

**Pool Farm, Haresfield – Caravan
Storage site**

Ecological Appraisal

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1 Summary

Commission and Site	BSG Ecology was commissioned on 01 February 2021 by Savills Ltd on behalf of Haresfield Farms to carry out an Ecological Appraisal of an area of land (the “Site”) located at Pool Farm, near Haresfield, Stroud. It is proposed to extend an existing caravan storage facility at the Site into an arable field to the east.
Surveys undertaken	A desk study was undertaken in February 2021. An extended Phase 1 habitat survey was undertaken on 08 February 2021.
Results	<ul style="list-style-type: none"> • No statutory designated sites are present within 2 km • The Haresfield to Brookthorpe Conservation Road Verge is located 1 km south-east of the Site boundary. No further non-statutory designated sites are present within 2 km. • The Site is formed principally by the existing caravan storage facility (hard standing) and its surrounding grass bunds (created 2019), and an area of arable field to the east. Smaller areas of broadleaved plantation woodland (mostly off-site) and scrub are present, and poor semi-improved grassland field margins, as well as a hedgerow. • The Site has some (low) value for nesting birds, foraging bats, foraging badgers, reptiles, and hedgehog. No evidence of badgers or their setts was found. Suitable bat roosting and foraging habitat is present just outside the Site boundary. • Japanese knotweed is present on the eastern boundary, predominantly within Network Rail land.
Impacts and recommendations	<ul style="list-style-type: none"> • New bunds should be planted with habitats of wildlife value, including new species-rich grassland, woodland and scrub habitats. • Loss of the plantation woodland, scrub and hedgerow should be avoided, or minimised as far as possible. • A sensitive lighting scheme should be drawn up, avoiding illumination of boundary features. • An update badger survey should be carried out immediately prior to works. • Removal of the bunds should be carried out under method statement to avoid killing/injury of reptiles. • All work should ensure that the spread of Japanese knotweed does not occur (see Section 5).

2 Introduction

Background to commission

2.1 BSG Ecology was commissioned on 01 February 2021 by Savills Ltd on behalf of Haresfield Farm to carry out an Ecological Appraisal of two areas of land located at Pool Farm, near Haresfield, Stroud. Two separate planning applications are proposed at Pool Farm, comprising:

- 1) The extension of an existing open air caravan storage facility,
- 2) Relocation of farm buildings from Colethrop Farm to Pool Farm.

2.2 This report covers application 1. The proposals are for the extension of the existing outside storage of unoccupied caravans and motor homes including partial removal of existing landscape bund, the construction of hard-standing and associated drainage and landscaping.

2.3 The works area for this application (the "Site") is defined as the area within the red line boundary on Drawing reference 5808/15, dated 04 February 2021.

Site description

2.4 The Site (centred at Ordnance Survey grid reference SO 81570 11592) is approximately 0.89 ha in extent and is located to the north and north-east of Pool Farm, west of Haresfield, Stroud district. The Site is predominantly formed by the existing caravan storage facility to the west, and a section of an arable field to the east, separated via a grassland bund created in 2019 under the application for the original caravan storage facility. Smaller areas of semi-improved grassland, scrub, and broadleaved plantation woodland are also present.

2.5 Surrounding habitats are predominantly arable, but include a bund vegetated with broadleaved plantation woodland adjacent to the north, and the buildings and infrastructure of Pool Farm to the south-west (which also include a pond and small copse). The eastern boundary of the Site is formed by the Bristol and Gloucester railway line and its adjacent bank. The M5 motorway is present 45 metres north of the Site boundary at its closest point.

Aims of study

2.6 The aims of this study are as follows:

- To undertake an ecological desk study and an extended Phase 1 habitat survey of the Site to gain information on the habitats present and their condition.
- To establish the suitability of the Site for protected or otherwise notable species, and where appropriate, to establish the presence or absence of such species and gain an understanding of their use of the Site.
- To identify the ecological impacts of the proposed development and to set out appropriate avoidance, mitigation, compensation and enhancement measures.

3 Methods

Desk study

- 3.1 A data request was made to the Gloucestershire Centre for Environmental Records (GCER) to obtain records of protected and notable species, notable habitats and locally designated sites within 2 km of the Site. Data was requested on 10 February 2021, and received on 16 February 2021.
- 3.2 In addition, online aerial photography and the Multi Agency Geographic Information for the Countryside¹ (MAGIC) database was used to provide further ecological context for the Site, including Ordnance Survey mapping and the location of previous protected European Protected Species licences. This was accessed on 16 February 2021.

Field survey

Extended Phase 1 habitat survey

- 3.3 A Phase 1 habitat survey of the Site was undertaken by Kate Rooney ACIEEM, Senior Ecologist at BSG Ecology (see <https://www.bsq-ecology.com/people/>) on 08 February 2021, with reference to industry standard guidance (JNCC, 2010).
- 3.4 During the survey, all habitats present on Site were identified and mapped, and notes were taken of the dominant plant species present. Target notes were taken of particular features of ecological interest. The survey was 'extended' to include an assessment of the potential of the Site and adjacent habitats to support protected or notable species. This included an assessment of the suitability of the habitats to support reptiles, great crested newt and breeding birds, and a preliminary ground level assessment of trees to assess their suitability for roosting bats.
- 3.5 The weather at the time of survey was very cold (0°C on average) and overcast, with occasional snow showers and a fresh breeze. It did not provide a particular constraint to survey.

Badger survey

- 3.6 During the Phase 1 habitat survey, the Site (and adjacent habitats where access was possible) was searched for signs of badger *Meles meles* (e.g. dung pits, latrines and hairs).

Bats-Ground level preliminary roost assessment

- 3.7 A ground level assessment of the potential of trees at the Site to support roosting bats was undertaken during the extended Phase 1 habitat survey. This method was based on industry standard guidance (Collins, 2016). Each tree was inspected from the ground with the surveyor making a search for potential roost features such as knot holes, woodpecker holes, lifted bark, cracks and other cavities. Trees were categorised based on their suitability to support roosting bats (using the categories 'negligible', 'low', 'moderate' and 'high').

Habitat Suitability Index assessment

- 3.8 To assess the potential for the presence of great crested newts *Triturus cristatus* (GCN) at the Site, a Habitat Suitability Index (HSI) assessment was undertaken of the pond at Pool Farm, located approximately 15 metres south of the Site.
- 3.9 The revised method for determining HSI values for GCN ponds, developed by ARG UK (2010) was used to implement the assessment. The method involves allocating scores to features associated with a pond such as size, quality of surrounding habitat and presence of fish. These scores are then combined to calculate the overall HSI for each pond as a number between 0 and 1, with 0 being the least suitable and 1 being the most suitable. The HSI score allows each pond to be placed in one of five pre-defined categories defining its suitability for GCN as follows: <0.5: poor; 0.5–0.59: below average; 0.6–0.69: average; 0.7 – 0.79: good; >0.80: excellent.

¹ <http://www.magic.defra.gov.uk> [accessed 18/02/2020]

Limitations to Methods

- 3.10 The Phase 1 habitat survey visit was undertaken outside of the optimal season (which is late March / early April to mid-October / early November). Outside the optimal season, the range of plant species that can be recorded is more limited, and the identification of habitat types (particularly grassland types) is less certain. However, given the very low value of the habitats across the majority of the Site (hard standing and arable field), and the very recent creation of the grassland on the bund (2019), this is not considered to be a significant constraint. The value of all habitats present was able to be assessed with confidence.
- 3.11 It was not possible to survey the railway bank on the eastern boundary for badgers in detail, due to this being outside of the client ownership and separated via a security fence. This area was scoped from the boundary. As all areas within the red line boundary of the Site were able to be fully surveyed, this is not considered to be a significant constraint.

4 Results and Interpretation

Designated sites

Statutory

- 4.1 There are no statutory designated wildlife sites within 2 km of the Site boundary. The nearest Site of Special Scientific Interest (Range Farm Fields) is 3.5 km from the Site, and the nearest internationally designated site is 5.5 km from the Site (Cotswold Beechwoods Special Area of Conservation).

Non-statutory

- 4.2 A single non-statutory designated site is present within 2 km of the Site boundary. This is the Haresfield to Brookthorpe Conservation Road Verge, which is approximately 1 km from the Site boundary, and protected for its lowland meadow habitat.
- 4.3 Two unconfirmed Local Wildlife Sites are present within 2 km of the Site. These are site which have been identified for their wildlife value but have not yet been subject to additional protections. These are listed in Table 1. Neither is located within or adjacent to the Site.

Table 1: Unconfirmed Local Wildlife Sites within 2 km of the Site

Site name	Description	Distance from Site (km)
Great Russell's Ground	Unimproved grassland, tall ruderal, marsh and ponds	1.1
Dimore Brook	Narrow ditch with unimproved amenity grassland and semi-natural habitats bordering.	1.8

Habitats

- 4.4 The habitats present on Site are shown on the Phase 1 habitat plan (Figure 1).

Hard standing

- 4.5 The western half of the Site is formed by the hard standing (compacted crushed gravel) for the existing caravan storage area. This is relatively recently laid with no colonising vegetation recorded, and is of negligible habitat value.

Arable

- 4.6 The eastern half of the Site is largely formed by an arable field. At the time of survey it was left to fallow, with very little vegetation and is of negligible habitat value.

Poor semi-improved grassland

- 4.7 The bunds surrounding the existing caravan storage area are vegetated by semi-improved grassland. This is of recent origin, and is reportedly created from a wildflower seed mix in 2019 soon after their construction, however the grassland had matured into a dense sward, although not particularly tussocky. Overall, the take-up by the seed mix appears to have been more successful on the slopes facing the caravan park; on the field (east facing) slope, sward density was much reduced with a high proportion of ruderal species present, indicating significant natural regeneration has also occurred.
- 4.8 The grassland on the bund was dominated by a bent grass species (likely common bent *Agrostis capillaris*) with abundant false oat-grass *Arrhenatherum elatius*, particularly on the eastern and southern slopes. Other grass species recorded on the inner bank included abundant red fescue

Festuca rubra and occasional crested dog's-tail *Cynosurus cristatus*. Forb species included a high density of ruderal species, particularly on the eastern slope, with species recorded including broadleaved dock *Rumex obtusius*, cleavers *Galium aparine*, rosebay willowherb *Chamerion angustifolium*, ribwort plantain *Plantago lanceolata* and bristly oxtongue *Picris echioides*. Creeping buttercup *Ranunculus repens* dominant in some areas, particularly on the outer slopes, while bird's-foot trefoil *Lotus corniculatus* was recorded on the inner bank only.

- 4.9 A similar species mix to the banks has begun colonising the area adjacent to the eastern slope. This is recently formed, and of very short sward length (maximum ten centimetres) and density.
- 4.10 Field margins surrounding the arable field are very narrow (maximum 1 metre), and dominated by false oat-grass and also common nettle *Urtica dioica*, cleavers, white dead-nettle *Lamium album*, creeping thistle *Cirsium arvense*, ivy *Hedera helix* and cow parsley *Anthriscus sylvestris*. Where the margin widens slightly at the gate in the north-eastern corner, tufted hair-grass *Deschampsia cespitosa*, Yorkshire Fog *Holcus lanatus* and canary-grass *Phalaris canariensis* were also recorded.
- 4.11 Given its species composition, no grassland on the Site comes close to meeting the criteria for any Habitats of Principal Importance² (HPIs) as defined by Maddock (2011), since, for neutral grassland, HPI habitats are limited to ancient meadows of the NVC community types MG4, MG5 and MG8. Given their limited extent (and recent creation for the sown mix on the bunds), they are not considered to have particular biodiversity value otherwise.

Broadleaved plantation woodland

- 4.12 A small area of broadleaved woodland is present at the northern end of the Site, formed by the end section of the wooded bund which runs just outside the boundary of the western half of the Site. The area was clearly plantation woodland, with trees originally planted in rows either side of the bund. Trees present include some semi-mature specimens, and a relatively dense and unmanaged understorey. Species recorded include poplar *Populus sp.*, silver birch *Betula pendula*, sycamore *Acer pseudoplatanus*, ash *Fraxinus excelsior*, field maple *Acer campestre* and oak *Quercus robur*. Dense bramble *Rubus fruticosus* agg. scrub is abundant in the understorey. Ground flora is dominated by ivy, with other species recorded including abundant lords-and-ladies *Arum maculatum*, common nettle, cow parsley, false oat-grass, cleavers, and a deadnettle species. This woodland has recently naturally expanded from its original plantation area and has now colonised a small area to the east.
- 4.13 Owing to its recent creation (the wood is evidently plantation and small in size), this area of woodland does not meet the criteria for Lowland Semi-natural Woodland as defined by Maddock (2011).

Scrub

- 4.14 A small area of dense scrub is present on the eastern boundary of the Site, adjacent to the off-site copse. This is dominated by bramble *Rubus fruticosus* agg. This habitat does not meet the criteria for any HPIs as defined by Maddock (2011).

Hedgerow

- 4.15 Part of the northern boundary of the Site is formed by a continuous section of species rich hedgerow. This was of age (approximately 3 m width) but heavily managed at the time of survey, measuring approximately 1.25 m height. Woody species recorded included field maple, elm *Ulmus procera*, dogwood *Cornus sanguinea*, blackthorn *Prunus spinosa*, hawthorn *Crataegus monogyna* and elder *Sambucus nigra*. No species appeared to be heavily dominant.
- 4.16 All native hedgerows are HPI, as defined by Maddock (2011). Owing to the age of the hedgerow, its location on a bank between the Site and the adjacent access road, its species diversity, and the presence of a nearby parallel hedgerow on the opposite side of the road, this hedgerow has potential

² As designated by Natural England in accordance with Section 41 of the Natural Environment and Rural Communities Act 2006.

to be Important under the Hedgerow Regulations 2010 and should be assumed to be so unless detailed surveys prove otherwise.

Protected and notable species

Bats

- 4.17 The desk study found no bat records from within the Site itself. There were 68 records of 4 bat species (common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, brown long-eared bat *Plecotus auritus*, noctule *Nyctalus*) returned from within 2 km of the Site.
- 4.18 No trees with roosting bat suitability are present within the Site. Two trees with Moderate roosting suitability were identified just outside the eastern boundary of the Site, next to the railway bank. These are summarised as follows:
- Mature willow at SO 81737 11454 with an upwards ascending cavity from an old tear-out on the southern aspect. A double-leader feature is present approximately 30 cm above this feature, indicating that connectivity to further voids may be available internally. Further splits and fissures in deadwood are also present.
 - Mature ash at SO 81734 11440 with a large split up the main stem from 1.5m-6m, possibly from a lightning strike.
- 4.19 Further standing deadwood was also noted within the off-site copse at the north-eastern corner of the Site. No confirmed roosting features were seen; however, suitability could not be ruled out.
- 4.20 The Site offers very low suitability habitat for foraging bats, being dominated by hard standing and arable farmland. The boundary habitats, particularly the plantation woodland and railway line, are likely to be used by bats, both for foraging and commuting.

Badger

- 4.21 The desk study found no records of badger from within the Site itself. [REDACTED]
- [REDACTED]
- 4.22 The Site and its boundaries offer suitable habitat for badgers; however, no setts or other field signs of badger were found during the Phase 1 habitat survey.
- 4.23 Several rabbit burrows are present on the Site boundaries, including inside the plantation woodland, the hedgerow, and adjacent to the off-site copse.

Birds

- 4.24 The desk study returned records of a wide range of bird species protected under Schedule 1 of the Wildlife and Countryside Act (WCA 1), Section 41 species (SPI) under the NERC act (2006) or amber (A) or red (R) listed on the list of Birds of Conservation Concern (BoCC). None of these records were located on or adjacent to the Site. Three records were returned in the wider Pool Farm area; these were all records of kestrel *Falco tinnunculus* adjacent to the M5 corridor, approximately 250 m from the Site boundary.
- 4.25 The woodland, hedgerow and scrub habitats at the Site boundaries provide suitable nesting and foraging habitat for a wide range of tree and shrub nesting species of birds. Nesting habitat on the Site itself is limited to the small area of plantation woodland inside the boundary (at the eastern end of the wooded bund), and where scrub has expanded slightly out of the off-site copse. Remaining habitats are of negligible suitability for both nesting and foraging birds. Although the field as a whole does provide some areas suitable for ground nesting bird such as skylark *Alauda arvensis*, the area within the Site is small in extent, enclosed by trees and immediately adjacent to the farm buildings. It is therefore considered to be of very low suitability for this species. The Site does not provide breeding habitat for any Schedule 1 bird species.

Dormouse

- 4.26 There were no records of dormouse *Muscardinus avellanarius* returned from the data search.
- 4.27 The wooded bund, copse and hedgerow along the northern boundary of the Site, of which one small area lies within the Site boundary, provide suitable but suboptimal habitat for dormouse. These areas of woodland are small and of recent origin, being not visible in aerial photographs of the Site from 1945. Connectivity between the onsite habitats and further areas of woodland in the wider landscape is poor. One small area is located adjacent to the north, across the access road, however this is also likely of recent origin and linked to the motorway.
- 4.28 Because of the lack of suitable habitat and historical habitat connectivity, it is considered very unlikely that dormouse is present at the Site (and those habitats of low suitability are being retained). The species will not be considered further in this report.

Great crested newt

- 4.29 No records of amphibians, including great crested newt (GCN) were returned on or adjacent to the Site. There were 28 records of GCN returned for within 2 km of the Site, of which the closest record (excluding those on the opposite site of the M5 motorway, which provides an effective barrier for the species) was located at Chambers Farm, approximately 550 m east of the Site.
- 4.30 The only pond within 250 m of the Site is a single pond 15 m from the Site's southern boundary. An update Habitat Suitability Index survey was undertaken for this pond during the survey in February 2021. This assessed the pond as Below Average suitability for GCN (0.59); although the pond is of a suitable size and depth, with some moderately suitable terrestrial habitat in the immediate vicinity, a relatively low number of further ponds are present nearby (none within 500m), and the pond has a thick algal cover with no emergent or macrophytic species seen. Water quality is likely poor given the algae growth, and its location between the farm tracks and arable land.
- 4.31 BSG Ecology carried out an Environmental DNA (eDNA) survey of the pond in June 2019, to inform the application for a separate project in the area. This returned a negative result for GCN, confirming that the species was likely absent from this pond.
- 4.32 Taking into combination the likely absence of GCN from the pond in 2019, and its continued sub-optimal suitability, the species is considered very unlikely to be present, and will not be considered further in this report.

Reptiles

- 4.33 There were no records of reptiles returned on or adjacent to the Site. There were seven records of slow worm *Anguis fragilis* returned within 2 km of the Site, all of which were from south of Hardwicke, near Gloucester. The closest record was 1.4 km west of the Site.
- 4.34 The field margins and grass bunds provide suitable habitat to support commonly occurring reptile species such as slow worm *Anguis fragilis*, common lizard *Zootoca vivipara* and grass snake *Natrix natrix*, however this is reduced significantly by the very small width (1 metre maximum) of the field margins, and the recent creation of the bunds in 2019. Although the bunds do now provide suitable habitat for reptiles, and the presence of low numbers of these commonly occurring species cannot be ruled out, as they have poor connectivity to further (larger) areas of suitable habitat it is considered very unlikely that populations will have become established.

Invertebrates

- 4.35 The data search returned no invertebrate records on or adjacent to the Site. Records of 17 protected or notable invertebrate species were returned within 2 km of the Site. The poor semi improved grassland and arable fields are generally considered to be of low value for invertebrates. The hedgerow and small woodland copses within and adjacent to the Site are more diverse in species and vary in height and structure and therefore could support notable species, including those listed under Section 41 of the NERC Act 2006 and returned in the desk study. Stag beetle *Lucanus cervus*

records were also returned; the eggs of this species are laid inside deadwood. Although this resource is not provided by the habitats on the Site itself (very little deadwood was noted inside the plantation woodland within the red line boundary) the adjacent plantation woodland may be of low suitability.

Priority mammals

- 4.36 The data search returned 27 records of hedgehog *Erinaceus europaeus* within 2 km of the Site (a Species of Principal Importance “SPI” as listed on Section 41 of the NERC Act, see Appendix 1). None of these were located on or adjacent to the Site. The hedgerow and woodland habitats on and adjacent to the Site have more suitability to support hedgehog, while the grassland at field margins and the base of the bund (field side) may be used by foraging hedgehogs.
- 4.37 Although there were no records of the SPI species brown hare *Lepus europaeus* returned within 2 km of the Site in the desk study, some habitats present on the Site have suitability for the species, with both open arable areas for foraging and woodland at the boundaries for shelter. However, these areas of the Site are very small and unlikely to be of importance for this species.

Invasive species

- 4.38 Japanese knotweed *Fallopia japonica*, an invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) was recorded on the eastern boundary of the Site, predominantly on Network Rail land.

5 Impacts and Recommendations

Designated sites

- 5.1 Given the nature of the development (increased capacity for storage of uninhabited mobile homes) and the distance from any designated site (over 1 km to the closest designated site), no impacts to any designated site are considered likely.

Habitats

Semi-improved grassland

Impacts

- 5.2 Development at the Site will require the partial removal of the grassland bund which borders the current motorhome storage facility. This will therefore require the removal of a significant proportion of the semi-improved grassland habitats on the Site. Given the very recent creation of the grassland on these bunds (2019), the loss is not considered to be significant beyond the Site level.

Recommendations

- 5.3 It is understood that new bunds will be created along the northern and southern boundaries adjacent to the new caravan store. It is recommended that these are also sown with a species-rich wildflower mix (for example Emorsgate EM2 general purpose meadow mixture) in order to replace the habitats on the bunds being lost. As the lengths of the bunds being created are considerably greater than those being lost, should grassland habitat of a similar quality be created this will represent an overall increase in this habitat type overall post-development, with associated biodiversity benefits.

Broadleaved plantation woodland and scrub

Impacts

- 5.4 It is understood that a very small section of the plantation woodland (significantly less than 0.01 ha) at the northern boundary (the eastern edge of this planted bund where woodland has colonised) may need to be removed to accommodate the construction of the proposed new bunds in this area. Similarly, the scrub adjacent to the off-site copse may need to be trimmed back as part of the bund construction in this area. Although neither habitat is HPI, it is still of some biodiversity interest with value to breeding birds and invertebrates in particular.

Recommendations

- 5.5 Loss of woodland habitat should be minimised as far as possible. Where its removal cannot be avoided, it is recommended that landscaping proposals post-development should incorporate replacement planting of at least an equivalent area with a range of native woodland species of local provenance.
- 5.6 See Section 5.1720 for a discussion of the potential impacts on nesting birds from clearing woodland and scrub habitats.

Hedgerow

Impacts

- 5.7 No impact is anticipated on this habitat.

Other habitats

- 5.8 The hardstanding and arable habitats which dominate the Site are of negligible intrinsic ecological value and any loss of these areas during the development will not be ecologically significant. No mitigation is therefore proposed.

Protected and notable species**Bats****Impacts**

- 5.9 As European Protected Species, bats and their roosts are protected by both UK and European legislation (Appendix 1). To kill, injure, or to recklessly disturb bats, or to destroy, damage or obstruct access to their roosts is an offence.
- 5.10 No direct impacts on roosting bats from the proposed development are anticipated due to the lack of any suitable roosting sites within the red line boundary. There is however potential for indirect impacts on bats roosting in off-site trees (for example the two identified in Network Rail land just outside the eastern boundary) due to increased lighting.
- 5.11 As the majority of habitats being removed are of negligible value for foraging bats (arable farmland), and the grassland bund to be removed is of recent creation and unlikely to support diverse invertebrate communities, no significant impacts on foraging bats is anticipated. The creation and planting up of the new bunds at the Site boundaries will create a new foraging resource as these establish.

Recommendations

- 5.12 If lighting is required, this should be designed sensitively (with input from an experienced ecologist as necessary) in order to avoid illumination of potential bat roosting, commuting and foraging areas.
- 5.13 Landscaping schemes for the Site should incorporate native species of invertebrate value, for example wildflower grassland and native woodland planting. These would then provide a useful foraging resource for bats as they mature.

Badger

- 5.14 Badgers and their setts are protected in the UK under the Protection of Badgers Act (1992).
- 5.15 No impacts on badger are likely to result from the proposed development, since no setts or signs of badger were found during the badger survey. However, as suitable habitat is available and this species can construct new setts in a short space of time, a precautionary pre-construction badger check is recommended immediately prior to the start of works.

Breeding birds**Impacts**

- 5.16 All breeding birds, their eggs and nests are protected against killing, taking and damage under the Wildlife and Countryside Act (WCA, 1981) as amended.
- 5.17 It is understood that the proposed works at the Site are likely to require removal of small areas of suitable habitat for breeding birds, including plantation woodland and scrub. Given the small size of these areas of habitat, no significant impacts on local populations of birds is anticipated as a result of the works. However, without appropriate mitigation (such as protection measures during site clearance), the proposals have the potential to cause the killing and injury of scrub and tree nesting birds, and the destruction of nests, and hence offences under wildlife legislation.

Recommendations

- 5.18 Clearance of scrub and woodland habitats should be minimised as far as possible. Where required, it is recommended that vegetation clearance is undertaken outside the nesting bird season. As a guide, the bird nesting season is between March and August inclusive; dates vary by species and can be affected by prevailing weather conditions.

- 5.19 If vegetation clearance is required during the nesting period, it is recommended that vegetation is inspected by an ecologist to confirm the absence of nests. If active nests are identified then the vegetation clearance in this area would need to be delayed until the young have fledged and/or the nest is no longer in use. A suitable buffer (the size of which would be determined by the ecologist on Site) could be retained around the nest to allow other elements of work to be progressed. Note that this approach is usually only practical where small areas of habitat will be affected. Vegetation may also be trimmed down in advance of the breeding bird season to discourage birds from nesting.
- 5.20 To mitigate for any loss in nesting habitat, as well as general enhancement in line with the NPPF, features of value for birds should be incorporated into the proposed development. This could include planting of new scrub or woodland habitats at site boundaries (for example on or adjacent to the new bunds), as well as the incorporation of fruiting species of value for foraging birds into site landscaping (for example rowan *Sorbus aucuparia* or hawthorn).

Reptiles

Impacts

- 5.21 All native reptile species receive legal protection in Great Britain under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are also included as SPI for the purpose of conserving biodiversity under Section 41 of the NERC Act 2006.
- 5.22 Although areas suitable areas of habitat for reptiles will be lost during the development, as these are either small or recently created no significant impacts on reptile populations is anticipated. However, as the presence of individuals or low numbers within these areas cannot be ruled out, the risk of killing/injury of reptiles during site clearance remains.

Recommendations

- 5.23 Given the very low numbers of reptiles possibly present on the Site, further survey or translocation of reptiles is not considered necessary. However, the clearance of the higher suitability areas (the bund and field margins) should be undertaken under the following method statement with regard to reptiles:
- 5.24 For areas of the Site which have potential reptile habitat and impacts are unavoidable the following approach will be undertaken.
- a. Work will be undertaken during the active reptile period, to avoid the risk of disturbing hibernating animals.
 - b. An Ecological Clerk of Works (ECoW) will be present to brief contractors on the legal protection afforded to reptiles (and other protected species), and to explain the requirements of this method statement.
 - c. All vegetation will be firstly cleared to a minimum height of 15 cm above the ground to reduce the risk of killing and injuring reptiles.
 - d. The area will then be searched for reptiles, and any reptiles or suitable refuge features (including the cut vegetation) will be removed.
 - e. The construction area will then be soil stripped to make unsuitable for reptiles and other protected species.
 - f. All arising's from will be placed in adjacent suitable reptile habitat or removed off Site. Arisings retained on Site will be placed in habitat piles, as dictated by the ECoW.
 - g. If reptiles are discovered at any stage during the implementation of the method statement they will be moved to areas of suitable retained habitat by the ECoW.

- 5.25 As previously discussed, it is recommended that much of the new bunds to be created at the Site boundaries should be sown with a wildflower grassland species mix, which should include tussock-forming species (such as cock's-foot *Dactylis glomerata*) to create suitable new habitat for reptiles. If this is created in combination with new areas of scrub (to provide shelter/hibernation opportunities), the proposals will represent a significant increase in the available area of habitat on the Site for reptiles.
- 5.26 It is recommended that brash from clearance of woody vegetation is retained and used to create habitat piles in undisturbed corners of the Site. This will provide new shelter and/or hibernation value for reptile populations on the Site post-development.

Invertebrates

Impacts

- 5.27 The majority of the habitats on the Site are negligible value for invertebrates (arable and hard standing) and remaining habitats are either small or recently formed. No significant impacts on invertebrate communities are hence anticipated from the proposed development.

Recommendations

- 5.28 As previously discussed, new habitats of invertebrate value (species-rich grassland, scrub, woodland planting and/or hedgerows) should be created on the Site. These will then in turn provide general biodiversity benefits as they mature.

Priority mammals

Impacts

- 5.29 Post-construction, assuming that new areas of suitable habitat for hedgehogs (for example woodland or scrub) are created at the Site boundaries, no significant impact is anticipated. As an overall increase in semi-natural green space is anticipated with the creation of the bunds at the boundaries, there is potential to improve the value of the Site overall for foraging hedgerows.

Recommendations

- 5.30 To avoid killing and injury of hedgehogs and other small animals, it is recommended that excavations are covered overnight, and/or that ramps are provided to allow animals to escape.
- 5.31 The habitat creation described earlier would provide significant enhancements of the Site for hedgehogs and other mammal species.

Japanese knotweed

- 5.32 Japanese knotweed has begun to establish on the eastern boundary of the Site, predominantly in Network Rail land. In accordance with the Wildlife and Countryside Act (1981), it is an offence "to plant or cause the spread of this species in the wild". All waste containing Japanese knotweed also comes under the control of the Environmental Protection Act 1990.
- 5.33 Given that Japanese Knotweed is a highly invasive species, the applicant has brought the presence of Japanese Knotweed to the attention of Network Rail. Any works that may cause the spread of this species will not be undertaken along this boundary, until the absence of Japanese knotweed has been confirmed by a suitably qualified person.

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7 Figure

Figure 1: Phase 1 Habitats Plan



Legend

- red line boundary
- Target Note
- Habitat**
- Plantation broadleaved woodland
- Dense bramble scrub
- Poor semi-improved grassland
- Arable
- Hardstanding



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Pool farm caravan storage

Figure 1: Phase 1 habitat plan

DATE: 16.02.2021

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VERSION 1


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All dimensions are to be checked on site.
Area measurements for indicative purposes only.

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8 Photographs

<p>Photograph 1: Arable field which forms eastern half of Site</p>	<p>Photograph 2: Central bund viewed from north looking south</p>
	
<p>Photograph 3: Central bund (viewed from south east looking north)</p>	<p>Photograph 4: Bund on southern boundary (west looking east)</p>
	
<p>Photograph 5: Broadleaved woodland in north of Site (inside red line boundary)</p>	<p>Photograph 6: Hedgerow and field margin</p>
	

Appendix 1: Summaries of Relevant Policy, Legislation and Other Instruments

This section briefly summarises the legislation, policy and related issues that are relevant to the main text of the report. The following text does not constitute legal or planning advice.

National Planning Policy Framework (England)

- 8.1 The Government revised the National Planning Policy Framework (NPPF) on 19 February 2019. Text excerpts from the NPPF are shown where they may be relevant to planning applications and biodiversity including protected sites, habitats and species.
- 8.2 The Government sets out the three objectives for sustainable development (economy, social and environmental) at paragraphs 8-10 to be delivered through the plan preparation and implementation level and 'are not criteria against which every decision can or should be judged.' At paragraph 8c) the planning system's environmental objective refers to 'protecting and enhancing our natural, built and historic environment' and to 'helping to improve biodiversity'
- 8.3 In conserving and enhancing the natural environment, the NPPF (Paragraph 170) states that 'planning policies and decisions should contribute to and enhance the natural and local environment' by:
- Protecting and enhancing...sites of biodiversity value... '(in a manner commensurate with their statutory status or identified quality in the development plan)'.
 - Recognising the wider benefits from natural capital and ecosystem services including trees and woodland.
 - Minimising impacts on and providing net gains in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
 - Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.
- 8.4 In respect of protected sites, at paragraph 171, the NPPF requires local planning authorities to distinguish, at the plan level, '...between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value...take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.'
- 8.5 Paragraph 174 refers to how plans should aim to protect and enhance biodiversity. Plans should: 'identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity [a footnote refers to ODPM Circular 06/2005 for further guidance in respect of statutory obligations for biodiversity in the planning system], wildlife corridors and stepping stones that connect them and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation;' and to 'promote the conservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.'
- 8.6 Paragraph 175 advises that, when determining planning applications, '...local planning authorities should apply the following principles:
- a. if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
 - b. development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments) should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that

make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

- c. development resulting in the loss or deterioration of irreplaceable habitats, (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d. development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.³

8.7 In paragraph 176, the following should be given the same protection as habitats sites³:

- i. potential Special Protection Areas and possible Special Areas of Conservation
- ii. listed or proposed Ramsar sites; and
- iii. sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.³

8.8 In paragraph 177 the NPPF refers back to sustainable development in relation to appropriate assessment and states: ‘the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site’.

8.9 In paragraph 178, the NPPF refers to planning policies and decisions taking account of ground conditions and risks arising from land instability and contamination at sites. In relation to risks associated with land remediation account is to be taken of ‘potential impacts on the natural environment’ that arise from land remediation.

8.10 In paragraph 180 the NPPF states that planning policies and decisions should ensure that development is appropriate to the location and take into account likely effects (including cumulative) on the natural environment and , in doing so, they ‘should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.’

Government Circular ODPM 06/2005 Biodiversity and Geological Conservation (England only)

8.11 Paragraph 98 of Government Circular 06/2005 advises that “the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Local authorities should consult Natural England before granting planning permission. They should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species. They should also advise developers that they must comply with any statutory species’ protection provisions affecting the site concerned...”

8.12 Paragraph 99 of Government Circular 06/2005⁴ advises that “it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted”.

³ Habitats sites are defined in the glossary as ‘Any site which would be included within the definition at regulation 8 of the Conservation of Habitats and Species Regulations 2017 (as amended) for the purpose of those regulations, including candidate Special Areas of Conservation, Sites of Community Importance, Special Areas of Conservation, Special Protection Areas and any relevant Marine Sites.’

⁴ ODPM Circular 06/2005. *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System* (2005). HMSO Norwich.

Standing Advice (GOV.UK - England only)

- 8.13 The GOV.UK website provides information regarding protected species and sites in relation to development proposals: 'Local planning authorities should take advice from Natural England or the Environment Agency about planning applications for developments that may affect protected species.' GOV.UK advises that 'some species have standing advice which you can use to help with planning decisions. For others you should contact Natural England or the Environment Agency for an individual response.'
- 8.14 The standing advice (originally from Natural England and now held and updated on GOV.UK⁵) provides advice to planners on deciding if there is a 'reasonable likelihood' of protected species being present. It also provides advice on survey and mitigation requirements.
- 8.15 When determining an application for development that is covered by standing advice, in accordance with guidance in Government Circular 06/2005, Local planning authorities are required to take the standing advice into account. In paragraph 82 of the aforementioned Circular, it is stated that: 'The standing advice will be a material consideration in the determination of the planning application in the same way as any advice received from a statutory consultee...it is up to the planning authority to decide the weight to be attached to the standing advice, in the same way as it would decide the weight to be attached to a response from a statutory consultee.'

Natural Environment and Rural Communities (NERC) Act 2006 – Habitats and species of principal importance (England)

- 8.16 The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act require the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England as required by the Act. In accordance with the Act the Secretary of State keeps this list under review and will publish a revised list if necessary, in consultation with Natural England.
- 8.17 The S41 list is used to guide decision-makers such as public bodies, including local authorities and utilities companies, in implementing their duty under Section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions, including development control and planning. This is commonly referred to as the 'Biodiversity Duty.'
- 8.18 Guidance for public authorities on implementing the Biodiversity Duty⁶ has been published by Defra. One of the key messages in this document is that 'conserving biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them.' In England the administration of the planning system and licensing schemes are highlighted as having a 'profound influence on biodiversity conservation.' Local authorities are required to take measures to "promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species. The guidance states that 'the duty aims to raise the profile and visibility of biodiversity, clarify existing commitments with regard to biodiversity, and to make it a natural and integral part of policy and decision making.'
- 8.19 In 2007, the UK Biodiversity Action Plan (BAP) Partnership published an updated list of priority UK species and habitats covering terrestrial, freshwater and marine biodiversity to focus conservation action for rarer species and habitats in the UK. The UK Post-2010 Biodiversity Framework⁷, which covers the period from 2011 to 2020, now succeeds the UK BAP. The UK priority list contained 1150 species and 65 habitats requiring special protection and has been used as a reference to draw up the lists of species and habitats of principal importance in England.
- 8.20 In England, there are 56 habitats of principal importance and 943 species of principal importance on the S41 list. These are all the habitats and species found in England that were identified as requiring

⁵ <https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals#standing-advice-for-protected-species>

⁶ Defra, 2007. *Guidance for Public Authorities on Implementing The Biodiversity Duty*. (<http://www.defra.gov.uk/publications/files/pb12585-pa-guid-english-070516.pdf>)

⁷ JNCC and Defra (on behalf of the Four Countries' Biodiversity Group), 2012. *UK Post-2010 Biodiversity Framework*. July 2012. (<http://jncc.defra.gov.uk/page-6189>)

action in the UK BAP and which continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

European protected species (Animals)

- 8.21 The Conservation of Habitats and Species Regulations 2017 (as amended by the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) consolidate various amendments that have been made to the original (1994) Regulations which transposed the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.
- 8.22 “European protected species” (EPS) of animal are those which are shown on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). They are subject to the provisions of Regulation 43 of those Regulations. All EPS are also protected under the Wildlife and Countryside Act 1981 (as amended). Taken together, these pieces of legislation make it an offence to:
- a. Intentionally or deliberately capture, injure or kill any wild animal included amongst these species
 - b. Possess or control any live or dead specimens or any part of, or anything derived from a these species
 - c. deliberately disturb wild animals of any such species
 - d. deliberately take or destroy the eggs of such an animal, or
 - e. intentionally, deliberately or recklessly damage or destroy a breeding site or resting place of such an animal, or obstruct access to such a place
- 8.23 For the purposes of paragraph (c), disturbance of animals includes in particular any disturbance which is likely—
- a. to impair their ability—
 - i. to survive, to breed or reproduce, or to rear or nurture their young, or
 - ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
 - b. to affect significantly the local distribution or abundance of the species to which they belong.
- 8.24 Although the law provides strict protection to these species, it also allows this protection to be set aside (derogated) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works and by Natural Resources Wales in Wales. In accordance with the requirements of the Regulations (2017, as amended), a licence can only be issued where the following requirements are satisfied:
- a. The proposal is necessary ‘to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment’
 - b. ‘There is no satisfactory alternative’
 - c. The proposals ‘will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Definition of breeding sites and resting places

- 8.25 Guidance for all European Protected Species of animal, including bats and great crested newt, regarding the definition of breeding and of breeding and resting places is provided by The European Council (EC) which has prepared specific guidance in respect of the interpretation of various Articles of the EC Habitats Directive.⁸ Section II.3.4.b) provides definitions and examples of both breeding and resting places at paragraphs 57 and 59 respectively. This guidance states that ‘The provision in Article 12(1)(d) [of the EC Habitats Directive] should therefore be understood as aiming to safeguard

⁸ Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. (February 2007), EC.

the ecological functionality of breeding sites and resting places.’ Further the guidance states: ‘It thus follows from Article 12(1)(d) that such breeding sites and resting places also need to be protected when they are not being used, but where there is a reasonably high probability that the species concerned will return to these sites and places. If for example a certain cave is used every year by a number of bats for hibernation (because the species has the habit of returning to the same winter roost every year), the functionality of this cave as a hibernating site should be protected in summer as well so that the bats can re-use it in winter. On the other hand, if a certain cave is used only occasionally for breeding or resting purposes, it is very likely that the site does not qualify as a breeding site or resting place.’

Birds

- 8.26 All nesting birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to disturb them whilst they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

Badger

- 8.27 Badger is protected under the Protection of Badgers Act 1992. It is not permitted to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so; or to intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it. A badger sett is defined in the legislation as “a structure or place, which displays signs indicating current use by a badger”.
- 8.28 ODPM Circular 06/2005⁹ provides further guidance on statutory obligations towards badger within the planning system. Of particular note is paragraph 124, which states that “The likelihood of disturbing a badger sett, or adversely affecting badgers’ foraging territory, or links between them, or significantly increasing the likelihood of road or rail casualties amongst badger populations, are capable of being material considerations in planning decisions.”
- 8.29 Natural England provides Standing Advice¹⁰, which is capable of being a material consideration in planning decisions. Natural England recommends mitigation to avoid impacts on badger setts, which includes maintaining or creating new foraging areas and maintaining or creating access (commuting routes) between setts and foraging/watering areas.

Reptiles

- 8.30 All native reptile species receive legal protection in Great Britain under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Viviparous lizard, slow-worm, grass snake and adder are protected against killing, injuring and unlicensed trade only. Sand lizard and smooth snake receive additional protection as “European Protected species” under the provisions of the Conservation of Habitats and Species Regulations 2017 (as amended) and are fully protected under the Wildlife and Countryside Act 1981 (as amended).
- 8.31 All six native species of reptile are included as ‘species of principal importance’ for the purpose of conserving biodiversity under Section 41 (England) of the NERC Act 2006 and Section 7 of the Environment (Wales) Act 2016.
- 8.32 Current Natural England Guidelines for Developers¹¹ states that ‘where it is predictable that reptiles are likely to be killed or injured by activities such as site clearance, this could legally constitute intentional killing or injuring.’ Further the guidance states: ‘Normally prohibited activities may not be illegal if ‘the act was the incidental result of a lawful operation and could not reasonably have been

⁹ ODPM Circular 06/2005. *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System* (2005). HMSO Norwich.

¹⁰ <http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/specieslinks.aspx>

¹¹ English Nature, 2004. *Reptiles: guidelines for developers*. English Nature, Peterborough. <https://webarchive.nationalarchives.gov.uk/20150303064706/http://publications.naturalengland.org.uk/publication/76006>

avoided'. Natural England 'would expect reasonable avoidance to include measures such as altering development layouts to avoid key areas, as well as capture and exclusion of reptiles.'

- 8.33 The Natural England Guidelines for Developers state that 'planning must incorporate two aims where reptiles are present:
- To protect reptiles from any harm that might arise during development work;
 - To ensure that sufficient quality, quantity and connectivity of habitat is provided to accommodate the reptile population, either on-site or at an alternative site, with no net loss of local reptile conservation status.'

Wild mammals in general

- 8.34 The Wild Mammals (Protection) Act 1996 (as amended) makes provision for the protection of wild mammals from certain cruel acts, making it an offence for any person to intentionally cause suffering to any wild mammal. In the context of development sites, for example, this may apply to rabbits in their burrows.

Invasive non-native species

- 8.35 An invasive non-native species is any non-native animal or plant that has the ability to spread causing damage to the environment.
- 8.36 Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to release, or to allow to escape into the wild, any animal which is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state or is listed under Schedule 9 of the Act.
- 8.37 It is an offence to plant or otherwise cause to grow in the wild invasive non-native plants listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Hedgerows

- 8.38 Article 10 of the Habitats Directive¹² requires that 'Member States shall endeavour...to encourage the management of features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure...or their function as stepping stones...are essential for the migration, dispersal and genetic exchange of wild species'. Examples given in the Directive include traditional field boundary systems (such as hedgerows).
- 8.39 The aim of the Hedgerow Regulations 1997¹³, according to guidance produced by the Department of the Environment¹⁴, is "to protect important hedgerows in the countryside by controlling their removal through a system of notification. In summary, the guidance states that the system is concerned with the removal of hedgerows, either in whole or in part, and covers any act which results in the destruction of a hedgerow. The procedure in the Regulations is triggered only when land managers or utility operators want to remove a hedgerow. The system is in favour of protecting and retaining 'important' hedgerows.
- 8.40 The Hedgerow Regulations set out criteria that must be used by the local planning authority in determining which hedgerows are 'important'. The criteria relate to the value of hedgerows from an archaeological, historical, wildlife and landscape perspective.

¹² Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

¹³ Statutory Instrument 1997 No. 1160 – The Hedgerow Regulations 1997. HMSO: London

¹⁴ The Hedgerow Regulations 1997: a guide to the law and good practice, HMSO: London

Appendix 2. Target notes

Target note 1: Location of Japanese knotweed thicket

Target note 2: Pond to south of Site boundary