by the 'UK Post-2010 Biodiversity Framework' which demonstrates a whole-environment strategy on how the UK contributes to achieving the Convention on Biological Diversity's (CBD) 20 Aichi Biodiversity Targets. In England, 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' (Defra, 2011) sets out the strategic direction for biodiversity policy in the future.

The former UK BAP was used to draw up lists of species and habitats of 'principal importance' which continue to be regarded as priorities under the Post-2010 Biodiversity Framework and are identified under Section 41 of the NERC Act 2006; these species have been considered throughout this report.

3.4 Local Planning Policy & Biodiversity Action Plan

Cumbria has a Local Nature Recovery Strategy which details the priorities for nature recovery in Cumbria, part of the Nature Recovery Network for England. The purpose of the LNRS is to restore and connect habitats including planting trees, restoring peatland, improving grassland condition, and mitigating flood risk. This is currently in draft form (Cumbria Local Nature Recovery, 2024).

3.5 Biodiversity Net Gain

The Environment Act 2021 introduced a 10% net gain in biodiversity from 12th February 2024, mandatory under Schedule 14 of the Town and Country Planning Act 1990. This means that developers must deliver a minimum of 10% measurable biodiversity net gain resulting in more or better-quality natural habitat than was present prior to development.

3.6 Species Specific Legislation

Birds

All wild birds in the UK are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally (or recklessly in Scotland) kill, injure or take any wild bird or to take, damage or destroy the nest (whilst being built or in use) or its eggs.

Bird species listed in Schedule 1 of the 1981 Act, receive further protection which makes it an offence to intentionally or recklessly disturb these species while building a nest or in, on or near a nest containing eggs or young; or to disturb dependent young of such a bird.

In addition to statutory protection, some bird species are classified according to their conservation status, such as their inclusion on the Red and Amber lists of Birds of Conservation Concern (BoCC) in the UK (Eaton et al. 2021):

- Red list (high conservation concern) species are those that are Globally Threatened according to IUCN criteria; those whose population has declined rapidly (50% or more) in recent years; and those that have declined historically and not shown a substantial recent recovery.

- Amber list (medium conservation concern) species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately (between 25% and 49%) in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations.

- Green list (low conservation concern) species fulfil none of the above criteria.

Mammals

Bats

All bat species and their roosts in Britain are protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. The implementation of the Countryside and Rights of Way Act 2000 (CRoW, 2000) has amended the WCA 1981 to include 'reckless' damage to, or destruction of a roost, or disturbance of bats whilst in a roost.

Bats are also included on Annex IV of Council Directive 92/43/EEC of 21st May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (known as the Habitats Directive). As a result of the United Kingdom ratifying this directive, all British bats are protected under The Conservation of Habitats and Species Regulations, 2017 (as amended). Combined, these make it an offence to kill, injure, capture or disturb bats or obstruct access to, damage or destroy roosts.

Paragraph 43 of the Regulations states: a person who deliberately disturbs wild animals of any such (European Protected) species, is guilty of an offence. For the purposes of this paragraph, the disturbance of animals includes any disturbance which is likely: -

a. to impair their ability-
   i. to survive, to breed or reproduce, or to rear or nurture their young, or
   ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
b. to affect significantly the local distribution or abundance of the species to which they belong.

Under the law, a bat roost is any structure or place used for shelter or protection e.g. a building, bridge or tree. Bats use many roost sites and feeding areas throughout the year and they tend to re-use the same roosts for generations.

Badger *Meles meles*

Badgers receive strict protection under the Protection of Badgers Act 1992, which makes it an offence to wilfully kill, injure or take a badger or interfere with a badger sett by damaging a sett or any part thereof. It is also an offence to wilfully destroy a sett, obstruct access to a sett or disturb a badger while occupying a sett. The 1992 Act defines a badger sett as 'any structure or place, which displays signs indicating current use by a badger'. Work that disturbs badgers whilst occupying a sett is illegal without a licence.

West European Hedgehog *Erinaceous europaeus*

The west European hedgehog is protected by under Schedule 6 of the WCA (1981 as amended), making it illegal to kill or capture the species using certain methods. Hedgehogs are also protected under the Wild Mammals Protection Act (1996) making it illegal to treat a hedgehog cruelly. Due to a rapid decline in numbers the hedgehog is included on the International Union for Conservation of Nature (IUCN) Red List (IUCN, 2020).

Red Squirrel *Sciurus vulgaris*

Red squirrels currently receive full protection under the Wildlife & Countryside Act 1981 (as amended).

Riparian Mammals

Otter *Lutra lutra* is fully protected through its inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence under the Wildlife and Countryside Act 1981 (sections 9(1) and 9(4), Schedule 5) to intentionally kill, injure or take any wild animal included on Schedule 5. Under Section 9(4) it is an offence to damage or destroy or obstruct access to, any structure or place which any wild animal include in Schedule 5 uses for shelter or protection, or disturb any such animal while it is occupying a structure or place which it uses for that purpose. The term given to places of shelter or protection for otters includes ‘holt’, ‘couch’ and ‘den’. These terms all have slightly different origins and meaning, but all are related to places of shelter. Otter is also included as a priority species in the UK BAP.

Water Vole *Arvicola amphibius* are protected under the Wildlife and Countryside Act 1981. It is an offence to intentionally:

- kill, injure or take them
- possess or control them (alive or dead)
- It is also an offence to intentionally or recklessly:
  - damage or destroy a structure or place used for shelter or protection
  - disturb them in a place used for shelter or protection
  - obstruct access to a place used for shelter or protection

Other Small Mammals

Other small mammals such as shrews, for example, are protected under Schedule 6 of the WCA 1981 (as amended).

Great Crested Newt *Triturus cristatus*

The great crested newt (GCN) is fully protected through its inclusion in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations, 2017 (as amended) as a European protected species.

4.0 METHODOLOGY

4.1 Desk Based Study

The Multi Agency Geographic Information for the Countryside (MAGIC) website was used to ascertain whether there are any designated sites of interest, on or near the site being surveyed. The Cumbria Biodiversity Data Centre (CBDC) were contacted for records of protected species and sites within 2km of the site. The Cumbria Local Nature Recovery Strategy was consulted to ascertain the connectivity of the site, and/ or whether the area falls into recognised green infrastructure.

4.2 Survey Approach

The ecological assessment took place on 30th October 2024 in accordance with the UK Habitat Classification methodology (Butcher et al., 2020), using the most up to date version on the UK Habitat Classification (Version 2.0). Habitats were recorded on site and then mapped using QGIS, using a minimum mapping unit of 25m^2 and/ or 5m length. Use of Secondary Codes was not restricted with optional and mandatory codes used in mapping. Mandatory use of Secondary Codes are:

1. Habitat mosaics.
2. Priority and Annex 1 habitats that occur in multiple Primary Habitats.
3. Habitat origins.

The survey work was carried out by Laura Thompson BSc (Hons) ACIEEM, Principal Ecologist employed by DWS. The information collected during the survey was then approximately mapped and can be found in Figures 3 - 4, Appendix A.

4.3 Controlled Invasive Species

The site was surveyed during an Ecological Walkover survey for the presence of invasive non-native species including Japanese knotweed *Fallopia japonica,* Himalayan balsam *Impatiens glandulifera* and giant hogweed *Heracleum mantegazzianum* and cotoneaster *Cotoneaster spp.*, which are listed under Schedule 9 part ii of the Wildlife and Countryside Act 1981 (as amended). Under section 14 of the Act it is an offence to cause the spread or relocation of either species.

4.4 Protected Species and Other Species of Nature Conservation Importance

An appraisal of the habitats present on the site was undertaken during the Ecological Walkover survey, to identify whether there were any signs to suggest the presence of populations of legally protected species or other species of nature conservation importance including mammals, birds, reptiles, amphibians, and invertebrates or that the features present could potentially provide these species with suitable habitats. Where possible, a buffer of 30m outside of the site boundary was also assessed for signs of badger.

4.5 Biodiversity Metrics

The scheme was input into the Statutory Biodiversity Metrics (DEFRA, 2024) using the following methodology:

- Distinctiveness is filled in automatically by the metrics.
- Condition assessments were carried out using the Statutory Biodiversity Metric Condition Assessments (DEFRA, 2024) during the site visit carried out 30th October 2024.
- The site was mapped in QGIS from data collected during the site visit. This provided areas for input into the BNG.
- Proposed areas of habitat mapping have been used from the plans titled “AY-CNC-006 Planting Plan” & “AY-CNC-007 Setting out plan” by Bea Ray Garden Design Ltd and provided by Avison Young.
- Individual tree habitat size is estimated using the tree helper tool within the Statutory Biodiversity Metric. Tree size is decided by the diameter at breast height (DBH) as explained within The Statutory Biodiversity Metric User Guide (DEFRA, 2024):

1. Trees with a diameter of less that 75mm are not counted.
2. Trees between 75mm and 300mm are classed as small.
3. Trees between 300 – 600mm are medium
4. Trees between 600 – 900mm are large.
5. Those greater than 900m are very large.

- All newly planted trees are input as small, being unlikely to reach a larger size within the 30-year lifespan of the Biodiversity Metrics.
- The Cumbria LNR Habitats basemap was consulted to assess the strategic significance of site. The site is not identified as any green infrastructure or policy and has therefore been included within the metric as “site not within local strategy”.
- All habitats are recorded as “On site”.

4.6 Surveyor Experience

Laura Thompson BSc (Hons) ACIEEM

Laura has been working in Ecology since 2011, while studying for her Biology degree from Newcastle University. Early years were spent carrying out a range of bat surveys for various companies. Laura has been employed by DWS since 2017, being promoted to Senior Ecologist in 2022; as a Senior Ecologist Laura undertakes all aspects of Ecology work from initial surveys through to follow- up protected species surveys and supervision work. Laura is an experienced bat Ecologist, having undertaken a range of preliminary roost assessments and nocturnal surveys over the years, as well as hibernation surveys, supervision works, and bat handling. Laura holds her class 2 bat licence in England, as well as a NatureScot bat licence, both English and Scottish licences for great crested newts, and is currently working towards her barn owl licence.

Laura has been working on BNG projects since early in the process and is experienced in using the Biodiversity Metrics from 2.0 onwards, keeping up to date with changes as they develop. She has experience of completing both large and small net gain projects and has attended training in using the metrics to solidify her skills.

4.7 Constraints and Assumptions

The habitat survey was carried out at sub-optimal time of year. However, the habitat on site is regularly mown and is therefore likely to be the same in summer as in winter. No major constraints were noted in relation to habitat classification.

Habitats due be created as part of the site proposals have been condition assessed in a conservative manner, designed to be realistic and achievable. Should habitats not reach these conditions, then biodiversity net gain of the project will be lower than that predicted.

5.0 SURVEY RESULTS

5.1 Desk Based Study

The results obtained from the MAGIC search revealed one statutory designated site within 2km of site: Low Church Moss Site of Special Scientific Interest (SSSI). Data returned from CBDC returned 8 non-statutory designated sites.

A summary of designated sites within 2km of the site is provided in Table 1 below.

Table 1 Designated sites within 2km.

Site Name	Designation	Approx. Distance from Site	Further Information
Low Church Moss	SSSI Site of Invertebrates Significance	1.8km north-west	A wetland site supporting a variety of habitats which are otherwise very scarce on the intensively farmed west Cumbria coastal plain. Habitats include wet heath, acidic marshy grassland, tall fen and swamp, willow scrub, and a transition between poor fen and open water. A variety of uncommon plants have been recorded on the site and these include dyer's greenweed *Genista tinctoria*, needle whin *Genista anglica*, long-stalked yellow sedge *Carex lepidocarpa* and royal fern *Osmunda regalis*. The site has a rich invertebrate fauna and is noted in particular for Chrysomelid and Curculionid beetles with several species which are scarce in Cumbria.
Sellafield Disused Railway Line	Site of Invertebrates Significance	1.8km south-west	No further information.
Sellafield Tarn	County Wildlife Site	1.4km south-west	No further information.
Newton Manor	Site of Invertebrates Significance	1.1km south-east	No further information.
Ponsonby Tarn	County Wildlife Site	1.1km south-east	No further information.
Calder Bridge Wood	County Wildlife Site	1.2km north-east	No further information.
Terrace Bank Wood	County Wildlife Site	220m east	No further information.
River Calder Banks	Local Geological Site	100m east	No further information.

MAGIC also reveals the site to be within a SSSI Impact Risk Zone (IRZ) and works of the following nature require consultation with Natural England:

- **Infrastructure:** Pipelines and underground cables, pylons and overhead cables (excluding upgrades and refurbishment of existing network). Any transport proposal including new or extended footways,

cycleways, roads/car parks, railways and waterways (excluding routine maintenance). Airports, helipads and other aviation proposals.

- **Minerals, Oil and Gas:** Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.
- **Air Pollution:** Any industrial/agricultural development that could cause AIR POLLUTION (including: industrial processes, livestock & poultry units with a floorspace > 500m², slurry lagoons > 200m² & manure stores > 250 tonnes).
- **Combustion:** General combustion processes >20MW 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. Including: inert landfill, non-hazardous landfill, hazardous landfill.
- **Compost:** Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.
- **Water Supply:** Large infrastructure such as warehousing/industry where the total net additional gross internal floorspace following development is 1,000m² or more. (Natural England, 2024)

3.6.1 Wildlife and Green Corridors

The site is not highlighted as an area of connectivity or important habitat within the Cumbria LNR Habitats Basemap. The site is in close proximity to deciduous woodland and the River Calder, part of the River Calder Banks LGS which provides some connectivity within the local area, particularly to the north-east.

Table 2 Summary of Protected and Notable Species from ERIC Consultation Data

Common Name	Scientific Name	No. Records	Most recent date	Closest record (km)
Otter	*Lutra lutra*	5	2016	0.3
Badger	*Meles meles*	47	2010	0.3
Pipistrelle species	*Pipistrellus sp.*	43	2022	0.1
Common pipistrelle	*Pipistrellus pipistrellus*	30	2019	0.1
West European hedgehog	*Erinaceus europaeus*	65	2022	0
Red squirrel	*Sciurus vulgaris*	84	2021	0.4
Great crested newt	*Triturus cristatus*	4	2011	1.7
Daubenton's bat	*Myotis daubentonii*	3	2015	0
Noctule	*Nyctalus noctula*	21	2022	0.1
Soprano pipistrelle	*Pipistrellus pygmaeus*	42	2021	0
Brown long-eared bat	*Plecotus auritus*	5	2018	0.2
Common lizard	*Zootoca vivipara*	8	2016	0.4
Bat	Chiroptera	48	2015	0.2

The search on MAGIC revealed 5 granted European Protected Species Mitigation licences for bats, and 2 for amphibians within 2km of site. Details are:

- Destruction of a resting place for common pipistrelle and soprano pipistrelle between 2018 – 2024.
- Damage and destruction of a resting place for common pipistrelle between 2014 – 2016.
- Destruction of a resting place for common pipistrelle and soprano pipistrelle between 2010 – 2012.
- Destruction of a resting place for common pipistrelle and soprano pipistrelle between 2013 – 2014.
- Destruction of a resting place for common pipistrelle between 2020 – 2026.
- Damage and destruction of a resting place for great crested newt between 2018 – 2024.
- Damage and destruction of a resting place for great crested newt between 2014 – 2015.

A summary of relevant bird records is within Table 3 below. Many records of birds are given as only 4-figure grid references and therefore an accurate distance from site cannot be provided.

Table 3 Summary of relevant bird records within 2km of site

Common Name	Scientific Name	No. Records	Most recent date
Kingfisher	*Alcedo atthis*	7	2020
Brambling	*Fringilla montifringilla*	4	2019
Redwing	*Turdus iliacus*	17	2023
Fieldfare	*Turdus pilaris*	12	2023
Linnet	*Carduelis cannabina*	4	2020
Greenfinch	*Carduelis chloris*	9	2020
Herring gull	*Larus argentatus*	4	2020
Grasshopper warbler	*Locustella naevia*	2	2018
House sparrow	*Passer domesticus*	5	2024
Tree sparrow	*Passer montanus*	11	2020
Starling	*Sturnus vulgaris*	15	2023
Mistle thrush	*Turdus viscivorus*	4	2022

5.2 Walkover Survey

Three main habitat categories were identified within the area under the UKHab system of habitat description. These were:

- g4 – Modified grassland
- u1b – Developed land; sealed surface
- u1c – Artificial unvegetated, unsealed surface

These habitats are shown in and described in Table 4, below, along with relevant photographs. The table also shows how the UKHab habitats are converted into BNG habitats for inclusion in the metric. Appendix A shows the habitat map for the site. Condition assessment of grassland habitat is within the biodiversity net gain section of this report below.

Table 4 Habitat descriptions

Habitat Type		Description	Photograph(s)
UKHab	**BNG**		
g4 – Modified grassland	Modified grassland	The northern portion of the site is comprised of modified grassland of a low, uniform sward, and is clearly regularly managed. The habitat is dominated by grasses which include abundant Yorkshire fog *Holcus lanatu/s* and frequent perennial ryegrass *Lolium perenne*. Herbs occur occasionally – rarely throughout the sward and are generally made up of species indicative of sub-optimal condition such as broadleaved dock *Rumex obtusifolious*, dandelion *Taraxacum officinale*, creeping buttercup *Ranunculus repens*, white clover *Trifolium repens*, and ragwort *Senecio jacobaea*. Within the east of the grassland parcel is an east facing slope with a longer sward. There is a greater proportion of herbs here with species mostly replicating that of the remainder of the habitat but with common nettle *Urtica dioica*, and smooth sow thistle *Sonchus arvensis* also occurring.	 
u1b – Developed land; sealed surface	Developed land; sealed surface	The majority of site is a car park made up of sealed roads. To the north of the car park is a path.	

u1c – Artificial unvegetated, unsealed surface	Artificial unvegetated, unsealed surface	The actual car parking spaces of the car park are comprised of a plastic mesh with gravel.	

5.3 Controlled Invasive Species

No controlled species listed under Schedule 9 part ii of the Wildlife and Countryside Act 1981 (as amended) were recorded during the site visit.

5.4 Protected Species and Species of Nature Conservation Importance

Breeding and wintering birds

No birds were recorded during the walkover survey.

CBDC data shows 3655 bird records within 2km of site. Records include species of higher conservation value such as those on amber and red lists, as well as BAP and NERC Act species. A high proportion of records are for wading and waterbirds, given the site's proximity to the River Calder.

The site provides little opportunity for birds. Grassland may be used to forage by a variety of species but there are no suitable nesting options. Additionally, the site is used regularly for training, resulting in a disturbed area (via foot traffic and noise).

Mammals

Bats

There are 17 bat species found across the UK with species ranging from abundant and widespread (typically common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus*) to rare (including Bechsteins' bat *Myotis bechsteinii*, barbastelle *Barbastella barbastellus*, and the horseshoe bats *Rhinolophus sp.*).

A total of 167 records of bat have been returned within 2km of site, for a total of 5 confirmed species. Seven of the returned records are for roosting bats with common and soprano pipistrelle, noctule, and brown long-eared bat roosts recorded. Roost records are detailed as being around the River Calder.

The site itself holds nil potential for roosting bats with very low commuting and foraging potential. The close-by River Calder and its banks provide very good foraging and commuting and it is much more likely that bats will use this area.

Badger

Badgers are largely nocturnal, omnivorous mammals and live predominately in social groups within setts. They are territorial, marking the borders of the territory with dung which is deposited in latrines or boundary dung pits. Territories occupied by a badger group or 'clan' can be between 14 and 300 ha in size dependant on the quality of the habitats present, with a cited average of 50 ha (Neale and Cheeseman, 1996). Badger territories will usually include a wide range of habitats and favour areas with a mosaic of habitats that include woodland, pasture and arable land and will locate their setts in a variety of habitats including woodland deciduous, coniferous and mixed), scrub, hedgerows, orchards, quarries, sea cliffs, moorland, open fields and downland, although they show a marked preference for wooded areas.

CBDC returned 47 records of badger within 2km of site, though 53% of records are for roadkill individuals, including those closest to site.

No signs of badger were observed during the survey. The grassland on site could be used by badger to commute, forage and build setts, however, the grassland is very exposed and therefore unlikely to be used in comparison to adjacent high-quality habitats including mosaics of woodland and grassland. Training drills are also likely to create disturbance issues for any badgers on site.

West European Hedgehog

In rural areas, preferred habitats include woodland edges, hedgerows in meadowland and rough pasture, where sufficient cover is provided for nesting. Hedgehogs are rarely found in marshy or upland habitats and in coniferous woodland. Hedgehog presence is a good indicator of plentiful ground-dwelling invertebrates, especially worms, caterpillars, snails, slugs and beetles which are preferred food items, and of varied habitat features, such as hedges and copses. Hedgehogs hibernate to conserve energy between November and March, when food is scarce, remaining largely inactive. During the rest of the year, they are predominantly nocturnal and may travel 1-2km in a night within home ranges of 10-50ha. Badgers are natural predators, and the highest numbers are found in urban and suburban gardens where badgers are largely absent. Hedgehogs are widespread in lowland Britain but are patchily distributed.

Sixty-four records of hedgehog were returned within 2km of site, 89% of which are for roadkill, showing that roads around site create significant barriers for this species. Records range from 1988 to 2012 with no recent records.

The grassland on site will provide commuting and foraging opportunities for hedgehog but there are no habitats present which may be used for shelter and it is therefore unlikely that hedgehog will use the site to any significant degree. Roads around the area clearly act as barriers to dispersal. No hedgehogs were observed during the survey.

Red Squirrel

Red squirrels have been declining in Britain for many decades, largely as a consequence of the introduction of the grey squirrel *Sciurus carolinensis*.

Red squirrels are arboreal mammals (living in trees) that can be found in all types of woodland. Broadleaved woodlands are the most beneficial to red squirrel due to the diversity of species and food availability. However, due to competition from grey squirrels, red squirrels are more commonly found in conifer woodlands (RSNE, 2020).

Red squirrels and their resting places are fully protected in Britain; it is an offence to deliberately capture, injure or kill a red squirrel, or to damage, destroy or obstruct their breeding or resting places. It is also an offence to disturb them whilst in their breeding or resting places.

A total of 84 records of red squirrel have been returned from CBDC with records as recent as 2021.

No red squirrel individuals or signs were observed during the survey and there is no suitable habitat on site to support the species.

Great Crested Newt

The great crested newt is widespread amongst lowland Britain. GCN habitats vary throughout the year, with newts found in ponds during the spring, breeding. Summer and Autumn are mostly spent on land, in woodland, hedgerows, marshes, and tussocky grassland habitats. During the winter GCN hibernate, commonly found amongst tree roots and within walls. UK populations are internationally important with the species declining in Europe over the last century, mostly due to loss of ponds and deterioration of habitats.

A total of 4 GCN records have been returned from CBDC, with records listed as from Gosforth and being around 1.8km from site.

There is a single pond only 173m south-east of site and with no major barriers between features. The area is shown to be in a green risk zone (the lowest risk), on Natural England's GCN Risk Zones (Cumbria) map (Natural England, 2023). As a precaution, the proposals were run through Natural England's rapid risk assessment tool, to assess the likelihood of the works leading to an offence being committed in relation to GCN. The results, shown below, indicate that the proposed works will not impact GCN.

Table 5 GCN rapid risk assessment tool results

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)	0.1 - 0.5 ha lost or damaged	0.1
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.1
Rapid risk assessment result:	**GREEN: OFFENCE HIGHLY UNLIKELY**	

6.0 BIODIVERSITY NET GAIN

6.1 Introduction/ Legislation

The aim of the biodiversity net gain is to ensure that developments include an increase in habitat biodiversity in comparison to the habitats on site before development. Documentation is available for classifying habitats so that there is consistency, and the approach is unified across the sector. The biometric calculator tool produced by Natural England and FPCR (2023) allows information to be processed so that biodiversity is quantified before and after development, allowing a % change in biodiversity to be produced. The tool is also useful for providing advice when estimating areas of habitat required for management or habitat creation when off-site compensation is needed.

As of 12th February 2024, Biodiversity Net Gain is a requirement under a statutory framework introduced by Schedule 7A of the Town and Country Planning Act 1990 (inserted by the Environment Act 2021) for new developments in England and requires developers to deliver a 10% net gain in biodiversity through either more or higher-quality habitats, post development. Under the mitigation hierarchy, in the first instance net gain should be delivered on site, though, if necessary, off-site delivery is possible, as is the purchase of statutory biodiversity credits. There is also a requirement for these gains to be secured and managed for a minimum of 30 years.

6.2 Habitat Condition Assessments - Baseline

The habitats within site currently have been assessed against the condition habitat criteria detailed below.

6.2.1 *Grassland – Modified grassland*

Table 6 Condition Sheet: Grassland Habitat Type (low distinctiveness) (DEFRA 2024)

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs **Note - this criterion is essential for achieving Moderate or Good condition.**	N	Maximum of 4 species/m^2.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	N	All mown and uniformly short.
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	No scrub presence.
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Y	No damage.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	N	No bare ground.
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Y	No bracken.
G	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).	Y	No INNS.
		Essential criterion achieved (Yes or No)	N
		Number of criteria passed	4

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	✓

6.2.2 *Other habitats*

Other habitats on site receive no condition assessment, providing no biodiversity units and recorded within the metric calculator with a condition assessment of "N/A – Other"

7.0 BNG GOOD PRACTICE PRINCIPLES

7.1 Good Practice Principles for Development

Taken from the document prepared by CIEEM, CIRIA, & IEMA, the following are the BNG good practice principles for development:

1. Apply the mitigation hierarchy;
2. Avoid losing biodiversity that cannot be offset by gains elsewhere;
3. Be inclusive and equitable;
4. Address risks;
5. Make a measurable net gain contribution;
6. Achieve the best outcome for biodiversity;
7. Be additional;
8. Create a Net Gain legacy;
9. Optimise sustainability;
10. Be transparent.

Appendix B details how this project has applied these principles to the BNG.

8.0 PROPOSED DESIGN

8.1 Retained habitats

Areas of the existing car park and some of the modified grassland within the red line boundary are due to be retained. Urban areas within the car park area provide no biodiversity units.

8.2 Habitat Condition Assessments – Created

Proposals are for an extension to the existing car park on site and the addition of a memorial garden atop existing modified grassland.

Modified grassland

The centre of the garden will feature a lawn, likely to be modified grassland, used for amenity purposes, dominated by grasses and mown short, similar to grassland already present on site.

Table 7 Condition Sheet: Grassland Habitat Type (low distinctiveness)

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs **Note - this criterion is essential for achieving Moderate or Good condition.**	N	Unlikely to be achieved.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	N	Likely to be mown and uniformly short.
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Y	No scrub due to be planted.
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Y	No damage likely.
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	N	No bare ground likely.
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Y	No bracken due to be planted.
G	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).	Y	No INNS due to be planted.
		Essential criterion achieved (Yes or No)	N
		Number of criteria passed	4

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	

Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	✓	

Mixed scrub

The garden will be comprised of native species of scrub which may include species such as:

- Hawthorn *Crataegus monogyna*
- Blackthorn *Prunus spinosa*
- Dogwood *Cornus sanguinea*
- Guelder rose *Viburnum opulus*
- Elder *Sambucus nigra*
- Holly *Ilex aquifolium*
- Hazel *Corylus avellana*

This species list is not exhaustive but includes examples of commonly occurring native scrub species and those which are more commonly planted for ornamental purposes such as guelder rose and dogwood, which has colourful stems over winter.

Table 8 Condition Sheet: Scrub Habitat Type (DEFRA, 2024)

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range). - At least 80% of scrub is native, - There are at least three native woody species, - No single species comprises more than 75% of the cover (except hazel, common juniper *Juniperus communis*, sea buckthorn *Hippophae rhamnoides* (only in its restricted native range), or box *Buxus sempervirens*, which can be up to 100% cover).	Y	At least 3 native woody species to be planted.
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present.	N	All planted at same time so age variation not achievable.
C	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA) and species indicative of suboptimal condition make up less than 5% of ground cover.	Y	None to be planted.
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	N	Scrub will planted in well defined areas of the garden, adjacent hardstanding, which will prevent a well-developed edge from occurring.
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	N	The area of scrub will be relatively small and therefore these features will not occur.
	Number of criteria passed		2

Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved ×/✓
Passes 5 criteria	Good (3)	
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	✓

Individual Trees – Urban Tree

A total of 23 trees are due to be planted on site. This includes 6 ornamental trees within the garden and 17 native species to be planted along the northern boundary of the site. The trees within the garden are due to consist of 2 crab apple *Malus* 'Evereste' and 4 *Prunus serrulata* 'Kanzan' planted atop native scrub. Trees around the north of site should consist of species such as English oak *Quercus robur*, native willow species *Salix sp.*, silver birch *Betula pendula*, native cherry species *Prunus sp.,* rowan *Sorbus aucuparia*, or whitebeam *Sorbus aria*.

Newly planted trees are input into the biodiversity metric as small size, unlikely to become any larger over the 30-year lifespan of the metric agreement. The area of trees to be planted is calculated using the tree helper tool, shown in Table 9 below.

Table 9 Condition Sheet: Individual Tree Habitat Type (DEFRA, 2024)

Condition Assessment Criteria		Criterion passed (Yes or No) (Trees 1 – 6)	Criterion passed (Yes or No) (Trees 7– 23)
A	The tree is a native species (or at least 70% within the block are native species).	N	Y
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y – all individually planted.	Y
C	The tree is mature (or more than 50% within the block are mature).	N – Not likely to grow to maturity during the 30-year span of the metrics.	N
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide, or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	N – Urban and ornamental nature of trees means they will likely be regularly pruned.	Y – trees should be allowed to grow without being regularly pruned.
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N – unlikely to develop over 30-year span of metrics.	N
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y – atop shrubs.	Y – atop modified grassland.
	Number of criteria passed	**2**	**4**

Condition Assessment Result (out of 6 criteria)	Condition Assessment Score	Score Achieved ×/✓	
Passes 5 or 6 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)		✓
Passes 2 or fewer criteria	Poor (1)	✓	

Table 10 Tree helper tool (DEFRA 2024) results: proposed tree areas

Tree helper						
Tree size	Number of trees and area (ha) for each condition state					
	Poor	Area	Moderate	Area	Good	Area
Small	6	0.0244	17	0.0692		0.0000
Medium		0.0000		0.0000		0.0000
Large		0.0000		0.0000		0.0000
Total	**6**	**0.0244**		**0.0692**	**0**	**0.0000**

Other habitats

Additional car parking spaces are proposed within the north of site, with an additional section of road. These will be created within developed land; sealed surface. In keeping with the existing car park, the parking spaces will be created with gravel, an unsealed surface.

Additionally, areas of paving within the garden will be created with limestone paving and gravel and/ or chippings, and will create additional sealed surface and unvegetated, unsealed surface.

The condition assessment of these habitats are both recorded as “N/A – Other” within the metric.

9.0 CONCLUSION AND RECOMMENDATIONS

9.1 Habitats

Three main habitat land categories were identified on site under the UKHab system of habitat classification. The site is a developed car park with both sealed and unsealed surface present, with modified grassland to the north.

The grassland on site provides some poor opportunities for species such as birds and small mammals to forage. The site is largely unsuitable to support protected species given its location and poor habitats within the surveyed area.

9.2 Habitat Connectivity and Corridors

The site is not identified as an area of habitat connectivity or a wildlife corridor and the site within the red line boundary provides little in the way of connectivity. There is much higher quality habitat in close proximity to the north-east of site which is more likely to be used by protected species.

9.3 Designated Sites

There is one statutory designated site, and 7 non-statutory designated sites within 2km of the development site. This includes a SSSI, sites of invertebrate significance, county wildlife sites, and a local geological site. The River Calder Banks LGS and the Terrace Bank Wood CWS both sit within close proximity to site, between 100 and 200m.

As the works on site will be localised to the area of modified grassland, it is unlikely that impacts will occur on designated sites. The nearby designated sites do not feature similar habitats to those on site and the grassland to be lost is unlikely to support the same species that occur at Terrace Bank Wood and so no indirect effects are expected.

9.4 Biodiversity Net Gain

The National Planning Policy Framework (NPPF) outlines government planning policies and how they should be applied within local authorities. The framework places an emphasis on sustainable development, encouraging the re-use of land that has previously been developed in preference to using land that has a higher environmental value and by minimising impacts on biodiversity. The NPPF states that developments should aim to conserve or enhance biodiversity and encourages opportunities to incorporate biodiversity in and around developments.

Taking the requirements of the NPPF into account, opportunities should be sought where possible for nature conservation enhancement at this site with an overall minimum 10% net gain recommended. A precautionary approach has been taken when completing the metrics, making sure that proposals are realistic.

The Biodiversity Metric calculation shows the following:

Table 11 Summary of biodiversity uplift.

On-site baseline :	On-site proposals:
• 0.76 habitat units • 0 hedgerow units • 0 watercourse unit	• 0.84 habitat units • 0 hedgerow units • 0 watercourse units

This results in an 10.86% gain of biodiversity on site. Further works are recommended to create a net gain.

9.5 Recommendations

The recommendations made below are relevant for 18 months from the date of issue of this report and are in line with current proposals. Changes to these proposals may lead to a change in recommendations.

Invasive Plant Species – No invasive plants were recorded on site and therefore no impacts are expected, and no further works are required.

Birds – No additional surveys relating to birds are deemed necessary with the site unlikely to be used for anything other than occasional foraging.

Bats – No features are present on site to support roosting bats and therefore no further surveys are recommended.

Badger – It is unlikely that badger use this site, and no further survey effort is deemed necessary.

Hedgehog – Hedgehog are not likely to significantly use site, and no further works are recommended.

Red Squirrel – No further works are recommended for red squirrels.

Other Mammals – Working methods should be followed to ensure that all mammals are safeguarded. This includes safe storage of materials that may be poisonous to mammals and the covering of any steep-sided excavations at night (or a ramp placed inside the excavation) to allow egress to any mammals that may become trapped.

GCN – Given the results of the rapid risk assessment and the lack of waterbodies on site, further works in respect to GCN are deemed to be unnecessary.

6.0 REFERENCES

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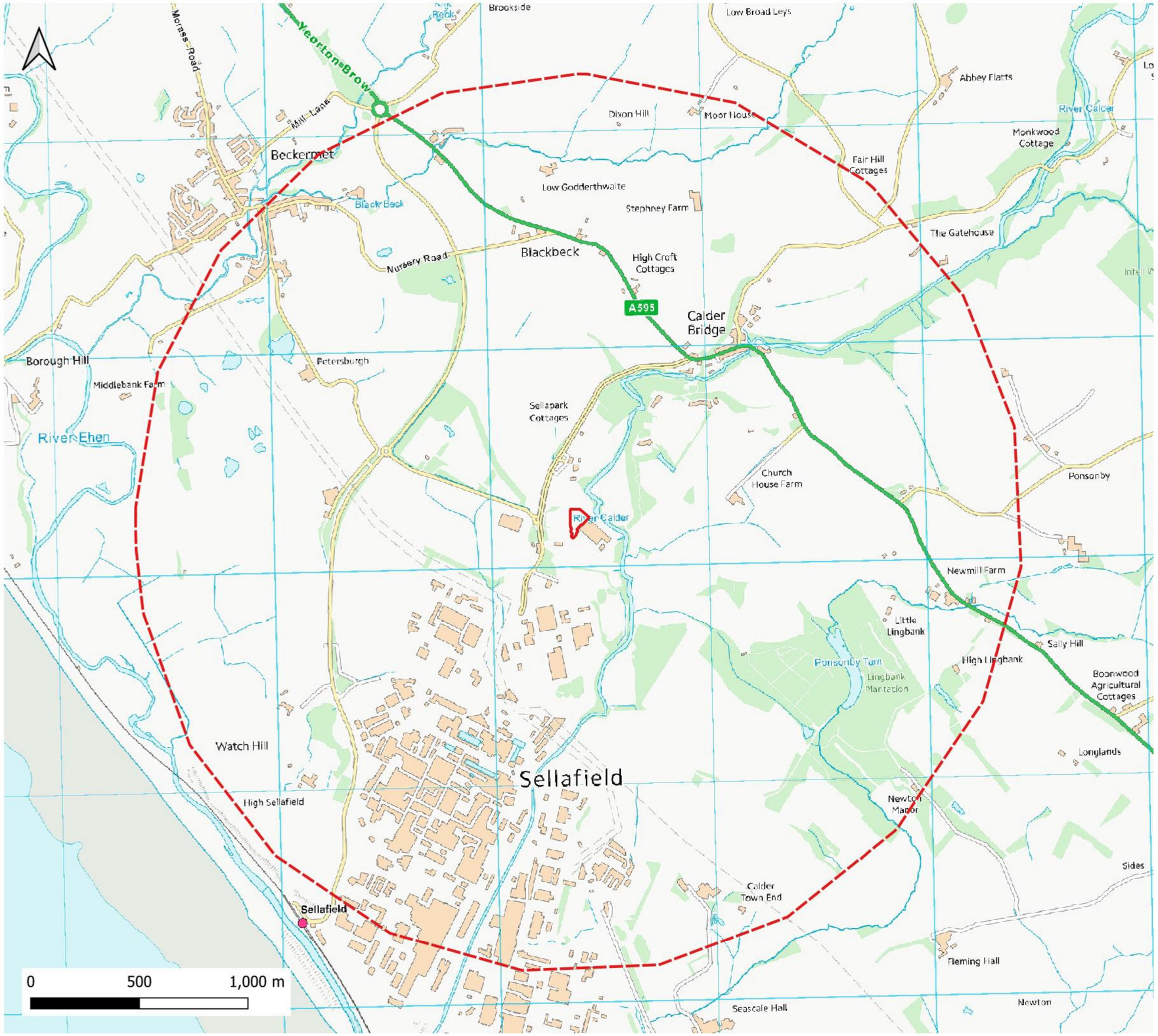
APPENDIX A

Figures



DWS ECOLOGICAL SERVICES

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Houghton-le-Spring
Tyne and Wear
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Project	Grifin Park Tactical Training Facility
Title	Site location
Client	Avison Young
Date	19/11/2024
Ref	Figure 1

Legend

Red line boundary

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Project	Grifiſn Park Tactical Training Facility
Title	Aerial Map
Client	Avison Young
Date	19/11/2024
Ref	Figure 2

Legend

- Red line boundary

HABITATS

- g4 - Modified grassland
- u1b - Developed land; sealed surface
- u1c - Artifical unvegetated, unsealed surface

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Project	Grifiin Park Tactical Training Facility
Title	Habitat Map (UK Habs)
Client	Avison Young
Date	19/11/2024
Ref	Figure 3

Legend

Red Line Boundary

HABITATS

Habitats Baseline

Artificial unvegetated, unsealed surface

Developed land; sealed surface

Modified grassland

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Project	Griffin Park Tactical Training Facility
Title	Habitat map - baseline
Client	Avison Young
Date	21/11/2024
Ref	Figure 4

Legend

Red Line Boundary

HABITATS

Habitats Proposed

- Artificial unvegetated, unsealed surface
- Developed land; sealed surface
- Mixed scrub
- Modified grassland

INDIVIDUAL TREES

Individual tree Proposed

- Proposed Small Urban Tree

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Project	Griffin Park Tactical Training Facility
Title	Habitat map - proposed
Client	Avison Young
Date	08/01/2025
Ref	Figure 5

APPENDIX B

Application of good practice principles

BNG Principle	Indicators
Principle 1. Apply the Mitigation Hierarchy	The mitigation hierarchy starts with avoidance however, the works to create additional car parking spaces are necessary and the memorial garden will lead to an increase in biodiversity. A net gain is achieved by creating additional biodiversity on site which follows the next step of the hierarchy.
Principle 2. Avoid losing biodiversity that cannot be offset by gains elsewhere	There are no irreplaceable habitats on site.
Principle 3. Be inclusive and equitable	This report will be provided to the local planning authority as part of the planning application.
Principle 4. Address risks	A 30-year management and monitoring plan for habitats created should be assembled to ensure biodiversity gains for the lifetime of the project.
Principle 5. Make a measurable Net Gain	The most up-to-date metric has been used (The Statutory Biodiversity Metric Calculation Tool) and shows a net gain for the site.
Principle 6. Achieve the best outcomes for biodiversity	The project achieves the best outcome for biodiversity by increasing the number of habitats on site and adding habitats of higher value which may support additional species.
Principle 7. Be additional	The garden creates additionality by creating a space that can used by people while also supporting fauna and increasing the site biodiversity.
Principle 8. Create a Net Gain legacy	The client is responsible for ensuring net gain for the 30-year lifespan of the metric. It is up them to place someone with appropriate experience in charge of this.
Principle 9. Optimise sustainability	The project provides BNG alongside improving the site for workers.
Principle 10. Be transparent	This report will be submitted as part of the planning process and will therefore be available on the local planning authority planning portal.

(Principles as per CIEEM, 2016)

APPENDIX C

Report Conditions

DWS Ltd

REPORT CONDITIONS

Griffin Park Tactical Training Facility

This report is produced solely for the benefit of Avison Young and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to DWS. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of DWS using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to DWS by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. DWS accept no liability for issues with performance arising from such factors

November 2024