



Ecological Assessment



**Proposed Bunkhouse,
Rose and Thistle, Alwinton, Northumberland.**



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Disclaimer:

Ecology 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 buildings or trees are in relation to the use of the building/tree by bats and birds, and should not be considered as a building survey or arboricultural opinion on the condition of those features.

The client should be aware that the mitigation recommendations in ecology 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.

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

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Ecological Assessment

Proposed Bunkhouse, Rose and Thistle, Alwinton, Northumberland.

Summary

A new bunkhouse is proposed at Alwinton. 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 latter being potentially present at any time during March-August).

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.

1. Introduction

A Protected Species Risk Assessment was requested by Michael Rathbone to inform an application for a bunkhouse on a semi-improved grazing pasture in the village of Alwinton in the Northumberland National Park.

2. Proposed Works.

A new bunkhouse with 8 beds will be built in a portion of the field with associated treatment plant, cycle store and parking (site area 737m²). A new hedge boundary will be planted. A site plan is shown at Figure 1 below.

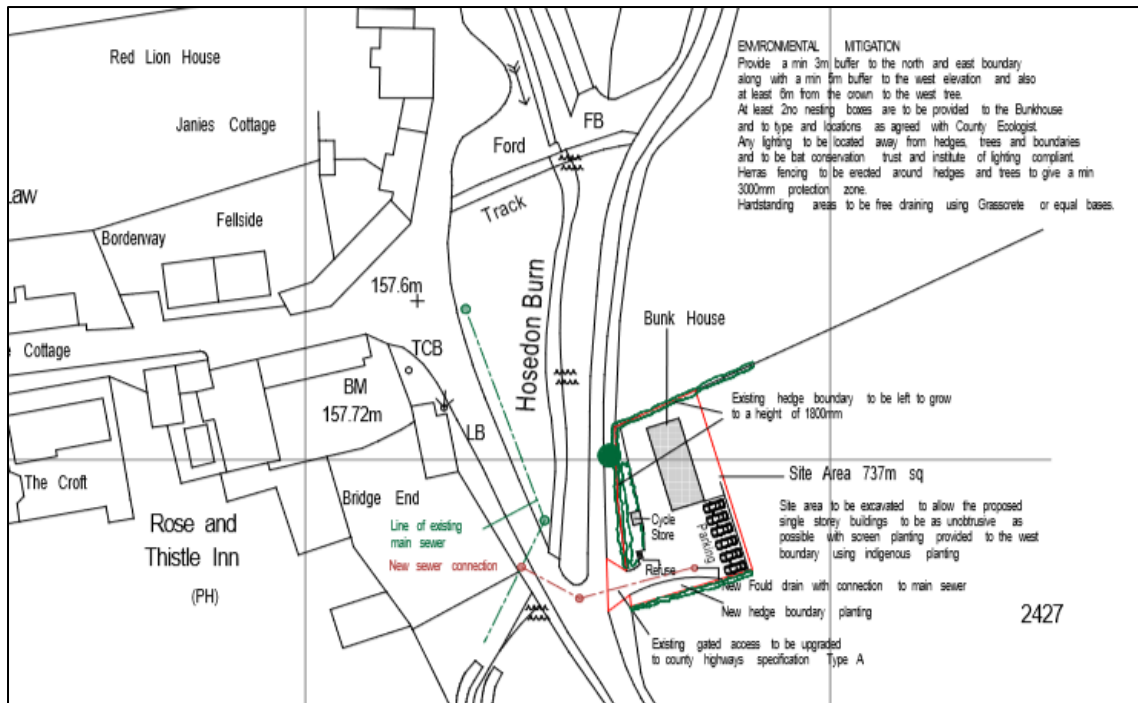


Figure 1. Proposed Site Plan

3. 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.

The National Planning Policy Framework (NPPF) requires that the planning system minimizes impacts on biodiversity and provides net gains where possible. In particular, in relation to planning applications;

Plan policies and planning decisions should be based upon up-to-date information about the natural environment (Paragraphs 158 and 165).

When determining planning applications in accordance with the Local Plan and the presumption in favour of sustainable development local planning authorities should aim to conserve and enhance biodiversity by applying a number of principles, including if significant harm resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused. (Paragraph 118).

3.1 Designated Sites

Sites of Special Scientific Interest (SSSI) citations are for special features of importance to nature conservation. It is an offence for any person to intentionally or recklessly damage or destroy any of the features of special interest of an SSSI, or to disturb wildlife for which the site was notified.

The development site lies within 110m of the River Coquet and Coquet Valley Woodlands SSSI and a tributary to that river runs along the western boundary of the site.

3.2 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 he:

- 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 he 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.

3.3 Nesting 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.

4. Methodology.

4.1 Desktop Survey.

Natural England's Magic on the Map website was accessed for details of any designated wildlife sites within 5km.

Details of protected and notable species have not been requested from The Environmental Records Information Centre North East (ERIC) due to the limited size and impact of the development footprint and details available from SSSI citations. Assumptions are made about the presence or off-site impact on protected species which are specifically referenced in the SSSI citation for the River Coquet and Coquet Valley Woodlands SSSI.

Google Earth pro and OS Explorer 1:25,000 maps were used to assess the distance to habitat features close to the site.

4.2 Site Survey.

This ecological assessment has been conducted according to the Institute of Ecology and Environmental Management's *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017). The *JNCC Phase 1 Habitat Survey Method* (2010) was used to classify the main habitats and interest features on site.

The site survey was undertaken on 12th January 2017 between 10.30 and 11.30 in cold slightly overcast weather. The temperature was 7°C.

The search area is shown in Figure 1. The survey included searching 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 deadwood or limb holes in trees.
- Nests or singing/displaying birds.

Areas of vegetation were noted and any features such as trees or hedgerows.

The surveys were undertaken by Ann Deary Francis, an experienced ecologist and full member of the Chartered Institute of Ecology and Environmental Management since 2009 with over 18 years' experience in ecology and environmental planning. She holds Natural England and Scottish Natural Heritage Licences for bat surveys and intrusive survey techniques. She is an experienced birder and site surveyor, including in aquatic environments, and has undertaken advanced badger and otter survey training.

The walkover survey was undertaken outside of the optimum survey period including the bird nesting period. However, given the limited habitats on site this is not considered to be a major constraint to the conclusions.

5. Site Description

The site is a closely grazed sheep pasture with a hedge comprised mainly of hawthorn with some beech and three mature ash hedge trees to the road edge. It is at the south eastern edge of the village of Alwinton in the Northumberland National Park. The site is several metres from the Hosedon Burn which runs through the village. The burn is crossed by a minor road into the village and onto Barrowburn. The underside of the road bridge was cleared of accumulated gravel by Northumberland County Council in 2015. A site survey was carried out by Budhaig Environmental of the Burn in 2014.

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 2. Location of site showing approximate development boundary.

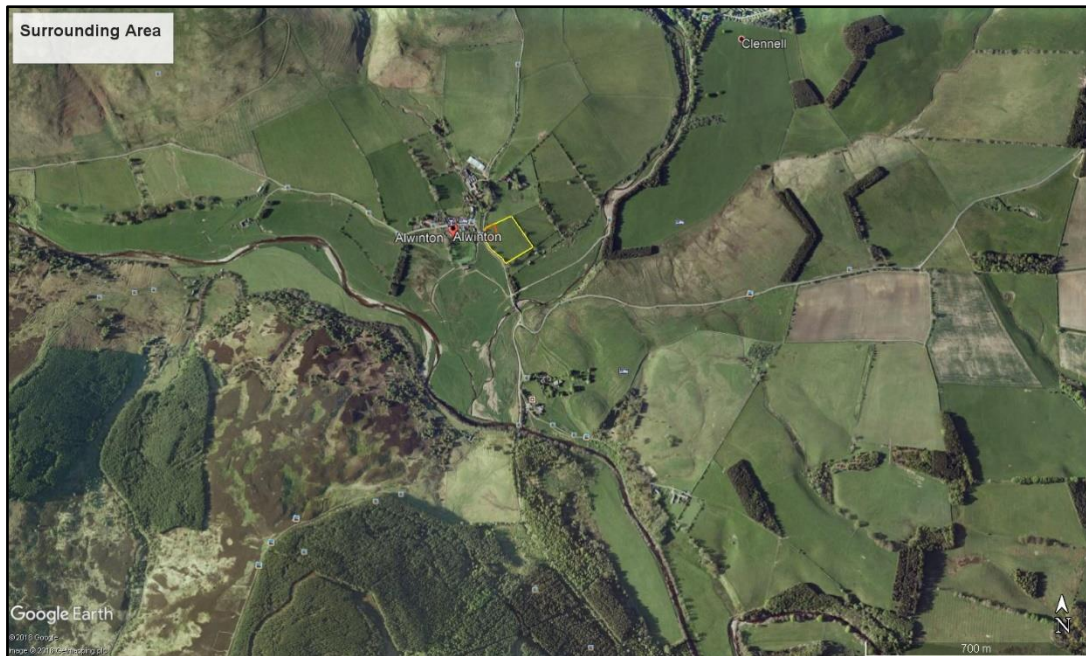


Figure 3. Surrounding area

5. Results.

5.1 Desktop Survey.

Desinated sites and priority habitats are shown at figures 5 and 6. No priority habitat is present on site.

The Hosedon Burn and River Alwin both discharge into the River Coquet, and the River Coquet and Woodlands Site of Special Scientific Interest (SSSI). The SSSI citation for this designated site approx. 100m to the south/200m east (at the River Alwin) states that the River is noted for its clean water with low mineral content; being nationally important breeding habitat for sea trout, brown trout and salmon populations; partly due to notable river invertebrate populations such as mayfly. Otters are widespread throughout the catchment. The area is particularly important for a variety of breeding birds including dipper and kingfisher.

Natural England's Site of Special Scientific Interest Impact Risk Zones tool identifies projects in this location which may cause adverse impacts on the SSSI and where Local Planning Authorities should consult Natural England on planning applications.

Here this includes;

- *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.*
- *Any discharge of water or liquid waste that is discharged to ground (ie to seep away) or to surface water, such as a beck or stream (NB this*

does not include discharges to mains sewer which are unlikely to pose a risk at this location).

Previous ecological surveys of the adjacent burn corridor (*Hosedon Burn Ecology Survey Report*, EcoNorth, September 2011 and *Protected Species Risk Assessment. Hosedon Burn Road Bridge, Alwinton, Northumberland* Budhaig Environmental, July 2017) both identify;

- No signs of freshwater pearl mussel or white clawed crayfish (sub optimal habitat and no records).
- No signs of water vole (although habitat is identified as being suitable) or any recent records within 2km of the site.
- Consistent and significant signs of otter (spraint, footprints).



Figure 4. Otter spraint noted under the road bridge 2014.

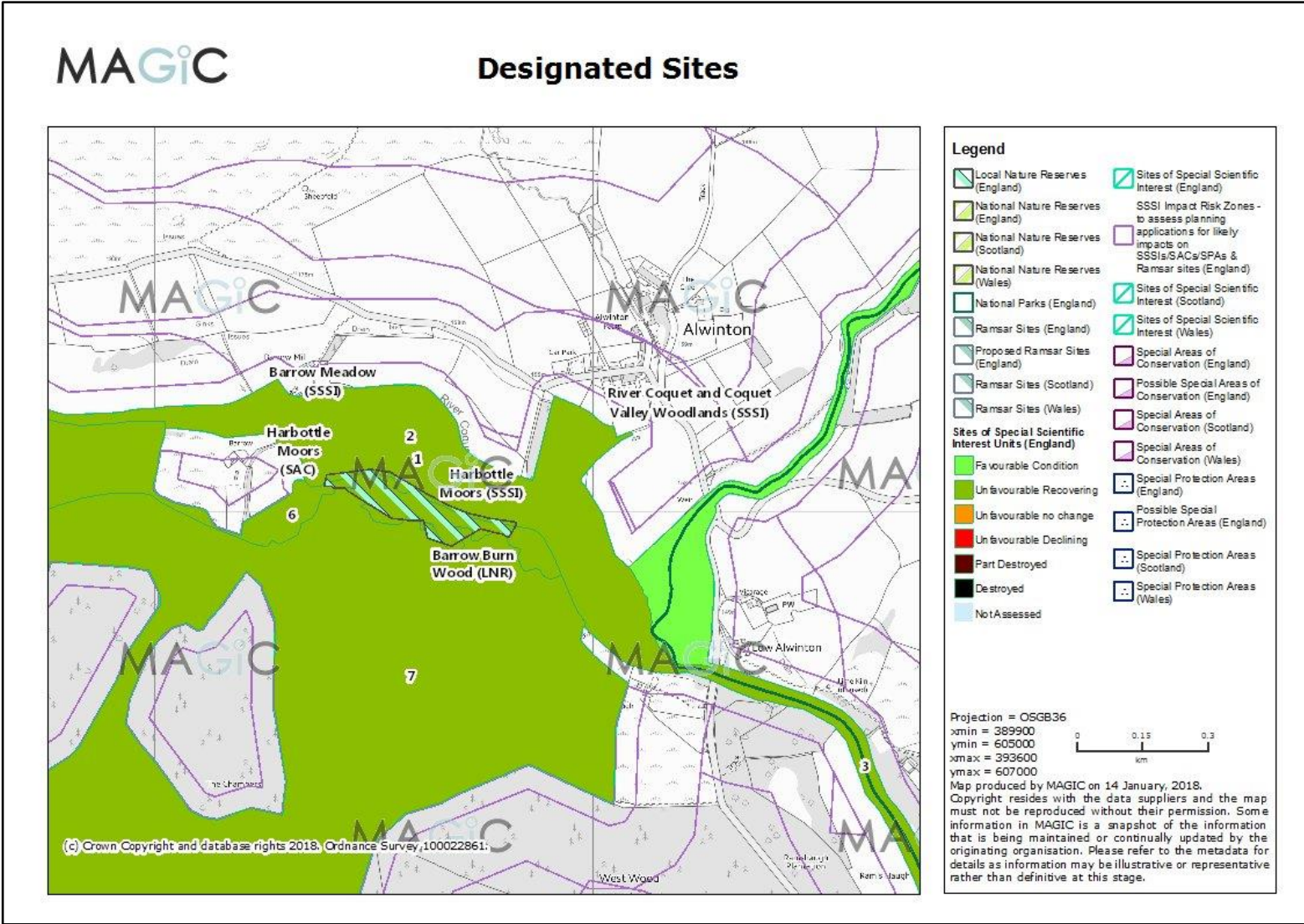


Figure 5. Designated Sites (from Natural England's Magic website)

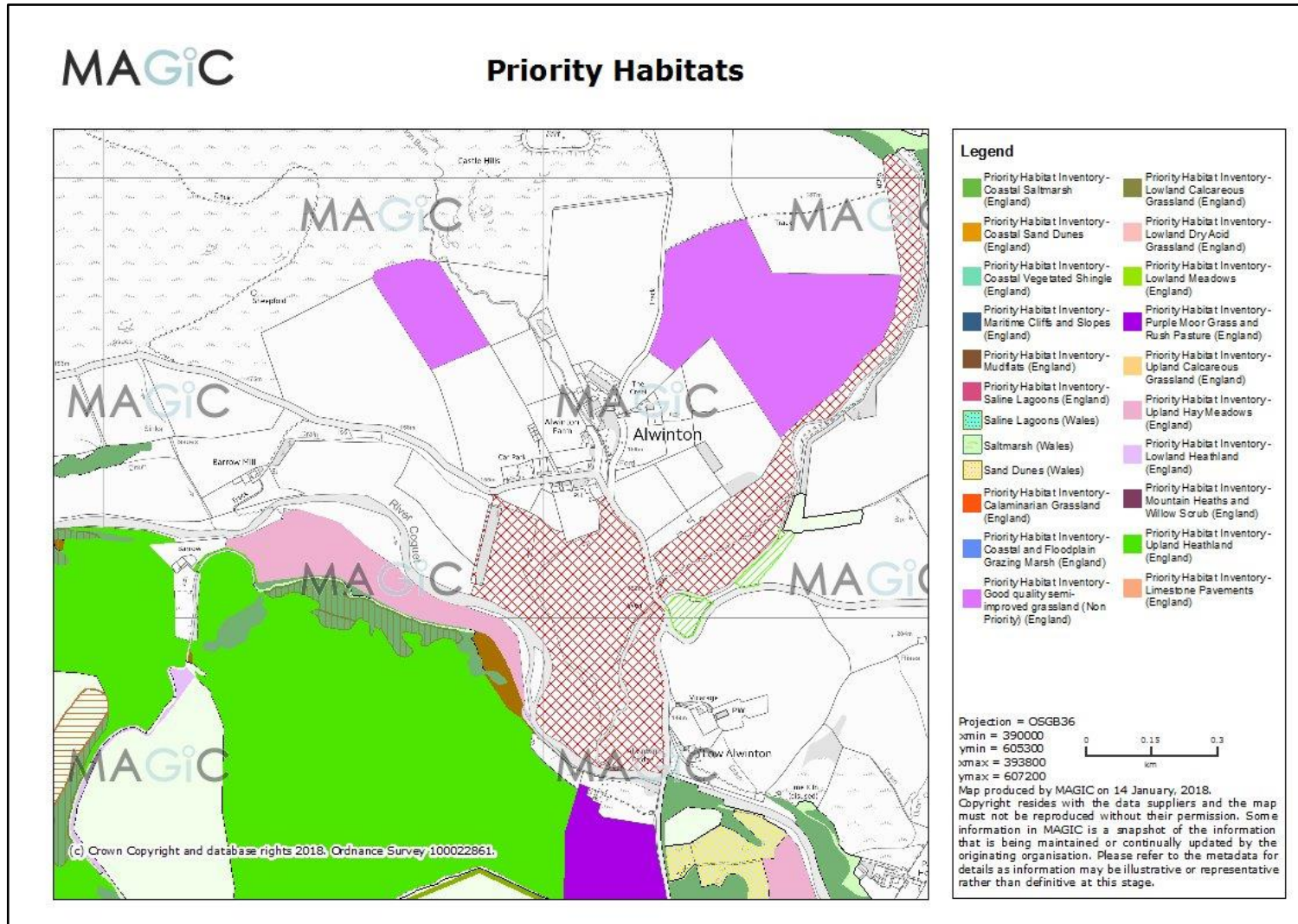


Figure 6. Priority habitats

Alwinton Bunkhouse Ecological Assessment, January 2018, Budhaig Environmental

5.2 Site Survey & Analysis.

5.2.1 Habitats on site.

The site is **improved grassland** closely grazed by sheep, a small group of which were present during the survey. The grasses present are dominated by Yorkshire fog *Holcus lanatus* with some perennial ryegrass *Lolium perenne* and fescues *Festuca* sp. Creeping buttercup *Ranunculus repens* was common throughout. Ribwort plantain *Plantago lanceolata*, white clover *Trifolium repens* and common mouse ear *Cerastium fontanum* were noted occurring frequently in the sward.

A **ditch** with running water (although this could be as a result of heavy rainfall) was present on the western boundary of the site. The vegetation was largely submerged field vegetation with abundant brooklime *Veronica beccabunga*. The bank of the ditch is dominated by common nettle *Urtica dioica*. Some dead stems of Hogweed *Heracleum sphondylium* were noted in the ditch.

A heavily flayed hedge of predominantly hawthorn *Crataegus monogyna* with some beech *Fagus* sp. is present at all boundaries. To the roadside boundary are four mature ash *Fraxinus* sp. trees.

5.2.2 Water Vole

No signs of water vole were encountered during the survey. The ditch running along the west boundary (which discharges into the Hoseden Burn) had no suitable overhanging banks or structures suitable for burrow creation but may provide feeding habitat.

5.2.3 Nesting Birds

No signs of **nesting birds** were encountered although the field offers suitable nesting habitat for hedge nesting species. It is unlikely that ground nesting birds such as lapwing would nest in this field due to the numbers of livestock present and better nesting habitat in the vicinity.

5.2.4 Bats

The field boundaries offer good foraging and commuting habitat for bats but these will not be affected by the development. Mature ash trees have numerous roosting opportunities in limb holes and cracks and are considered to have high suitability for bats.

5.2.5 Otter

Given historical records and the nature of the River Coquet SSSI designation otter are assumed present within 100m of the site on the Hoseden Burn, and within 200m on the River Coquet and River Alwin. No signs were noted on the site.



Fig. 7. Site entrance



Figure 8. view of site from entrance along western boundary facing south



Figure 9. view of site from entrance along western boundary facing north



Figure 10. Mature ash tree with high suitability for roosting bats.

6. Conclusions and Impact Assessment

6.1 Site Based Impacts.

The development will result in the loss of 737m² of improved grassland which has negligible value as a wildlife habitat.

Hedgerows and trees will remain intact. A buffer to the hedges of 3m (except for the western boundary to the ditch where a 5m buffer is required) and a buffer to the trees of 6m from the crown of the mature trees is required. A 6m buffer in total from the hedge in the north western section of the site will accomplish all three aims.

Nesting habitat for a variety of farmland and garden birds will therefore be maintained, along with potential bat roosts. New planting and improved hedgerow management will improve the value of those features to nesting birds and bats.

There are limited bat roosting and bird nesting opportunities on site but enhancement will be sought with the inclusion of 2 in-built nesting or roosting features on the new bunk house. The details of this are to be agreed with the project ecologist.

6.2 Impacts on the SSSI.

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 PPG5¹ and PPG6.

Occupation level impacts are most likely to come from increased lighting levels and foul and surface water run-off. With reference to the SSSI Impact Risk Zone tool, any discharge of foul water (even treated liquid from the treatment plant) may pose a risk to the water quality of the SSSI. The site will connect to an existing main sewer which mitigates risk to the SSSI.

Surface water will be mitigated via permeable hardstanding surfaces, and a buffer to the edge of the ditch on the western boundary.

7. Mitigation and Enhancement.

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

¹ <https://www.sepa.org.uk/media/60112/ppg-5-works-and-maintenance-in-or-near-water.pdf>

The following recommendations will likely be translated into conditions placed on any planning consent. They are intended to reduce the risk of this development to protected species and habitats.

1. Works, including any necessary vegetation clearance or pruning, will avoid the bird nesting season (March to August inclusive) unless a suitably qualified ecologist has confirmed that no nesting birds are present.
2. The hedges to the boundaries will be protected from construction vehicles by the erection of a suitable fence (Heras fencing panels secured by concrete blocks) set 3m from the base of the hedge. The 3m buffer will be maintained post construction.
3. A 6m buffer from the crown of the mature trees to the north west corner will be maintained at all times during construction and occupation. A suitable fence will be used to protect this buffer from construction vehicles.
4. A 5m buffer to the ditch will be in place throughout construction and occupation, and fenced from construction vehicles.
5. A pollution prevention strategy will be agreed and translated into the Construction Method Statement.
6. All works on site will follow the guidance contained in the *Pollution Prevention Guidelines: Works and maintenance in or near water: PPG5*
<https://www.sepa.org.uk/media/100531/ppg-5-works-and-maintenance-in-or-near-water.pdf>
7. Any hardstanding will be loose granular material or a 'grasscrete' style subbase to allow surface water permeability.
8. Any construction pits or trenches will include a suitable slope or ramp to allow mammals to escape.
9. Should any protected species be found whilst construction works are in progress, work must stop immediately and advice sought from the project ecologist.
10. The new bunkhouse will include 2 in-built or wall mounted bat and/or bird boxes.
11. Any new hedge planting will be a locally native mix including nectar and berry producing plants.
12. Lighting on the site will be designed in accordance with the Bat Conservation Trust/Institute of Lighting Engineers guidance 'Bats and Lighting'², with external lighting and light spill directed away from the hedges at site boundaries mature trees and the river corridor.

2

http://www.bats.org.uk/data/files/bats_and_lighting_in_the_uk_final_version_version_3_may_09.pdf

References

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