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WODC Sites

2025 Ecology Survey and Outline Management Recommendations

North Leigh Common

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1 Summary

1.1 BSG Ecology were commissioned on 23 April 2025 to undertake habitat surveys and condition assessments of five green spaces that are owned and managed by West Oxfordshire District Council.

1.2 This report sets out the methods and results of this work. It also notes current key impacts on the sites and. includes outline recommendations for management interventions to enhance the biodiversity value of the sites.

1.3 **North Leigh Common** is dominated by woodland, with areas of grassland, scrub, bracken, and several ponds. It supports several areas of acid grassland that are being encroached by colonising birch trees but still supports some flora typical of heathland and acid grassland priority habitats that are now very scarce in Oxfordshire. In line with the priorities for biodiversity under the draft Local Nature Recovery Strategy for Oxfordshire, it is recommended that the restoration of heathland and acid grassland be carried out at the site, primarily through tree thinning and vegetation management. There is also scope to enhance ponds and woodland at this site through canopy thinning, silt removal and vegetation management.

2 Introduction

Background to commission

2.1 BSG Ecology Ltd was commissioned on 23 April 2025 to undertake habitat surveys and condition assessments of five sites that are owned and managed by West Oxfordshire District Council, to carry out baseline Biodiversity Net Gain assessments for these sites, and to make management recommendations for biodiversity enhancements.

Description of Sites

2.2 The site surveyed as part of this study were:

- North Leigh Common

2.3 **North Leigh Common** is located between Long Hanborough to the northeast and North Leigh to the southwest and straddles the A4095 running between these two villages. Its central grid reference is SP 4006 1366. The bulk of the Site is immediately north of this road, with a small area of woodland along the southern side of the road, and a larger area to the west of Boddington Lane, which also runs through the site. The common is a part of what would historically have been a much larger area of heathland. It is now dominated by secondary woodland of birch and oak, but there are fragments of acid grassland and one small surviving area of of heather *Calluna vulgaris*.

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Scope and Aims of Study

2.4 This report details the methods and results of habitat surveys carried out at each of the sites, as well as the results of a baseline Biodiversity Net Gain assessment for each site. Outline recommendations for management interventions which aim to enhance the value of the sites for biodiversity are made, and any current impacts on the sites (for example, as a result of visitor pressure or damaging management practices) are noted.

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3 Methods

Desk Study

3.1 To inform the approach to habitat surveys and management recommendations, openly available online aerial photography[1], historical mapping[2], and OS mapping[3] was reviewed.

3.2 Records of protected and notable species made at or within the vicinity of each of the sites was provided by WODC. This data was reviewed to inform the management recommendations made, and is summarised for each site under 'Results', below. Only those records made within the previous 20 years were reviewed and summarised. A single dataset was provided for both Deer Park Wood and Deer Park South, and thus this data was used to inform the management recommendations for both sites. It is summarised under the results for Deer Park Wood.

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Extended habitat survey

3.3 Extended habitat surveys of the five sites were conducted on the dates given in Table 1.

Table 1: Survey dates

Site	Date
North Leigh Common	20 May 2025

3.4 The habitat surveys were undertaken with reference to the UK Habitat Classification (UKHab Ltd, 2023). During the walkover the habitats present were recorded and mapped in line with UKHab descriptions and criteria, and indicative lists of plant species were made for each habitat type. The relative abundance of each species was estimated by the surveyor using the DAFOR[4] scale.

3.5 Habitats were mapped using a minimum mapping unit of 25 m^2. Photographs were taken to provide supporting evidence.

3.6 Assessment of habitat condition was carried out with reference to Defra guidance (Defra, 2025)[5]. To provide data for the condition assessment of grasslands, plant species richness was assessed by recording the presence of all vascular plant species within a series of 1 m^2 quadrats in each distinct grassland type.

3.7 The habitat survey was extended to include an assessment of the potential of the Site to support protected species and other species of conservation importance.

Baseline Biodiversity Net Gain (BNG) assessment

3.8 The baseline value of the sites was quantified using the Statutory Biodiversity Metric and (Defra, 2025a) based on the associated user guidance (2025b). The Biodiversity Metric takes into account the type of habitat present, which is represented in the calculation by a variable score for distinctiveness, the size of the habitat parcel (or length for watercourses and hedgerows), the habitat condition, and the strategic significance of each habitat parcel. These variables were entered into the metric, obtaining a baseline value for the each of the Sites in 'biodiversity units'.

3.9 Strategic significance is the local significance of a habitat based on its location and type and is assigned using documents relevant to the local planning authority that identify either target areas or

[1] https://www.google.co.uk/maps
[2] Side by side georeferenced maps viewer - Map images - National Library of Scotland
[3] https://www.bing.com/maps
[4] The DAFOR scale is frequently used to rapidly estimate relative plant abundance during habitat surveys, the categories are: D: dominant; A: abundant; F: frequent; O: occasional; and R: rare.
[5] Defra (2024). The Statutory Biodiversity Metric User Guide (at https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides).

habitats for nature recovery. Strategic significance for the sites in this report was determined using Oxfordshire County Council's Local Nature Recovery Strategy (LNRS) draft Local Habitat Map[6].

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Personnel

3.10 The survey work and BNG assessment were carried out, and this report was written, by Joe Grainger-Hull. Joe holds a Field Identification Skills Certificate (FISC) from the Botanical Society of Britain and Ireland (BSBI) at level 4 and has experience undertaking detailed habitat and botanical surveys throughout a wide range of lowland habitats in the UK.

3.11 The report was technically reviewed by Dr Tom Flynn MSc MCIEEM CEcol, Technical Director at BSG Ecology. Tom has worked in ecology for over 15 years; he as carried out numerous species and habitat surveys and assessments and advised on a range of habitat management, restoration and restoration projects. His specialises in botanical and habitat survey and holds a BSBI FISC at level 5.

Survey limitations

3.12 The surveys were carried out within the optimum period for habitat classification (JNCC, 2016). Comprehensive surveys for protected species were not carried out. A comprehensive, near complete botanical survey of the sites would require multiple visits within and across survey years and thus was not possible within the scope of this assessment. The extremely dry weather conditions experienced across the spring and summer of 2025 will likely have limited the growth of some species, thus limiting their detectability.

3.13 There were no other significant limitations to the survey and assessment.

[6] LNRS Draft Local Habitat Map

4 Results: North Leigh Common

Habitats

4.1 Habitats within or adjacent to the Site are listed in Table 6 below and shown on Figure 2. Habitat categories follow the UK Habitat Classification (UK Hab, 2023). Habitats were assessed against the Priority Habitat descriptions of Maddock (2011) to determine if they are Habitats of Principal Importance[7] (HPIs). Photographs are provided in section 11, target notes in Appendix 1, quadrat data from grasslands in Appendix 2, and Condition assessment tables in Appendix 3.

Table 6: Habitats at North Leigh Common

Habitat	Description
Acid grassland	A clearing supporting species-poor acid grassland (habitat parcel AG1 on Figure 2; Photographs 29 and 30) is present in the woodland near the centre of the northern section of the site. Bracken is dominant but does not form pure stand.Sweet vernal grass *Anthoxanthum odoratum* and tormentil *Potentilla erecta* are abundant, with frequent rough meadow-grass and Yorkshire fog, occasional purple moor-grass *Molinia caerulea,* heath woodrush *Luzula multiflora*, and pill sedge *Carex pilulifera*, with soft rush and field woodrush *Luzula campestre* occurring rarely. Gorse *Ulex europaeus* throughout, occurs occurring rarely throughout, and several bushes of heather *Calluna vulgaris* are present. Heather and its acid grassland associates have apparently survived at the site due to continued management of bracken, and some spreading of heather seed by volunteers; an increase in scale of management for these species would however be required in order to meet targets for restoration of heathland and acid grassland in the LNRS. This grassland was assessed as being in moderate condition, with a varied sward height and no physical damage evident, but with no bare ground and a high cover of bracken. A second parcel of acid grassland (AG2) is present along part of the powerline toward the south of the northern section of the site, where bracken is less dominant. This parcel is damp to the east with abundant creeping soft grass *Holcus mollis*, frequent purple moor grass, occasional soft rush, and with devil's-bit scabious occurring rarely. To the west, where bracken becomes more dominant, this parcel is drier, supporting abundant common bent, with squirrel-tail fescue *Vulpia bromoides* locally frequent, and with devil's-bit scabious occasional. This parcel was assessed as being in moderate condition, with a varied sward height, and cover of bracken <20%, but with a footpath running through it creating a large area of bare, damaged ground. Both parcels of acid grassland at the site are classified as 'Other lowland acid grassland' under UK Hab, as they do not meet the criteria for the 'Lowland dry acid grassland' HPI.
Lowland mixed deciduous woodland	The site is dominated by semi-natural broadleaved woodland, which meets the criteria for the 'Lowland mixed deciduous woodland' HPI under UK Hab. None of the woodland at the site is mapped as Ancient Woodland on Natural England on Natural England's Ancient Woodland Register. Though several typical ancient woodland indicator species are present, the woodland at the site is not considered to be ancient; historical OS mapping shows that the site supported furze (gorse scrub) and rough grassland – a mosaic of heath and acid grassland - until at least the late 19th/ early 20th century. Thus, the woodland on site comprises relatively recent secondary regrowth, as indicated by the dominance of the pioneer species silver birch. The triangular section of the site between the A4095 and Boddington Lane supports a woodland canopy dominated by semi-mature to mature ash and oak (W1; Photographs 31-33), with occasional field maple and elm *Ulmus minor* agg., and

[7] Habitats of Principal Importance are listed by Natural England in accordance with Section 41 of the Natural Environment and Rural Communities Act 2006.

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with horse-chestnut *Aesculus hippocastanum* and silver birch *Betula pendula* occurring rarely. The southwest part of this parcel is dominated by semi-mature, secondary ash growth which is severely affected by ash dieback disease *Hymenoscyphus fraxineus*. The understorey here is well-developed, and contains frequent hawthorn, occasional crab apple and midland hawthorn *Crataegus laevigata*, and blackthorn, goat willow, hazel, and dog rose occur rarely. The climbing species ivy *Hedera helix* and honeysuckle *Lonicera periclymenum* are occasionally present. The northeast part of this parcel is heavily used by mountain bikers (Photograph 31), with large open areas of bare ground present. Where the ground is not bare, there is a dense field layer dominated by bramble with frequent bracken *Pteridium aquilinum* and male fern *Dryopteris filix-mas*. The ground flora is better developed where the woodland is less disturbed to the southwest, and includes abundant dog's-mercury *Mercurialis perennis*, frequent bluebell, enchanters-nightshade, and self-heal *Prunella vulgaris*, occasional cocksfoot, nettle, and black bryony *Dioscorea communis*, and wood forget-me-not, greater stitchwort *Stellaria media*, and bugle *Ajuga reptans* occur rarely. There are several plants of Japanese knotweed *Reynoutria japonica* in this woodland, near pond P1. This woodland was assessed as being in moderate condition.

The long triangular section of the site to the southeast of the A4095 is entirely dominated by woodland. In its east (W3; Photograph 34), this woodland has a mature canopy dominated by ash, with abundant oak, frequent sycamore, and occasional beech and Norway maple *Acer platanoides*. The understorey is relatively sparse, being comprised predominantly of holly and hawthorn, with occasional crab apple, and with hazel and elm *Ulmus minor* agg. occurring rarely. Honeysuckle is occasional on understorey shrubs. The ground flora here occurs sparsely through a thick leaf litter, and where present is dominated by common nettle, with frequent cleavers, occasional wood millet, false brome, ivy, and wood meadow-grass *Poa nemoralis*, and with lords-and-ladies and garlic mustard occurring rarely. A taller field layer with occasional bracken is locally present. A series of damp depressions appearing to be inundated in winter but dry at the time of survey are present at TN5. A damp, flushed area supports abundant nettle and bugle *Ajuga reptans*, occasional marsh bedstraw *Galium palustre*, and black currant *Ribes nigrum* is rare here (Photograph 3). This parcel of woodland was assessed as being in poor condition.

In the west of this section, the woodland is distinct (W2; Photographs 36 and 37). The canopy and understorey species here are the same as to the east, but with more frequent mature holly occurring. However, the woodland ground flora is much more abundant and species-rich. Species present include abundant bluebell *Hyacinthoides non-scripta*, frequent primrose and false brome, occasional wood sedge, tufted hairgrass *Deschampsia cespitosa* and glaucous sedge *Carex flacca*, and with wood meadow-grass occurring rarely. There is a strip of felled ash along the roadside, but the ground floral community here is still characteristic of woodland (Photograph 38). A large thicket of Oregon grape *Mahonia aquifolium*, a non-native shrub, is present here at TN6 (Photograph 38). This parcel of woodland was assessed as being in moderate condition.

The woodland throughout the main part of the site (north of the A4095 and Boddington Lane; W4; Photographs 39-42) is dominated by silver birch, with frequent ash, and occasional oak and sycamore. It has a well-developed understorey of abundant hawthorn, frequent goat willow, occasional crab apple, blackthorn, holly, and elder, which forms frequent dense thickets. buckthorn *Rhamnus cathartica* is rare throughout. The ground and field layers are well developed throughout this woodland, with frequent open rides but no heavy disturbance. Bracken is locally dominant, wood millet and dogs-mercury abundant, wood sedge, male fern, wood dock, false brome, cleavers, and hedge woundwort frequent, enchanters-nightshade, wood meadow-grass, wood avens, pendulous sedge, and foxglove *Digitalis purpurea* occasional, and greater stitchwort, yellow archangel *Lamium galeobdolon,* stinking iris *Iris foetidissima* scaly male-fern *Dryopteris affinis* are rarely present. Several open glades dominated by wood millet or bracken are present, and there are several ponds to the north of the woodland. This woodland was assessed as being in moderate condition.

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	The woodland to the south of the northern section, along Boddington Lane contains numerous ponds. It is similar in structure and species composition to woodland W4, but is much damper, and the canopy contains frequent grey willow and occasional aspen and crack willow. The ground and field layers contain abundant wood millet and bramble, frequent bracken, Russian comfrey *Symphytum* x *uplandicum*, creeping buttercup, and soft rush *Juncus effusus*, occasional scaly male fern, wood forget-me-not, and broad buckler fern *Dryopteris dilatata*. Common figwort *Scrophularia nodosa* and lesser spearwort *Ranunculus flammula* are rare. This woodland was assessed as being in moderate condition.
Ponds	There are numerous ponds throughout the site, including a single large pond in W1, which is dominated by willow scrub and was mostly dry at the time of survey (P1; Photograph 43), and two complexes of ponds in the northern section of the site. The first of these complexes (P2; Photographs 44 and 45) comprises five ponds, some of which are open (not shaded) and support a variety of wetland plants (Photgraph 44), including abundant soft rush and floating sweet-grass *Glyceria fluitans*, occasional bittersweet, gipsywort *Lycopus europaeus,* cyperus sedge *Carex pseudocyperus*, and lesser spearwort *Ranunculus flammula*, and with water plantain *Alisma plantago-aquatica* occurring rarely. Several of the ponds in the centre of this area are silted up (to the extent that no wetland vegetation is present), are overshadowed by dense willow scrub (Photograph 45), support little to no vegetation, and were mostly dry at the time of survey. The INNS small balsam *Impatiens parviflora* is frequent throughout damp, shady ground around these ponds. A further complex of interconnected ponds (P3; Photographs 46 and 47) is present further to the north, within woodland W4. These are much more heavily shaded than the above ponds, and their eastern extent is heavily disturbed by access (the pond was dry at the time of survey, enabling walkers to walk across it). The vegetation here is less diverse and includes frequent lesser spearwort and small sweetgrass *Glyceria declinata*, and occasional false fox-sedge, tufted hairgrass, compact rush, water forget-me-not, yellow iris, and marsh bedstraw. Himalayan balsam *Impatiens glandulifera* is present to the south of these ponds, along the boardwalk. Great crested newt is known to be present at the site. Ponds supporting SPIs such as great crested newt are considered to be HPIs, and thus it was assumed that all ponds on site are HPI / priority ponds on a precautionary basis.
Fen/ other wetland	A small band of marshy vegetation along the verge at the southeastern corner of the site, north of the A4095, is dominated by sedges and rushes, with the water-table close to the surface at the time of survey. This habitat does not correspond closely with any habitat under the UK Habitat Classification. It has therefore been classified here as 'Other wetland'[8] (F1; Photograph 48). It has some similarity to rush-pasture, but with a large proportion of bulky sedges. It is dominated by hard rush, with abundant false fox-sedge *Carex otrubae*, frequent water mint, occasional glaucous sedge, cuckooflower *Cardamine pratensis*, greater birds-foot trefoil *Lotus pedunculatus*, compact rush *Juncus conglomeratus*, and bulrush *Typha latifolia*, with meadow buttercup, male fern, perforate St. John's-wort *Hypericum perforatum* and tufted forget-me-not *Myosotis laxa* occurring rarely. It was assessed as being in moderate condition. This habitat is not an HPI.
Other neutral grassland	The main open area in the south of the northern section of the site supports a species-rich grassland which is variable in character (G1; Photographs 49 and 50). It contains calcareous indicators such as woolly thistle, as well as those typical of slightly acid soils such as devil's-bit scabious. The structure of the sward is also varied, with several very short and dry localised patches among a taller sward. Red fescue and meadow fescue *Lolium pratense* are abundant, with frequent cock's-foot, Yorkshire fog, and crested dog's-tail *Cynosurus cristatus,* and downy oat-grass *Avenula pubescens* occurs rarely. Forbs present include frequent agrimony and

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[8] NB: The statutory biodiversity metric does not include a category for swamps (except reedbed). The most similar habitat included within the metric is 'lowland fens', and thus for the purposes of the BNG assessment parcel OW1 was necessarily classified as lowland fen, however it is not considered to meet the description of lowland fen priority habitat.

	germander speedwell *Veronica chamaedrys*, occasional self-heal, lady's bedstraw, common mouse-ear, and common vetch, with barren strawberry *Potentilla sterilis* occurring rarely. This parcel was assessed as being in good condition, with a varied sward height, no encroachment of scrub or bracken, some localised areas of bare ground, and >10 species/ m^2 on average. Other neutral grassland is not an HPI.
Mixed scrub	Several areas of mixed scrub are present throughout the main section of the site. Scrub S1 (Photograph 51) borders the main area of grassland (G1, see above). It comprises abundant hawthorn and blackthorn, with occasional hazel, dog rose, elder, and bramble. It transitions into bracken to the north, and a thin band of tall false oat-grass grassland to the south, and has several small rides and openings, but the shrubs are typically mature with little regrowth present. This scrub was assessed as being in moderate condition. The second main area of scrub is under the powerline to the east of the northern section. This parcel is more frequently cut, and is only ~11.5 m tall, being dominated by blackthorn, with occasional bramble and gorse. The ground cover here comprises herbs and forbs typical of damp ground, including abundant creeping soft grass, frequent glaucous sedge, and occasional great willowherb. It was assessed as being in poor condition, being dominated by blackthorn, with few seedlings or saplings evidencing regeneration, and a relatively homogenous structure, but with a well-developed edge grading into either grassland or woodland. Mixed scrub is not an HPI.
Bramble scrub	A linear parcel of bramble scrub is present along the roadside on the southeastern boundary of woodland W1. Bramble scrub is not an HPI.
Bracken	There are several stands of bracken throughout the main section of the site. Bracken dominates along the course of the powerline to the north of the grassland (Photograph 52), and along a narrow ride to the southeast of this area. In the ride in the southeast, bracken oversails a species-poor acid grassland comprising frequent purple moor-grass and tormentil. Bluebell is frequent and wood anemone abundant under bracken along the ride. Along the powerline, purple moor-grass is much less frequent, with abundant common bent. A further stand of dense bracken, without the acid grassland associates, is present in a clearing near the northern boundary of the site. Condition assessment is not applicable to stands of bracken. Bracken is not an HPI.
Tall forbs	Two small parcels dominated by nettle are present at the fringes of areas of scrub or bracken (Photograph 54). Both were assessed as being in poor condition, as they are dominated by a single species and structural element. Tall forbs are not an HPI.
Hard standing	A car park is located within the main section of the site and is within the site boundary. This comprises hardstanding, which is classified as 'Developed land; sealed surface' under UK Habitat Classification.

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Protected and notable species

4.2 Table 7 below provides a summary of protected and notable species recorded at the site during the survey, and from data provided by WODC. Habitats at the Site that may support these species, or which might be enhanced to support them, are noted. The presence of these species was considered in the drafting of the management recommendations below. Legislative and policy protection afforded to these species is summarised in Appendix 1.

Table 7: protected and notable species recorded within the vicinity of North Leigh Common

Species	Description
Mammals	

Badger *Meles meles*	There is a record of badger from North Leigh Common made in 2023. A partially active badger sett was recorded on site during the survey, and the woodland and grassland present provide ideal foraging habitat for badgers.
Birds	
Barn owl *Tyto alba*	There are records of barn owl from nearby East End and North Leigh. Barn owl prefer to hunt in open countryside with rough, tussocky grassland, and thus the woodland which dominates the site does not provide ideal habitat. The open area of grassland provides suitable foraging habitat.
Amphibians	
Common frog *Rana temporaria*	There are records of common frog, common toad, and great crested newt from North Leigh Common as recently as 2023. The site provides good terrestrial habitat for these species, which a mixture of grassland and scrub. The ponds provide potential breeding sites. Occasional drying of ponds does not preclude them from providing amphibian breeding habitat; it and may increase their suitability (since occasional drying of ponds controls fish and invertebrates that predate on amphibian eggs and larvae).
Common toad *Bufo bufo*	
Great crested newt *Triturus cristatus*	
Reptiles	
Slow worm *Anguis fragilis*	There are records of slow worm, common lizard, and grass snake from North Leigh Common as recently as 2023. The more open mosaic of grassland, scrub, and woodland edge at the south of the main section of the site provides good habitat for reptiles. The encroachment of woodland at the site is likely to have reduced the value of the site for reptiles. The restoration of a more open, heathland mosaic at the site would increase the available habitat for these species, and the restoration of ponds will provide further habitat for grass snake. All three species are SPIs and are protected under the Wildlife and Countryside Act 1981. Common lizard is a priority species in Oxfordshire as per the drafted LNRS.
Common lizard *Zootoca vivipara*	
Grass snake *Natrix helvetica*	
Invertebrates	
Black hairstreak butterfly *Satyrium pruni*	There are two records of black hairstreak butterfly made at North Leigh Common in 2018. Black hairstreak is associated with mature blackthorn, on which it lays its eggs, and on which the developing caterpillars feed. This species is listed as endangered on the Butterfly Red List for Great Britain (Fox, Warren, and Brereton, 2010) and is a priority species in Oxfordshire as per the drafted LNRS. Ideally, further survey for black hairstreak should take place at the site prior to any enhancements involving the clearance of scrub.
Plants	
Blinks *Montia fontana*	There are records of a number of species typical of the flora of heathland and acid grassland from North Leigh Common made since 2005. These habitats are particularly rare in Oxfordshire due to the predominantly calcareous geology of the county. Many species associated with heathland and acid grassland have also undergone widespread declines throughout England as a result of the loss of lowland heathland. The recorded flora includes several species which are rare or scarce in Oxfordshire, such as blinks, heath milkwort, purple moor-grass, trailing tormentil (all scarce in the county), and western gorse (rare in the county); of these species, only purple moor grass was recorded during the
Brown bent *Agrostis vinealis*	
Devils-bit scabious *Succisa pratensis*	
Harebell *Campanula rotundifolia*	
Heath milkwort *Polygala serpyllifolia*	
Heath speedwell *Veronica officinalis*	
Heather *Calluna vulgaris*	
Lesser Spearwort *Ranunculus flammula*	

Purple Moor-grass *Molinia caerulea* Tormentil *Potentilla erecta* Trailing Tormentil *Potentilla anglica* Western Gorse *Ulex gallii*	survey. Several previously recorded species are classified as Near Threatened or Vulnerable in England (in the England Red List), including devils-bit scabious, harebell, heath speedwell, heather, tormentil (all Near Threatened) and lesser spearwort (Vulnerable). Devils-bit scabious, heather, tormentil, and lesser spearwort were all recorded during the survey.
Corn mint *Mentha arvensis* Ragged robin *Silene flos-cuculi* Wild strawberry *Fragaria vesca*	Several species not associated with heathland or acid grassland but listed as Near Threatened on the England Red List have also been recorded at the site, including corn mint, ragged-robin, and wild strawberry. None of these species were recorded during the survey. The restoration of ponds at the site may enhance the habitat for ragged-robin, which could be re-introduced from a nearby site if not present.
Cow-horn bog-moss (likely *Sphagnum auriculatum)*	There are records of a *Sphagnum* species referred to as 'cow-horn bog-moss', likely *S. auriculatum*, from North Leigh Common, with the latest record being made in 2003. Though these records are over 20 years old, they illustrate that the site has retained its acidic, nutrient-poor condition until relatively recently. The potential disappearance of this species from the site (there are no recent records, and it was not recorded during the survey) indicates that there has likely been a reduction in habitat quality for this species due to drying, and potentially nutrient enrichment, from woodland development and adjacent agricultural activities.

Commented [TF17]: I wonder if it is also worth mentioning the historical records for sphagnum. Not that these are more than 20 years old, it is not clear exactly where they were recorded, but and that the site currently does not appear suitable for sphagnum. However, the historical records are worth mentioning because they illustrate the damp acid and nutrient conditions that were present a the site in recent decades, and also indicate the reduction in habtiat quality that is likely to have ocurred through tree growth and potetnial also from drying due to adjacent agricultural activities.

Baseline Biodiversity Net Gain results

4.3 North Leigh Common falls within an area mapped as a target for nature recovery within the draft LNRS for Oxfordshire, and thus strategic significance was set to high for the baseline assessment of the site.

4.4 The baseline value of the site is 211.81 area habitat units. There are no hedgerow habitats present.

4.5 Woodland comprises 83% (176.52 units) of area habitat units at the site. North Leigh Common is a target for heathland and acid grassland within the draft LNRS for Oxfordshire. The re-creation of heathland in good condition areas currently occupied by secondary birch woodland (lowland mixed deciduous woodland) in moderate condition would provide an uplift of 6.9 units (50%) per hectare. The re-creation of lowland dry acid grassland in good condition from secondary woodland would provide an uplift of 13.8 units (100%) per hectare.

4.6 The main area of grassland within the site is currently in good condition, so has limited potential for enhancement.

Recommendations

Restoration of acid grassland and heathland

4.7 The creation or restoration of acid grassland and heathland is listed as a priority (PM16) within Oxfordshire County Council's draft Statement of Biodiversity Priorities under the new LNRS (OCC, 2024); North Leigh Common is referenced within the LNRS as an appropriate site for acid grassland and heathland restoration, and thus the restoration of the site to a mosaic of heathland, woodland, and acid grassland should be considered as a long-term aspiration for the site. This will enhance the site for reptiles, and the range of important plants present, and provide an open, more flower-rich habitat which will benefit invertebrate populations, and support county rare and England red list

plants. Grants are available under the Countryside Stewardship Higher Tier[9] for the restoration of lowland heathland. The following specific actions are relevant to this objective.

- **Soil testing:** the existing vegetation at the site is variable, comprising a mixture of communities typical of both acidic and more fertile, neutral soils. The development of woodland at the site may also have enriched the nutrient-poor, acidic soils required for heathland to develop. To establish the feasibility of heathland restoration at the site, and to target localised interventions, soil testing should be carried out to understand soil nutrient status and pH across the site. This should target the existing area of acid grassland, areas of open/birch woodland where restoration may be most feasible, and also some control/reference areas in more dense woodland and in neutral grassland at the site.
- **Black hairstreak survey:** Black hairstreak is an endangered and locally important species of butterfly. Given there are historical records for this species at the site, it is recommended that a survey for black hairstreak eggs be carried out to confirm their presence at the site, so that their conservation can be taken into account in managing the site. If the clearance of mature scrub is to take place (to facilitate heathland, grassland, or pond restoration), the target area should be surveyed for black hairstreak, and measures should be taken to ensure that the site as whole continues to provide habitat for this species.
- **Clearance of trees and shrubs:** The heathland and acid grassland flora present at the site requires open habitats to thrive, and thus selective clearance of trees and shrubs would need to take place to facilitate the restoration of heathland and acid grassland habitats in line with LNRS. The majority of woodland present at the site is secondary, and much of it dominated by young or semi-mature birch. Selective thinning of groups of trees that are of limited value to wildlife (i.e., immature mature) would need to be carried out in order to create open areas for heathland to establish, and these areas would then need to be kept open by coppicing or grazing (see below).
- **Continued reintroduction of heather and heathland flora:** heather has survived at the site, along with several other heathland species including gorse, purple moor grass, devils-bit scabious, and pill sedge. However, these plants are limited to be small part of the site. Their survival at the site appears to be under threat due to woodland and scrub encroachment. The important heathland flora of the site should be assisted by collecting and spreading seed in areas where scrub, bracken, and young trees have been cleared, and soils are suitable.
- **Creation of buffer zones on adjacent agricultural land:** buffer zone of tens of metres of low input scrub or grassland habitat around the site would address nutrient enrichment and soil drying at the site. The potential for the creation of such buffers (e.g., via any planning applications adjacent or near to the site, via Defra environmental stewardship arrangements, or through private paid or voluntary arrangements between WODC and adjacent landowners) should be explored.
- **Long term management:** In the long-term, grazing by cattle would be the most sustainable form of management for the site, if the restoration of heathland and acid grassland is to be taken forward. This would require the installation of suitable infrastructure to enable grazing, partnership with a local grazier interesting in grazing sites for nature conservation, and careful visitor management to avoid conflict between livestock and walkers, and between livestock and dogs.

Ponds

- **Pond restoration:** A number of ponds at the site are silted up such that they dry out rapidly, and are heavily shaded by willow scrub, supporting very little vegetation. Whilst occasional drying (i.e. drying out one year in several) does not significantly reduce the biodiversity value of ponds, drying every year does reduce it. De-silting and the clearance of scrub and shading canopy from these ponds would therefore be beneficial and would increase the diversity of marginal and aquatic vegetation present and provide higher quality habitat for amphibians, grass snake and and invertebrates and a water course for birds and mammals.

Commented [JGH18]: Also control of bracken?

Commented [TF19]: Perhaps we need a bit more justification for this observation, perhaps earlier in the habitat descriptions, where we should acknowledge that conservation efforts are carried out at the site, but that an increase in scale is needed to meet the targets in the LNRS.

Commented [TF20]: Are dogs themselves (and poo) an issue at the site?

Commented [TF21]: Avoid jargon wherever you can. There is no need to say INNS, so avoid it.

[9] https://www.gov.uk/find-funding-for-land-or-farms/clh2-restore-lowland-heathland

- **Control of Himalayan balsam:** Himalayan balsam is present is low levels near pond margins in the north of the site. This species is an annual with short roots and can be controlled by hand-pulling in summer before it has set seed. Since the site has limited riparian connectivity to other sites, control of Himalayan balsam at this site would be feasible through a concerted campaign of hand pulling (via several visit per season over several years). This work could be carried out by local volunteers, but to be effective would require organisation and consistency.

Woodland

- **Managing recreational impacts:** The woodland to the southwest of Boddington Lane (W1) is heavily disturbed by bike usage. Whilst occasional disturbance can provide valuable bare ground habitat, an extensive area within this woodland appears heavily and regularly disturbed, and as a result is likely to have low biodiversity value. While bike usage in the woodland does not need to stop entirely, signage could be installed urging users to stick to dedicated paths, limiting the amount of disturbance caused. Further consideration of how to manage this issue at the site, for example, involving community engagement, is recommended.
- **Control of Japanese knotweed:** Japanese knotweed is present near P1 along Boddington Lane. A specialist contractor should be employed to undertake control of this species. Given the limited extent a the stie, complete eradication is likely to be feasible. This will likely require repeated treatment with a suitable herbicide (by qualified personnel) and measure to limit any unintended effects.
- **Control of non-native shrubs:** the non-native shrubs snowberry and mahonia are present at the site (See TN4 and TN6 on Figure 2). Ideally, these species should be removed to stop them spreading to the detriment of native woodland flora. Cutting to ground level followed by spot application of a suitable herbicide to re-growth (by suitably qualified personnel) is would to be a suitable approach.

5 References and sources of information

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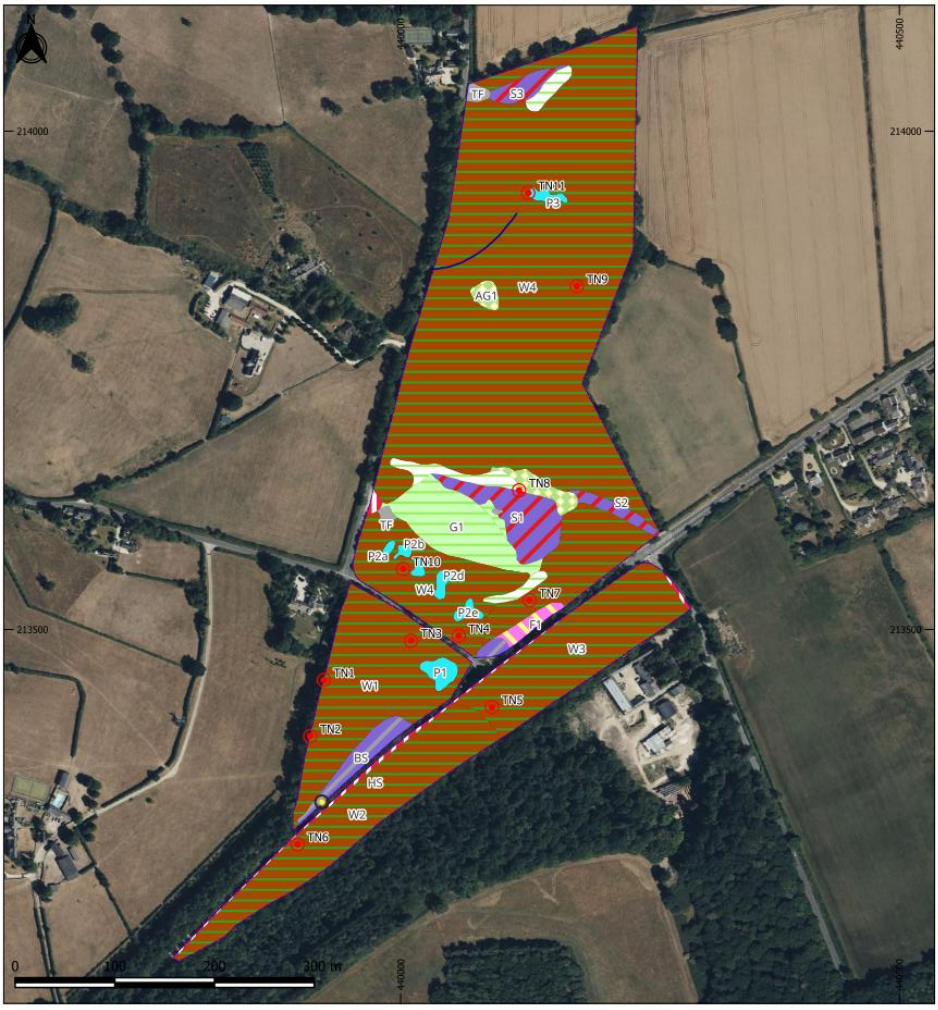
The Woodland trust (2022). *Woodland Creation Guide*. The Woodland Trust, Grantham.

Commented [TF22]: 20205 a b and c

Commented [TF23]: Add in useful references like the ponds and grassland creation references, even if not directly referenced the text.

6 Figures

Figure 1: Baseline Habitats – North Leigh Common



BSG ecology

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JOB REF: P24-607

PROJECT TITLE
WODC SITES, HABITAT SURVEYS

DRAWING TITLE
Figure 2: Baseline Habitats – North Leigh Common

DATE: 23/06/2025 CHECKED: JGH SCALE: 1:3,300
DRAWN: MZ APPROVED: TF VERSION:1.0

Copyright © BSG Ecology
Drawing is for planning purposes only, not for construction.
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Projection: OSGB 1936/British National Grid - EPSG:27700
Sources: BSG Ecology survey data

Legend
- Target note
- Existing Large Rural Tree
- Running water
- Bracken
- Bramble scrub
- Developed land; sealed surface
- Fens (upland and lowland)
- Lowland mixed deciduous woodland
- Mixed scrub
- Other lowland acid grassland
- Other neutral grassland
- Ponds (non-priority habitat)
- Tall forbs
- Survey boundary
- Site boundary

7 Photographs

North Leigh Common



29: Acid grassland AG1 in clearing



30: Acid grassland AG1 in clearing showing clumps of heather

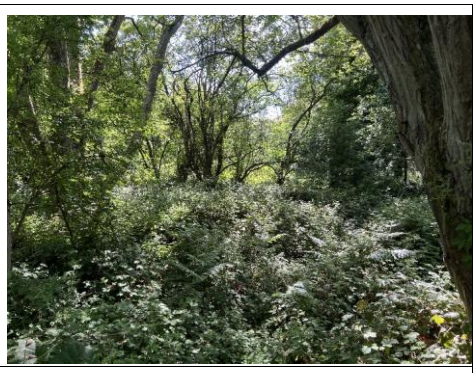


31: Lowland mixed deciduous woodland W1 showing bike tracks



32: Canopy structure to west of W1 comprising ash with dieback

	
33: Typical field and ground layer in W1	34: Lowland mixed deciduous woodland W2
	
35: Flushed damp area in W2	36: Lowland mixed deciduous woodland W3
	
37: W3 with abundant bluebells	38: Mahonia thicket along verge in W3 showing area cleared of ash

	
39: Lowland mixed deciduous woodland W4 with birch dominant in the canopy	40: Typical dense field layer in W4
	
41: Holly thicket in W4	42: Open, cleared area in W4
	
43: Pond P1 in woodland W1	44: One of pond complex P2 showing well developed marginal vegetation

	
45: Heavily shaded pond within P2 complex	46: Western part of pond complex P3
	
47: Central part of pond complex P3	48: Rush pasture/ fen F1 along roadside
	
49: Other neutral grassland G1	50: G1, detail of of sward

	
51: Mixed scrub S1	52: Bracken along powerline
	
53: Bracken oversailing frequent purple moor grass, bluebell, and wood anemone	54: Tall forbs with common nettle dominant

Appendix 1: Target Notes

Table 1: North Leigh Common (Figure 1)

Label	Feature	Additional comments
TN1	Felled ash	Very open area at woodland boundary with recent felled ash. Would benefit from the planting of scrub/ edge.
TN2	Bramble litter	Area of cleared bramble at woodland edge - thick litter from left arisings preventing development of ground flora.
TN3	Japanese knotweed	A few plants of Japanese knotweed *Reynoutria japonica* at w3w///lower.dishing.prevented
TN4	Snowberry	Thicket of snowberry *Symphoricarpos albus* along road.
TN5	Ponds	Depressions in woodland forming ponds in winter; dry at time of survey
TN6	Mahonia thicket	Large thicket of low-growing oregon grape *Mahonia* sp. in open, verge part of woodland at w3w///next.brass.assess. Scattered mahonia elsewhere throughout W2.
TN7	Birch stand	Young birch dominated stand between fen and bracken/acid grassland. Possible target for felling to increase area of acid grassland and allow for development of more scrubby edge.
TN8	Badger sett	Partially active badger sett just within scrub.
TN9	Glade	Grassy glade with acid character - tormentil frequent.
TN10	Small balsam	Small balsam *Impatiens parviflora* frequent throughout damp ground around ponds; particularly on open, shady ground
TN11	Himalayan balsam	Himalayan balsam *Impatiens glandulifera* occasional-frequent along boardwalk, particularly where ditch passes under it toward ponds, near w3w///unit.contour.otter

Commented [TF24]: Not mentioned in the report text or recommendations?

Appendix 2: Grassland quadrat data

North Leigh Common

Table 4: Other neutral grassland G1

Species	Common name	Q1	Q2	Q3	Q4	Q5	Additional
Agrimonia eupatoria	Agrimony	✓	✓	✓	✓		
Agrostis stolonifera	Creeping bent	✓	✓	✓	✓		
Anthoxanthum odoratum	Sweet vernal grass	✓					
Avenula pubsecens	Downy oat-grass		✓				
Bromus hordeaceus	Soft brome		✓				
Carex flacca	Glaucous sedge		✓				
Cerastium fontanum	Common mouse-ear	✓	✓	✓			
Cirsium eriophorum	Woolly thistle						
Cynosurus cristatus	Crested dog's-tail	✓	✓	✓			
Dactylis glomerata	Cocksfoot	✓	✓	✓			
Festuca rubra	Red fescue		✓	✓	✓	✓	
Galium album	Hedge bedstraw						✓
Galium verum	Lady's bedstraw	✓			✓		
Geranium molle	Dove's-foot cranesbill	✓					
Heracleum sphondylium	Common hogweed			✓			
Holcus lanatus	Yorkshire fog			✓	✓	✓	
Hypericum maculatum	Imperforate St John's-wort				✓		
Leontodon saxatilis	Lesser hawkbit						✓
Lolium pratense	Meadow fescue	✓	✓	✓	✓	✓	
Luzula campestre	Field woodrush			✓	✓		
Malva moschata	Musk mallow						✓
Plantago lanceolata	Ribwort plantain		✓				
Poa pratensis	Smooth meadow-grass	✓	✓	✓		✓	
Poa trivialis	Rough meadow-grass			✓			
Potentilla reptans	Creeping cinquefoil	✓					
Potentilla sterilis	Barren strawberry				✓		
Prunella vulgaris	Selfheal	✓	✓	✓			
Ranunculus repens	Creeping buttercup	✓	✓	✓	✓	✓	
Silene latifolia	White campion						✓
Succisa pratensis	Devil's-bit scabious						✓
Taraxacum agg.	Dandelion	✓	✓				
Trifolium dubium	Lesser trefoil	✓					
Trifolium pratense	Red clover	✓					
Trifolium repens	White clover		✓				
Veronica chamaedrys	Germander speedwell			✓	✓	✓	
Vicia sativa	Common vetch	✓				✓	
Agrimonia eupatoria	Agrimony	✓	✓	✓	✓		
Species/ m²		**18**	**17**	**16**	**12**	**7**	*Avg 14*

Commented [TF25]: Add average

Appendix 3: Condition Assessment Tables

Table 1: Woodlands

Parcel	Habitat*	Condition	Score	Condition Assessment Criteria (see below)												
				A	B	C	D	E	F	G	H	I	J	K	L	M
Deer Park Wood																
W1	Other woodland; broadleaved	Moderate	26	1	3	2	3	3	3	1	1	1	2	1	2	3
Deer Park South																
W2	Other woodland; broadleaved	Poor	23	1	3	2	3	3	3	1	1	1	1	1	1	2
North Leigh Common																
W1	Lowland mixed deciduous woodland	Moderate	29	2	3	3	3	3	2	3	2	2	2	1	2	1
W2	Lowland mixed deciduous woodland	Moderate	31	2	2	3	3	3	3	2	2	1	3	2	3	2
W3	Lowland mixed deciduous woodland	Poor	25	1	2	2	3	2	3	1	2	1	2	2	2	2
W4	Lowland mixed deciduous woodland	Moderate	32	2	2	3	3	3	1	2	2	2	3	3	3	3
Kilkenny Lane Country Park																
W1	Other woodland; broadleaved	Moderate	29	1	3	3	3	3	3	1	3	1	2	1	2	3

Condition criteria:

A: Age distribution of trees - Good: Three age-classes, Moderate: Two age-classes, Poor: One age-class;

B: Wild, domestic and feral herbivore damage - Good: No significant browsing damage evident in woodland, Moderate: Evidence of significant browsing pressure is present in 40% or less of whole woodland, Poor: Evidence of significant browsing pressure is present in 40% or more of whole woodland;

C: Invasive plant species - Good: No invasive species present in woodland, Moderate: Rhododendron Rhododendron ponticum or cherry laurel Prunus laurocerasus not present, other invasive species <10% cove., Poor: Rhododendron or cherry laurel present, or other invasive species >10% cover;

D: Number of native tree species - Good: Five or more native tree or shrub species found across woodland parcel, Moderate: Three to four native tree or shrub species4 found across woodland parcel, Poor: Two or less native tree or shrub species across woodland parcel;

E: Cover of native tree and shrub species - Good: >80% of canopy trees and >80% of understory shrubs are native, Moderate: 50 - 80% of canopy trees and 50 - 80% of understory shrubs are native, Poor: <50% of canopy trees and <50% of understory shrubs are native;

F: Open space within woodland - Good: 10 - 20% of woodland has areas of temporary open space, unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted, Moderate: 21 - 40% of woodland has areas of temporary open space, Poor: <10% or >40% of woodland has areas of temporary open space, but if woodland <10ha has <10% temporary open space, please see Good category;

G: Woodland regeneration - Good: All three classes present in woodland; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth, Moderate: One or two classes only present in woodland, Poor: No classes or coppice regrowth present in woodland";

H: Tree health - Good: Tree mortality less than 10%, no pests or diseases and no crown dieback, Moderate: 11% to 25% tree mortality and or crown dieback or low-risk pest or disease present, Poor: Greater than 25% tree mortality and or any high-risk pest or disease present;

I : Vegetation and ground flora - Good: Recognisable NVC plant community10 at ground layer present, strongly characterised by ancient woodland flora specialists., Moderate: Recognisable woodland NVC plant community at ground layer present., Poor: No recognisable woodland NVC plant community at ground layer present;

J: Woodland vertical structure - Good: Three or more storeys across all survey plots, or a complex woodland, Moderate: Two storeys across all survey plots, Poor: One or less storey across all survey plots;

K: Veteran trees - Good: Two or more veteran trees per hectare, Moderate: One veteran tree per hectare, Poor: No veteran trees present in woodland;

L: Amount of deadwood - Good: 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities, Moderate: Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities, Poor: Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities;

M: Woodland disturbance - Good: No nutrient enrichment or damaged ground evident, Moderate: Less than 1 hectare in total of nutrient enrichment across woodland area and or less than 20% of woodland area has damaged ground, Poor: More than 1 hectare of nutrient enrichment and or more than 20% of woodland area has damaged ground.

Table 2: Scrub

Parcel	Habitat	Condition	Condition Assessment Criteria (see below)				
			A	B	C	D	E
North Leigh Common							
S1	Mixed scrub	Moderate	Pass	Fail	Fail	Pass	Pass
S2	Mixed scrub	Poor	Fail	Fail	Fail	Pass	Fail
S3	Mixed scrub	Moderate	Pass	Pass	Pass	Pass	Fail

Condition criteria: A: The scrub is a good representation of the habitat type it has been identified as. At least 80% of scrub is native, and there are at least three native woody species, with no single species comprising more than 75% of the cover (except hazel, common juniper, sea buckthorn or box); B: Seedlings, saplings, young shrubs and mature (or ancient or veteran) shrubs are all present; C: There is an absence of invasive non-native plant species and species indicative of sub-optimal condition make up less than 5% of ground cover; D: The scrub has a well-developed edge with scattered scrub and tall grassland and/or forbs present between the scrub and adjacent habitat; E: There are clearings, glades or rides present within the scrub, providing sheltered edges.

Table 3: Grassland (medium, high, and very high distinctiveness)

Parcel	Habitat	Condition	Condition Assessment Criteria (see below)					
			A	B	C	D	E	F
North Leigh Common								
G1	Other neutral grassland	Good	Pass	Pass	Pass	Pass	Pass	Pass
AG1	Other lowland acid grassland	Moderate	Pass	Pass	Fail	Fail	Pass	-
AG2	Other lowland acid grassland	Moderate	Pass	Pass	Fail	Pass	Fail	-
G3	Other neutral grassland	Moderate	Pass	Pass	Pass	Fail	Pass	Fail
G4	Lowland calcareous grassland	Good	Pass	Pass	Pass	Pass	Pass	Pass

G5	Lowland meadows	Good	Pass	Pass	Pass	Pass	Pass	Pass

Condition criteria: A: The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description; B: Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm); C: Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens; D: Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus fruticosus agg.) is less than 5%; E: Combined cover of species indicative of sub-optimal condition and physical damage accounts for less than 5% of total area; F: There are 10 or more vascular plant species per m2 present that are characteristic of the habitat type (non-acid grasslands only)

Table 6: Wetlands

Parcel	**Habitat**	**Condition**	**Condition Assessment Criteria (see below)**						
			A	**B**	**C**	**D**	**E**	**F**	**G**
Deer Park South									
OW1	Lowland fen[10]	Moderate	Pass	Fail	Fail	Pass	Pass	Pass	Pass
North Leigh Common									
F1	Lowland fen	Moderate	Pass	Fail	Fail	Pass	Pass	Pass	Pass

Condition criteria: A: "The water table is at, or near the surface throughout the year - this could be open water or saturation of soil at the surface. There is no artificial drainage, unless specifically to maintain water levels as specified above (this criterion is essential for achieving Good condition); B: The parcel represents a good example of its specific habitat type - the appearance and composition of the vegetation closely matches its UKHab description, with vascular and non-vascular characteristic indicator species consistently present; C: The water supplies (groundwater, surface water and or rainwater) to the wetland are of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution; D: Cover of scrub and scattered trees are less than 10%; E: Cover of bare ground is less than 5%; F: There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA3) and species indicative of suboptimal condition make up less than 5% of ground cover; G: No more than 25% of the habitat area has a continuous cover of litter (such as dead vegetation) preventing regeneration.

Table 7: Ponds

Parcel	**Habitat**	**Condition**	**Condition Assessment Criteria (see below)**									
			A1	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**
North Leigh Common												
P1	Ponds	Moderate	Pass	Pass	Fail	Pass	Fail	Pass	Pass	Pass	-	-
P2	Ponds	Good	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	-	-
P3	Ponds	Good	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	-	-

Condition criteria: A1: Pond located within woodland; A: The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock; B: There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter; C: Less than 10% of the water surface is covered with duckweed Lemna spp. or filamentous algae; D: The pond is not artificially connected to other waterbodies, e.g. agricultural ditches or artificial pipework; E: Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams, pumps or pipework; F: There is an absence of listed non-native plant and animal species; G: The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities; H: Emergent, submerged or floating plants (excluding duckweed) cover at least

[10] NB: The statutory biodiversity metric does not include a category for swamps (except reedbed). The most similar habitat included within the metric is 'lowland fens', and thus for the purposes of the BNG assessment parcel OW1 was necessarily classified as lowland fen, however it is not considered to meet the description of lowland fen priority habitat.

50% of the pond area which is less than 3 m deep; I: The pond surface is no more than 50% shaded by adjacent trees and scrub **(criteria H and I are applicable to non-woodland ponds only).**

Table 9: Urban habitats

Parcel	Habitat	Condition	Condition Assessment Criteria (see below)			
			A	B	C	C2
North Leigh Common						
TF	Tall forbs	Poor	Fail	Fail	Pass	Pass

Condition criteria: A: Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area; B: The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species; C1: Invasive non-native plant species and others which are to the detriment of native wildlife cover less than 5% of the total vegetated area; C2: Complete absence of invasive non-native species (rather than <5% cover)

Table 10: Individual trees and groups of trees

Parcel	Habitat	Condition	Condition Assessment Criteria (see below)					
			A	B	C	D	E	F
North Leigh Common								
T1	Rural tree	Moderate	Pass	Pass	Pass	Pass	Fail	Fail

Condition criteria: A: The tree is a native species (or at least 70% within the block are native species); B: The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion); C: The tree is mature (or more than 50% within the block are mature); D: There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height; E: Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark; F: More than 20% of the tree canopy area is oversailing vegetation beneath.

Appendix 4: 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)

The Government issued the National Planning Policy Framework (NPPF) in December 2024 (last updated 07 February 2025). Text excerpts from the NPPF are shown where they may be relevant to planning applications and biodiversity including protected sites, habitats and species.

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' (paragraph 9). The planning system's environmental objective is 'to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity…'(paragraph 8c).

In conserving and enhancing the natural environment, the NPPF (Paragraph 187) 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 for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs.
- 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.

In respect of protected sites, at paragraph 188, 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.' A footnote to paragraph 188 refers to the preferred use of agricultural land of poorer quality if significant development of agricultural land is to take place.

Paragraph 192 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 enhancement 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.'

Paragraph 193 advises that, when determining planning applications, '…local planning authorities should apply the following principles:

- 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;
- 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;

- 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
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'

In paragraph 194, the following should be given the same protection as habitats sites:

- potential Special Protection Areas and possible Special Areas of Conservation;
- listed or proposed Ramsar sites; and
- 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.'

In paragraph 195 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'.

In paragraph 196, 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.

In paragraph 198 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' (paragraph 198c).

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

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..."

Paragraph 99 of Government Circular 06/2005[11] 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".

Standing Advice (GOV.UK - England only)

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

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

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.'

The standing advice (originally from Natural England and now held and updated on GOV.UK12) 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.

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.'

The Environment Act 2021

The Environment Act includes the requirement for mandatory biodiversity gain for all qualifying developments in England through an amendment to the Town and Country Planning Act 1990 which came into force on 12 February 2024. For all qualifying developments in England, The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024 (SI44) at Regulation 3 advises in relation to planning applications that '*the biodiversity gain planning condition does not apply in relation to a planning permission within the scope of regulation 2 (2) of these Regulations, where the application for planning permission was made before 12th February 2024*'. From 12 February 2024, the Act and associated secondary Regulations (SI2024 No's 44- 50) insert amendments into the Town and Country Planning Act 1990 which in summary require the following for all qualifying developments in England:

- The provision of a required percentage of biodiversity gain, currently set nationally to be at 10%, as a general condition of planning permission,
- The use of the statutory Biodiversity Metric to calculate the biodiversity gain,
- Submission to and approval by the planning authority, of a Biodiversity Gain Plan (BGP) for the development before the development may be begun; the BGP is to be prepared using a template prepared by Defra to demonstrate how biodiversity gain will be delivered on and / or off-site and how the biodiversity gain hierarchy has been applied so that the local planning authority can take account of the approach taken when deciding whether to approve the BGP,
- Significant on-site biodiversity gain and all offsite biodiversity gain to be secured for a fixed period, currently nationally set at 30 years,
- Alternative arrangements to be made for the purpose of minimising the adverse effect of development to habitats deemed to be irreplaceable habitat (see NPPF),
- Demonstration of how the biodiversity gain will be secured, typically through planning obligations in a section 106 agreement,
- Registration of offsite biodiversity gain and allocation of relevant biodiversity units to a given development in a national register for which Natural England is the Register Operator,
- Use of statutory biodiversity credits through the Secretary of State, which is considered to be a last resort, if onsite and/or offsite biodiversity gains cannot achieve the required percentage.

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

The Natural Environment and Rural Communities (NERC) Act came into force on 01 October 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal

[12] https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications#standing-advice-for-protected-species

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.

The S41 list is used to guide decision-makers such as public authorities, including local authorities, local planning authorities and statutory undertakers, the latter such as 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 management and planning. This was previously commonly referred to as the 'Biodiversity Duty.'

On 01 October 2024 the Biodiversity Duty[13] was updated and strengthened to become a 'duty to conserve and enhance biodiversity' which requires public authorities to consider what action the authority can take to further the Government's 'general biodiversity objective'. The public authority then must determine appropriate policy actions and specific objectives that can be taken and must take the appropriate action. Actions to satisfy the general biodiversity objective may be through the revision of existing policies and 'specific objectives.' The public authority must have regard to the relevant Local Nature Recovery Strategy and relevant national species and/or protected sites strategies prepared by Natural England when complying with the general biodiversity objective. Consideration by a given public authority was first to take place within one year of the Environment Act 2021 coming into force and then be subject to a review after no more than 5 years although other reviews can be undertaken at any time.

Guidance for public authorities in England on implementing the Biodiversity Duty has been published by Defra[14] on GOV.UK. The guidance requires a public authority to consider what they can do to conserve and enhance biodiversity and how they deliver their policies and actions to achieve their objectives. The roles of Local Nature Recovery Strategies, species and protected sites strategies are set out and public authorities are advised that the action they take at a local level will contribute to national biodiversity goals and targets. Public authorities are required to consider their enhanced biodiversity duty in development plans and decisions including planning policy, environmental impact assessment and how they manage their own land to improve biodiversity value including details in relation to 'green and blue spaces.' Guidance is also provided on how local authorities and local planning authorities must write and publish a biodiversity report as part of fulfilling their duty; these individual authority reports will be used by Defra as part of their Environmental Improvement Plan 5-yearly reviews.

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 Framework[15], 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.

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 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)

The Conservation of Habitats and Species Regulations 2017 (as amended) consolidates 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.

"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

[13] Natural Environment and Rural Communities Act 2006
[14] Complying with the biodiversity duty - GOV.UK
[15] 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

b. Possess or control any live or dead specimens or any part of, or anything derived from a these species

c. deliberately or recklessly 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

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.

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

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.[16] 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 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

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.

The Conservation of Habitats and Species Regulations 2017 (as amended) places duties on competent authorities (including Local Authorities and National Park Authorities) in relation to wild bird habitat. These provisions relate back to Articles 1, 2 and 3 of the EC Directive on the conservation of wild birds (2009/147/EC,

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

'Birds Directive'[17]) (Regulation 10 (3)) requires that the objective is the 'preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of the new Wild Birds Directive…' Regulation 10 (7) states: 'In considering which measures may be appropriate for the purpose of security or contributing to the objective in [Regulation 10 (3)] Paragraph 3, appropriate account must be taken of economic and recreational requirements'.

In relation to the duties placed on competent authorities under the 2017 Regulations, Regulation 10 (8) states: 'So far as lies within their powers, a competent authority in exercising any function [including in relation to town and country planning] in or in relation to the United Kingdom must use all reasonable endeavours to avoid any pollution or deterioration of habitats of wild birds (except habitats beyond the outer limits of the area to which the new Wild Birds Directive applies).'

Badger

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".

ODPM Circular 06/2005[18] 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."

Natural England provides Standing Advice[19], 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

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).

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 (as amended) and Section 7 of the Environment (Wales) Act 2016.

Current Natural England Guidelines for Developers[20] 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 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.'

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;

[17] 2009/147/EC Birds Directive (30 November 2009. European Parliament and the Council of the European Union.
[18] *ODPM Circular 06/2005. Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System* (2005). HMSO Norwich.
[19] http://www.naturalengland.org.uk/ourwork/planningdevelopment/spatialplanning/standingadvice/specieslinks.aspx

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

- 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.'

Water vole

Water vole is protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to kill, injure or take any water vole, damage, destroy or obstruct access to any place of shelter or protection that the animals are using, or disturb voles while they are using such a place. Water vole is listed as a Species of Principal Importance under the provisions of the NERC Act 2006 (as amended) in England and under the provisions of the Environment (Wales) Act 2016.

Invasive non-native species

An invasive non-native species is any non-native animal or plant that has the ability to spread causing damage to the environment.

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.

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).

Japanese knotweed

It is an offence to plant or cause the spread of Japanese knotweed in the wild under the Wildlife and Countryside Act 1981 (as amended). All waste containing Japanese knotweed comes under the control of Part II of the Environmental Protection Act 1990.

The Environment Agency has produced "The Knotweed Code of Practice", which provides guidance on how to manage Japanese knotweed legally on development sites[21]. This document provides ecological information on Japanese knotweed, details of how to prevent its spread, how to manage Japanese knotweed and information on disposal. Natural Resources Wales refers to Environment Agency guidance in respect of landowners responsibilities in Wales and to the Wildlife and Countryside Act 1981 (as amended).

[21] *Managing Japanese knotweed on development sites: the knotweed code of practice* (2006). Environment Agency. https://www.gov.uk/government/publications/japanese-knotweed-managing-on-development-sites. See also 2013 Code of Practice update.