



PRELIMINARY ECOLOGICAL APPRAISAL

**Land to the south of Gallow Law, Alwinton,
Morpeth, NE65 7BQ**



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Disclaimer:

Ecological surveys are carried out in good faith, to the relevant professional guidelines. Where variation from these guidelines is necessary, this is outlined in the report. Any comments regarding condition of habitats/buildings are in relation to the use of the site by species such as bats and birds and should not be considered as an opinion on the building fabric.

Bats, for example, are highly mobile mammals which can access small gaps in buildings/trees. This report presents a robust assessment of potential roosting opportunities. Residual risk for other species is always present and as such the working method statement should be followed during all site works.

The client should be aware that the mitigation recommendations in reports are often translated directly into planning conditions, and as such these should be studied closely and agreed with any contractors in advance of site works commencing.

It is the clients responsibility to commission, in writing, any additional survey effort/licence requirements detailed within this report with RH Ecological Services.

Mitigation recommendations should be clearly marked on the Architect's Plans submitted with any planning or other consent.

Data from surveys will be submitted to local biological record centres and local-interest groups unless the client requests otherwise.

Reports are presented to the client in draft, with the final report issued once payment has been received. Only upon final issue does the copyright pass from the author to the client. Reports cannot be used to support planning applications until the copyright has passed to the client or their agent.

IT IS THE CLIENTS' RESPONSIBILITY TO COMMISSION ANY MITIGATION MEASURES OR RECOMMENDATIONS DETAILED WITHIN THIS REPORT.

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PRELIMINARY ECOLOGICAL APPRAISAL LAND TO THE SOUTH OF GALLOW LAW, ALWINTON, MORPETH, NE65 7BQ

Summary

RH Ecological Services were commissioned to carry out a Preliminary Ecological Appraisal on a patch of land to the south of Gallow Law, Alwinton (NT 91946 06285). Planning permission is being sought for 4 residential dwellings, with associated landscaping, to be built on the site. The patch of land sits to the western end of the village. No planning application reference is currently available.

The site is mostly short-sward tussocky grassland, with a defunct hedgerow present along the eastern end. Beyond the southern boundary fence the land slopes steeply downwards towards marshland.

An unnamed watercourse flows approximately 20 metres from the south western boundary of the development site. This has the potential for water vole, with small rodent holes noted along its' banks. Negligible impact is expected if this species is present, due to proximity and with suitable pollution controls in place with regard to site discharges and run-off. The watercourse flows off into the fields to the south of the development site, which are marshy with areas of water.

It should be noted that the land to the south of the development area, including that mentioned above, is the River Coquet and Coquet Valley Woodlands Site of Special Scientific Interest (SSSI), a Designated Site. The main potential impacts are discharges and site run-off causing pollution issues.

A small copse of primarily coniferous woodland is present approximately 15 metres south of the site. This could not be accessed as it was heavily flooded. Species such as rabbit and hedgehog may forage across the site.

A Precautionary Working Method Statement (**appendix 1**) has been provided for the development work. This should be conditioned as part of the planning decision.

- A pollution prevention plan should be put in place during the construction phase. Occupation level impacts are most likely to come from increased lighting levels and foul and surface water run-off, therefore a detailed plan of drainage measures and waste treatment and disposal should be provided to the Local Planning Authority.
- A 15-metre buffer zone should be put in place between the water course and the development site (note the watercourse is already ~20 metres from the development site boundary).
- Details on waste discharge and surface water run-off should be submitted to the council to be approved. These should ensure site run-off is kept minimal and that all measures are in place to prevent the marshy areas and nearby watercourse becoming polluted.
- Site enhancement should include hedgerow planting, particularly along the southern and eastern boundaries with species of a native and local provenance.
- Hedgerow planting should include native species such as alder buckthorn (*Rhamnus frangula*), hazel (*Corylus avellana*) and guelder rose (*Viburnum opulus*).
- Integrated bat and bird boxes should be included within the new dwellings.

There is scope to provide biodiversity enhancement at the site. Such measures are discussed within the report. The additional dwellings will lead to a small increase in residents and associated pets (primarily cats and dogs). This is expected to have a negligible impact on nearby habitats as the site is on the edge of an already residential area, with only 4 houses proposed.

No further survey work is recommended. This report is valid for 2 years.
An updated assessment will be required should work not commence by December 2022.

1. Proposed works and area description

Planning permission is being sought for a development of four detached residential dwellings. The area to be developed is currently semi-improved grassland at the western end of the village of Alwinton.

Aerial imagery of the site is shown in **figure 1** below, with the proposed site layout plan shown in **figure 2**.



Figure 1. Development area¹.

¹ Reproduced with permission from Google Earth (2020).

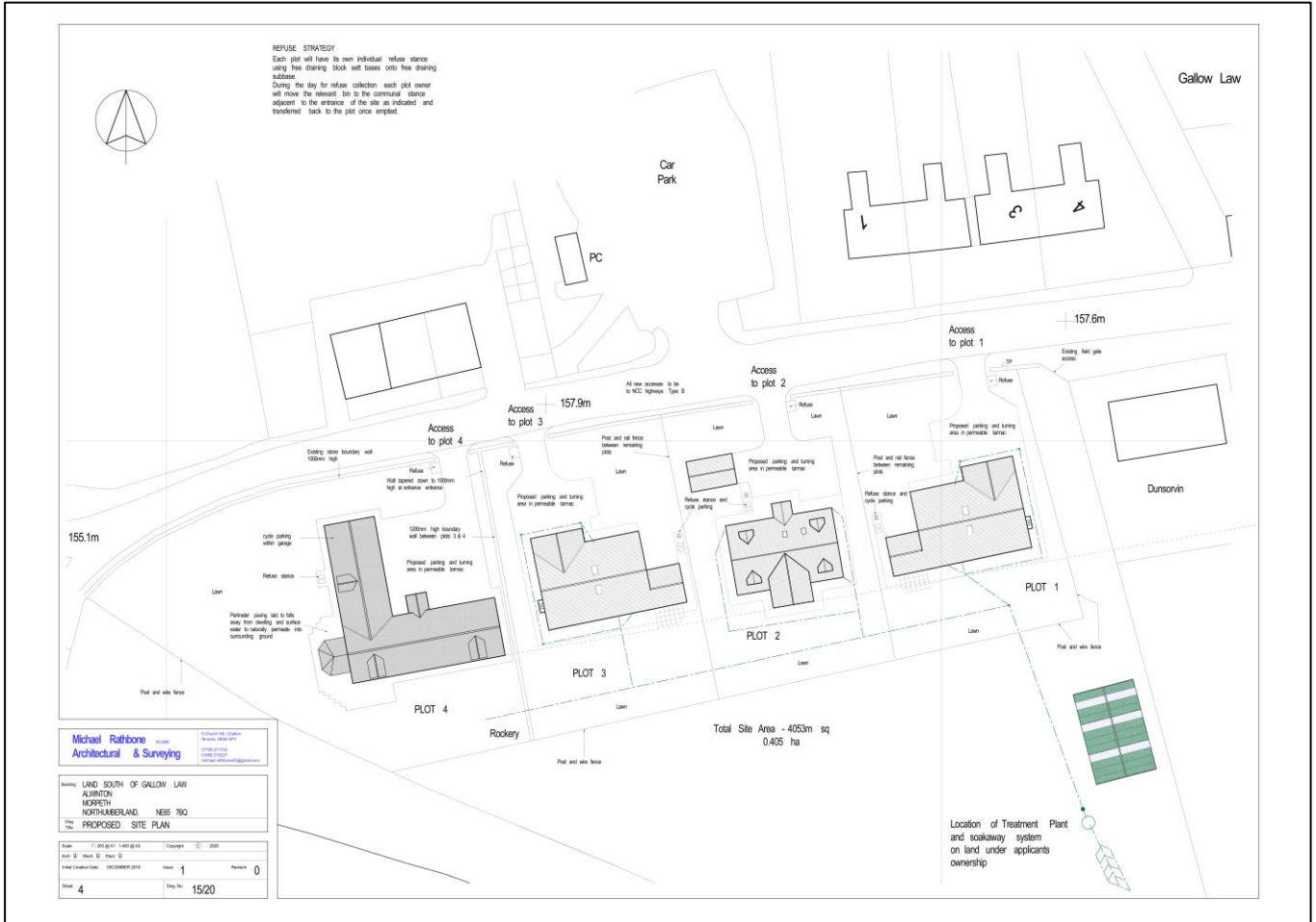


Figure 2. Proposed site layout.

2. Relevant legislation

The following protected species were considered in this report:

- Amphibians
- Badger
- Bats
- Birds
- Flora
- Ground flora
- Invasive species
- Otter
- Red squirrel
- Trees
- Water vole

The applicable legislation and policies are:

- Conservation of Habitats and Species Regulations (2017)
- Countryside and Rights of Way Act (2000)
- Directive 79/409/EEC on the Conservation of Wild Birds – ‘The Birds Directive’
- Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora – ‘The Habitats Directive’
- National Planning Policy Framework (NPPF)
- Natura 2000
- Natural Environment and Rural Communities Act (2006)
- Protection of Badgers Act (1992)
- Wildlife and Countryside Act (2010)

Full details on legislation and policy can be found in **appendix 2**.

3. Methodology

3.1 Desktop survey

Natural England's 'MAGiC on the Map'² website was accessed for details of any Designated [wildlife] Sites within 2km.

Google Earth Pro was used to assess the distance to habitat features close to the site such as ponds, woodlands and waterways.

Records have not been requested from Northumberland Bat Group and Local Environment Records Centre at this stage as it is felt that Precautionary Working Methods will be suitable. The habitat present on site is of low value and no signs of Protected Species were noted.

The NBN Atlas³ is a free online tool that provides a platform to engage, educate and inform people about the natural world. It aims to help improve biodiversity knowledge, open up research possibilities and change the way environmental management is carried out in the UK. This data is not available on a suitable scale for commercial purposes, as protected and sensitive species are only viewable on large scale maps; however, it was checked to ascertain if species such as badgers and newts were present in the wider area. This decision was made based on guidance produced by CIEEM in 2016 *Guidelines to Accessing and Using Biodiversity Data*. This is quoted from below:

“If a data search is not undertaken, a statement must be provided that clearly explains why it is not required. This statement should ideally be agreed with the LPA prior to preparing the survey report. It may be considered that the full search is not needed in the following situations:

1. *Pre-commencement consultation and agreement with the LERC and/or local authority ecologist.*
2. *Unreasonable delay in provision of information / data (i.e. more than 10 - 15 working days).*
3. *Low impact or small-scale development (e.g. by size, extent, duration of works, magnitude or locality) – more information provided below.*
4. *Single-species surveys, where a survey undertaken at the correct time of year and following an appropriate methodology confirms likely absence.”*

² magic.defra.gov.uk

³ nbnatlas.org

3.2 Site walkover

This Preliminary Ecological Appraisal (carried out 17th December 2020) was conducted according to the Chartered Institute of Ecology and Environmental Management's Guidelines for Preliminary Ecological Appraisal (CIEEM, 2012). The weather was 7°C, windy (BFT2) with occasional light rain showers.

The surveyor assessed the site and adjacent habitats for signs of a range of species including bats, amphibians, mammals and birds. The assessment was undertaken outside the peak season for ecological survey, therefore field signs for species such as bats may not be present.

An area a minimum distance of ~50 metres surrounding the site was checked for signs of any wildlife using the site, with the key indicators listed below:

- Tracks, prints, live or dead animals, droppings, fur/hair, feeding remains (all mammals).
- Setts or snuffle holes, clear tunnels under boundaries (badger).
- Suitable bat roosting features such as gaps in stonework in buildings/walls, deadwood or limb holes in trees.
- Signs and potential for protected species - bats, badger, water vole *etc.*
- Nests or singing/displaying birds.
- Rare flora species.
- Areas of vegetation were noted and any features such as trees or hedgerows.

Any trees and scrub were assessed from ground level with binoculars to look for signs of nesting birds/potential roost features with regard to bats.

The surveyor used a headtorch, handheld torch and Opticron 42x8 binoculars.

4. Surveyor

Rachel Hepburn is an experienced ecologist and an associate member of the Chartered Institute of Ecology and Environmental Management since 2013 with over 13 years' experience in ecological surveying. She holds a class 2 Natural England Licence for bats (reference 2015-12969-CLS-CLS) and great crested newts (reference 2016-19907-CLS-CLS).

5. Desktop survey results

5.1 Site and surrounding area

The area to be developed is currently semi-improved grassland along the western end of the small village of Alwinton, in a rural area of Northumberland.

An unnamed watercourse flows approximately 20 metres from the south western boundary of the development site.

The Hosedon Burn flows down the eastern side of the village, with its closest point to the development being approximately 110 metres south east.

The River Coquet flows approximately 230 metres south.

The surrounding area is characterised by grazing pasture in hedge lined fields, with moorland away from the river valleys, which are wide with gravel banks. There are pockets of ancient woodland along the Coquet valley.



Figure 3. Approximately 2km area around the site.⁴

⁴ Map reproduced with permission from Google Earth (2020)

5.2 Designated Sites

A search for Designated Sites within 2km was carried out *via* MAGiC on the Map⁵. There are 5 within 2km of the site. Potential impacts are discussed in **section 7.5**.

Site	Proximity
River Coquet and Coquet Valley Woodlands Site of Special Scientific Interest (SSSI)	<10 metres S
Barrow Meadow SSSI	~290 metres SW
Harbottle Moors SSSI	~310 metres SW
Harbottle Moors Special Area of Conservation (SAC)	~310 metres SW
Barrow Burn Wood Local Nature Reserve (LNR)	~310 metres SW

River Coquet and Coquet Valley Woodlands SSSI

The River Coquet runs about 57 miles across Northumberland. As a relatively unmodified fast-flowing upland river supporting characteristic fauna and flora the Coquet is of key significance in the national resource for nature conservation. The river vegetation shows a natural succession from mineral poor upland streams, through to vegetation which reflects the characteristics of gravel, sandstone, limestone and alluvial sediments of the middle and lower reaches. Run-off within the catchment is very rapid, causing short but often violent floods. The water is clean, low in mineral content and moderately calcareous.

Many of the woodlands near the river are seminatural and ancient woodland sites, representative of valley woodlands in Northumberland. Red squirrels are found in many of the woodlands. Coquetdale is a key area for otters and supports a high diversity of breeding birds which depend on riverine habitats. Water vole are found along much of its length.

The birdlife associated with the Coquet includes large numbers of common sandpipers, grey and yellow wagtails which nest and feed in high densities along or near the river above Alwinton. Oystercatchers, ringed plover, lapwing, snipe and redshank all breed on the haugh land, or floodplain. Dippers are common along the entire length and, unusually for a northern river, kingfishers hold several nesting territories in the lower reaches.

The river is important for a wide range of fish including salmon (*Salmo salar*) and sea trout (*Salmo trutta trutta*). Also important is the occurrence of lampreys; brook lampreys (*Lampetra planeri*) have been recorded in the fresh waters as high as Alwinton.

The fish are dependent on the rich insect life, of which the many species of mayfly are particularly significant, two of which *Ephemera notata* and *Ameletus inopinatus* have a restricted distribution. Large numbers of caddis flies are also recorded. The riverside shingle and sand habitats support an important assemblage of ground beetles with several nationally scarce species including *Bembidion schuppeli*.

The plant life of the upper reaches, beyond Alwinton, 125 metres above sea level, is dominated by species typical of base and nutrient poor upland rivers and are important for the mosses that have established there.

⁵ magic.defra.gov.uk

Barrow Meadow SSSI

This species-rich hay meadow is situated on the flood plain of the River Coquet close to its confluence with a southern tributary, Barrow Burn, near Alwinton. Flora species present are typical of northern hay meadows.

Harbottle Moors SSSI

The site also includes the **Barrow Burn Wood LNR**.

Ancient mixed deciduous woodland, including alder, willow and hazel. Birdlife includes sparrowhawk, cuckoo, treecreeper, woodwarbler and pied flycatcher. Badgers are present in the wood with otters using the stream.

Harbottle Moors consist of extensive areas of dwarf-shrub heath with associated blanket bog and valley mire. Sandstone ridges are covered by heather (*Calluna vulgaris*), crowberry (*Empetrum nigrum*), bilberry (*Vaccinium myrtillus*) and bracken (*Pteridium aquilinum*).

The deep valley of the Barrow Burn locally supports broadleaved woodland. Lesser skullcap (*Scutellaria minor*) can be found here, in one of its few county localities. An outstanding feature of Harbottle Moors is the widespread occurrence of sweet gale (*Myrica gale*), found on stream sides and on slopes flushed with acidic water, and occurs here as an extensive ground cover in quantities rarely seen elsewhere.

There are two lakes, Harbottle Lake with a well-developed hydrosere and the artificially impounded Linshiels Lake, both attracting water birds such as teal, goosander and little grebe, the latter also having a large breeding colony of black-headed gulls. Grey wagtail, common sandpiper and dipper frequent the streams whilst the open moorland supports merlin, peregrine falcon, black grouse, ring ouzel and whinchat.

There are several crags, outcrops of gritstones and exposed boulders including the prominent Drakestone. North-facing rocks have bryophytes and lichens of western distribution such as *Lepidozia pinnata* and *Bazzania trilobata*.

Harbottle Moors SAC

The site is designated for its Annex I habitats - European dry heaths.

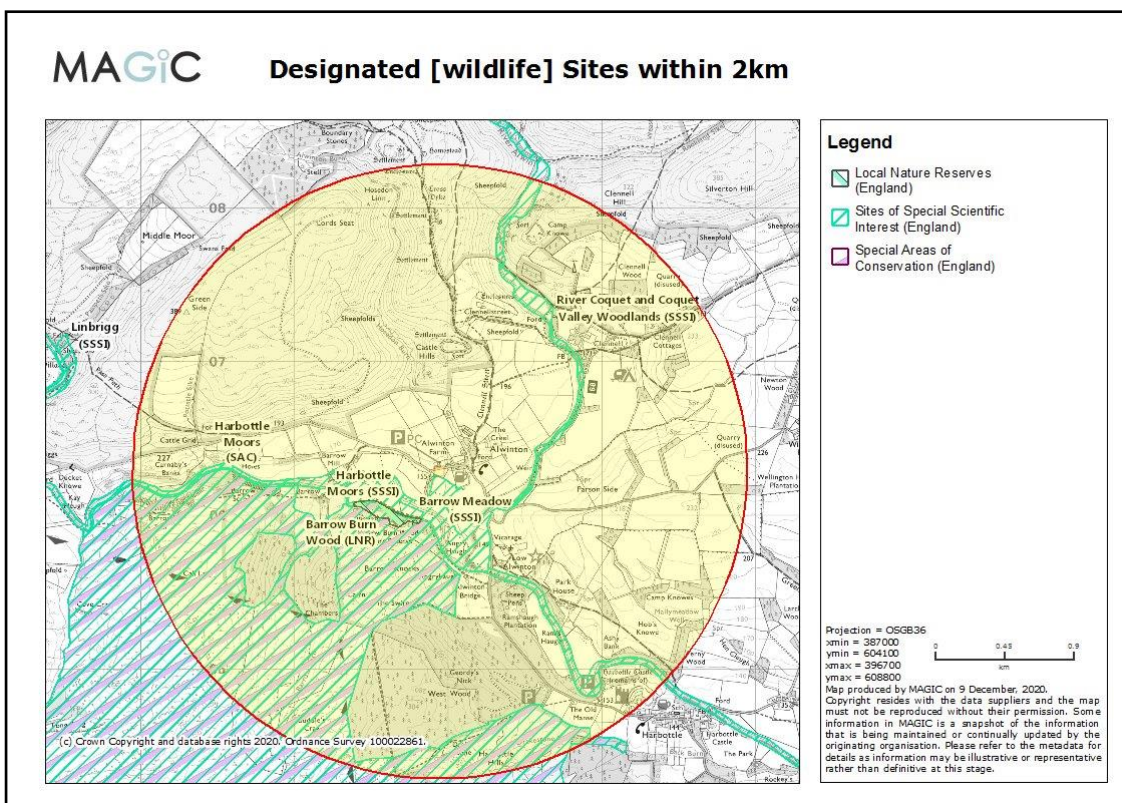


Figure 4. Designated [wildlife] Sites within 2km.

Sites of Special Scientific Interest (SSSIs) designations underpin the European and international designations of protected sites in the UK.

The development site falls within SSSI Impact Risk Zones (**figure 4**), although only the north east corner has any details on potential impacts, which are detailed below. Negligible impact is expected. Potential impacts are discussed in the table below:

Category	Impact	Description
All planning applications	N/A <i>Extending outside existing settlement.</i>	All planning applications (except householder) outside or extending outside existing settlements/urban areas affecting greenspace, farmland, semi natural habitats or landscape features such as trees, hedges, streams, rural buildings/structures.
Infrastructure	N/A	Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.
Wind and solar energy	N/A	Solar schemes with footprint > 0.5ha, all wind turbines.
Minerals, oil and gas	N/A	Planning applications for quarries.
Rural non-residential	N/A	Large non-residential developments outside existing settlements/urban areas where net additional gross internal floorspace is > 1,000m ² or footprint exceeds 0.2ha.
Residential	N/A <i>4 units proposed.</i>	Residential development of 50 units or more.
Air pollution	N/A	Any development that could cause air pollution or dust either in its construction or operation.
Combustion	N/A	All general combustion processes.
Waste	N/A	Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management.
Composting	N/A	Any composting proposal.
Discharges	<i>Client to confirm. See below.</i>	Any discharge of water or liquid waste that is discharged to ground (<i>i.e.</i> to seep away) or to surface water, such as a beck or stream.
Water supply	N/A	Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m ² or any development needing its own water supply.

Discharges: Discharge of waste is to be *via* a septic tank system with a soakaway area. Proposals must be agreed with the Local Planning Authority, including details on foul drainage, as discharges are not to mains drainage. The client should ensure that any discharge follows the current guidelines to minimise impact.

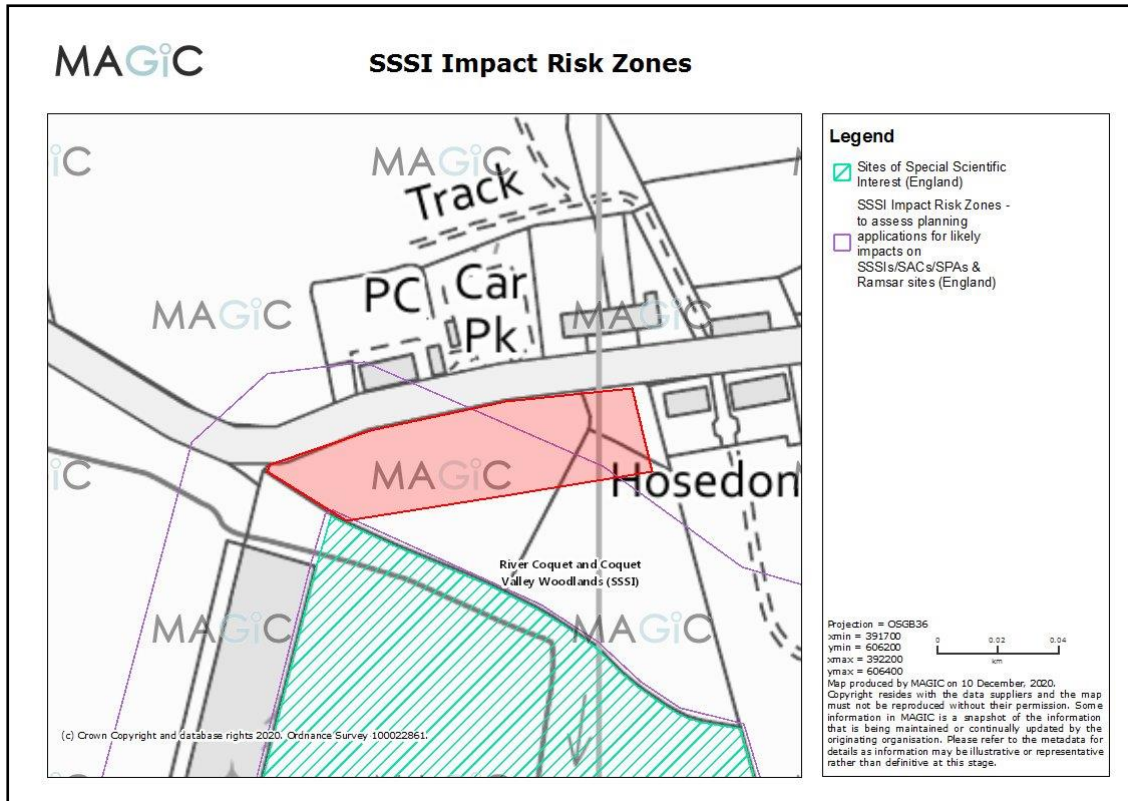


Figure 5. SSSI Impact Risk Zones.

5.3 Priority Habitats

Priority Habitats⁵ (Habitats of Principle Importance) are listed in the table below. There is no Ancient Woodland mapped within 2km.

Habitat	Proximity
No main habitat but additional habitats present	Adjacent to SW boundary. (Coastal flood plain and grazing marsh)
Upland hay meadow	~270 metres SW
Grass moorland	~300 metres S
Good quality semi-improved grassland	~320 metres N
Deciduous woodland	~325 metres SW
Ancient and semi-natural woodland	~335 metres SW
Upland heathland	~335 metres SW
Purple moor grass and rush pastures	~660 metres S
Lowland heathland	~810 metres SW
Ancient replanted woodland	~1km SE (Currick Wood)

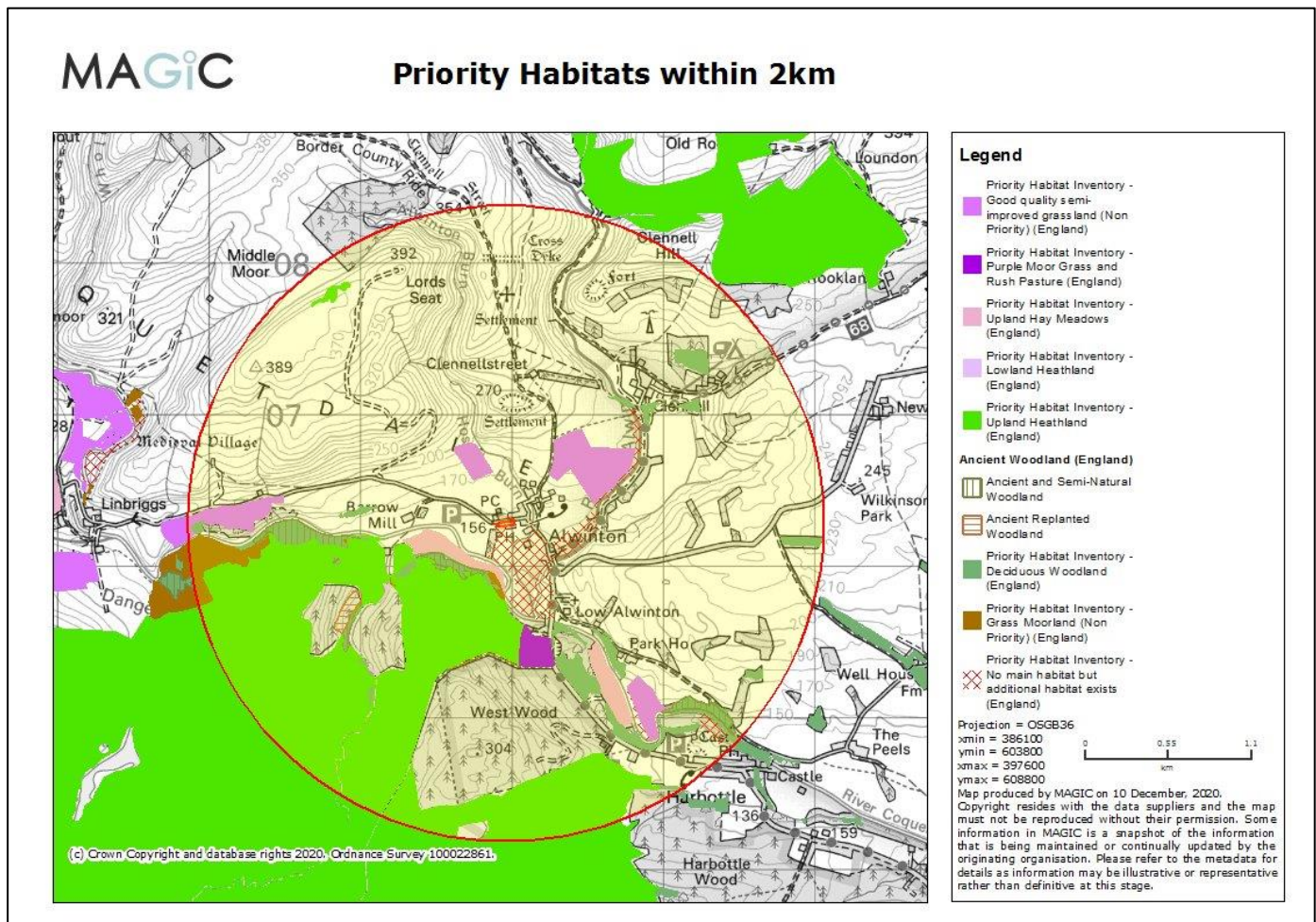


Figure 6. Priority Habitats within 2km.

5.4 Protected species

'MAGiC on the Map'⁶ shows no granted Endangered and Protected Species Licences (EPSLs), within 2km.

The area was also checked for great crested newt (GCN) records related to licence returns. This brought back no results.

Natural England GCN surveys, undertaken between 2017 and 2019, were also checked. This brought back a single result – negative for the presence of GCN, approximately 300 metres north.

The NBN Atlas⁷ was checked for the following species. It should be noted that this data is not available on a suitable scale for commercial purposes, as protected and sensitive species are only viewable on large scale maps.

Lack of records does not necessarily mean absence of the species in the local area.

- There are no records of red squirrel (*Sciurus vulgaris*) in close proximity to the site, they are however recorded from the 1km grid square south of the one in which the development site resides (NY92905).
- There are no records of badger (*Meles meles*) in close proximity to the site.
- There are no records of otter (*Lutra lutra*) on the River Coquet as it passes past Alwinton, however they are recorded from adjacent 1km grid squares both up and down river, and therefore are assumed present.
- There are no records of water vole (*Arvicola amphibius*) on any sections of watercourses that flow around Alwinton.

5.5 Flood Zone

The development lies within flood zone 1⁸, an area with a low probability of flooding. A map is available in **appendix 3**.

⁶ magic.defra.gov.uk

⁷ nbnatlas.org

⁸ <https://flood-map-for-planning.service.gov.uk/>

5.6 Local Planning Portal

The local planning portals (Northumberland County Council and Northumberland National Park Authority) were checked for nearby planning applications that have reference to protected species and habitats.

The site has no previous planning history.

The local planning portal was also checked for nearby (within 500 metres) and recent (within the last 10 years) planning applications that have had ecological assessments carried out. *Those with references to individual trees away from the development site have been omitted.*

There was nothing to note from Northumberland County Council. The following planning applications are from the Northumberland National Park Authority:

Address	Land south east of the Rose and Thistle, Alwinton, Northumberland, NE65 7BQ
Planning application	18NP0007 (2018) – Proposed bunkhouse accommodation with associated parking and cycle store.
Proximity	~150 metres south east

Francis, A. (2018). *Ecological Assessment – Proposed Bunkhouse, Rose and Thistle, Alwinton, Northumberland.* Budhaig Environmental

The site is currently an area of closely grazed improved grassland, with a ditch, heavily managed hedgerows and mature field trees to the boundaries.

Recommendations are made to reduce the impact of works on water quality, the River Coquet and Woodlands SSSI, otter, bats and nesting birds. The trees and hedgerows will be maintained and a buffer to those and the ditch maintained. New bats and bird boxes will be installed on the bunkhouse.

6. Site walkover

6.1 Description

The development site is a single semi-improved grassland field, with the ground gently sloping away towards the south east. Species present are of no particular note (**figure 8**) but include:

- Bittercress (*Cardamine* sp.)
- Black knapweed (*Centaurea nigra*)
- Broadleaved plantain (*Plantago major*)
- Cocksfoot (*Dactylis glomerata*)
- Common groundsel (*Senecio vulgaris*)
- Common sorrel (*Rumex acetosa*)
- Cleavers (*Galium aparine*)
- Common nettle (*Urtica dioica*)
- Forget-me-not (*Myosotis* sp.)
- Red dead-nettle (*Lamium purpureum*)
- Ribwort plantain (*Plantago lanceolata*)
- Round leaved geranium (*Geranium rotundifolium*)
- White dead-nettle (*Lamium album*)
- Willowherb (*Epilobium* sp.)
- Yarrow (*Achillea millefolium*)

The client also reports adding wildflower seeds to the grassland, although which species was not apparent over the winter months.

A defunct hedgerow (**figures 12 and 13**), with hawthorn (*Crataegus monogyna*) is present along the eastern boundary, the stumps of other mature tree species can be seen, and regenerative growth noted. Towards the northern end of the eastern boundary the remains of a dry-stone wall (**figure 14**) can be seen. This is deemed unsuitable for basking reptiles due to the shade and plant growth surrounding it.

The site is entered by access located along the northern boundary, at the eastern end. Here lies a small area of hardstanding with a wooden shed, with a single skin metal roof (**figure 15**). The shed is deemed to have negligible potential to support roosting bats.

Piles of wood and building stone materials are piled up in the north eastern corner.

A small, young oak (*Quercus* sp.) is present in the south eastern corner of the field (**figure 11**), planted by the client and dedicated to a local resident.

The southern boundary is delineated by post-and-wire fence, the client has begun planting some climbing plants along the fence line. Beyond the fence line the ground drops steeply down towards the marshy grassland below (**figure 10**).

There is potential for small mammals, such as hedgehog, rabbit, voles, shrews and mice to use the site, although no signs were noted.

6.2 Adjacent habitats

Habitats of note present to the west and south of the development site are discussed below.

An unnamed watercourse (**figure 17**) flows from the north east and to just below the development site, merging in with the **marshy grassland** areas surrounding the small woodland copse. This area of grassland is mapped on 'MAGiC on the Map' as Priority Habitat – 'No main habitat but additional habitats present - Coastal flood plain and grazing marsh' (**figure 25**).

This **watercourse** has banded stony edges (**figure 19**), with large stones seen in sections. Soft rush (*Juncus effusus*) is present in the channel along with terrestrial grasses also found in the adjacent field. Small rodent holes, approximately 6cm in diameter (**figure 18**) were noted along the southern bankside, with also runs present. To which species they belong to could not be confirmed, however the watercourse is deemed suitable for water vole. No other signs of water vole such as droppings, latrines or 'lawned areas' (nibbled vegetation) around the holes was noted.

The watercourse ends at the north western corner of the **woodland** (see **figure 7** below). From here the tussocky grassland is boggy and large areas contain standing water (**figures 21 and 22**). This is assumed to be present for much of the year due to the presence of large areas of soft rush.

The woodland (**figure 24**), primarily consisting of conifers, was inaccessible due to the water pooling across much of its area (**figure 23**).



Figure 7. Annotated habitat map⁹.

⁹ Reproduced with permission from Google Earth (2020).

6.4 Photos



*Figure 8. Development site, location of the houses looking west. The woodland noted in **section 6.3** can be seen in the distance.*



Figure 9. Western end of the development site looking towards water course.



Figure 10. Southern boundary of the development site, showing steep slope.



Figure 11. Young oak tree in south east corner.



Figure 12. Defunct hedge on eastern boundary.



Figure 13. Defunct hedge on eastern boundary.



Figure 14. Remains of dry-stone wall along western boundary.



Figure 15. Shed by site entrance.



Figure 16. Road north of the development site.



Figure 17. Watercourse looking east.



Figure 18. Small rodent hole by water course.



Figure 19. Stony mound along water course bankside.



Figure 20. Watercourse with development site marked.



Figure 21. Water within grassland field to south west of development site.



Figure 22. Area between development site and woodland.



Figure 23. Water present within woodland, making it inaccessible.



Figure 24. Woodland copse.



Figure 25. Marshy land to the south of the site.

7. Impact Assessment and Mitigation

7.1 Summary

- Habitats on site are considered to be of low ecological value. The development will result in the loss/alteration of no more than of 0.9ha of semi-improved grassland, with species present of no particular note.
- There are no features (for example, trees or buildings) with any Potential Roost Features (PRFs) for bats present.
- No boundary features are to be lost.
- There is direct connectivity from the development site to the wider countryside with potential impacts including habitat disturbance (primarily through lighting) and pollution from site run-off and disposal of waste.
- There is scope of enhancement to the biodiversity of the site through native planting and by incorporating bird and bat roosting provision into the new dwellings.
- A pollution prevention plan should be put in place during the construction phase.
- Site enhancement should include planting with species of a native and local provenance.
- To reduce any potential impact on bats no Non-Bitumen (Breathable) Roofing Membranes should be used in the development as these have been shown to entangle bats¹⁰. Also, any lighting schemes should aim at reducing light spill. Lighting on site should be minimised and directional and follow the BCT/ILP guidance¹¹. They should be designed to face away from the property and not overspill light beyond the southern boundary of the site.
- No impact is expected on Designated Sites and Priority Habitats with Precautionary Working Methods in place and appropriate pollution and waste control in place, both during construction and post-completion.
- A 15-metre buffer zone should be put in place between the water course and the development site (note the watercourse is already ~20 metres from the development site boundary).
- The client reports that discharge of waste is to be *via* a septic treatment plant and soakaway system.

The Precautionary Working Method statement (**appendix 1**) should be translated into conditions placed on any planning consent. They are intended to reduce the impact of this development to protected species.

¹⁰ www.bats.org.uk/our-work/buildings-planning-and-development

¹¹ ILP/BCT (2018)

7.2 Limitations

The NBN Atlas¹² is a free online tool that provides a platform to engage, educate and inform people about the natural world. It aims to help improve biodiversity knowledge, open up research possibilities and change the way environmental management is carried out in the UK. This data is not available on a suitable scale for commercial purposes, as protected and sensitive species are only viewable on large scale maps. No other ecological records have been sought at this stage.

The survey was undertaken outside the optimal season for botanical assessments, and therefore the species list in **section 6** cannot be classed as exhaustive.

7.3 Bats

Potential impacts

- Disturbance to foraging bats.
- Increased lighting levels may affect foraging and commuting routes for nocturnal animals.

Proposed mitigation

- No Non-Bitumen (Breathable) Roofing Membranes should be used in the development as these have been shown to entangle bats¹³. Currently the only 'bat safe' roofing membrane is bitumen 1F felt that is a non-woven short-fibred construction.
- Any lighting schemes should aim at reducing light spill. Lighting on site should be minimised and directional and follow the BCT/ILP guidance¹⁴. They should be designed to face away from buildings and not be allowed to flood over beyond the southern boundary of the site.
- At least 2 integrated bat boxes/tiles¹⁵ should be included within the new dwellings. These will need to be included in the proposed site plan to give the LPA confidence in it being achievable.
- All contractors working on site should be made aware of the law surrounding bats.

7.4 Birds

Potential impacts

- Disturbance to nesting birds / destruction of nests during the construction phase.
- No signs of nesting birds were noted, although there is potential for birds to nest in areas adjacent to the site.

Proposed mitigation

- Site contractors must be made aware of the law around the bird nesting season (March-August inclusive).
- If construction work takes place during the bird nesting season (March to August inclusive) a suitably qualified ecologist should confirm that no nesting birds are present in/on the buildings.
- Integrated features for nesting birds¹⁶ such as a sparrow terrace and swift box should be added; at least two features on the site.

¹² www.nbnatlas.org

¹³ www.bats.org.uk/our-work/buildings-planning-and-development

¹⁴ ILP/BCT (2018)

¹⁵ Gunnell, K. *et al* (2013). Designing for Biodiversity: A technical guide for new and existing buildings. BCT.

¹⁶ www.nhbs.com/4/integrated-bird-boxes

7.5 Designated Sites and Priority Habitats

7.5.1 Designated Sites

There are several Designated [wildlife] Sites within 2km, the nearest is the **River Coquet and Coquet Valley Woodlands SSSI**, which lies under 10 metres south of the site.

The Harbottle Moors SAC (~310 metres south west) are designated for European Dry Heaths with the conservation objectives being to maintain those habitats. Heaths can be prone to enrichment or disturbance through recreation, principally dog walking, but as this is a minor development of 4 houses significant impacts are not considered likely.

With regard the SSSIs, the development site falls within SSSI Impact Risk Zones. The client reports that discharge of waste is to be *via* a septic treatment plant and soakaway system. Negligible impact is expected if this is done as per current guidance. Proposals must be agreed with the Local Planning Authority, including details on foul drainage, as discharges are not to mains drainage. The client should ensure that any discharges follow the current guidelines to minimise impact.

Construction level impacts on the SSSI are most likely through contamination of the River Coquet through siltation or pollution. A pollution prevention strategy will be agreed and translated into the Construction Method Statement and will include standard good practice measures included in PPG5 (now withdrawn) and PPG6¹⁷. Any hardstanding will be loose granular material or a 'grasscrete' style subbase to allow surface water permeability.

Occupation level impacts are most likely to come from increased lighting levels and foul and surface water run-off, and therefore a detailed plan of drainage measures and waste treatment and disposal should be provided to the Local Planning Authority.

7.5.2 Priority Habitats

A partial area of Priority Habitat is present adjacent to the south western site boundary. This is classed as 'No main habitat but additional habitats present - coastal flood plain and grazing marsh'.

As the development is for only 4 additional residential units, negligible impact is expected.

¹⁷ SEPA et al (2007). *PPG5: Pollution Prevention Guidelines – Works and maintenance in or near water* [now withdrawn] and SEPA et al (2012). *Introduction to PPG6 - Working at construction and demolition sites*.

7.6 Other species and habitats

None of the boundary trees have features suitable for roosting bats. Root Protection Areas should be marked up around retained trees.

The nearby watercourse, located approximately 20 metres from the development site has the potential to support water vole. No definite signs were noted, but small rodent holes and runs are present along the banksides. Negligible impact is expected if this species is present, due to proximity and with suitable pollution controls in place with regard to site discharges and run-off.

Potential impacts

- Potential impact on foraging animals.
- Pollution *via* site run-off and/or materials/chemicals stored/increased traffic on site.
- Disturbance and/or injury to wildlife during the construction phase..
- Activities such as mixing cement, refuelling or storage of materials/equipment may cause significant damage to those features such as compaction or contamination.
- Pollution *via* site run-off of through discharges of waste during occupation of the site.

Proposed mitigation measures

- A pollution prevention strategy will be agreed and translated into the Construction Method Statement and will include standard good practice measures included in PPG5 (now withdrawn) and PPG6¹⁸. This should include both the construction phase and during site occupation.
- A 15-metre buffer zone should be put in place between the water course and the development site (note the watercourse is already ~20 metres from the development site boundary).
- The client reports that discharges of waste are to be *via* a septic treatment plant and soakaway system. Proposals must be agreed with the Local Planning Authority, including details on foul drainage, as discharges are not to mains drainage. The client should ensure that any discharges follow the current guidelines to minimise impact.
- Any storage of materials on site is likely to create suitable refugia for several species and therefore should only be moved by hand.
- Any pits or holes dug during construction phase must be covered up overnight or fitted with exit ramps (scaffolding planks) for mammals to be placed at an angle of 30° from base to top.
- Check any areas of ground thoroughly before work starts. Holes left following removal of tree stumps/rocks should also be checked.
- Remaining vegetation to be gradually reduced in site, checking for wildlife, such as small mammals and reptiles.
- Any small mammals should be given chance to move away of their own accord to a place of safety or carefully remove them to a safe area nearby, preferably in vegetation, away from the working area.
- All materials, fuel and equipment, if left on site, to be stored securely in a position away from the site boundaries and at least 20 metres from the nearby watercourse/areas of water in the grassland to the south of the development site.
- Additional site planting should be with species of a native and local provenance, such as with a Northumberland wildflower seed mix¹⁹.

¹⁸ SEPA et al (2007). *PPG5: Pollution Prevention Guidelines – Works and maintenance in or near water* [now withdrawn] and SEPA et al (2012). *Introduction to PPG6 - Working at construction and demolition sites*.

¹⁹ <https://britishwildflowermeadowseeds.co.uk/products/northumberland-meadow-seed-mix>

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APPENDIX 1. Precautionary Working Method Statement

METHOD STATEMENT FOR CONTRACTORS LAND TO THE SOUTH OF GALLOW LAW, ALWINTON, MORPETH, NE65 7BQ

The proposed development may bring contractors into contact with a range of protected species including bats and breeding birds. All those working on site should be made aware of the law surrounding these species.

The following recommendations should be translated into conditions placed on any planning consent. They are intended to reduce the impact of this development to protected species.

- No Non-Bitumen (Breathable) Roofing Membranes should be used as these have been shown to entangle bats²⁰. Currently the only 'bat safe' roofing membrane is bitumen 1F felt that is a non-woven short-fibred construction.
- Any lighting schemes should aim at reducing light spill. Any additional lighting on site should be minimised and directional and follow the BCT/ILP guidance²¹. They should be designed to face away from buildings and not flood over beyond the southern site boundary.
- At least 2 integrated bat boxes/tiles²² should be included within the new dwellings.
- If construction work takes place during the bird nesting season (March to August inclusive) a suitably qualified ecologist should confirm that no nesting birds are in close proximity to the construction area.
- Integrated features for nesting birds²³ such as a sparrow terrace and swift box should be added. At least two features on the site.
- Vehicles and machinery will be restricted from operating/parking on unprotected soil within 5 metres of the eastern boundary to protect the young trees present. trees' Root Protection Areas (RPAs) in order to minimise damage to the trees *via* compaction or contamination of the soil.
- Protection measures will be required to minimise damage to tree root systems. Please refer to 'BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*'.
- Utilities (if applicable) should be installed outside of any tree's (even young trees) RPA where practical to minimise damage to roots and disturbance of soils.
- Check any areas of ground thoroughly before starting work.
- Wear gloves when contacting the ground to protect staff and wildlife.
- All building materials should be stored raised off the ground on wooden pallets or similar.
- Vegetation and debris clearance will encompass a finger-tip search in a careful and controlled manner, with constant vigilance for any sheltering wildlife.
- Any storage of materials on site is likely to create suitable refugia for several species and therefore should only be moved by hand.

²⁰ www.bats.org.uk/our-work/buildings-planning-and-development

²¹ ILP/BCT (2018)

²² Gunnell, K. *et al* (2013). Designing for Biodiversity: A technical guide for new and existing buildings. BCT.

²³ www.nhbs.com/4/integrated-bird-boxes

- Any construction pits, trenches or foundations will be fitted with exit ramps (such as scaffolding planks) for mammals to be placed at an angle of 30° from base to top. These must be covered up overnight or a ramp put into them to prevent wildlife from becoming trapped. Any trenches or holes should be checked in the morning prior to work restarting
- Any small mammals should be given chance to move away of their own accord to a place of safety or carefully remove them to a safe area nearby, preferably in vegetation, away from the working area.
- Construction work should follow Pollution Prevention Guidelines 5 and 6²⁴, due to the potential for site run-off.
- A 15-metre buffer zone should be put in place between the water course and the development site (note the watercourse is already ~20 metres from the development site boundary).
- Any hardstanding will be loose granular material or a 'grasscrete' style subbase to allow surface water permeability.
- Additional site planting should be with species of a native and local provenance.

²⁴ SEPA *et al* (2012). *Introduction to PPG6 - Working at construction and demolition sites*. sepa.org.uk/media/60125/ppg-6-working-at-construction-and-demolition-sites.pdf (2nd ed.)

Signed by client(s)

Name.....

Signature.....

Date.....

Signed by Contractors

Name	Signature	Job title Company	Date

APPENDIX 2. Relevant legislation

Under Section 25 (1) of the Wildlife & Countryside Act (1981) local authorities have a duty to take such steps as they consider expedient to bring to the attention of the public the provisions of Part I of the Wildlife & Countryside Act, which includes measures to conserve protected species.

The Natural Environment and Rural Communities Act (2006) places a Statutory Biodiversity Duty on public authorities to take such measures as they consider expedient for the purposes of conserving biodiversity, including restoring or enhancing a population or habitat.

Paragraph 109 of the National Planning Policy Framework (NPPF) requires that the planning system minimizes impacts on biodiversity and provides net gains where possible.

Bats

In Britain all bat species and their roosts are legally protected, principally under the Conservation of Habitats and Species Regulations (2010), with additional protection under the Wildlife and Countryside Act (1981) (as amended), including under Schedule 12 of the Countryside and Rights of Way Act, 2000, which created a new offence of reckless disturbance.

The combined effect of these is that a person is guilty of an offence if he:

- Deliberately captures, injures or kills a bat.
- Intentionally or recklessly disturbs a bat in its roost or deliberately disturbs a group of bats. In particular where this may:
 - i. impair their ability to survive, to breed or reproduce, or rear or nurture their young.
 - ii. affect significantly the local distribution or abundance of the species.
- Damages or destroys a bat roosting place (even if bats are not occupying the roost at the time).
- Intentionally or recklessly obstructs access to a bat roost.

Birds

All birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to:

- Intentionally kill, injure or take any wild bird.
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
- Intentionally take or destroy the egg of any wild bird.
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird. Barn Owls are named in Schedule 1 of this Act.

Badger

The Protection of Badgers Act 1992 protects badgers and their setts, and makes it illegal to:

- Wilfully capture, injure or kill a wild badger.
- Be in possession of a live or dead badger.
- Destroy or obstruct access to an active badger sett.

Otter

Otters are protected principally under the Conservation of Habitats and Species Regulations (2010), with additional protection under the Wildlife and Countryside Act (1981), as amended, including under Schedule 12 of the Countryside and Rights of Way Act, 2000, which created a new offence of reckless disturbance.

The combined effect of these is that a person is guilty of an offence if they:

- Deliberately captures, injures or kills any wild otter.
- Deliberately disturbs wild otters including, in particular, disturbance which is likely to:
 - i. Impair their ability to survive, to breed or reproduce, or rear or nurture their young;
 - ii. Affect significantly the local distribution or abundance of the species.
 - iii. Damages or destroys a breeding site or resting place of such an animal.

Or if they intentionally or recklessly:

- Disturbs an otter while it is occupying a structure or place which it uses for shelter or protection.
- Obstructs access to such a place.

Water vole

The water vole is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and is a priority conservation species.

This make it an offence to:

- Intentionally capture, kill or injure water voles.
- Damage, destroy or block access to their places of shelter or protection.
- Disturb them in a place of shelter or protection (on purpose or by not taking enough care)
- possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity).

Red squirrel

The red squirrel is a protected species in the UK and is included in Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (amended by the Countryside & Rights of Way Act 2000). It is an offence to intentionally kill or injure a red squirrel or intentionally or recklessly damage or destroy any structure or place a red squirrel uses for shelter or protection, or disturb a red squirrel while it occupies such a place.

APPENDIX 3. Flood zone map for planning



Flood map for planning

Your reference	Location (easting/northing)	Created
Alwinton	391966/606287	10 Dec 2020 13:56

Your selected location is in flood zone 1, an area with a low probability of flooding.

This means:

- you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding
- you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

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