



ECOLOGICAL IMPACT ASSESSMENT AND HABITATS REGULATIONS ASSESSMENT

**WITCHER WELL
DUNSOP BRIDGE**

**RSC-19-01
JANUARY 2021**



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ECOLOGICAL IMPACT ASSESSMENT AND HABITATS REGULATION ASSESSMENT

**WITCHER WELL
DUNSOP BRIDGE
RIBBLE VALLEY
BB7 3AZ**

**GRID REF
SD 65205 52101**

**REPORT FOR
JOHN IBISON**

Quality Assurance

Version	Prepared by	Date	Checked by	Date	Approved by	Date
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This assessment is intended to provide an accurate description of findings from the desktop study and from survey work undertaken on the dates shown; however, it cannot fully account for the reliability of third party data provided or for any changes to site conditions following the completion of the survey work due to activities carried out on site or the dynamic nature of the natural environment. All work carried out by Naturally Wild Consultants Ltd is subject to our Terms and Conditions.

The report has been produced in accordance with current best practice guidelines.

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EXECUTIVE SUMMARY

Naturally Wild were instructed to undertake an Ecological Impact Assessment (EclA), along with an accompanying Habitats Regulations Assessment (HRA) at Witcher Well, Dunsop Bridge. The survey area is comprised of several buildings surrounded by species-rich semi-improved grassland, bracken and a small flush supporting some areas of marshy grassland. The proposals are to convert a building, with previous use as a salmon hatchery, into three separate self-contained holiday apartments, with the creation of a car parking area directly to the north of the building and replacement of a corrugated metal roof with a green roof on another small structure on site to the east of the main building. Work will involve vegetation clearance for car park creation, and works to the roofs of both mentioned buildings, as well as considerable internal works to the building proposed for conversion. Two smaller outbuildings on site will be removed and the ground made good and re-seeded.

The EclA comprised two parts: a desktop study and a series of site visits. The desktop study collated available public information regarding the biodiversity of the area, including the habitat structure of the site and surrounding area and the presence of any statutory or non-statutory designated sites. In addition, biological records within 1 km of the site were requested from the Lancashire Environmental Record Network (LERN).

The initial site visit consisted of an assessment of all habitats on site and in the surrounding area to determine their ecological importance to protected species and was conducted on 24th May 2019 by Director of Ecology David Pollard. Further site visits have been conducted to assess any changes to the original findings, and were conducted on 10th July 2019 by Senior Ecologist Scott Taylor PhD BSc (Hons) and 3rd September 2020 by Ecologist Michael Underwood MSc. A total of three bat activity surveys have also been conducted on site, conducted on 24th May 2019, 10th September 2020 and 28th September 2020.

The site was considered to be of low ecological value overall. Three of the buildings on site were considered to have either low or negligible bat roost potential, with survey work indicating that bats are likely absent, but with a single soprano pipistrelle bat found to be roosting within the salmon hatchery building (B1). It is understood that this roost will be retained as part of the proposed works. There is some suitable habitat for badgers, reptiles and for common amphibians in their terrestrial stage within the vegetation on site, although no evidence of such was found. The semi-improved grassland offers some suitability for ground-nesting birds and foraging bats. The site is also located within priority habitats and forms part of a Biological Heritage Site.

Following the site assessment and in review of the findings, a series of ecological mitigation and enhancement measures to be incorporated into the works have been outlined. These include carrying out conversion works on B1 under a European Protected Species mitigation licence in relation to bats, to be obtained from Natural England, with appropriate mitigation measures being incorporated into the works; carrying out site clearance works following Reasonable Avoidance Measures in relation to reptiles and common amphibians; commencing works outside of bird nesting season, or carrying out a pre-start nesting bird survey if this is not feasible; adequate protection of surrounding vegetation to be retained; implementation of a sensitive lighting scheme; avoiding leaving trenches open overnight; provision of a suitable information leaflet in relation to the nearby Bowland Fells Special Protection Area; provision of enhanced bat roosting and bird nesting habitat; and appropriate soft landscaping. Full details are provided in Section 5.

Providing the recommendations of this report are implemented in full, Naturally Wild would conclude that there will not be a significant impact to protected species or habitats as a result of the proposed works.

**ECOLOGICAL IMPACT ASSESSMENT AND HABITATS REGULATIONS ASSESSMENT:
WITCHER WELL, DUNSOP BRIDGE**

1 INTRODUCTION

Naturally Wild were instructed to undertake an Ecological Impact Assessment (EclA), along with an accompanying Habitats Regulations Assessment (HRA) at Witcher Well, Dunsop Bridge (Figure 1). The survey area is comprised of several buildings surrounded by species-rich semi-improved grassland, bracken and a small flush supporting some areas of marshy grassland. The main objective of the assessment was to determine the suitability of the site to support protected species and to check for any evidence of the presence of protected species, as well as the presence of any protected or notable habitats.

The proposals are to convert a building, with previous use as a salmon hatchery, into three separate self-contained holiday apartments, with the creation of a car parking area directly to the north of the building and replacement of a corrugated metal roof with a green roof on another small structure on site to the east of the main building. Work will involve vegetation clearance for car park creation, and works to the roofs of both mentioned buildings, as well as considerable internal works to the building proposed for conversion. Two smaller outbuildings on site will be removed and the ground made good and re-seeded.

As part of the planning process, an ecological assessment is required to determine if any European, UK Biodiversity Action Plan (BAP) or other important protected species/habitats are likely to be affected by the proposed works, and to show how any negative ecological impacts would be mitigated and compensated.



*Figure 1. Site location plan. Red line shows the area proposed for re-development
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2 RELEVANT LEGISLATION

British wildlife is protected by a range of legislation, the most important being the Wildlife and Countryside Act 1981 (as amended), Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and the Natural Environment and Rural Communities (NERC) Act 2006. The Wildlife and Countryside Act, as amended mainly by the Countryside Rights of Way (CRoW) Act 2000, protects species listed in Schedules 5 and 8 of the Act (animals and plants respectively) from being killed, injured, and used for trade. For some species, such as great crested newts and all bat species, the provisions of this Act go further to protect animals from being disturbed or taken from the wild and protects aspects of their habitats. The Act also stipulates that offences occur regardless of whether they were committed intentionally or recklessly. The parts of this legislation that apply to most reptile species are in regard to killing, injury and trade only and do not protect their habitat, nor are they protected from disturbance or from being taken from their habitat.

The Conservation of Habitats and Species Regulations is the English enactment of European legislation and provides similar but subtly different protection for species listed on Schedules 2 and 4 of those regulations. A recent change in this legislation means that the provisions of this Act now complement those of the Wildlife and Countryside Act more. Species to which these provisions apply are known as European Protected Species. Activities that might cause offences to be committed can be legitimised by obtaining a licence from the relevant statutory body.

The NERC Act 2006 extends the biodiversity duty set out in the CRoW Act to public bodies and statutory undertakers to ensure due regard to the conservation of biodiversity. Section 40 of the Act states: *“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.”* Section 41 of the Act sets out a list of habitats and species that are considered to be of principal importance for the conservation of biodiversity in England. These species may be referred to as ‘priority species/habitats’ or ‘UK BAP priority species/habitats.’

3 METHODOLOGY

3.1 Overview

The EclA comprised of a desktop study and a series of site visits. All work undertaken has been completed in line with official guidelines produced by Natural England and the Chartered Institute for Ecology and Environmental Management, and British Standard document BS 42020: 2013 '*Biodiversity – Code of practice for planning and development.*'

The desktop study collated available public information regarding the biodiversity of the area, including the habitat structure of the site and surrounding area and the presence of any statutory or non-statutory designated sites, and any records of previously granted European Protected Species (EPS) mitigation licences in relation to certain species, using the Multi-Agency Geographic Information for the Countryside (MAGIC) resource. In addition, biological records within 1 km of the site were requested from the Lancashire Environmental Record Network (LERN), which included records of protected and notable species and any nearby non-statutory designated sites (Biological Heritage Sites) not available through MAGIC.

The objective of the surveys was to ascertain if any protected species may be using the site, document the habitats present and determine any potential ecological impacts during and following the completion of the works. The surveys would be completed under suitable weather conditions and by experienced ecologists. Further to this, the results of the desktop study and site surveys would be assessed to determine the ecological impacts posed by the work, any additional survey work required, and how such impacts should be mitigated and compensated for.

In addition to the EclA, due to the application site being situated close to the Bowland Fells Special Protection Area (SPA), an HRA screening has also been included within Section 5 of this report. SPAs are habitats of European Importance designated under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. The HRA screening is necessary to determine whether or not any of the designating features of the SPA will be impacted as a result of the proposed works.

The survey work and the preparation of this report has been conducted by Ecologist Michael Underwood MSc, who is experienced in ecological assessments.

3.2 Survey Area

The application site is located at Grid Reference SD 65205 52101 and can be accessed via a private access road off the main road through Dunsop Bridge. The assessment focused on the application site, as well as all habitats in the immediate surrounding area (where access was available).



Figure 2. Location of the surveyed area. Site boundary is shown by the red line.

(Image taken from Google Earth Pro: ©2020 Map Data Google)

3.3 Survey Constraints

There were no constraints with regards to site access or completion of the survey objectives across the site.

3.4 Field Surveys

3.4.1 Habitat Assessment

The initial survey was carried out on Friday 24th May 2019, with updated surveys taking place on Wednesday 10th July 2019 and most recently on Thursday 3rd September 2020. The surveys consisted of an assessment and classification of the habitats on and adjacent to the site, based on their structure and the dominant vegetation coverage, where present. Following this, the habitats present were assessed for their suitability to support protected species and for the presence of any evidence of protected species.

3.4.2 Protected Species Impact Assessment

Based on the habitats present, the site was assessed with particular regard to determine the presence or otherwise of badgers (*Meles meles*), bats, great crested newts (GCN) (*Triturus cristatus*), nesting birds, and reptiles. An overview of the survey methods used is outlined below.

Badgers: An assessment of the site and surrounding habitats (where access was available), with particular focus on any areas of dense vegetation, was carried out in order to identify any evidence of badgers, including:

- the presence of any setts
- well-used runs/tracks
- supplementary evidence, such as hairs or prints
- badgers themselves

Bats: An assessment of the on-site buildings was carried out in order to identify the presence of any potential roost features (PRFs) for bats, and/or evidence of roosting bats, in accordance with the current Bat Conservation Trust (BCT) survey guidelines (Collins, 2016). An external inspection of the buildings was carried out, focussing on features that may provide roosting opportunities or access points to roosting features internally, such as the roof and ridge tiles, corrugated metal sheeting and fascia boards. An internal inspection was also carried out, with any roof spaces present checked for any evidence of bats. The buildings were then categorised based on their assessed value for roosting bats, in accordance with the BCT guidelines, detailed in Table 1.

Table 1. Guidelines for assessing bat roosting potential of structures and trees.

Suitability	Habitat description	Further action required?
Negligible	Negligible habitat features on site likely to be used by roosting bats.	No further bat risk assessment effort or bat activity surveys are required.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).	Structures: One bat activity survey is required to determine whether the structure is being utilised by roosting bats; this may be a dusk or dawn survey. This survey must occur between May and August. The discovery of a roosting bat during this single bat activity survey will require further survey effort.
	A tree of sufficient size and age to contain PRFs, but with none seen from the ground or features seen with only very limited roosting potential.	Trees: No further bat risk assessment effort or bat activity surveys are required.
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 and surrounding habitat, but unlikely to support a roost of high conservation status.	Two bat activity surveys are required to determine whether the structure or tree is being utilised by roosting bats; this should be comprised of one dusk and one dawn survey. One survey must occur between May and August.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Three bat activity surveys are required to determine whether the structure or tree is being utilised by roosting bats; this should be comprised of one dusk and one dawn survey, with an additional survey (either dusk or dawn). Two surveys must occur between May and August.

Evidence of roosting bats includes: bat droppings in, around or below an entrance hole; staining around an entrance hole; small scratches around an entrance hole; audible squeaking at dusk or in warm weather; smoothening of surfaces around cavity or an entrance hole; distinctive smell of bats.

The assessment was completed using ladders, binoculars and a powerful torch. An endoscope was also available to check any small gaps/cracks for evidence of bats.

In addition to the above, as one of the buildings was assessed to be of low value for roosting bats during the initial assessment (24/05/2019), in accordance with the above guidelines, one activity survey was carried out. A dusk emergence survey was carried out on the evening of Friday 24th May 2019. The survey was carried out by two surveyors using a range of bat detectors and direct visual observation. Naturally Wild staff who conducted the surveys included Director David Pollard (Natural England bat survey licence ref: 2015-8910-CLS-CLS) aided by an experienced assistant surveyor.

As the salmon hatchery was not part of the original plans whilst survey work was conducted in 2019 and was not inspected internally, it was fully inspected (internal and external) during the updated site visit and re-assessment on 3rd September 2020, and as one building was found to contain some evidence of bats during the assessment, again in accordance with the above guidelines, two activity surveys were carried out. A pre-dawn return to roost survey was carried out on the morning of Thursday 10th September 2020 and a dusk emergence survey was carried out on Monday 28th September 2020. The surveys were carried out by two surveyors using bat detectors (Magenta Bat5, Batbox Duet and Pettersson M500) along with direct visual observation. The surveyors took up suitable vantage points around the building in order to observe any bats emerging/returning to roost, with the detectors used to identify bat calls and confirm species present.

The dusk survey commenced 15 minutes before sunset and ended an hour and a half after sunset and the dawn survey commenced an hour and a half before sunrise and concluded 15 minutes after sunrise. Naturally Wild staff who conducted the surveys included ecologists Michael Underwood MSc (Natural England bat survey licence ref: 2020-44798-CLS-CLS) and Samantha Gate BSc (Hons) Grad CIEEM.

Great Crested Newts: An assessment of the habitats present on the site was carried out in order to determine their suitability to support GCN and any natural or artificial refugia (such as logs, stones, discarded building materials etc.) present were also lifted to check for the presence of GCN.

Nesting Birds: The habitats on site were assessed to determine their suitability for nesting, with a check carried out for the presence of any active nests or any evidence of nesting behaviour.

Although the updated survey in September 2020 was conducted outside of the bird nesting season, an assessment of the habitats on site was carried out in order to determine their suitability for nesting birds, including a check for the presence of any existing disused nests.

Reptiles: The assessment for reptiles followed a similar methodology to that for GCN, with an assessment of the habitats present carried out to determine their suitability to support reptiles, and with any refugia lifted to check for the presence of reptiles or evidence of reptiles, such as sloughs (shed skins).

Other Wildlife: In accordance with good practice, the site was checked for the presence of any other protected/notable species, with particular regard to any other species highlighted in the desktop study.

Invasive Species: The site was also surveyed for the presence of any invasive, non-native flora or fauna.

4 RESULTS

4.1 Desktop Study

4.1.1 Designated Sites

Statutory Designated Sites: There are no statutory protected sites on or directly adjacent to the proposed re-development. The nearest statutory protected site is Bowland Fells Special Protection Area (SPA Ref No. UK9005151) and Site of Special Scientific Interest (SSSI Ref No. 1004042). The Bowland Fells designation is situated 0.36 km away to the west of the application site at its closest point, but also occupies the wider landscape to the north and east. It occupies an area of 16007.83 ha, with the habitats largely comprised of blanket bog and heather moorland. The site supports a range of nationally scarce plants and provides suitable habitat for a diverse upland breeding bird community. There are a further two statutory protected sites within 5 km. Further details of both statutory and non-statutory designated site can be found in Table 2.

The Bowland Fells SSSI is located to either side of the application site, with 'unit 43' of the overall SSSI located to the west and unit 44 to the east. Bowland Fells SSSI has main habitat types listed as upland acid grassland, upland bogs and upland dwarf shrub heath. The monitored features of the SSSI include a range of bird species, including hen harrier (*Circus cyaneus*), lesser black-backed gull (*Larus fuscus*), merlin (*Falco columbarius*), peregrine (*Falco peregrinus*), short-eared owl (*Asio flammeus*) and assemblages of breeding birds on upland moorland and grassland with water bodies and woodland. Monitored habitats under the designation include upland alkaline fen, upland blanket bog and valley bog, upland mire grassland and rush pastures, upland short sedge acidic fen, upland spring-head rill and flush, subalpine dwarf shrub heath, upland oakwood, upland wet heath and vascular plant assemblages.

The monitored features of the Bowland Fell SSSI largely pertain to upland areas, with the application site situated at a lowland level (154 m above sea level) adjacent to the River Dunsop.

Due to the Bowland Fells SPA and SSSI not being located on or directly adjacent to the application site, while also being separated from the site by a coniferous plantation woodland, along with the relatively small scale of the works, which will be contained to the footprint of the site, any impacts to the designated areas and any of their qualifying features as a result of the proposed works, either direct or indirect, are expected to be negligible. This is assessed in more detail in the HRA screening assessment in Section 5.



Figure 3. Location of the surveyed site (red) in relation to the surrounding designated SSSI units.
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Non-statutory Designated Sites: The site is situated within the Biological Heritage Site (BHS) Valley of the River Dunsop. The site supports a rich mosaic of habitats such as mire, heathland, species-rich grassland, marshy grassland, species-rich flushes and strands of gorse and bracken. Of particular note is the presence of variegated horsetail (*Equisetum variegatum*) and ivy-leaved bellflower (*Hesperocodon hederaceus*), which are included in the Provisional Lancashire Red Data List of Vascular Plants. The river holds good spawning grounds for salmon (*Salmo salar*) and sea trout (*Salmo trutta trutta*) and supports bird species such as dipper (*Cinclus sp.*), common sandpiper (*Actitis hypoleucos*) and grey wagtail (*Motacilla cinerea*). There are a further five BHSs within 1 km of the proposed development.

Whilst the site is situated within the Valley of the River Dunsop BHS, due to its limited footprint, relatively low impact design (including installation of a green roof with a suitable seed mix) and future site management expected to be of benefit to the BHS, primarily through the management of bracken to maintain the species richness of the grassland and flushes on site, it is considered that the Valley of the River Dunsop BHS and any surrounding BHSs will not be significantly impacted by the proposed development.

Table 2. Statutory and non-statutory designations in the areas surrounding the site.

Designation	Reference	Name	Area (ha)	Distance and direction from site
Statutory Designated Sites				
Sites of Special Scientific Interest (SSSI)	1004042	Bowland Fells	16007.83	0.36 km W (At closest point)
	1003982	Myttons Meadows	10.09	4.9 km E
Special Areas of Conservation (SAC)	UK0014775	North Pennine Dales Meadows	492.67	4.9 km E
Special Protection Areas (SPA)	UK9005151	Bowland Fells	16007.83	0.36 km W (At closest point)
Non-statutory Protected Sites				
Biological Heritage Site	65SE01	Valley of the River Dunsop	34.93	On-site
	65SE07	Lower Whitendale Clough	2.02	1.5km NE
	65SE08	Dunsop Fell and Low Fell	279.16	1.6km E
	65SW03	Hareden Mire	3.41	1.7km SW
	65SE03	Oxenhurst Clough Wood	2.12	2km SE
	65SW02	Penny Brook Wood	1.69	2km W

Notable Habitats: In addition to the BHS designation, above, the area surrounding the site is classed as upland flushes, fens and swamps priority habitat (highlighted on Figure 4, below).

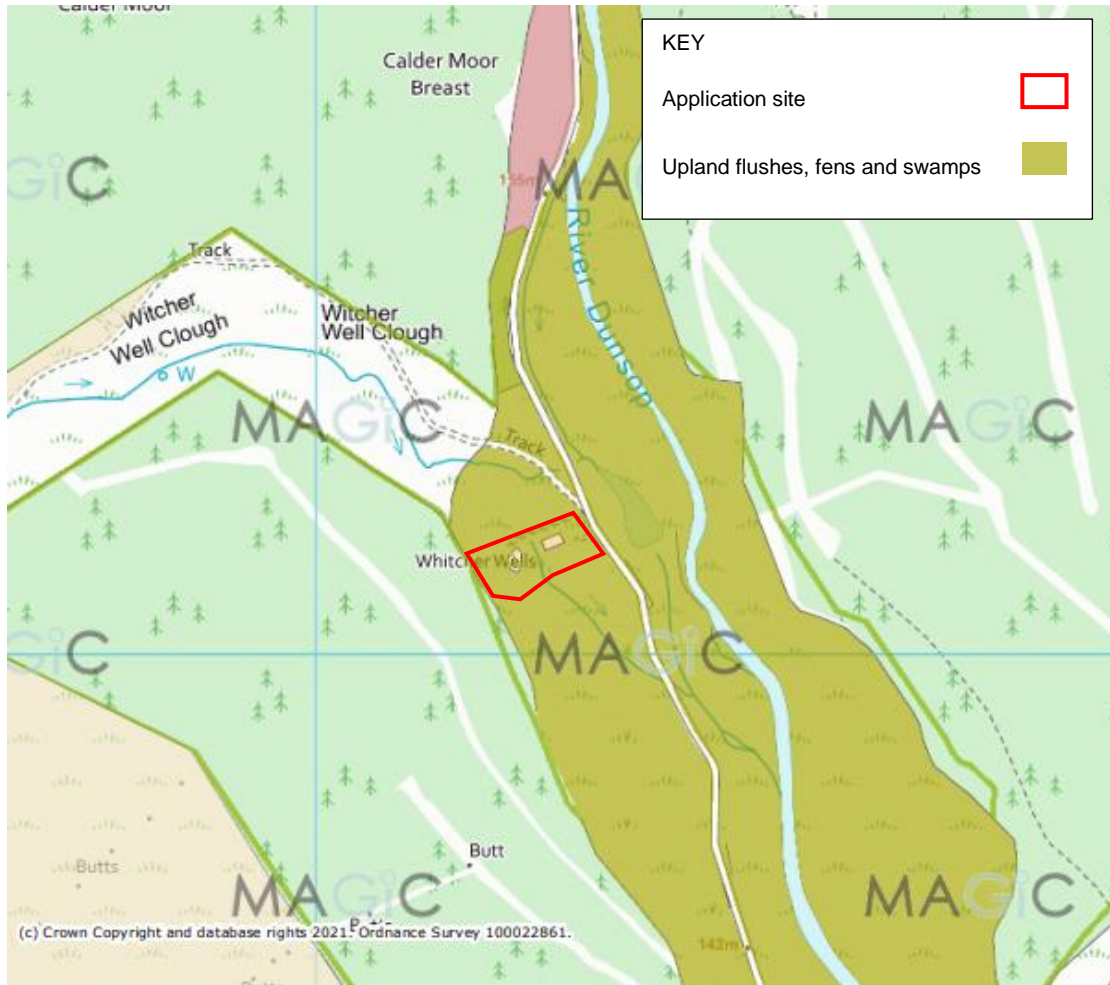


Figure 4. Location of the application site in relation to the surrounding priority habitat.
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Again, due to the small scale of the works, restricted to the boundary of the site and the location of a new seeded gravel parking area upon an area already used as an access route into the site (in line with other measures described previously), any impacts to any notable habitats within the site boundary or surrounding it are expected to be negligible.

4.1.2 Biological Records

Biological records were obtained from the LERN for a 1 km radius surrounding the application site. A total of 526 records were returned, that can be separated into the following groups: one amphibian record (common frog); 122 bird records (37 species); 154 fish records (five species); 207 plant records (26 species); 13 insect records (six species); one liverwort record; one lichen record; 19 moss records (nine species); seven reptile records (common lizard, slow-worm). The importance of individual species records in the context of the proposals are discussed in Section 4.3 – Protected Species, where and if appropriate. A full list of received records is available on request with the permission of the records centre, excluding records of sensitive species.

4.2 Site Assessment

4.2.1 On-Site Ecological Features

The site comprised of several buildings surrounded by a mosaic of species-rich semi-improved grassland, marshy grassland/neutral flush and strands of bracken (*Pteridium aquilinum*). The general ecological value of each habitat is described in the paragraphs below, with specific details on the buildings and any notable species-specific findings detailed in Section 4.3 and outlined on Figure 5 below.

Descriptions of the on-site buildings, along with an assessment of their ecological value, are provided in Section 4.3 – Bats.

Anecdotal evidence suggests that prior to current ownership, the site was dominated by bracken. The current management of the site, albeit relatively low-impact, has undoubtedly improved the ecological value. Habitats on site could generally be split between areas east and west of the flush and marshy grassland, which restricts the access of machinery. This divide between sections is therefore reflective of the vegetation management undertaken on-site. Western areas were dominated by bracken (Br – Figure 6), where access of machinery is impeded due to the presence of the flush. Some areas to the north also support a coverage of bracken, where the slope steepens. Whilst bracken dominates species coverage, scattered foxglove (*Digitalis sp.*) and larger thistle species (*Cirsium spp.*) are present throughout.

The areas to the west, dominated by bracken, are considered to offer relatively low ecological value due to the bracken's dominance resulting in low plant diversity for foraging wildlife. The habitat also offers limited overall suitable shelter.

Where access is available to the east and some element of cutting or mowing has taken place, species-rich semi-improved grassland dominates the habitat (SIG – Figure 6). Dominant species included perennial rye-grass (*Lolium perenne*), crested dog's-tail (*Cynosurus cristatus*), purple moor-grass (*Molinia caerulea*), ribwort plantain (*Plantago lanceolata*), yarrow (*Achillea millefolium*), shepherd's-purse (*Capsella bursa-pastoris*), self-heal (*Prunella sp.*), creeping buttercup (*Ranunculus repens*), clover (*Trifolium repens*), hairy vetch (*Vicia hirsuta*), purple loosestrife (*Lythrum salicaria*), black medick (*Medicago lupulina*), red sorrel (*Rumex acetosella*), mixed dock species (*Rumex spp.*), mixed thistle species, common nettle (*Urtica dioica*) and foxglove. Some pathways are present throughout the site and take on a more improved grassland character, dominated by creeping bent (*Agrostis stolonifera*) and clover. In addition, some recently planted shrubs are also present.

The grassland areas to the east are considered to offer high value habitat, due to the diversity of the species present. The area upon which the car parks will be situated is on an old access road as shown in Figure 5, below, with vegetation coverage in this area being relatively sparse. It is therefore expected that the majority of established vegetation will not be significantly negatively impacted by the proposals.



Figure 5. Location of car parking area in relation to old access road.
 (Image taken from Google Earth Pro: ©2021 Map Data Google)

The loss of any of these habitats as a result of the proposed works are expected to be minimal, with compensation being provided in the form of the green roof on one of the buildings and habitat regeneration where the two buildings are being removed.

The small flush would be classified as neutral, supporting a bryophytic carpet of largely (*Sphagnum sp.*) mosses, with overlying rushes (*Juncus sp.*), although some areas expressed a more marshy grassland character, where moss coverage is replaced by peaty soil, with rush (*Juncus spp.*) and sedge (*Carex sp.*) species dominating ground coverage.

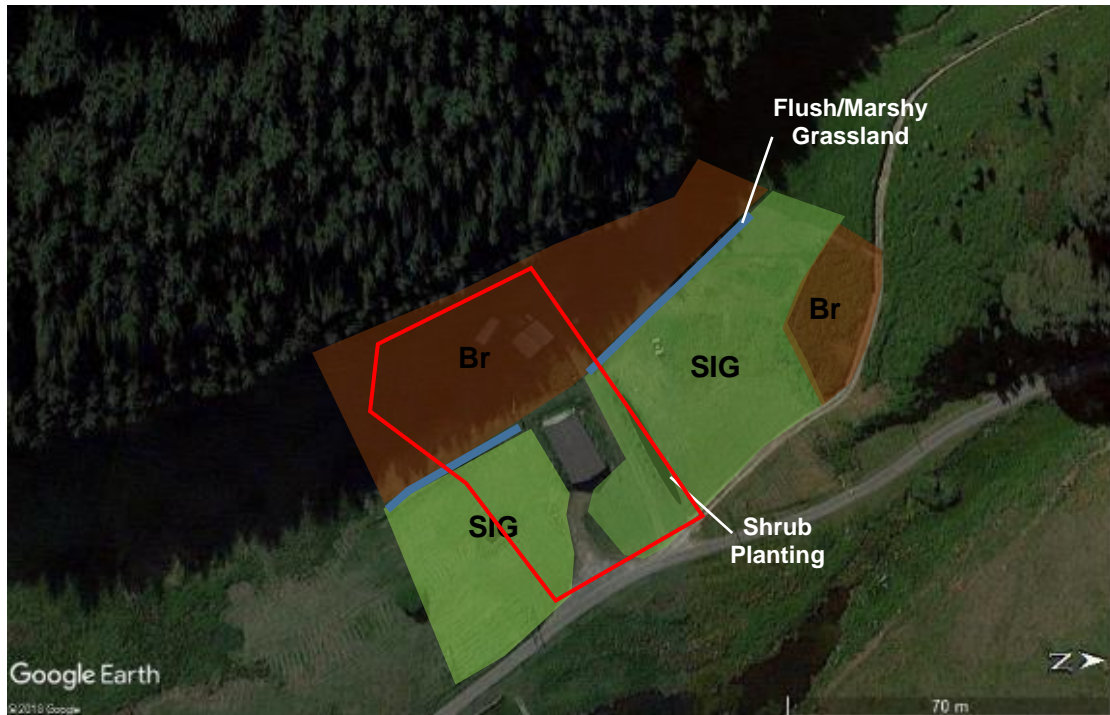


Figure 6. Overview of habitats present within and directly surrounding the site boundary.
 (Image taken from Google Earth Pro: ©2019 Map Data Google 2019)

4.2.2 Off-Site Ecological Features

Coniferous woodland dominates habitats to the west and north, with some areas of grassland scattered in between. The River Dunsop is situated 100m to the east, with smaller tributaries situated in closer proximity to the north and east. A small pool is situated 50m to the east. The feature is possibly natural but may have been created under Environment Agency operations on the site previously. The River Dunsop and adjacent areas off-site are also included within the Valley of the River Dunsop BHS.

Due to the works being contained to the footprint of the site, none of the surrounding habitats are expected to be significantly impacted by the works and, even in the absence of mitigation, any impacts to any off-site ecological features, either direct or indirect, are expected to be low.

4.3 Protected Species

Badgers: The site offers some suitability for badger sett creation, although conditions are sub-optimal as it is somewhat exposed, resulting in a lack of overall shelter. Suitable habitat for sett creation is present within the woodland areas surrounding the site and the site offers some suitability for foraging and commuting, although no evidence indicative of any badger activity was observed during any site visits. Overall, providing basic mitigation measures are implemented, badgers are highly unlikely to be significantly impacted by the proposed development.

Bats: A total of four buildings are present on the site and each was assessed for its value to support roosting bats. The results of this assessment are summarised in Table 3 and the locations of each building are shown on Figure 7.

Table 3. Building descriptions and assessment of at roosting value.

Building Ref.	Description	Assessment	Bat Value
B1	<p>Single-storey stone brick building with a pitched synthetic tiled roof. A number of vent tiles are present along the length of the roof, providing gaps.</p> <p>Internally, several water tanks with flowing water are present which have been previously used as a fish hatchery.</p>	<p>Overall limited access opportunities for bats, apart from the vent openings.</p> <p>Walls in good condition. Possible entry point through gap above roller shutter door.</p> <p>The building is currently used as storage for a caravan and is only frequented occasionally by the owner for general maintenance and security.</p> <p>One hole in roof, other than that the roof was found to be in good condition. The roof is lined with a black felt liner internally.</p> <p>No evidence of bat activity around the exterior.</p> <p>Two bat droppings found inside, indicative of pipistrelle (<i>Pipistrellus sp.</i>) bats.</p> <p>This building is due to undergo internal works to convert it to holiday accommodation.</p>	Confirmed roost
B2	<p>Concrete block walls and curved corrugated metal roof. The building houses the water tank.</p>	<p>Some potential access point between small gaps, but no roosting features internally and the building is likely subject to significant temperature fluctuation due to the structure and construction type of the roof, creating sub-optimal roosting conditions.</p> <p>No evidence of bats observed.</p> <p>This building is due to be retained, with a green roof to be installed.</p>	Negligible

B3	Concrete block walls and curved corrugated metal roof. The building houses the water tank.	<p>Some access between small gaps. No roosting features internally and the building is likely subject to significant temperature fluctuation, creating sub-optimal roosting conditions.</p> <p>Considered unsuitable for hibernation due to unstable temperatures.</p> <p>No evidence of bats observed.</p>	Negligible
B4	Breeze-block and stone-rendered outbuilding with a pitched, corrugated concrete roof. Wooden barge boards on end. Internally the walls are exposed and the roof was unlined, with exposed timber beams.	<p>In relatively poor structural condition. Render peeling away in some places. Ridge line heavily cobwebbed, indicative of a lack of bat use.</p> <p>Gaps near ridge allow bats access but create sub-optimal environmental conditions due to ingress of precipitation and temperature fluctuations, alongside the lack of insulation.</p> <p>Small gaps also present beneath barge boards.</p> <p>Considered unsuitable for hibernation due to lack of stable temperature.</p> <p>No evidence of bats observed.</p>	Negligible

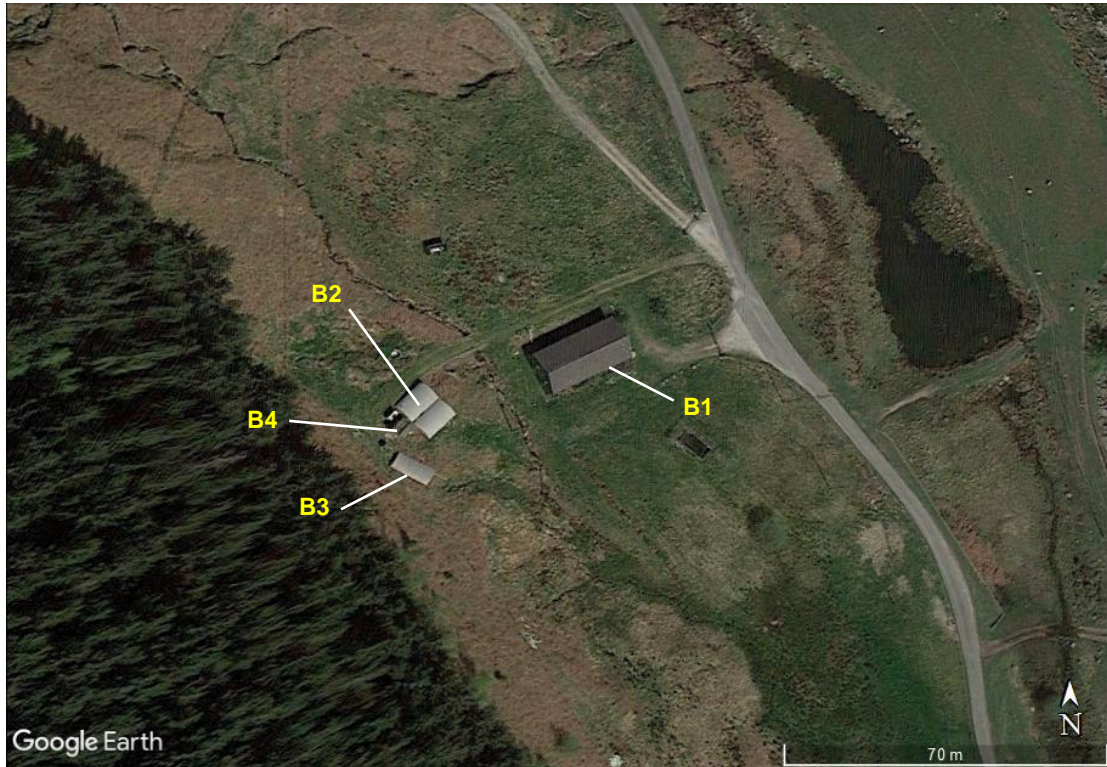


Figure 7. Locations of the assessed buildings on site.
(Image taken from Google Earth Pro: ©2020 Map Data Google)

A total of three bat activity surveys have been carried out on site. The first survey was carried out to accommodate previous plans for the site, conducted on B2 and B4 in 2019. Details of the survey conditions are provided in Table 4, below.

Table 4. Details of bat activity survey conducted in 2019 on B2 and B4.

Date	Survey start	Sunset/sunrise	Survey end	Temp. (°C)	Precipitation	Wind (Beaufort)	Cloud (Oktas)
24/05/19	21:03	21:18	22:48	12 – 10	None	2 – 3	2 – 6 (thin)

The overall level of bat activity during this survey was considered to be low, with intermittent foraging by common (*Pipistrellus pipistrellus*) and soprano pipistrelles (*Pipistrellus pygmaeus*) in small numbers to the west of the buildings along the woodland edge. Several faint noctule (*Nyctalus noctula*) calls were heard as well as a small number of faint *Myotis sp.* Calls, all of which were considered to be located near the pool and stream area to the east. A summary of the main survey results is provided in Figure 8. No bats were observed emerging from any of the buildings on-site. As a result of the initial assessment and subsequent bat activity survey, bats were considered likely absent from B2 and B4 during the 2019 survey effort.



Figure 8. Summary of findings during dusk activity survey (24/05/2019). Red crosses indicate surveyor locations.

(Image taken from Google Earth Pro: ©2020 Map Data Google)

Due to changes to the plans, and the new proposal of re-developing the salmon hatchery building (B1), further survey work was conducted in 2020, including an internal and external risk assessment of the on-site buildings, which found two bat droppings within B1. Low suitability was found within B2 and buildings B3 and B4 were considered to be of negligible suitability, with bats likely absent. As a result of the 2020 bat risk assessment, two bat activity surveys were conducted, focusing on B1 and B2 to determine presence or likely absence of bats. Details of the two surveys are shown in Table 5, below.

Table 5. Details of bat activity surveys conducted in 2020 on B1.

Date	Survey start	Sunset/sunrise	Survey end	Temp. (°C)	Precipitation	Wind (Beaufort)	Cloud (Oktas)
10/09/2020	05:05	06:35	06:50	8	None	2	1
28/09/2020	18:38	18:53	20:23	13	None	3	8

During the first survey, bat activity was low, with three recordings of commuting soprano pipistrelle made between 05:31 and 05:45. Direction of flight was unable to be established due to it being too dark to see and the commuting passes were heard and not seen. No re-entry of bats to the building was recorded.

During the second survey, bat activity was higher than the first survey, with three species being recorded including noctule, which made a commuting pass at 19:45 along the edge of coniferous woodland to the west of the building. A common pipistrelle was recorded commuting at 19:30 from the woodland to the west in an easterly direction towards the river. Another heard not seen commute of a common pipistrelle was made at 19:53 and one of soprano pipistrelle was recorded commuting at 20:09.

One soprano pipistrelle was observed emerging from the building at 19:02, on the top of the eastern gable end (highlighted on Figure 9, below).

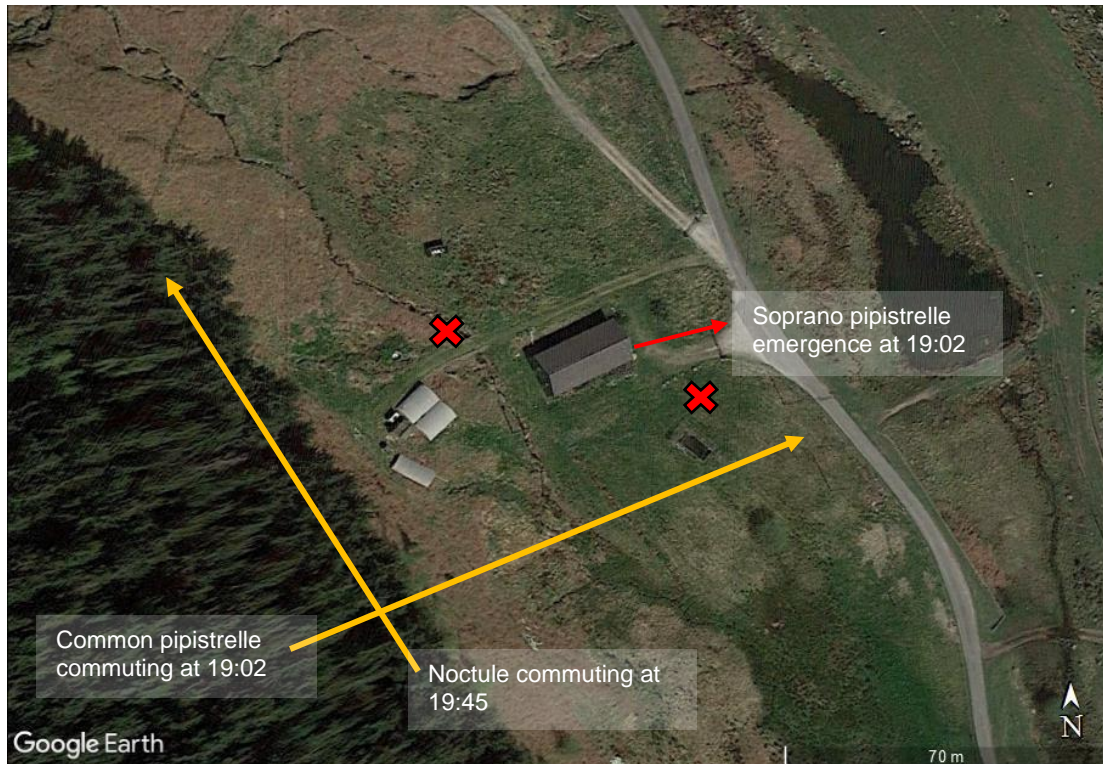


Figure 9. Summary of findings from dusk bat activity survey (28/09/2020). Red crosses indicate surveyor locations.

(Image taken from Google Earth Pro: ©2020 Map Data Google)

Overall, based on a combination of the above survey findings, it is considered that bats are likely absent from three of the buildings on site and, in turn, it is considered highly unlikely that bats will be significantly impacted by the proposed demolition of B3 and B4 and the green roofing of B2.

The results of the building assessments and activity surveys carried out would, however, indicate that B1 is used as an occasional day roost by small numbers of soprano pipistrelle (likely just a single bat) but is not a roost of significant conservation value, such as a maternity or hibernation roost. Notwithstanding this, in the absence of suitable mitigation, any works carried out on this building are highly likely to result in the disturbance of the roosts present due to the proposed internal works and works to the roof for skylight installation. This is considered likely to have a moderate negative impact at site level but, due to the low numbers of relatively common bats present, a low impact at a wider level.

Based on the results of the surveys carried out, it will be necessary to implement appropriate mitigation and compensation measures as part of the re-development works in order to ensure that the proposals do not have a significant negative impact on the roosting bats present on site. Basic mitigation measures should also be implemented to avoid indirectly impacting foraging and commuting bats post development.

Great Crested Newts: The habitats on site offer some value for GCN within their terrestrial phase; however, there are no suitable ponds within 500m¹ of the site and the site itself lies within a much larger sub-optimal geographical area for GCN (ARG UK, 2010). The only still waterbody is the pool located along the small tributary off the River Dunsop. The pool is connected to the stream and is therefore likely to contain fish, which are likely to impact any GCN breeding activity by preying on their eggs. In addition, the presence of waterfowl was apparent, which may also affect GCN populations present by eating the newts themselves and/or significantly disturbing areas of open water and marginal vegetation that could be used for breeding. The pool was considered unlikely to support GCN, but may offer some suitability for palmate newts (*Lissotriton Helvetica*) and other common amphibian species. No records of GCN were obtained during the desktop study.

Based on a combination of the above, any impacts to GCN as a result of the proposed works are expected to be negligible.

Nesting Birds: The site offers some limited value for ground-nesting birds; however, due to the relatively small footprint of the development, providing appropriate mitigation measures are implemented it is considered that nesting birds will not be significantly impacted. In addition, the building on site offer some suitability for nesting birds. Provided appropriate mitigation measures are implemented, it is unlikely that significant birds will be significantly impacted. No evidence of nesting, in the form of either active or current nests, has been found during any of the survey visits.

The application site does not offer suitable nesting habitat for species associated with the nearby Bowland Fells SPA (hen harrier, merlin and lesser black-backed gull). This is discussed in more detail in Section 5.

Reptiles: The habitat on site offers moderate value for reptiles with the mixed sward length of the semi-improved grassland offering sheltering, foraging and basking opportunities, although this was noted during the 2020 visits to be managed to a short sward on at least an occasional basis, which is considered likely to reduce the overall value. Some refugia was also present, although a visual check on site did not reveal any reptiles during any of the visits.

The surrounding mosaic of habitats, situated within the wider area of the Valley of the River Dunsop BHS, was considered to be of high value for reptiles. Three records of common lizard (*Zootoca vivipara*) were obtained during the desktop study, all related to sightings within the BHS. In addition, out of the four records of slow-worm (*Anguis fragilis*) obtained, one was located within the BHS. It is therefore considered likely that reptiles are present within the area in small numbers, although it should be noted that no evidence of reptiles has been recorded on site during any of the survey visits.

¹ Typical maximum roaming range of GCN from a pond which they occupy.

Due to the relatively limited footprint of the works and limited amount of suitable reptile habitat to be affected, it is considered that providing appropriate mitigation measures are implemented, any reptiles present on site will not be significantly impacted.

Other Wildlife: The vegetation on site may provide some suitability for common toad *Bufo bufo*, a UK Biodiversity Plan priority species, which may also utilise the pool near to the site, although no evidence of their presence was recorded on site. Again, providing appropriate mitigation measures are implemented, any common toads present on site are not expected to be significantly impacted by the works.

4.4 Invasive Species

No invasive species – including non-native invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) – were recorded within the site extent at the time of the site survey, or within habitats adjacent to the site.

5 HABITATS REGULATIONS ASSESSMENT (HRA) SCREENING

5.1 Overview

Due to the presence of a nearby SPA designation, which is a habitat of European importance and designated as a protected site as part of the UK National Site Network and transposed into UK law via the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, the Habitats Regulations screening assessment aims to determine whether or not there would be a likely impact to the qualifying features of the Bowland Fell SPA as a result of the proposed works.

5.2 Bowland Fells SPA

The Bowland Fells Special Protection Area (SPA) lies entirely within the Forest of Bowland Area of Outstanding Natural Beauty (AONB). The SPA is situated to the east and west of the application site (Figure 10), with the nearest point being 361m to the south west. The closest point to the eastern part of the SPA is 562m to the east. The extensive upland fells support the largest expanse of heather moorland in Lancashire. The dry upland heath is dominated by heather and bilberry is found on steeper slopes. Extensive peat soils are characterised by blanket bog vegetation such as; peat moss (*Sphagnidae spp*), cotton-grass (*Eriophorum angustifolium*) and heather (*Calluna spp*), with rarer plant species such as bog rosemary (*Andromeda polifolia*). These provide habitats for a diverse breeding bird community, of which make up the site's main qualifying features and additional qualifying features. These are the individual species of wild birds listed on Annex I of the European Wild Birds Directive, which are further discussed below.

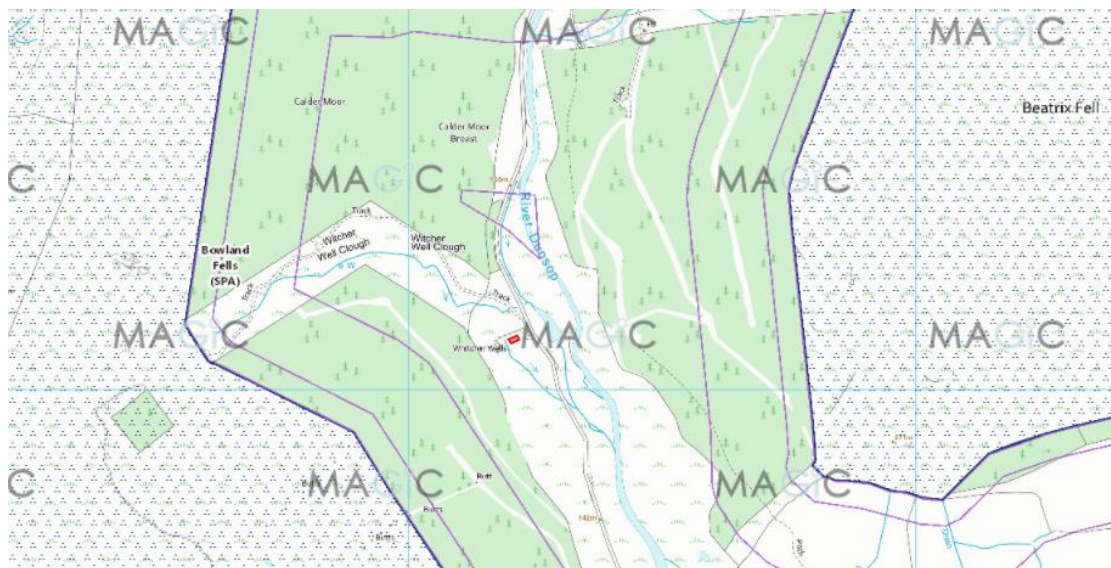


Figure 10. Application site (red) in relation to Bowland Fell SPA to the east and west (purple dotted areas).

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5.3 Qualifying Features

5.3.1 Hen Harrier

Bowland Fells SPA is used by hen harriers during breeding season and was designated in 1993 for holding an average of at least 12 pairs of breeding hen harriers, which was, at the time, 2.4% of the breeding population in Great Britain. Numbers of hen harriers are known to fluctuate, with 117 nests being recorded between 2002 and 2017, representative of 62.6% of all nests in England during that period. Latest counts (2018) indicate three breeding pairs within the SPA, with recovery efforts to restore the species former range and numbers being hampered by illegal persecution. Site-based factors that may have influenced the decline of breeding success include the sensitivity of the species to human disturbance and the loss of some mature heather stands favoured for nesting. Some hen harriers are known to use the area year-round, for roosting and winter foraging. Important roost sites are present outside of the SPA within the Forest of Bowland and nearby Yorkshire Dales, particularly areas of rush-dominated wet pasture and lower-lying moorland and rough grazing.

5.3.2 Merlin

Bowland Fells SPA was designated in 1993 for holding 21 pairs of merlin, which at the time represented 3.2% of the population in Great Britain. Most recent survey work indicates approximately 8 to 12 pairs. The SPA provides merlin with the ground-nesting habitat required in the form of medium to tall stands of heather and good numbers of prey species such as meadow pipit (*Anthus pratensis*). Although reasons for merlin decline within Bowland Fell SPA are unclear, it has been indicated that on a moorland site in Scotland (Heavisides *et al*, 2017), breeding was impacted by loss of mature heather stands due to intensification of land management as well as increased access and infrastructure.

Regarding both merlin and hen harrier, the application site is not considered to contain suitable nesting habitat, due to an absence of mature heather stands, with the only loss of vegetation being that of a relatively small patch of semi-improved grassland. The location of the application site, being directly off an access road, with electric and water already present, would negate the potential for any disturbance caused by any infrastructure needs as suggested as a potential reason for merlin breeding decline.

5.3.3 Lesser Black-Backed Gull

Although not an initial qualifying feature of the SPA, the government has undertaken public consultation on the scientific case for the classification of this species as an additional qualifying feature of the SPA. The lesser black-backed gull is known to breed around the coast on sand dunes or shingle islands but are also found inland on upland moors where they nest on the ground, often near long vegetation which provides cover for the chicks. They may overwinter at, or close to, their breeding sites. The Bowland Fells population of lesser black-backed gull is one of the five largest breeding colonies in the UK, and has decreased by 21% since the Seabird 2000 census (18,518 apparently occupied nests (AON) to 14,627 AON in 2018). Reasons for decline of the Bowland Fells population is considered to be due to historic legally permitted culling to protect red grouse and wading birds (JNCC, 2020) and more recent persecution to protect red grouse numbers. As the lesser black-backed gulls are known to use upland areas or moor, with upland areas being classified as greater than 200 m above sea level, and the application site being

situated at ~150 m above sea-level, the proposed works will not take place on upland habitat and are therefore not expected to impact the lesser blacked-backed gull populations that are using the SPA.

5.3.4 Summary

The proposed works will be contained to the footprint of the application site boundary, with the major work being contained within the salmon hatchery building (B1). One area of semi-improved grassland immediately to the north of building – extensively used as an access track – will be converted to a gravel parking area (which will be seeded), suitable for six cars with a width of approximately 18m. Additionally, B3 and B4 will be demolished as they are disused and no longer serving a purpose.

Notwithstanding the above proposed works, no suitable habitat for hen harrier or merlin nesting is present on or adjacent to the site, with an approximate 325 m strip of coniferous plantation woodland buffering the application site to the SPA's closest point to the south west. The application site is also situated directly off an access road, which was noted to be used by vehicles and a notable number of walkers entering the area. As both designated species are noted to be sensitive to human disturbance, it is considered unlikely that they would be nesting/active in or around the area of the application site. The closest favoured nesting habitat of the designated species are areas of nearby upland heathland which are present at their closest point 838m to the north and 1.1km to the south west (Figure 11). The areas of coniferous plantation buffering the application site from the nearby areas of upland heathland are shown in Figure 12.

The majority of the re-development works will be carried out internally within B1, with the exterior of the building creating an acoustic and visual barrier and limit any potential indirect disturbance during the works. The proposals will also adopt a low-level, downward-facing sensitive lighting scheme to limit potential disturbance to all nearby commuting wildlife that may disperse from within the SPA.

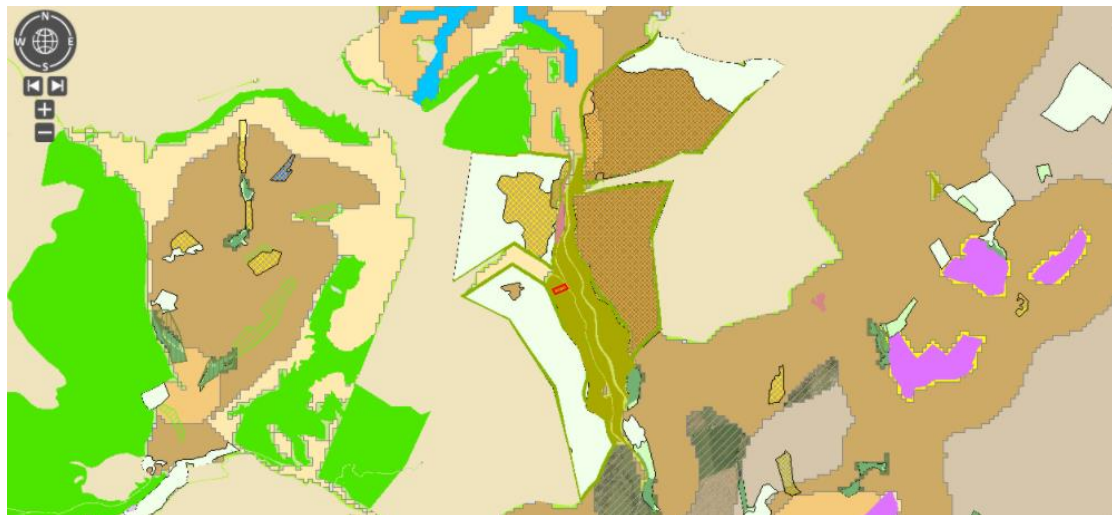


Figure 11. Application site (red) in relation to nearby upland heathland (lime green).

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Figure 12. Application site (red) and buffering coniferous woodland (dark green) to the east, north and south

(Image taken from Google Earth Pro: ©2021 Map Data Google)

Due to the reasons given above, the proposed works at the application site are not expected to impact the conservation objectives of the SPA, and are not considered to have any negative impact on its designating features, either directly or indirectly. The localised nature of the works will not result in any direct impacts to SPA habitats or the designated species that use them, and the small-scale, localised nature of the works, are considered highly unlikely to result in any significant indirect disturbance impacts. Furthermore, due to the lack of suitable nesting habitat on or around the site, any birds being indirectly impacted by attempting to use on-site habitats for nesting during construction or operation are also considered highly unlikely.

Notwithstanding this, it is understood that human disturbance is a factor in the decline of hen harrier and merlin and, therefore, appropriate further mitigation will be incorporated into the operational phase of the development to ensure that potential impacts are avoided.

6 CONCLUSIONS AND RECOMMENDATIONS

The site was considered to be of low ecological value overall. Three of the buildings on site were considered to have either low or negligible bat roost potential, with survey work indicating that bats are likely absent, but with a single soprano pipistrelle bat found to be roosting within B1. It is understood that this roost will be retained as part of the proposed works. There is some suitable habitat for badgers, reptiles and for common amphibians in their terrestrial stage within the vegetation on site, although no evidence of such was found. The semi-improved grassland offers some suitability for ground-nesting birds and foraging bats. The site is also located within priority habitats and forms part of a BHS. Following the site assessment and in review of the findings, the following measures are considered to be required to be incorporated into the works:

6.1 Mitigation Measures

- Although not considered to be a roost of significant conservation value, due to the confirmed presence of a roost in B1, it will be necessary to obtain an EPS mitigation licence from Natural England to legally permit the conversion works on the building that will result in the possible disturbance of the bat roost. Once a licence had been granted, works would need to be carried out in a precautionary way, with a thorough inspection carried out beforehand by a suitably qualified and licensed ecologist to check for the presence of any roosting bats, and any works considered likely to disturb the roost to be carried under the direct supervision of the ecologist until such time as it is considered that the works can be carried out without disturbing roosting bats.
 - Any bats found during the initial inspection or supervised works would be carefully caught by the attending ecologist and moved to compensatory habitat provided elsewhere on site (see below). A specific methodology for the works, as well as suitable enhanced roosting habitat to provide additional roosting opportunities, would be provided within the EPS licence application documentation to be submitted to Natural England, but an indication of enhanced habitat to be provided is given in section 6.2, below.
 - In accordance with the Bat Mitigation Guidelines, the roost in B1 would be classed as *“individual bats of common species,”* with the proportionate mitigation being *“flexibility over provision of bat-boxes, access to new buildings etc. No conditions about timing or monitoring.”* On this basis, there are not considered to be any timing constraints in relation to bats for carrying out the re-development works; however, as the roosting location will remain in situ post-works, but is expected to be disturbed by internal refurbishment works, it is considered most appropriate to time the works to be carried out over winter to minimise the likelihood of any bats being present at the time of the works (due to the low hibernation suitability of the building) and being unnecessarily disturbed.
- Although no herpetofauna (reptiles and amphibians) have been found on site at any stage, due to the presence of suitable habitat on and surrounding the site, as well as records of reptiles in the area, it is recommended that Reasonable Avoidance Measures (RAMs) are adopted during site clearance to avoid significantly impacting any herpetofauna.
 - This precautionary approach would involve initial vegetation management, whereby the existing vegetation is strimmed to lower the sward height, reducing the habitat suitability for

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- herpetofauna and encouraging any animals present to move off via the disturbance, in the unlikely event that they are present at the time of the works.
- Following initial vegetation management, subsequent groundworks would be carried out following the destructive search methodology, whereby the turf layer is scraped away using an excavator with a ditching bucket attached.
 - A suitably qualified and experienced ecologist would be present to oversee these works and carry out a careful inspection to check for any herpetofauna present.
 - No hibernacula to provide shelter have been found in the areas to be affected, and there are therefore not considered to be any significant timing constraints in relation to disturbing hibernating herpetofauna; however, any groundworks must be carried out in suitable conditions (air temperature of at least 5°C) in order to avoid encountering any animals in a state of torpor.
 - Any amphibians or reptiles encountered during these works would be safely captured and moved to suitable habitat off site.
 - In the event of any common species of amphibian or reptile being found in small numbers, they will be caught by the on-site ecologist and moved to a safe area away from the works; however, in the unlikely event that large numbers of reptiles or any GCN are encountered, it will be necessary to stop work and contact the County Ecologist and/or Natural England to agree appropriate action.
 - During the construction phase, any materials to be stored on site that could act as temporary resting places should be raised off the ground, on pallets or similar, to avoid herpetofauna sheltering underneath them and subsequent movement of the materials causing disturbance.
- As the semi-improved grassland provides suitable habitat for some ground-nesting bird species, site clearance works and works to the buildings should be timed to commence outside of the bird nesting season (March – August inclusive). If this is not feasible for any reason, a pre-start nesting bird survey must be carried out by a suitably qualified ecologist shortly prior to the start of works to ensure no active nests are present.
 - If any nests are encountered prior to or at any time during the works, all works in the area around the nest should cease and an ecologist contacted to check the status of the nest.
 - If an active nest is confirmed, a suitable buffer (minimum of 5 m) should be kept around the nest until it can be confirmed as no longer active, after which time works in the area can continue.
 - Any vegetation to be retained should be adequately protected during any clearance works, with no unnecessary trampling or tracking of machinery, in order to minimise habitat degradation and maintain the integrity of the BHS designation and priority habitats present in the area.
 - Although bat activity on site has been found to be relatively low overall, adjacent habitats have been found to be of some value for commuting and foraging activity. A low-level lighting scheme will be implemented post-works, which will include low-level timber bollard lighting (LED; 5 watts max.) and downward-facing wall-mounted lights (LED; 6.5 watts max.). This will help to avoid unnecessary light spill and consequent indirect disturbance to foraging and commuting bats (and other wildlife) that may be using the woodland to the west and river to the east.

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- Although considered unlikely to be present in the immediate area, to reduce the impact to badger and other wildlife that may use the site, it is recommended that any trenches or voids are dug and filled within the same working day. Should this not be possible, an adequate means of escape should be provided and/ or the trench should be securely covered overnight.
 - To ensure that potential impacts relating to human disturbance to SPA-designated bird species are avoided during the operational phase of the development, an informative document will be produced and displayed/available to guests to explain the nature and location of the SPA and the designated species, advising guests of breeding season and how to avoid disturbance to ground-nesting birds and other wildlife within the SPA during their visit, such as keeping to footpaths and keeping dogs on leads.

6.2 Enhancement Measures

- Installation of a Schwegler 2FE wall-mounted bat shelter, fitted to the western elevation of the building which opens out towards the woodland area, will provide enhanced roosting habitat for bats on site post-works
- In addition, tree-mounted bat and bird boxes could be installed in the surrounding area to further enhance the roosting and nesting value of the site.
- Soft landscaping is to be incorporated into the re-development. Measures to be incorporated into the works, as well as further measures that could be implemented post-development, include the following:
 - Building B2 will have a green roof installed. Suitable seed mixtures include Emorsgate Turf Roof Mixture ER1 or Wildflowers for Green Roofs ER1F.
 - Tree and shrub planting is to be carried out for screening and aesthetic purposes, as well as providing a biodiversity benefit. The species mix will include native trees and shrubs appropriate to the area alder (*Alnus glutinosa*), rowan (*Sorbus aucuparia*), silver birch (*Betula pendula*), bird cherry (*Prunus padus*), gorse (*Ulex europaeus*), broom (*Cytisus scoparius*), holly (*Ilex aquifolium*), and hawthorn (*Crataegus monogyna*).
 - The existing areas of semi-improved grassland will be enhanced through sowing with an additional seed mix to improve floral diversity. An example suitable seed mix would be the Emorsgate EM7 – Meadow mixture for sandy soils.
 - Any rain garden should incorporate a suitable species mixture that will tolerate periods of inundation. The Emorsgate EP1 Pond Edge Mixture is recommended.
 - Dense areas of bracken should be cleared and managed to create additional areas of semi-improved grassland and dwarf shrub communities in order to increase habitat diversity.
 - Sections of the flush should also be managed, through the clearance of encroaching terrestrial vegetation, to promote the restoration of bog mosses.
 - Further details on the above and an appropriate management scheme to ensure the establishment and longevity of the habitats to be enhanced and created would be detailed within a Landscape and Ecological Management Plan.

- Any bund area created round the proposed car park could be created and managed for the benefit of invertebrate species, which will in turn benefit birds, bats and herpetofauna. This would involve using a low-nutrient substrate such as building sand or chalky rubble to cap the bund, prior to seeding with a suitable wildflower/calcareous grassland seed mix. Vegetation should be managed along the bund to maintain a sparse coverage, with annual strimming of up to half of the overall area recommended, alternating areas on consecutive years. All cuttings should be removed to prevent the accumulation of nutrients.

Providing the recommendations of this report are implemented in full, Naturally Wild would conclude that there will not be a significant impact to protected species or habitats as a result of the proposed works.

7 SITE IMAGES



Image 1. Eastern elevation with bat emergence location highlighted red.



Image 2. Southern elevation.



Image 3. Western elevation.



Image 4. Internal of the workshop/fish hatchery (B1).



Image 5. Hole in roof of B1, highlighted red.



Image 6. Bat dropping found within B1.



Image 7. Internal of B2.



Image 8. Internal of B2.



Image 9. Interior of B4.



Image 10. Pool located ~75m to the east of B1.

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- Wildlife and Countryside Act 1981 (as amended).

9 APPENDICES

9.1 Additional Information for the Legislation of Other Protected Species

Badgers: The badger is geographically widespread across the UK; however, they are still vulnerable to baiting, hunting and detrimental impacts of development to their habitat. Both the badger and its habitat are protected under The Protection of Badgers Act 1992, Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) an Appendix Three of the Bern Convention; therefore, badgers have legal protection against deliberate harm or injury and it is an offence to:

- Interfere with a badger sett by damaging or destroying it
- Kill, injure, take or possess a badger
- Cruelly ill-treat a badger
- Obstruct access to a badger sett
- Disturb a badger whilst it is in a badger sett

Bats: All British bat species are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are therefore afforded protection under Section 9 of this Act. In addition, all bat species are listed in Schedule 2 of The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (known as the Habitats Regulations) and are therefore protected under Regulation 39 of the Regulations. These Regulations make provision for the purpose of implementing European Union Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora 1992, under which bats are included on Annex IV. The Act and Regulations makes it an offence, *inter alia*, to:

- Intentionally kill, injure, take (handle) or capture a bat;
- Intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not) - under the Habitats Regulations it is an offence to damage or destroy a breeding site or resting place of any bat; or
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection - under the Habitats Regulations it is an offence to deliberately disturb a bat (this applies anywhere, not just at its roost) in such a way as to be likely to affect its ability to survive, breed, reproduce, rear or nurture their young or hibernate.

Further details of the above legislation, and of the roles and responsibilities of developers and planners in relation to bats, can be found in Natural England's Bat Mitigation Guidelines (Mitchell-Jones, 2004).

Nesting Birds: Birds receive protection under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally or recklessly kill, injure or take any wild bird; take, damage or destroy a nest of a wild bird whilst it is in use or being built; or to take, damage or destroy an egg of a wild bird. The bird-nesting season is defined as being from 1st March until 31st August with exceptions and alterations for some species.

Great Crested Newts: Great crested newts are a European Protected Species, listed on Annex II and IV of the EEC Directive on the Conservation of Natural Habitats and Wild Fauna and Flora, receiving protection under Schedule 2 of The Conservation of Habitats and Species Regulations (as amended). This species is also afforded full protection under the Schedule 5 of the Wildlife and Countryside Act 1981. Under such legislation it is an offence to:

- Intentionally or recklessly* kill, injure or capture a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Intentionally or recklessly* damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- Intentionally or recklessly* disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.
- Damage or destroy a breeding site or resting place.
- Sell, barter, exchange or transport or offer for sale great crested newts or parts of them.

**Reckless offences were added by the Countryside and Rights of Way Act 2000, which applies only to England and Wales.*

To undertake surveys for great crested newts it is necessary to hold an appropriate licence issued by Natural England.

Reptiles: All native British species of reptile (of which there are 6) are listed on Schedule 5 of the Wildlife and Countryside Act 1981 and, as such, are protected from deliberate killing, injury or trade. Therefore, where development is permitted and there will be a significant change in land use, a reasonable effort must be undertaken to remove reptiles off site to avoid committing an offence. The same Act makes the trading of native reptile species a criminal offence without an appropriate licence.

