

Ecological Report

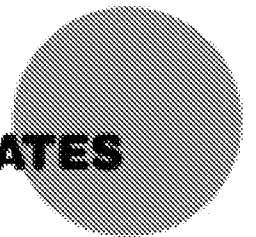
Extended Phase 1 Habitat Assessment

Land at Oldlands Farm,
Shripney Road,
Bognor Regis,
West Sussex,
PO22 9NN

June 2014

140134-ED-03

TIM MOYA ASSOCIATES



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Project	Oldlands Farm, Bognor Regis
Report Type	Extended Phase 1 Habitat Assessment
Date	20.06.14
Author	Simon Thomas, Principal Ecologist

CONTENTS PAGE

NON-TECHNICAL SUMMARY	4
1 INTRODUCTION	6
BACKGROUND	6
PURPOSE OF THE REPORT	6
LIMITATIONS.....	6
INFORMATION SUPPLIED	6
SITE LOCATION.....	7
2 SURVEY METHODOLOGY.....	8
DATA SEARCHES.....	8
PHASE 1 SITE SURVEY	8
3 DESK STUDY RESULTS	10
DESIGNATED SITES	10
PROTECTED SPECIES RECORDS	10
4 RESULTS OF PHASE 1 HABITAT SURVEY	12
HABITATS AND VEGETATION.....	12
PROTECTED SPECIES	14
5 CONCLUSIONS AND RECOMMENDATIONS.....	17
DESIGNATED SITES	17
HABITATS AND VEGETATION.....	17
PROTECTED AND NOTABLE SPECIES.....	18
ENHANCEMENTS.....	21
6 REFERENCES	22
APPENDIX 1	23
PHASE 1 HABITAT PLAN	23
APPENDIX 2	24
PHOTOGRAPHS	24
APPENDIX 3	27
TARGET NOTES	27
APPENDIX 4	28
WILDLIFE LAW AND PLANNING POLICY	28
STATUTES AND ENGLISH LAW.....	29
PLANNING POLICY	31

NON-TECHNICAL SUMMARY

This report assesses the ecological value of the proposed development site on land at Oldlands Farm, Shripney Road, Bognor Regis, West Sussex.

The proposed development involves erection of 2no. detached industrial/distribution units including access and servicing arrangements, car parking, landscaping and associated flood compensation area.

The site survey included an assessment of the habitats found within the site and the likely impact of the proposed development on habitats of ecological value and protected and notable species.

The proposed development site is largely restricted to arable farmland, retaining the surrounding wet ditches.

Enhancements:

- An attenuation pond is due to be constructed. This will offer an enhancement for a variety of wildlife.
- Planting native trees and shrubs within the development will offer an enhancement for wildlife including nesting and feeding birds.
- Managed meadow grassland alongside ditches D1 and D3 and within the southern landscaping area will enhance these areas as wildlife corridors.

Recommendations:

- It is recommended that a buffer of marginal vegetation is reinstated between the development and retained ditches, to be managed as meadow grassland. The buffer should be at least 5 metres wide where feasible.
- In order to minimise the impact of removal of ditch D2 on reptiles and other wildlife, it is recommended that vegetation is removed during the reptile active season (March to October) following a phased approach.
- Vegetation suitable for nesting birds should be removed outside the nesting bird season (March to August inclusive) to avoid destroying active nests. Vegetation may only be removed during the nesting season if it has been checked by an ecologist and no nests are present.

- It is recommended that a full survey of the ditches is undertaken to confirm whether water vole burrows are present.
- In order to avoid an impact on commuting and foraging bats, it is recommended that lighting is restricted to minimise illumination of suitable habitats.

1 INTRODUCTION

Background

- 1.1 This report has been commissioned by Bericote Properties Limited.
- 1.2 A planning application is being submitted for erection of 2no. detached industrial/distribution units (B1(c)/B2/B8) including access and servicing arrangements, car parking, landscaping and associated Flood Compensation Area (FCA).

Purpose of the report

- 1.3 This report assesses the ecological interest of the site as a whole, including the proposed development area and flood compensation area (FCA). TMA have been commissioned to undertake an Extended Phase 1 Habitat Survey - a method of ecological assessment outlined in the JNCC Handbook for Phase 1 Habitat Survey a technique for environmental audit (2010). These guidelines state that the aim of the Phase 1 Survey is to observe, map and catalogue "*the potential value of the habitat.*" Since its publication the ecological consultancy industry has adapted the survey to make recommendations for further survey work as appropriate.

Limitations

- 1.4 The site was accessed during June, when the majority of plant species would have been evident and mammal species, such as badger and water vole, are fully active.
- 1.5 Due to vegetation and crops being at high levels, some areas could not be closely viewed. Wet and dry ditches within the site were often densely vegetated with brambles and common reeds and as such were viewed at regular points where access could be gained. All areas of the site were investigated from field boundaries and tramlines within crops.

Information supplied

- 1.6 This report has been prepared with reference to a variety of plans, including the following, showing extent of the site boundary and the proposed development:
- 99603-ss-37 Application Boundary Plan
 - 99603-ss-25 Site Layout Plan

- 99603-ss-33 Survey Area Plan 1

Site location

- 1.7 The site is located to the north-east of Bognor Regis and directly to the east of Shripney Road, the A29. The Oldlands Farm site is dominated by arable agricultural fields and comprises the development site and the flood compensation area (FCA). The two parts of the site are divided by the Bognor Northern Relief Road, which is currently under construction. The development site is located to the south of the relief road and the FCA is to be located to the north. The development site was (at the time of the survey) used for wheat crops and the site is divided in two by a largely dry ditch running north-south. The FCA was (at the time of the survey) used for potatoes and wheat. Neighbouring land uses of the Oldlands Farm site include a railway track and disused airfield to the east, an industrial estate to the south, a caravan park to the west, across the A29 and open space and farmland in all other directions. The village of Shripney is located approximately 300m to the north.
- 1.8 The central grid reference for the site is SU 94305 01844.

2 SURVEY METHODOLOGY

Data Searches

- 2.1 A search of the National Biodiversity Network (NBN) Gateway was undertaken for records of bat species, dormouse (*Muscardinus avellanarius*), badger (*Meles meles*), water vole (*Arvicola amphibius*), otter (*Lutra lutra*), reptile species and great crested newt (*Triturus cristatus*), as these species groups were considered to be most at risk of impact from this development.
- 2.2 The government's MAGIC search tool was searched for statutory sites designated for nature conservation interest.
- 2.3 Sussex Biodiversity Record Centre (SxBRC) were consulted for records of non-statutory sites designated for nature conservation interest and for records of protected species within 2 km of the site. Badger Trust West Sussex were contacted for records of badgers in the local area.

Phase 1 Site Survey

- 2.4 The survey was undertaken on 5th June 2014 by Simon Thomas of Tim Moya Associates, an experienced ecological consultant and full member of the Chartered Institute for Ecology and Environmental Management (CIEEM). During the survey the weather conditions were not considered to pose any limitations to the survey.
- 2.5 The vegetation and habitat types within the site were noted during the survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (JNCC, 2010). Dominant plant species were recorded for each habitat present.
- 2.6 The site was inspected for evidence of and its potential to support protected or notable species, especially those listed under the *Conservation of Habitats and Species (Amendment) Regulations 2012*, the *Wildlife & Countryside Act 1981* (as amended), including those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006* and *Countryside & Rights of Way (CROW) Act 2000*, and listed on the UK and local Biodiversity Action Plans. Such species include amphibians, reptiles, bats, badgers, birds, dormice and water voles. Evidence of badgers was searched for throughout the site, including setts, footprints, feeding signs, hairs and droppings. Trees within and adjacent to the site were assessed for their potential for roosting bats, as far as possible. Features

indicating potential for bat roosts included holes in tree trunks, cracks in major limbs, loose bark and dense ivy growth.

- 2.7 The site was searched for evidence of invasive plant species, such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), giant hogweed (*Heracleum mantegazzianum*), horizontal/wall cotoneaster (*Cotoneaster horizontalis*) and floating pennywort (*Hydrocotyle ranunculoides*).
- 2.8 As the attributes of the site and its potential for protected, notable and invasive species may change over time, this report is considered valid for a duration of two years, after which time it is recommended that an update site assessment is undertaken.
- 2.9 Finally, it should be noted that the survey area (shown in Appendix 1) extends some way beyond the application site boundary (particular surrounding the FCA) and only those ecological features due to be impacted by the development site are reported in the findings below.

3 DESK STUDY RESULTS

Designated Sites

- 3.1 The site itself is not covered by any statutory or non-statutory nature conservation designations.
- 3.2 There is one statutory and no non-statutory designated sites within 2 km of the site, as follows:

Table 1. Designated sites of nature conservation interest

Site name	Designation	Statutory/non-statutory	Proximity to proposed works	Description
The Brooks	LNR	Statutory	300 metres west	Meadow, reed beds, permanent and temporary ponds and newly planted floodplain woodland.
Key LNR – Local Nature Reserve				

Protected Species Records

- 3.3 The records detailed below are those species considered to be most sensitive to impact from the proposed development. Numerous records were returned from the local area, particularly of bird species, the majority of which are considered unlikely to be impacted by the proposed development.

Table 2. Protected species records

	Local Ecological Records Centre			NBN Gateway
Species	Number of records within 2 km of central site grid reference	Closest record to site (km) and orientation	Most recent record	Present within 2 km?
Great crested newt (<i>Triturus cristatus</i>)	2	1.37 SW	2010	No
Common lizard (<i>Zootoca vivipara</i>)	1	2.36 S	1996	No
Slow-worm (<i>Anguis</i>)	5	2.10 SW	2012	No

<i>fragilis</i>)				
Grass snake (<i>Natrix natrix</i>)	4	2.34 ENE	2011	No
Adder (<i>Vipera berus</i>)	1	2.65 SW	2011	No
Dormouse	No records	No records	No records	No
Water vole	18	0.62 ESE	2013	No
Otter	1	>1.2 W	2004	No
Bat species	18 Species: whiskered, serotine, common pipistrelle, unspecified pipistrelle, brown long- eared bat, unspecified long-eared species.	0.56 WNW (pipistrelle sp. and brown long- eared)	2012 (common pipistrelle)	Yes
Badger	1	2 km	unknown	No

4 RESULTS OF PHASE 1 HABITAT SURVEY

Habitats and Vegetation

- 4.1 A Phase 1 Habitat Plan can be found in Appendix 1 illustrating the habitats present. Photographs of the site are contained in Appendix 2.

Arable farmland

- 4.2 The majority of the site is composed of arable farmland. At the time of the survey, the crop throughout the proposed development site was wheat. The flood compensation area (FCA) included two crops – wheat and potatoes. Arable crops themselves are generally of low ecological value, with most biodiversity being restricted to field boundaries, marginal vegetation and hedgerows.

Wet and dry ditches

- 4.3 The proposed development site includes three ditches, as follows:
- Ditch D1 runs west to east adjacent to the northern boundary of the proposed development site. This ditch was almost completely dry at the time of the survey, but has been recorded as a wet ditch in previous surveys undertaken at the site. This ditch is approximately 2 metres deep, 2 metres wide and very densely vegetated with common reed (*Phragmites australis*) throughout. The banks are fringed with a margin of dense brambles (*Rubus fruticosus* agg.) and nettles (*Urtica dioica*) up to 3 metres wide; as such the ditch is very shaded. This ditch is linked to the network of ditches in the wider landscape to the east and west.
 - Ditch D2 runs north to south through the centre of the proposed development site. This ditch was almost completely dry at the time of the survey and has been recorded as a dry ditch in previous surveys undertaken at the site. This ditch is approximately 1.5 metres deep and has a 2 metre border of bramble on the east side, with no marginal vegetation on the west side. The vegetation within ditch D2 is less dense than in ditch D1 but includes common reed. At its northern end this ditch is linked to ditch D1. At its southern end this ditch appears to terminate.
 - Ditch D3 runs south to north along the eastern boundary of the proposed development site and alongside the railway track. This ditch was slightly wet

at the time of the survey, only holding up to 15 centimetres of water. This ditch is approximately 2 metres deep, 2 metres wide and very densely vegetated with common reed throughout. The banks are fringed with a margin of dense brambles and nettles up to 2 metres wide; as such the ditch is very shaded. At its northern end this ditch is linked to ditch D1. At its southern end this ditch appears to terminate.

The proposed FCA is located adjacent to and will be connected to one ditch, as follows:

- Ditch D4 runs north-west to south-east to the western side of the proposed FCA. Ditch D4 was slightly wet at the time of the survey, holding up to 10 centimetres of water. This ditch is approximately 2 metres deep, 2 metres wide and very densely vegetated with common reed and foals watercress (*Apium nodiflorum*) throughout. The ditch has a margin of up to 3 metres of bramble scrub on its east side and 1-2 metres of nettles on its west side. At its south-eastern end this ditch is connected to Ditch D1 via large culverts under the new Bognor Northern Relief Road.

The ditches detailed above provide corridors of dense natural vegetation and shelter across arable fields, particularly where they are connected to other ditches beyond the site.

Dense scrub

- 4.4 As detailed above, the ditches within and adjacent to the site are each vegetated with bramble scrub to varying extents. The extent of dense scrub due to be removed is the 300 metres strip of bramble scrub and scattered hawthorn situated along Ditch D2 and scrub present alongside ditch D1 and D3.

Tall ruderal vegetation

- 4.5 Alongside the northern side of the new Bognor Northern Relief Road is a large band of ruderal vegetation and grassland. This area is sunk to a level below the new road and adjacent arable land and it appears that this area is seasonally inundated during times of flood. This area includes a high diversity of plant species (see TN30, Appendix 3 for dominant species) and is considered to be a valuable habitat to wildlife including skylarks, invertebrates and potentially barn owls and reptiles. According to current plans, this area is due to be avoided and not impacted by the FCA.

- 4.6 Narrow margins of ruderal vegetation (largely nettles) are present alongside ditches D1, D3 and D4 and also on the southern boundary of the proposed development site. Such narrow bands of ruderal vegetation are of limited ecological value but do offer shelter and feeding habitat for wildlife such as nesting birds, invertebrates and potentially reptiles.

Semi-improved grassland

- 4.7 The eastern end of the large band of ruderal vegetation detailed above includes more grass species than ruderal species and as such is classified as semi-improved grassland. As detailed above this band of ruderal/grassland habitat is considered to be a valuable wildlife habitat, particularly in comparison to neighbouring arable farmland.

Trees and woodland

- 4.8 Mature trees and woodland are not present inside the boundary of the proposed development site or FCA.

Invasive species

- 4.9 No invasive plant species were recorded within the footprint of the proposed development or FCA.

Protected species

Reptiles

- 4.10 The majority of habitats due to be impacted are arable fields with low potential for reptiles to be present. Dense scrub and tall ruderal vegetation is present on the edges of the arable fields. Though relatively narrow strips of suitable habitat, these are sufficient for species such as the grass snake (*Natrix natrix*) to move along, with the wet ditches providing a foraging resource for this species. These strips could also potentially support species such as slow-worm (*Anguis fragilis*).
- 4.11 Previous reptile surveys of the site (Aluco Ecology, 2013) found three slow-worms to the north of the Bognor Northern Relief Road, but no reptiles within the development site itself.

Great crested newts

- 4.12 The closest ponds to the proposed development site are located 400 metres to the west, separated from the site by the A29 road. The proposed development site contains very limited terrestrial habitat for great crested newts (dense scrub and

ruderal vegetation). As such great crested newts are considered unlikely to be found within the proposed development site.

Dormice

- 4.13 Habitats suitable for dormice are limited to strips of dense scrub surrounding the proposed development site. The dense scrub adjacent to the ditches is limited in its extent and broken in places, making it sub-optimal for dormice.

Invertebrates

- 4.14 The habitats due to be impacted by the proposed development have low value for invertebrates. Invertebrate diversity is particularly low in arable fields without marginal vegetation.

Nesting birds

- 4.15 The site contains suitable nesting places for birds in dense scrub and reeds. Skylarks (*Alauda arvensis*) may also nest within arable fields or ruderal vegetation. The value of the site to nesting birds is assessed in a separate breeding bird report (TMA, 2014).

Badger

- 4.16 During the survey, occasional badger footprints and a badger latrine were recorded to the west of the proposed FCA. On a previous survey a badger footprint was recorded within the northern corner of the proposed development site. However, no signs of badger setts were recorded during the survey, despite searching for evidence such as pathways into dense scrub, badger hairs or evidence of excavation or feeding. As such it is considered most likely that a sett is located somewhere outside the site boundary and that the site is used occasionally by foraging badgers.

Water vole

- 4.17 The four ditches identified within and adjacent to the site boundary are considered to be suitable for water voles although they are largely almost dry throughout much of the year and are very densely shaded by dense scrub. Surveys undertaken previously at the site (Aluco Ecology, 2013) did not find evidence of water vole.

Otter

- 4.18 Otters may be found making use of minor water courses and even dry ditches as dispersal corridors across the landscape. Therefore the ditches within the site may on occasion be used by otters. However, the ditches are considered unlikely to be

used as permanent places of shelter by otters as they are largely dry throughout much of the year. Otter surveys of the site (Aluco Ecology, 2013) found no evidence of otters within the site.

Bats

- 4.19 The proposed development site is considered to offer low quality commuting and foraging habitat for bats due dominance of arable farmland and lack of trees. However, bats are likely to make use of the peripheral habitats for commuting and foraging. Bat activity surveys undertaken previously at the site (Aluco Ecology, 2013) found that there was only a very low use of the site by bats for foraging/commuting. The open areas of the site due to be impacted by the proposed development had virtually no bat activity during the surveys.
- 4.20 No mature trees or buildings are due to be impacted by the proposed development and therefore no bat roosts are due to be impacted.

Other

- 4.21 The site was considered unlikely to offer suitable habitat for any protected or notable species not mentioned above, or such species are considered unlikely to be significantly impacted by the proposed works.

5 CONCLUSIONS AND RECOMMENDATIONS

Designated sites

- 5.1 The only designated site of nature conservation interest located within 2 km of the site is The Brooks Local Nature Reserve located 300 metres to the west. The impact of the proposed development is largely due to be restricted to within the site footprint, with flood issues addressed in the adjacent FCA. As such the proposed development would not be anticipated to impact The Brooks LNR.

Habitats and Vegetation

Ditches and field margins

- 5.2 Arable field margins are listed as a UK Biodiversity Action Plan (BAP) and Sussex BAP Priority Habitat. The field margins of the proposed development site are minimal and extend no more than 2-3 metres from the centre of the ditches. Nevertheless, the ditches and adjacent marginal vegetation provide important corridors of dense natural vegetation and shelter across the arable fields, particularly where they are connected to other ditches beyond the site.
- 5.3 Current plans indicate that ditches D1, D3 and D4 are due to be retained. Vegetation within the ditches themselves and on the non-development side of the ditches is not due to be removed. Vegetation on the south side of ditch D1 and the west side of ditch D3 will need to be removed to allow for construction to take place alongside the ditches. This vegetation is largely composed of dense scrub and tall ruderal vegetation. In order to enhance ecological value of the marginal habitats, it is recommended that a buffer of at least 5 metres (where feasible) should be re-instated between the development and each ditch.
- 5.4 In order to enhance the value of the marginal habitats for wildlife post-construction, it is recommended that they are not regularly mown for amenity value but instead managed as meadow grassland. Cut vegetation to 15 centimetres between late June and late August. If possible cut different areas at different times within this period to maximise diversity. Cutting to a shorter height than this would risk harming reptiles. Remove the cuttings from the site or pile them in one part of the site where they may be used as a habitat for reptiles and other wildlife. Mowing again or grazing during late summer or autumn is effective to remove excess grass growth and encourage flowers. Aim to leave the grass short throughout the winter.

Ruderal vegetation and semi-improved grassland

- 5.5 A large band of ruderal vegetation and grass is located to the north of the new Bognor Northern Relief Road. This area is considered to be a valuable habitat to wildlife including birds and invertebrates. The FCA has therefore been situated to avoid impacting this area.

Protected and Notable Species

Reptiles

- 5.6 All reptiles are listed as UK BAP Priority Species.
- 5.7 The enhancement of field margins as meadow grassland post-construction, as detailed above, create additional reptile habitat within the site.
- 5.8 The removal of ditch D2 and the removal of vegetation alongside ditch D1 and D3 has some potential to have an impact on reptiles, although previous reptile surveys on the site did not find reptiles in these areas. As a precaution, it is recommended that ditch D2 is cleared of vegetation in a phased approach, and supervised by a suitably experienced ecologist as follows:
- Vegetation to be removed down to 15 centimetres using hand tools or a tractor-mounted flail, under the supervision of the ecologist. Loose vegetation to be removed from the site.
 - Vegetation removal down to 15 centimetres reduces the suitability of the habitat for reptiles. Vegetation to be left at this height for 1 week in order for reptiles to vacate the affected areas.
 - The ecologist must hand-search and destructive search any suitable sheltering features, such as rubble or log piles, for reptiles. This can only take place during the reptile active season (March to October inclusive, weather dependent). Suitable features should be removed from the impacted area.
 - Following the hand-search, vegetation can be removed down to ground level, under the supervision of the ecologist, to ensure that no reptiles remain.
 - The above method should be undertaken starting at the southern extent of Ditch D2 and working towards the north, in order to direct reptiles and other wildlife towards ditch D1, which is to be retained and enhanced.

- Any reptiles found during this process should be relocated to nearby unaffected areas.

Great crested newts and amphibians

- 5.9 Great crested newts are considered unlikely to be found within the proposed development site and no constraints or further surveys are recommended regarding this species. The construction of two new attenuation ponds to the south-east of the proposed development is considered to be a major enhancement for amphibians, offering a breeding habitat that is currently lacking in the area surrounding the site.

Dormice

- 5.10 The majority of dense scrub vegetation with suitability for dormice is due to be retained. Dormice are considered unlikely to be found within scrub vegetation next to ditch D2, which is to be removed.

Invertebrates

- 5.11 The proposed development is not due to impact habitats of high value to rare or notable invertebrates.
- 5.12 The proposed development offers good potential for enhancements which will benefit invertebrates in the local area. Enhancements such as the inclusion of a large attenuation pond and areas of meadow grassland would be beneficial to a wide variety of invertebrates.

Nesting birds

- 5.13 The site includes vegetation suitable for nesting birds during the nesting season (March to August inclusive). It is recommended that vegetation removal is only undertaken outside the nesting season to avoid destruction of active nests. Vegetation removal may only be undertaken during the nesting season if a careful check by a suitably experienced ecologist can confirm that no active nests are present. If bird nests are present within vegetation to be removed, they must be left *in situ* and not disturbed until all the young have fledged and cease to return to the nest.
- 5.14 Further recommendations regarding breeding birds are included in a separate breeding bird report (TMA, 2014).

Badger

- 5.15 Although occasional badger footprints were found within areas due to be impacted by the proposed development, no evidence of a sett was found. It is therefore

considered unlikely that the proposed development will result in any damage to badger setts. The proposed development is not considered to remove good foraging habitat nor impede the movement of badgers between foraging areas off-site.

Water vole

- 5.16 The four ditches identified are seasonally wet and therefore offer some suitability for water voles. It is therefore recommended that a full survey of the ditches is undertaken to confirm whether water vole burrows are present. The survey should be undertaken in accordance with guidelines detailed in Strachan et al. (2011).

Otter

- 5.17 The ditches within the site may on occasion be used by dispersing otters but are considered unlikely to be used as permanent places of shelter. Ditch D1, D3 and D4 are being retained as wildlife corridors. It is considered unlikely that the proposed development will significantly impact otters.

Bats

- 5.18 Seven species of bat are listed as UK BAP Priority Species.
- 5.19 The proposed development site does not include any potential roosting sites for bats and is considered to offer low quality commuting and foraging habitat. The retention of marginal vegetation along ditches D1, D3 and D4 will retain these ditches as potential commuting and foraging corridors for bats. The provision of a large attenuation pond and new landscaping within the development would be expected to enhance the site for foraging bats.
- 5.20 In order to avoid a detrimental impact on bats commuting or foraging around the edges of the site, it is recommended that there should be no increased light spillage on to areas of scrub vegetation. Lighting should be restricted to the interior of the site and should be kept to a low level. The following measures should be implemented within the lighting scheme:
- Minimise light spill, through use of lighting hoods, and setting the height and angle appropriately;
 - Reduce the light intensity to the minimum required for safety and security;
 - Lighting to be minimised at night and infra-red detectors used where appropriate.

Enhancements

Attenuation ponds

- 5.21 Current plans include a large attenuation pond in the south-east corner of the development. This pond is considered to provide a significant enhancement for wildlife including water voles, invertebrates, nesting birds, amphibians and invertebrates.

Landscaping

- 5.22 The addition of trees and shrubs to the site will create nesting and feeding opportunities for nesting birds. It is recommended that landscaping includes a variety of native tree and shrub species.

Meadow grassland

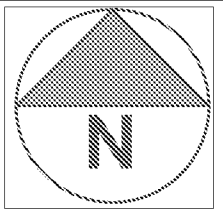
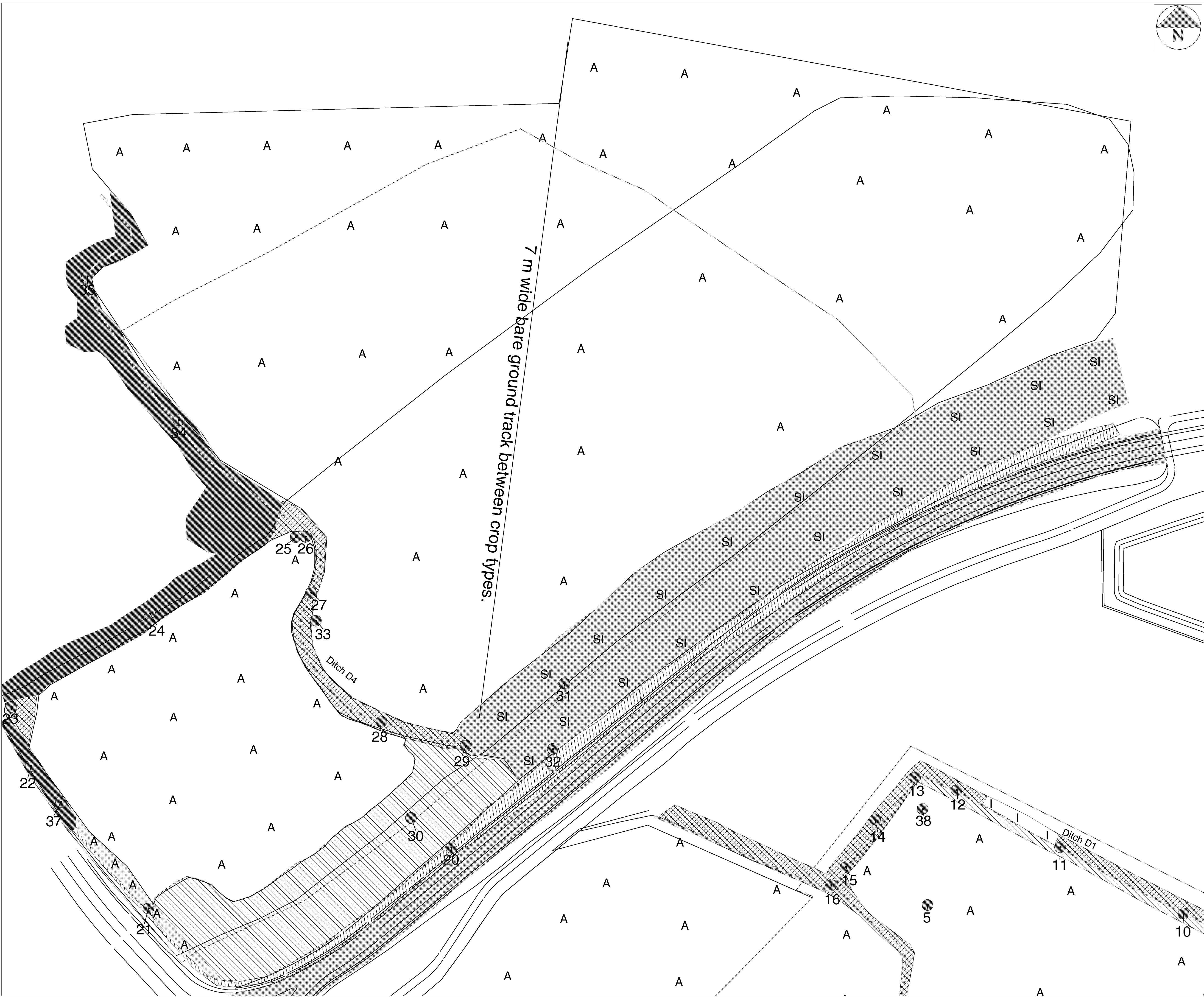
- 5.23 The re-instatement of marginal strips as meadow grassland will enhance these areas of the site for reptiles, invertebrates and ground nesting birds, amongst other wildlife.

6 REFERENCES

- Aluco Ecology (November 2013). Additional Protected Species Surveys. Land at Oldlands Farm, Bognor Regis.
- Tim Moya Associates (TMA) (June 2014). Breeding Bird Report. Land at Oldlands Farm.
- Hundt, L. (2012). Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey. A technique for environmental audit.
- Strachan, R., Moorhouse, T. and Gelling, M. (2011). Water Vole Conservation Handbook, third edition. Wildlife Conservation Research Unit.

Appendix 1

Phase 1 Habitat Plan



INVESTORS
IN PEOPLE

- Broad-leaved semi-natural woodland
- Dense Scrub
- Woodland Plantation
- Semi Improved, Neutral grassland
- Amenity grassland
- Arable, Disturbed/Cultivated land
- Tall Ruderal
- Hardstanding
- Japanese Knotweed
- Dry Ditch
- Wet Ditch
- Ecology Survey Boundary
- Single Tree
- Improved grassland
- Target note

REVISIONS	
	Base Drawing
306393-PE-25	
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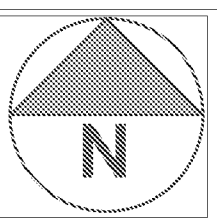
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Client Bericote Properties Ltd		
Project Oldlands Farm, Shripney Road, Bognor Regis, West Sussex		
Date June 2014	Drawn by AH	
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DO NOT SCALE Use only figured dimensions		

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- Broad-leaved semi-natural woodland
- Dense Scrub
- Woodland Plantation
- Semi Improved, Neutral grassland
- Amenity grassland
- Arable, Disturbed/Cultivated land
- Tall Ruderal
- Hardstanding
- Dry Ditch
- Wet Ditch
- Building
- Ecology Survey Boundary
- Improved grassland
- Target note

REVISIONS	
	Base Drawing
1306393	PE-25
0	10m 20m 40m 60m 80m 100m

Title		
Phase 1 Ecology - Development Site		
Client		
Bericote Properties Ltd		
Project		
Oldlands Farm, Shripney Road, Bognor Regis, West Sussex		
Date	Drawn by	
June 2014	AH	
Drawing No	Rev	Scale
140134-E-02	-	1:1000@A1
DO NOT SCALE Use only figured dimensions		

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Appendix 2

Photographs

Photo 1 – Ditch D2	Photo 2 – Crops patchy, potentially due to seasonal flooding
	
Photo 3 – Ditch D1	Photo 4 – Typical arable crops dominating the site
	
Photo 5 – Ditch D4	Photo 6 – Proposed FCA location – potato crop
	

Photo 7 – Marginal vegetation alongside Ditch D3



Photo 8 – Ruderal vegetation to north of new relief road



Photo 9 – Japanese knotweed

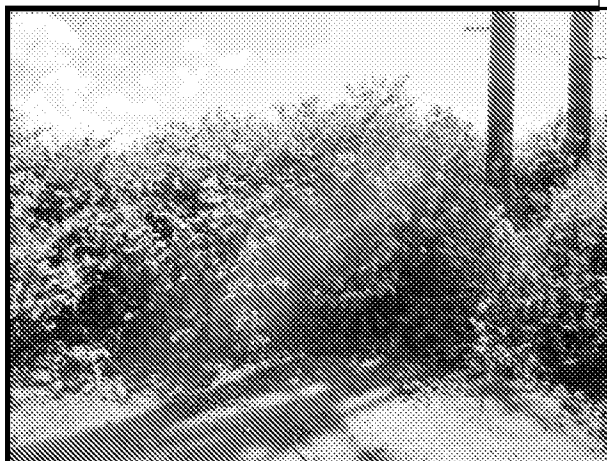


Photo 10 – Badger footprint

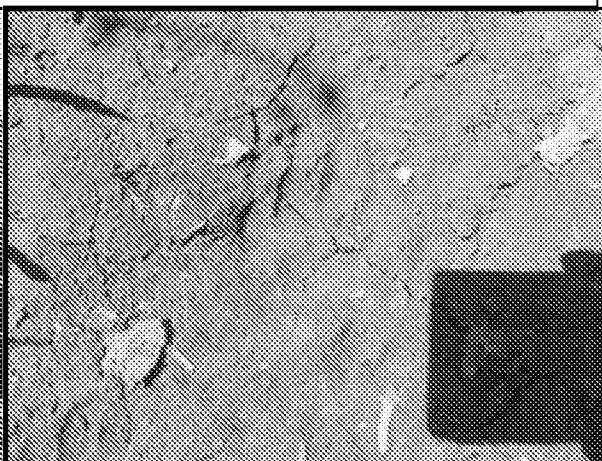
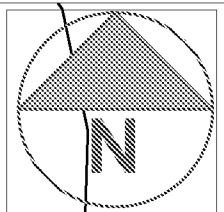


Photo 11 – Badger latrine

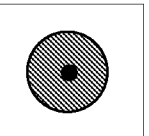


Appendix 3

Target Notes



Ecology Survey Boundary



Target note

Please see Target Note schedule overleaf for descriptions of target notes

7 m wide bare ground track between crop types.

REVISIONS		
Base Drawing		
		30/09/14-2/5
010m20m40m60m80m100m		

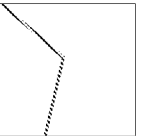
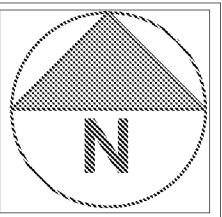
Title		
Target Note Plan		
Client		
Bericote Properties Ltd		
Project		
Oldlands Farm, Shripney Road, Bognor Regis, West Sussex		
Date		Drawn by
June 2014		AH
Drawing No	Rev	Scale
140134-E-03	-	1:1000@A1
DO NOT SCALE Use only figured dimensions		

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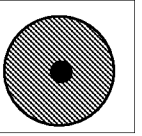
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Ecology Survey Boundary



Target note

Please see Target Note schedule overleaf for descriptions of target notes

REVISIONS		
Base Drawing		
		30/09/14 PC:25



Title		
Target Note Plan		
Client		
Bericote Properties Ltd		
Project		
Oldlands Farm, Shripney Road, Bognor Regis, West Sussex		
Date		Drawn by
June 2014		AH
Drawing No	Rev	Scale
140134-E-04	-	1:1000@A1
DO NOT SCALE Use only figured dimensions		

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Target Notes

Object ID	Notes and findings
1	Small rubble and asbestos pile alongside wall
2	Occasional rubble - moderate reptile habitat
3	Notable lack of badger prints in broad muddy patch - indicates lack of badger presence recently here.
4	Area bare of crops perhaps due to winter flooding. Patchy crops provide nesting habitat for skylarks.
5	Area bare of crops perhaps due to winter flooding. Patchy crops provide nesting habitat for skylarks.
6	Area bare of crops perhaps due to winter flooding. Patchy crops provide nesting habitat for skylarks.
7	Ditch very densely vegetated with common reed. Only shallow puddle of water present in ditch.
8	Ditch very densely vegetated with common reed and overshadowed with bramble scrub. Approx 10-15 cm of water present. 2m margin of vegetation to arable crops.
9	Fox dropping
10	Ditch approx. 2 m deep, steep banks, no water at this point. Ditch 2 m wide with 2 m of very dense nettles either side. Ditch very densely vegetated with common reed.
11	Ditch approx. 2 m deep, steep banks, no water at this point. Ditch 2 m wide with 3 m of very dense nettles to south and bramble to north. Ditch very densely vegetated with common reed.
12	Ditch dry at this point

Target Notes

Object ID	Notes and findings
13	Ditch very well hidden beneath reeds and bramble. Ditch very narrow, only slightly wet in bottom.
14	Blackthorn hedgerow/scrub
15	Ditch dry at this point and hidden deep beneath thistles and scrub.
16	Ditch contains approx. 10 cm of water. Very dense reed and brambles either side.
17	Ditch dry at this point
18	Ditch holds up to 15 cm of water. Heavily shaded by bramble.
19	Ditch dry at this point
20	Recently planted scrub and tree saplings
21	Recently planted scrub and tree saplings
22	Tall dense hedge of hawthorn and sycamore.
23	Localised stand of Japanese knotweed adjacent to road layby. 4 m x 4 m.
24	Row of mature sycamores and poplars in residential gardens. Understorey of dense nettles. No marginal vegetation between trees and crops.
25	Animal pathway leading into oilseed rape crop, beneath level of crops. Includes abundant muntjac deer footprints and occasional badger footprints. Pathway followed for 20 m into crop but

Target Notes

Object ID	Notes and findings
25	Animal pathway leading into oilseed rape crop, beneath level of crops. Includes abundant muntjac deer footprints and occasional badger footprints. Pathway followed for 20 m into crop but could not be surveyed further without damaging crop.
26	Occasional badger prints on bare ground.
27	Wet ditch, holding 5 cm of water. Very densely vegetated with fool's watercress. Eastern bank densely vegetated with bramble.
28	Wet ditch dominated by common reed.
29	Citch contains approx. 10 cm water. Dominated by common reed.
30	Area of tall ruderal vegetation including broad-leaved dock, teasel, lesser burdock, creeping buttercup, bristly oxtongue, black knapweed, soft brome, false oatgrass, perennial rye grass, annual meadow grass. This area is located at a lower level than surrounding areas and appears seasonally wet, although completely dry at the time of the survey.
31	Grass and ruderal area similar to TN30 but with more grass and less ruderal vegetation. Good skylark nesting habitat.
32	Mammal underpass beneath new road.
33	Badger footprint
34	Wet ditch accessed at man-made gap in vegetation. Holds up to 10 cm of water.
35	Wet ditch holds up to 10 cm of water.
37	Badger latrine underneath dense scrub - not in regular use. Scraped area under tree, perhaps occasionally used as a resting area. No signs of a sett or excavation though.

Target Notes

Object ID	Notes and findings
38	Badger footprint recorded 19.02.14

Appendix 4

Wildlife Law and Planning Policy

STATUTES AND ENGLISH LAW

Reptiles

All species of native reptiles are protected against killing or injury under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The sand lizard (*Lacerta agilis*) and smooth snake (*Coroenella austriaca*) are further protected under Conservation of Habitats and Species (Amendment) Regulations 2012 against capture or disturbance and the places they use for breeding, resting, shelter and protection are protected from being damaged or destroyed.

Great Crested Newts

The great crested newt and its habitat are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species (Amendment) Regulations 2012. This legislation makes it an offence to deliberately kill, injure or capture a great crested newt; deliberately disturb a great crested newt; damage, destroy or obstruct access to a structure used for shelter or protection by a great crested newt; or possess or transport a great crested newt.

Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981. It is an offence for anyone intentionally to kill, injure or handle a bat, to possess a bat (whether live or dead), disturb a roosting bat, or sell or offer a bat for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

ODPM 06/2005: Biodiversity and Geological Conservation, the circular that accompanied the now redundant Planning Policy Statement 9 (PPS9) but which itself is still valid, requests that mitigating for impacts caused by developments to foraging and commuting routes should be considered when determining planning applications.

Badgers

Badgers and their setts are protected under the Protection of Badgers Act 1992 which makes it an offence to kill, injure or possess a badger; interfere with, damage or destroy a badger sett including obstructing access to a badger sett; cruelly treat

or harm a badger; or disturb a badger in a sett. The National Planning Policy Framework (NPPF, 2012) stipulates that considering their welfare and mitigating for damage to their habitat are material considerations when considering planning applications.

Water Voles

Water voles are protected under the Wildlife and Countryside Act 1981 (as amended) from killing or taking by certain prohibited methods. Their breeding and resting places are fully protected from damage, destruction or obstruction, it is also an offence to disturb them in these places.

Dormice

Hazel dormice are protected under both the Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended). Dormice and their breeding sites and resting places are fully protected. Without a licence it is an offence for anyone to deliberately disturb, capture, injure or kill them. It is also an offence to damage or destroy their breeding or resting places, to disturb or obstruct access to any place used by them for shelter. It is also an offence to possess, or sell a wild dormouse.

Birds

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to kill, injure or take wild birds; take, damage or destroy the nest of wild birds while it is in use or being built; or take or destroy the eggs of wild birds.

Certain bird species are listed on Schedule I of The Wildlife and Countryside Act 1981 (as amended). Under this legislation they are afforded the same protection as all wild birds and are also protected against disturbance whilst building a nest, or on or near a nest containing eggs and or unfledged young.

Invasive Plant Species

It is prohibited to plant or otherwise cause to grow in the wild any species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The Environmental Protection Act 1990 also classifies certain invasive plants as controlled waste which must be disposed of safely at an appropriately licensed landfill site (e.g. Japanese knotweed).

PLANNING POLICY

In addition to the statutes described above, various planning policy imposes duties upon planning applicants to take account of protected species and habitats at sites of proposed development and in particular, protected species. The objective of this policy is to prevent a net loss of species and habitats diversity identified as priorities for the U.K. as a consequence of development activity.