LAND AT

GILLINGHAM DORSET

NEWHOUSE FARM AND HAM FARM



ECOLOGICAL APPRAISAL DECEMBER 2017



Ecological Appraisal



Welbeck Land

December 2017

The Pavilion, 1st Floor, Botleigh Grange Office Campus, Hedge End, Southampton, Hampshire, SO30 2AF

Tel: 02382 022800

Email: ecology@wyg.com



Document Control

Project: Land at Gillingham, Dorset – Newhouse Farm and Ham Farm

Client: Welbeck Land

Job Number: A106314

File Origin: I:\Projects\Projects A106000\A106314 Gillingham SSA\REPORTS

Issue 1	November 2017	FINAL
Dropared by	E Amiral	Emmanuelle Amiral
Prepared by:		Assistant Ecologist
Chasked By	TI Cinn	John Simper MCIEEM
Checked By:	The Singu	Senior Ecologist
Varified By	1/16	David West CEnv MCIEEM
Verified By:	- asses were	Principal Ecologist

Rev:	Date:	Updated by:	Verified by:	Description of changes:

WYG Environment Planning Transport Ltd. accept no responsibility or liability for the use which is made of this document other than by the Client for the purpose for which it was originally commissioned and prepared.

Welbeck Land i December 2017 A106314

Ecological Appraisal



Contents

Exec	cutive Summary	1
Glos	ssary	3
1.0	Introduction	4
1.1	Background	∠
1.2	Site Location	∠
1.3	Development Proposals	∠
1.4	Purpose of the Report	∠
2.0	Methodology	5
2.1	Desk Study	5
2.2	Field Surveys	5
2.3	Limitations	8
3.0	Baseline Conditions	10
3.1	Designated Sites	10
3.2	Habitats	10
3.3	Protected & Notable Species	12
3.4	Importance of Ecological Features	16
4.0	Relevant Planning Policy & Legislation	18
4.1	National Planning Policy Framework	18
4.2	Biodiversity 2020: A strategy for England's wildlife & ecosystem services	18
4.3	Local Plan	18
4.4	Legislation	19
5.0	Discussion	20
5.1	Designated Sites	20
5.2	Habitats	20
5.3	Protected & Notable Species	21
6.0	References	25

FIGURES

Figure 1 – Phase 1 Habitat Plan

Figure 2 – Land Use Plan

Figure 3 – Phase 1 Habitat Plan

APPENDICES

Appendix A – Wildlife Legislation



Executive Summary

	•		
Contents	Summary		
Site Location	The site is located to the south of the town of Gillingham in Dorset, centred on OS grid reference ST816253. It covers an area of approximately 53.5 ha. To the north of Ham Farm lies the residential area of Ham Common. West of Ham Common runs the River Lodden, with the Lodden Lakes beyond. To the south and west of the site lie agricultural areas including both pasture and arable fields, with hedgerow networks.		
Proposals	Ham Farm forms the south west component of the Gillingham Strategic Site Allocation within the North Dorset Adopted Local Plan. The proposed application is for outline planning permission for a mixed development incorporating residential dwellings, infrastructure including a link road, open space and landscaping.		
Existing Site Information	Ham Farm comprises a matrix of improved grassland pasture grazed by cattle, neutral semi-improved grassland, broadleaved plantation woodland, species-poor and species-rich hedgerows with mature trees and bare ground.		
Scope of this Survey(s)	A summary of previous ecological surveys completed to inform the EIA of the wider allocation as they relate to the Park Farm site.		
Results	The following valuable habitats have been identified on site: Plantation broadleaved woodland (site) Hedgerows (County and site) Semi-improved and improved grassland (site) Running and standing water (local) The following protected and notable species have been recorded on site: Great crested newts (local) Reptiles (site) Bats (local) Badgers (local) Otters (local) Water voles (local) Breeding birds (local)		
Recommendations	The following avoidance and mitigation measures have been incorporate into the masterplan: Retention and protection of valuable habitats. Creation of large area of informal open space to north of site. Sustainable drainage system to protect watercourses from pollution. Sensitive lighting to avoid disturbance to nocturnal species. The following additional measures are proposed: Great crested newt translocation (under EPSL licence). Reptile translocation.		

Ecological Appraisal



- Update inspections/surveys of trees with bat roost potential.
- Any confirmed roosts which will be impacted will be mitigated under EPSL licence (covering roost loss and creation of compensation roosts).
- Pre-commencement survey for known and potential new badger setts.
- Outlier setts closed under ecological supervision. Under licence if active.
- Pre-works check of any vegetation to be removed during the bird nesting season.

The following enhancement measures are proposed:

- Diverse native species planting including infilling of hedgerows.
- Scheme of artificial bird and bat boxes.
- Creation of hibernacula for reptiles and GCN.

Ecological Appraisal



Glossary

LBAP

AONB Area(s) of Outstanding Natural Beauty

Badger Act Protection of Badgers Act 1992

BCT Bat Conservation Trust

BoCC Bird(s) of Conservation Concern
BTO British Trust for Ornithology

CEco Chartered Ecologist

CEnv Chartered Environmentalist

CIEEM Chartered Institute of Ecology & Environmental Management

CRoW Act Countryside and Rights of Way Act 2000

ECIA Ecological Impact Assessment ECoW Ecological Clerk of Works

EIA Environmental Impact Assessment
EMP Ecological Management Plan
EPS European Protected Species

EPSL European Protected Species Licence

GCN Great crested newt

Habitat Regulations Conservation of Habitats and Species Regulations 2010 (as amended)

HAP Habitat Action Plan

Hedgerow Regulations Hedgerow Regulations 1997
HPI Habitat(s) of Principal Importance
HRA Habitats Regulations Assessment
JNCC Join Nature Conservancy Council
LERC Local Ecological Record Centre

LNR Local Nature Reserve
LPA Local Planning Authority
LWS Local Wildlife Site

MCIEEM Member of Chartered Institute of Ecology & Environmental Management

Natura 2000 site A European site designated for its nature conservation value

Local Biodiversity Action Plan

NE Natural England

NERC Act Natural Environment and Rural Communities Act 2006

NNR National Nature Reserve

NPPF National Planning Policy Framework
PEA Preliminary Ecological Appraisal

RSPB Royal Society for the Protection of Birds

SAC Special Area of Conservation

SAP Species Action Plan

SNCO Statutory Nature Conservation Organisations

SPA Special Protection Area

SPI Species of Principal Importance
SSSI Site(s) of Special Scientific Interest
W&CA Wildlife & Countryside Act 1981

Ecological Appraisal



Introduction 1.0

1.1 **Background**

WYG was commissioned by Welbeck Land in October 2017 to complete an Ecological Appraisal of the Site known as Land at Gillingham, Dorset - Newhouse Farm and Ham Farm, informed by previous surveys of the Site completed between 2012 and 2017.

This report has been prepared by David West CEnv MCIEEM.

1.2 **Site Location**

The site is located to the south of the town of Gillingham in Dorset, centred on OS grid reference ST816253. To the north of Ham Farm lies the residential area of Ham Common. West of Ham Common runs the River Lodden, with the Lodden Lakes beyond. To the south and west of the site lie agricultural areas including both pasture and arable fields, with hedgerow networks.

Ham Farm comprises a matrix of improved grassland pasture grazed by cattle, neutral semi-improved grassland, broadleaved plantation woodland, species-poor and species-rich hedgerows with mature trees and bare ground.

1.3 **Development Proposals**

Outline planning permission for the comprehensive redevelopment of land south of Gillingham between Shaftesbury Road (B3081) and New Road (B3092) (which forms part of SSA Gillingham Southern Extension – Local Plan (2016) Policy 21) comprising a residential-led mixed use urban extension, engineering works and construction of new buildings and structures to provide residential accommodation (up to 961 net additional dwellings), retail, community, health, leisure uses up to 2,642 sq.m in the Local Centre together with ancillary and associated development including new and enhanced pedestrian/cycle routes and open spaces, car parking and vehicular access with all matters reserved save for full details submitted for access points at site boundaries including associated works.

1.4 **Purpose of the Report**

The objectives of this is assessment are to carry-out:

- A desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest and relevant records of protected/notable species within the site and its zone of influence;
- A summary of ecological surveys completed on site between 2012 and 2017 in support of the development of the masterplan framework and EIA of the SSA;
- A summary of the ecological receptors on site and the potential impacts of the proposed outline application.

Note that, where possible, common names for flora and fauna have been used throughout this report for ease of reading.

Ecological Appraisal



2.0 Methodology

2.1 Desk Study

2.1.1 Previous Reports

WYG completed a series of ecological surveys on the Site in 2015. An updated site walkover in 2017 was completed to confirm that there had been no change in site conditions and therefore no likely change in the findings of the 2015 surveys. Previous surveys were completed in 2012 by Ecology Solutions (Ecology Solutions, 2012).

The results of these surveys are summarised within this report and detailed within the Gillingham SSA EIA and are included as technical appendices.

2.1.2 Local Ecological Records Centre

Information was gathered from the Dorset Environmental Records Centre, the ecological records centre for Dorset, regarding the presence of nature conservation designations and protected and notable species within 2km of the boundary of the proposed development site (a 5km search was undertaken for bat species). In addition, a search for designations was made using the Multi Agency Geographic Information for the Countryside database (MAGIC).

The data search covers:

- Statutory designated sites for nature conservation, namely SACs, SPAs, Ramsar sites, SSSIs, NNRs and LNRs;
- Non-statutory designated sites for nature conservation, namely LWS;
- Legally protected species, such as great crested newts, bats and badger;
- Notable habitats and species, such as those listed as Habitats or Species of Principal Importance.

The data search did not cover:

- Tree Preservation Orders (TPOs); or
- Conservation Areas designated for their special architectural and historic interest.

2.2 Field Surveys

The following methodologies have been used to identify the ecological receptors present on or near the site, which are relevant to the proposed development.

2.2.1 Habitats

An extended Phase 1 habitat survey was completed on 24th March 2015 by Principal Ecologist David West CEnv MCIEEM. All areas of the site were investigated, including those parts that are not expected to be affected directly by the works but may be indirectly impacted upon. The weather conditions were good with no rain and good visibility.

The vegetation and broad habitat types within the site were noted during the survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (Joint Nature Conservation Committee, 2010). Dominant plant species were recorded for each habitat present using



nomenclature according to Stace (2010). The site was also appraised for its suitability to support notable flora, with regard to the CIEEM Guidelines for Preliminary Ecological Appraisal (2013).

2.2.2 Protected & Notable Species

The site was inspected for evidence of, and its potential to support, protected or notable species, especially those listed under the Schedule 2 of the Habitat Regulations, Schedule 5 of the W&CA, the CRoW Act, those given extra protection under the NERC Act.

Great Crested Newt

The site was appraised for its suitability to support GCN. The assessment was based on Guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, Becket & Foster, 2001).

As recommended by Natural England, a Habitat Suitability Index (HSI) following Oldham et al. (2000) was calculated for ponds on site and to those within 500m of the site in connected habitat. These were identified using Ordnance Survey maps and aerial images. There are two ponds located within the development site boundary and a further six ponds located within 500m of the site.

Presence/likely absence surveys were completed in 2015 in accordance with the *Great Crested Newt Mitigation Guidelines* (English Nature, 2001) requirements for population estimation.

Bats

Roosting bats – Buildings/structures/trees

Any suitable buildings, structures or trees on site were assessed from the ground for their suitability to support breeding, resting and hibernating bats using survey methods based on the BCT *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (2nd ed, 2012) – hereafter referred to as the 'BCT Guidelines'. These guidelines were updated in 2016 however the surveys carried out were also in accordance with the updated guidelines. The following system has therefore been used to categorise the bat roost suitability of any features found:

Table 1 Categories of Bat Roost Suitability (BCT Guidelines)

Suitability	Typical Roosting Features
Negligible	Negligible habitat feature on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
	A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the





Suitability	Typical Roosting Features	
	assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis & potentially for longer periods of time due to their size, shelter, protection, conditions & surrounding habitat.	

Foraging/commuting bats

The BCT Guidelines use the following criteria to categorise the potential value of habitats and features for use by foraging and commuting bats and these have been used to characterise the value of this site:

Table 2 Categories of Habitat Suitability (BCT Guidelines)

Suitability	Typical Foraging & Commuting Features		
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.		
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.		
	Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.		
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.		
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.		
	High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.		
	Site is close to and connected to known roosts.		

Bat activity surveys were completed in 2015 in accordance with BCT Good Practice Guidelines (Hundt, 2012).

Reptiles

The site was appraised for its suitability to support reptiles. The assessment was based on guidance outlined in the Joint Nature Conservation Committees' published *Herpetofauna Workers' Manual* (Gent & Gibson, 2003).



Reptile presence/likely absence surveys were completed in 2015 in accordance with guidance outlined in the Herpetofauna Workers' Manual (Joint Nature Conservation Committee - JNCC, 2003) and Advice Sheet 10 – Reptile Survey (Froglife, 1999).

Badgers

The site was surveyed for evidence of badger setts or other badger activity such as paths, latrines or signs of foraging. Methodologies used and any setts recorded were classified according to published criteria (Harris, Cresswell & Jefferies, 1989). A 50m buffer around the site was investigated for evidence of badger activity where possible. This was observed around the majority of the site, except where it borders private dwellings.

Hazel Dormice

The site was surveyed for its suitability to support hazel dormice. The assessment was based on guidance outlined in Bright *et al.* (2006).

Presence/likely absence surveys were completed in 2015 in accordance with Bright et al. (2006).

Otter

Watercourses on site were assessed for their suitability to support otters. This assessment was based on guidance outlined in Monitoring the Otter (Chanin, 2003). This assessment extended approximately 200m up and downstream of the site where access was possible.

Water Vole

Following methods set out in the Water Vole Conservation Handbook (Strachan & Moorhouse, 2011), an assessment of waterbodies within and adjacent to the site was undertaken to determine their suitability to support water voles and a search for evidence of activity was conducted, including droppings, latrines, burrows, footprints and feeding lawns, of any areas considered suitable.

Other Species

The site was also appraised for its suitability to support other protected or notable fauna including mammals, amphibians, birds and invertebrates with regard to CIEEM's *Guidelines for Preliminary Ecological Appraisal* (2013) and *BS42020:2013 Biodiversity – Code of Practice for Planning and Development*. Evidence of any current or historical presence of such species was recorded.

2.2.3 Invasive Species

The site was searched for evidence of invasive plant species, such as Japanese knotweed, Himalayan balsam, giant hogweed, wall cotoneaster and rhododendron – however see Appendix A for a full list.

2.3 Limitations

The comprehensiveness of any ecological assessment will be limited by the season in which surveys are completed. The updated extended Phase 1 habitat survey was completed in March, within the optimum survey season. The timing of the survey is not considered to represent a limitation. As such this is not considered to be a limitation to the accurate assessment of the habitats and the dominant species of the respective vegetation types were visible and identifiable.



A 50m buffer along all boundaries of the site could not be surveyed for evidence of badger activity, or a 200m stretch of the watercourses for evidence of otters, which represents a slight limitation to the extended Phase 1 habitat survey. However, those areas which could not be surveyed were the residential areas to the north of the Site. It is considered unlikely that these residential areas, which are relatively new (construction was completed in 2005) support badger setts or otter resting places.

To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the potential of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to those given protection under UK or European wildlife legislation. This report cannot therefore be considered a comprehensive assessment of the ecological interest of the site. However, it does provide an assessment of the ecological interest present on the day the site was visited and highlights areas where further survey work may be recommended.

The details of this report will remain valid for a period of two years from the date of the survey, after which the validity of this assessment should be reviewed to determine whether further updates are necessary. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be are any changes to the red line boundary or development proposals which this report was based on.



3.0 Baseline Conditions

3.1 Designated Sites

There are no statutory designated sites located within 2km of the site. The following non-statutory designated sites of nature conservation importance have been identified within 2km of the site.

Table 3 Designated Sites within 2km

Designation	Site Name	Distance & Direction	Summary of features
SNCI	King's Court Wood	1.3 km north east of the site.	A large oak/ash woodland not of ancient origin.
SNCI	Palemead Coppice	0.8 km east of the site.	Oak woodland on a heavy clay soil.
HRS	Gillingham Secondary School	0.5 km north west of the site.	Neutral grassland; Fen/sedge with pond.

In additional to the above designations, the nearest Natura 2000 site is Fontmell & Melbury Downs SAC which is located approximately 7.2km south east of the site. This inland site supports consistently large populations of early gentian numbering many thousands of plants. The site includes large areas of species-rich chalk grassland and is one of three sites selected in the centre of the main range of the species.

3.2 Habitats

The following habitats have been identified through our assessment:

3.2.1 Broad-leaved Plantation Woodland

A strip of plantation woodland is located along the northern edge of the Ham Farm site. The woody species included ash, holly, field maple, alder, silver birch and oak. Semi-improved grassland was present between the trees dominated by perennial rye-grass, cock's foot and fescue species.

3.2.2 Hedgerows

A large number of hedgerows are present within the boundary of the proposed development site. These form the boundaries of most fields across all three areas of the site. The majority of hedgerows on site were species-poor and many were heavily managed. In most cases, hawthorn and blackthorn were dominant, with occasional elder, field maple, dog rose and hazel. Ground flora typically included common nettle, bramble, ivy, lords and ladies, cleavers and hogweed. Mature oak trees were present within many of the hedgerows. Although most are species-poor, seven hedgerows were considered to be species-rich and are detailed in Table 3 below. Two hedgerows, H5 and H7 were considered likely to be 'Important' under the Hedgerow Regulations (1997) due to the presence of an average of seven woody species in 30m.



Hedgerow Ref	Location	Description	Species Present	Other Features
H1 (TN8)	North east corner of Ham Farm area.	Tall (2m) hedgerow, unmanaged, 60m length.	Hawthorn, blackthorn, hazel, dog rose, elder, field maple, elm.	Wet ditch running alongside ditch with sedges.
H2 (TN11)	Running east to west in centre of Ham Farm area.	Approximately 2m in height well managed, 260m.	Blackthorn, hawthorn, dog rose, field maple, willow, elm.	Dry ditch.
H3 (TN12)	Running south from western edge of H2.	Tall (3m) and wide (4m), unmanaged, 70m.	Hawthorn, blackthorn, willow, dog rose, elder.	Dry ditch.
H4 (TN13)	Running north to south below H3.	Approximately 2m in height well managed, 170m.	Blackthorn, hawthorn, elm, dog rose, elder.	4 oaks (1 per 50m).
H5 (TN15)	Running east from southern edge of H4. Southern boundary of Ham Farm site.	Tall (3m), some management, 160m.	Blackthorn, hawthorn, elm, elder, willow, dog rose, ash, oak.	Wet ditch.
H6 (TN14)	Running north to south in centre of Ham Farm site. Intersects H5 and H7.	Approximately 2m in height well managed, 300m.	Blackthorn, hawthorn, dog rose, elder, oak, field maple.	N/A.
H7 (TN16)	Running east from southern edge of H6. Southern boundary of Ham Farm site.	Approximately 2m in height, some management, 270m.	Blackthorn, hawthorn, elm, field maple, dog rose, wild privet, ash.	N/A.

3.2.3 Improved Grassland

The site is dominated by improved grassland, which was grazed by horses, cattle and sheep at the time of the extended Phase 1 habitat survey. The improved grassland areas are dominated by perennial rye-grass with cock's foot, Yorkshire fog, meadow foxtail and fescues. Other species included dandelion, broad leaved dock, creeping thistle, red dead-nettle, white clover, greater plantain and creeping buttercup.

Ecological Appraisal



3.2.4 Neutral Semi-Improved Grassland

Semi-improved grassland is present in the north east corner of the Site, bordered by Hedgerow 1 and north of Pond P10. Species composition was similar to the surrounding improved grassland fields, albeit with a longer sward height. Dominant grass species were perennial rye-grass, cock's foot and fescues with abundant soft rush.

3.2.5 Running water

The River Lodden forms the northern boundary of the Ham Farm and Newhouse Farm areas. It **wa**s approximately 3m wide with a moderate flow. The river was deeper than Fern Brook and appeared to be approximately 0.5m deep. Hedgerows are present on the banks along much of its length comprising blackthorn, dog rose and willow. The riparian vegetation predominately comprises semi-improved grassland with cock's foot, fescues, common nettle, broad-leaved dock, cleavers and bramble.

A ditch with running water is located towards the centre of the site. It is connected to Pond 13 and runs adjacent to Hedgerow 5. Offshoots run north from Pond 13 to the River Lodden and off site to the south. The water level was shallow (100-300mm) with a moderate flow. The riparian vegetation predominately comprises semi-improved grassland with cock's foot, fescues, common nettle, broadleaved dock, cleavers and bramble.

3.2.6 Standing Water

Three ponds are located within the boundary of the proposed development site. Pond 10 is located at the eastern extent of the site with Pond 11 at the centre. Pond 12 is located to the west of Pond 11. A further 6 ponds are located within 500m of the site in connected habitat. These are described further in relation to great crested newts in Section 3.3.1.

3.2.7 Bare Ground

Bare ground is present in the form of hardstanding access tracks. One runs north to south towards the east of the site and a further runs along the southern boundary and adjacent to Pond 12.

3.3 Protected & Notable Species

3.3.1 Great Crested Newts

The data provided by DERC included 36 records of GCN within 2 km of the Site. Four of these records were relating to ponds within 500m of the Site, ponds P11, P14, P15 and P16 (see Figure 1, WYG, 2017b). The Ecology Solutions surveys carried out at the Site in 2011 identified small populations of GCN in Ponds P10, P11 and P16.

HSI Assessment

There are a total of 10 ponds located within 500m of the site in connected habitat (see Table 4). If great crested newts are breeding within any of these ponds, there is potential for them to utilise terrestrial habitats on site such as hedgerows and woodland. The terrestrial habitat within the development site is limited to hedgerows, semi-improved grassland and plantation woodland and is considered to be of moderate potential to support great crested newts during their terrestrial phase.

Ecological Appraisal



Table 4 Ponds within 500m

Pond/ Ditch Ref	Location	Description	HSI
P9	55m east	Rectangular balancing pond, likely associated with nearby commercial park. Abundant vegetation including rushes and sedges.	0.74 – Good
P10	Eastern extent of site	Surrounded by blackthorn and willow scrub with emergent macrophytes including rushes.	0.70 – Good
P11	Centre of site	Surrounded by willows. Shaded with no macrophytes.	0.56 – Below average
P12	Centre of site	Macrophytes including rushes, some wildfowl and good terrestrial habitat.	0.81 - Excellent
P13	160m south west	Farm effluent pond, bad water quality, no vegetation.	0.47 – Poor
P14	290m south	Heavily shaded pond within field lined by mature trees and scrub. Heavily shaded with no aquatic floating or emergent vegetation.	0.58 – Below average
P15	180m south	Heavily shaded pond within field lined by mature trees and scrub. Heavily shaded with no aquatic floating or emergent vegetation.	0.57 – Below average
P16	140m south	Heavily shaded pond within field lined by mature trees and scrub. Heavily shaded with little emergent vegetation. Much of surface covered with duckweed (<i>Lemna minor</i>).	0.62 – Average
P17	50m north	Attenuation pond associated with development at Ham Common. Heavily vegetated with rushes, low water level.	0.73 – Good
P18	220m north	Attenuation pond associated with development at Ham Common. Heavily vegetated with rushes, low water level.	0.73 – Good

Presence / Likely Absence Survey

A GCN presence/likely absence and population survey was carried out over six visits in May and June 2015 of eight waterbodies considered suitable to breeding GCN on and within 500m of the Site. These were undertaken in accordance with the methodology outlined in English Nature's Great Crested Newt Mitigation Guidelines (2001) – WYG 2017b.

Small populations of GCN were confirmed in P9, P10, P11, P14, P15 and P16. The GCN populations on site are considered to be of value at a Local level due to the high number of records and suitable habitat in the wider area.

3.3.2 Reptiles

The data provided by DERC included one record of a reptile which was for a grass snake located 750m to the north of the Site. The Ecology Solutions surveys carried out at the Site in 2011 recorded low populations of slow worm, common lizard and grass snake across the Site.

A reptile presence/likely absence survey was carried out over seven visits between July and September 2015 in accordance with the recommended survey guidelines (Gent and Gibson, 2003).



See WYG 2017c for full details. These comprised seven inspections of artificial refugia which had been positioned in the areas identified during the extended Phase 1 habitat survey as having suitable habitat.

A good population of slow worms and low population of grass snakes was recorded at the Site. Common lizard were not recorded however a low population was recorded in 2011 and as such it is assumed they may still use the site given the suitable habitat. The reptile population on the site is considered to be of value at the Site level given that there is a large amount of similar habitat connected to the site, the number of previous records within 2km and because reptiles are considered to be widespread in the south of England (as per Natural England's Standing Advice Species Sheet, 2011).

3.3.3 Bats

The data provided by DERC included records of common pipistrelle, soprano pipistrelle, whiskered bat, Natterer's bat, Bechstein's bat, Daubenton's bat, noctule, serotine, brown long-eared bat and lesser horseshoe bat from within 5km of the Site. The closest record of lesser horseshoe was a maternity roost 2.5km south-east of the Site in Port Regis (in 2011). The closest record of Bechstein's bat was 2.7km to the south of the Site in a bat box in Duncliffe Wood (2009 most recent). The site is not located within a consultation zone for bats (an area which is subject to specific planning guidance in relation to important bat populations). The Ecology Solutions surveys in 2011 identified a soprano pipistrelle roost within a mature tree adjacent to the southern boundary of Ham Farm (Ecology Solutions, 2012).

Bat activity surveys using manual and static bat detectors were undertaken in 2015 in accordance with the guidance set out in the (now superseded) Bat Conservation Trust's Bat Surveys: Good Practice Guidelines 2nd Edition . The surveys completed were also in accordance with the current 3rd Edition Guidelines. The site was assessed as having moderate suitability for foraging and commuting bats and as such six dusk surveys and one dawn survey were undertaken between April and September. Two transect routes were walked on each survey occasion. Two automated bat detectors were left along each transect route for five consecutive nights per month (see WYG 2017e).

At least nine species of bat were recorded using the habitats at the Site to forage and commute. The species comprised common pipistrelle, soprano pipistrelle, noctule, serotine, Daubenton's, whiskered/Brandt's, Leisler's, brown long-eared and Nathusius' pipistrelle. Common pipistrelles were the most frequently encountered species and whiskered/Brandt's, Leisler's and brown long-eared were each only recorded on one survey visit.

The area found to support the highest frequency of bat activity / number of bats encountered was the River Lodden. Based on Wray *et al.* 2010 and notwithstanding the botanical value of these habitats, the bat assemblage on Site is therefore considered to be of value at a Local level.

3.3.4 Badger

The data provided by DERC included 16 records of badgers within 2km of the Site, the closest approximately 160m north-west of the site. The Ecology Solutions surveys in 2011 observed a main badger sett at the eastern extent of the site, adjacent to Pond 10.

A badger survey was completed in March 2015 and updated in February 2017. This identified an inactive main sett to the east of Ham Farm in the same location as recorded in 2011. Badgers are



widespread in the local area based on the desk study results and as such the badger population on Site is considered to be of value at the Local level.

3.3.5 Hazel Dormice

The data provided by DERC included one record of hazel dormouse located at the southern boundary of Ham Farm in 2005. The Ecology Solutions surveys in 2011 recorded no evidence of dormice.

Hazel dormouse surveys were completed for the Site between May – September 2015 (see WYG 2017f). During these surveys, no hazel dormice were recorded. Therefore hazel dormice are not currently considered to be present on the Site and they are not considered further in this assessment.

3.3.6 Otter & Water Vole

The data provided by DERC included seven records of otters within 2km of the Site between 2000 and 2006. The closest records were of spraints from the River Lodden adjacent to the northern boundary of the site.

The data provided by DERC included 15 records of water vole within 2km of the Site between 2000 and 2012. The closest records were of burrows from the River Lodden adjacent to the northern boundary of the Site. The Ecology Solutions surveys in 2011 also identified signs of water voles in the River Lodden.

Evidence of otters (such as spraints or feeding remains) was searched for during the extended Phase 1 habitat survey in 2015 and 2017 including up to 200m upstream and downstream of the site (WYG 2017). Suitable habitats on site (such as woodland) were also searched for potential holts. No evidence was found. An otter was observed during a GCN survey in June 2015 within P12 on Site which is linked to the Lodden by a flowing ditch. The Site is considered to be of value at a Local level for otters.

The presence of water voles within the River Lodden was confirmed by the desk study between 2000 and 2012. Evidence of water voles was searched for during the extended Phase 1 habitat survey in 2015 and 2017. Burrows were observed along the River Lodden and the northern extent of the flowing ditch where it meets the Lodden which confirmed that they remain present on Site. According to Morris et al. (1998), water vole populations can be estimated using an equation based on the number of latrines. Based on this calculation the population on Site is estimated to be around 9 individuals, a density of less than 1 per 100m. The Water Vole Conservation Handbook states that population density can range from 2.4 – 14 per 100m, as such the population on site is considered to be low and of value at a Local level for water vole.

3.3.7 Birds

The data provided by DERC included records of 26 bird species within 2 km of the Site. Although most were common species, 13 are protected under Schedule 1 Part 1 of the W&CA or are Schedule 41 priority species under the NERC Act or are red listed Birds of Conservation Concern (BoCC).

Schedule 1 or Annex 1 species included barn owl, kingfisher, fieldfare and redwing. Schedule 41 priority species included yellowhammer, starling, bullfinch, cuckoo, and reed bunting.



Four breeding bird surveys were completed on the Site between April - June 2015 (see WYG 2017d). The survey methodology for all surveys was based on a combination of the Common Birds Census (CBC) and Breeding Bird Survey (BBS) as described by Gilbert et al. (1998).

A total of 42 species were recorded on Site, 30 of which were considered to be breeding on Site.

- No WCA Schedule 1 species were recorded within the survey area.
- Although not recorded during the breeding bird surveys, barn owls which are legally protected under the WCA Schedule 1 were recorded flying during a GCN survey.
- Seven red list BoCC were recorded within the survey area, all of which were considered to be breeding: cuckoo, house sparrow, linnet, skylark, spotted flycatcher, song thrush and starling. All of these are Species of Principle Importance (SPI).
- Eleven BoCC amber list species were recorded within the survey area, of which five were considered to be breeding: dunnock, bullfinch, whitethroat, stock dove and mallard.
 Dunnock and bullfinch are both SPIs.
- Twenty-two BoCC green listed species were recorded on Site of which eighteen were considered to be breeding: blackbird, blackcap, wren, blue tit, great tit, jackdaw, rook, carrion crow, woodpigeon, pied wagtail, chaffinch, long-tailed tit, chiffchaff, collared dove, lesser whitethroat, magpie, goldfinch and greenfinch.

Pheasant and red-legged partridge were recorded on Site, but they are not classified under the BoCC as they are introduced species.

Potential barn owl nesting Sites were identified during the extended Phase 1 habitat survey and inspected in March 2015. No trees with suitability for barn owl were identified. Several buildings outside the Site had potential for nesting barn owl but no evidence was found. One owl box was identified on site, however appeared to be in use by jackdaw.

Thirty native bird species were confirmed or probably breeding within the Site boundaries (two more confirmed breeding were non-native), therefore using CIEEM, 2006, the site is considered to be of Local value for breeding birds.

3.4 Importance of Ecological Features

In line with the CIEEM PEA Guidelines, and based on the above baseline information, each ecological feature recorded within the study area is considered to have the following importance, as defined within the CIEEM EcIA Guidelines (2016):

Table 5 Importance of Ecological Features

Feature	Importance	Rationale
Plantation broadleaved woodland	Site level	Unlikely to qualify as HPI
Species-rich hedgerows	County	7 species-rich hedgerows are present on site
Species-poor hedgerows	Site level	Majority of hedgerows are species-poor and managed
Improved grassland	Site level	Low value agricultural pasture only



Feature	Importance	Rationale
Semi-improved grassland	Site level	Low value agricultural pasture only
Running water	Local	Habitat of principal importance
Standing water	Local	Habitat of principal importance
Bare ground	Site level	Negligible value for biodiversity
GCN	Local	Small breeding population present
Reptiles	Site	Low populations
Bats	Local	Predominately common species
Badger	Local	Main sett present
Otter	Local	Records of presence but no holts
Water vole	Local	Low population
Birds	Local	Low number of breeding species

Either: International (incl. European) / National / Regional / County / Local / Site level **Or:** Unknown (i.e. further surveys/information needed)

The potential for the proposals to have adverse or beneficial impacts on these features, along with the need for any mitigation or enhancement measures are discussed in detail below.



4.0 Relevant Planning Policy & Legislation

4.1 National Planning Policy Framework

The NPPF was adopted in March 2012. Section 11 of the NPPF, *Conserving and Enhancing the Natural Environment* replaces *Planning Policy Statement 9 (PPS9): Biodiversity and Geological Conservation.*However, government Circular *06/2005, Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*, which relates to PPS9 remains valid and is referenced within Paragraph 113 of the NPPF.

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. The NPPF also states that 'planning policies should promote the protection of priority species populations linked to national and local targets'.

Furthermore, central and local government policy now points towards ecological enhancement on development sites. The NPPF considers enhancement in the statement '*The planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes....and minimising impacts on biodiversity and providing net gains in biodiversity'.*

4.2 Biodiversity 2020: A strategy for England's wildlife & ecosystem services

Biodiversity 2020 replaces the previous UK Biodiversity Action Plan and sets national targets to be achieved. The intent of Biodiversity 2020, however, is much broader than the protection and enhancement of less common species, and is meant to embrace the wider countryside as a whole.

The priority species and habitats considered under Biodiversity 2020 are the SPI & HPI detailed under NERC Act (see Appendix A for further details).

4.3 Local Plan

The North Dorset Local Plan Part 1 was adopted in January 2016. Policy 4: The Natural Environment includes a number of requirements in relation to ecology.

Development proposals which seek to conserve or enhance the natural environment should be permitted unless significant adverse social or environmental impacts are likely to arise as a result of the proposal.

Developers should demonstrate that their proposals will not have significant adverse effects, including cumulative effects, on internationally important wildlife sites. Where this cannot be demonstrated, appropriate mitigation measures will be required otherwise permission will be refused.

Nationally designated wildlife sites should not be harmed by development unless it can be clearly demonstrated that the benefits of development clearly outweigh the impact on the site and the wider SSSI site network.

Development proposals should aim to avoid impact on local biodiversity sites however where impact is unavoidable; developers will be required to provide effective mitigation for this loss in biodiversity. As a last resort, compensation measures may be acceptable if effective mitigation cannot be



provided. Such compensation measures must offer gains equivalent in magnitude to the loss resulting from the development.

Where there is likely to be an impact on nationally protected or locally rare or scarce species, an assessment of the impact on these species should be submitted to accompany development proposals. This should be appropriate to the scale of development and be informed initially through consultation with the local environmental records centre.

Policy 21: Gillingham Strategic Site Allocation covers the proposed development and includes a number of requirements in relation to ecology and biodiversity.

The Master Plan Framework for the southern extension (and any subsequent planning application, or applications, for the site) should show how the natural and historic environment will be conserved and enhanced by measures to conserve and enhance wildlife interests, including both habitats and species within and close to the southern extension.

The Master Plan Framework for the southern extension (and any relevant subsequent planning application, or applications, for the site) should make provision for:

- at least 26 hectares of informal public open space primarily along the river corridors providing: a landscape setting for development; enhanced habitats for wildlife; and off-road routes for pedestrians and cyclists within the SSA linking to the town and countryside; and
- the retention, where practicable, of important trees, groups of trees and hedgerows on the southern extension site within public open spaces and publicly accessible 'greenways'; and
- the establishment of a sustainable drainage system across the southern extension utilising, where practicable, existing watercourses, ponds, ditches and the 'greenways' associated with the retained hedgerows; and
- the retention of existing areas of strategic landscape planting and the establishment of new strategic landscape planting, particularly on the edges of the site to screen new development whilst also allowing views out of and into the site.

4.4 Legislation

Full details of the UK legislation and offences which are relevant to the ecological receptors identified are included in Appendix A. However, based on the findings of our assessment, it is considered that the proposals will need to consider the following legal provisions:

- Disturbance or killing of an EPS
- Killing or injury of common reptiles
- Disturbance, killing or injury of water voles
- Disturbance of nesting wild birds
- Disturbance of nesting Schedule 1 bird species or their dependant young
- Cause of permit the spread of an invasive species into the wild

Ecological Appraisal



5.0 Discussion

5.1 Designated Sites

Natura 2000 Sites

Fontmell & Melbury Downs SAC is the closest statutory designated site, located 7.2km south-east of the Site. There are no hydrological connections between the Site and any of the SACs, and impacts during construction (noise, dust etc.) are considered unlikely to occur due to the distance from the site and the implementation of a CEMP to control these aspects.

The proposals will increase the number of residential units in the area and will thus increase the recreational use of the wider countryside, albeit this will be mitigated by the formal and informal open space provided on site. As the Site is allocated under Policy 21 of the North Dorset Local Plan, it was subject to HRA as part of the Local Plan . During this process it was concluded (and confirmed by Natural England) that adverse effects upon European Sites were unlikely and an HRA was not required for the Master Plan Framework or subsequent applications.

Local Wildlife Sites

Palemead Coppice SNCI is the closest SNCI, located 0.8km from the Site, with Kings Court Wood SNCI 1.3km from the Site. Gillingham Secondary School HRS is the nearest Habitat Restoration Site 0.5km north of the Site. There are no hydrological connections between the Site and any SNCIs or HRS and impacts during construction (noise, dust etc.) are considered unlikely to occur due to the distance from the site and the implementation of a CEMP to control these aspects.

Palemead Coppice SNCI is not publicly accessible and is unlikely to be affected by increased recreation. Kings Court Wood does have a public footpath adjacent however it is anticipated that the formal and informal open space provided on site will avoid a significant increase in recreational pressure. None of the non-statutory sites are located within 300m of roads and are therefore unlikely to be impacted by pollution from increased vehicle traffic.

5.2 Habitats

Plantation broadleaved woodland

The plantation woodland on site is to be retained, as such there will be no net loss in this habitat. It is recommended that protective fencing is installed during the construction phase in order to protect the habitat from compaction, storage of spoil etc.

Although this will be retained within areas of open space to prevent inappropriate management during operation, the open spaces will provide elements of recreation. There is currently no public access to the woodland and as such the increased number of visitors could cause degradation in the form of erosion and damage through trampling, bank erosion, noise, dog fouling, fly tipping and littering. It is recommended that a habitat management plan is put into place to manage the woodland beneficially during the operational phase. This should be secured via a planning condition or Section 106 obligation.



Hedgerows

Approximately 200m of hedgerow removal will be required in order to accommodate the internal road layout of the masterplan. This will be compensated by like-for-like planting of new native species-rich hedgerows and infill planting of retained hedgerows. Retained hedgerows will be protected during the construction phase with protection fencing. During the operational phase, management of hedgerows will be covered by a habitat management plan which will maximise their value for biodiversity.

Improved and semi-improved grassland

The grassland on site has been valued at the Site level only as it comprises species-poor pasture and silage fields. There will be a net loss of grassland due to the proposed development however the areas retained within the open space will be enhanced and managed as rough grassland with higher biodiversity value.

Running water

All running water habitat will be retained and protected during construction, including through adoption of sustainable construction-phase drainage to avoid pollution or siltation.

A sustainable drainage system will be incorporated to treat all surface water prior to discharge into watercourses.

Standing water

All standing water habitat will be retained and protected during construction, including through adoption of sustainable construction-phase drainage to avoid pollution or siltation.

A sustainable drainage system will be incorporated to treat all surface water prior to discharge into ponds.

5.3 Protected & Notable Species

Great crested newts

Although a long-term loss of habitat is not anticipated due to the designed-in mitigation, the construction phase will result in the temporary loss of habitat used by predominately by commuting, but also foraging and hibernating GCN. Furthermore, the stripping of vegetation and movement of vehicles associated with the construction could disturb, injure and/or kill any GCN present.

To avoid killing or injuring GCN and therefore breaching the Habitat Regulations, it is recommended that GCN are captured and translocated to prepared receptor areas incorporated into the Site to allow GCN to be moved from working areas to a safe refuge. The translocation will require an EPSL licence from Natural England and the implementation will be dependent on the phasing of the site.

Receptor areas will be located around each of the retained ponds. This will ensure that receptor sites include both suitable terrestrial and aquatic (breeding) habitats. These areas currently comprise suitable GCN habitat in the form of standing water with semi-improved grassland, hedgerow and plantation woodland. A minimum of one hibernacula will be installed in each receptor area.

As part of the EMMP to be produced in support of each phase of development, a detailed method statement will be prepared outlining the proposed works and habitat enhancement of receptor sites,



fencing installation, trapping and translocation once a Phasing Plan is available. This should be produced in consultation with Natural England and will require their approval as part of an EPSL application. The methodology will also require the approval of the Local Planning Authority as part of the reserved matters applications.

Reptiles

As with GCN, although areas of reptile habitat have been incorporated into the masterplan, the construction phase will result in the temporary loss of habitat used reptiles. Furthermore, the stripping of vegetation and movement of vehicles associated with the construction could disturb, injure and/or kill any reptiles present.

To avoid killing or injuring reptiles and therefore breaching the W&CA, reptiles will be captured and translocated to prepared receptor areas that have been incorporated into the Site to allow reptiles to be moved from working areas to a safe refuge. The methodology will differ slightly from the GCN mitigation due to differing receptor locations, and habitats occupied on site. However, they do overlap and it is likely that mitigation for both reptiles and GCN will be completed concurrently.

The receptor area for reptiles will comprise the large expanse of informal open space which totals approximately 12ha of new grassland habitat which will be created to the north of the site. This area has been chosen as the majority of reptiles were recorded in the north of the site and it will provide a greater area of contiguous habitat than the GCN receptor sites. This is necessary to accommodate the higher numbers of reptiles on site. The area currently comprises improved grassland fields which, being heavily grazed are not currently optimal habitat for reptiles, but can readily be enhanced to increase the suitability of the habitat. A minimum of ten hibernacula will be installed in the receptor area.

As part of the EMMP to be produced in support of each phase of development, a detailed method statement will be prepared outlining the proposed works and habitat enhancement of receptor site. fencing installation, trapping and translocation once a Phasing Plan is available. The method statement will likely require the approval of the Local Planning Authority prior to commencement.

Bats

The areas of highest bat activity (River Lodden, ponds) will be retained along with the majority of hedgerows used for foraging and commuting. Trees with bat roost suitability and the confirmed roost will be retained. Further habitat suitable for bats in the form of new hedgerow and scrub planting and rough grassland will be included within the informal open space. Tall trees will be retained and planted to create hop-overs where roads cross potential commuting routes such as hedgerows. A sensitive operational lighting strategy has be incorporated to avoid disturbance of nocturnal species. This will avoid light spill of above 1 lux upon the following habitats: woodland edge, hedgerows, running water and standing water.

An update bat roost assessment will be completed to inform detailed design and layout for each reserved matters application and prior to construction works in each phase of development. This will cover any trees with potential to be impacted by the phase and any trees with bat roosting suitability will be subject to climbed tree inspections and dusk emergence/dawn return surveys (where necessary) in accordance with current best practice guidelines at the time of the survey to determine presence/likely absence or to characterise the roost.



If any bat roosts are confirmed that will be impacted, the EMMP for that Phase will set out appropriate mitigation measures, including need for an EPSL to enable the development to proceed lawfully.

Badgers

The known badger sett (although currently inactive) is to be retained and protected through the construction phase. Given its current status no further mitigation is considered necessary. Prior to the commencement of any works on each phase of development, a badger survey will be undertaken throughout and within 50m of the proposed development Site to establish the status of known setts, and whether any further setts have been created.

In the event that badger setts are present and the proposed development will impact them, a Natural England development licence may be required; however this is not considered likely at this stage.

Otters

No holts or resting places have been identified on or near the site, however there is potential for disturbance of otters using the River Lodden and connected watercourses. Open space is distributed towards the River Lodden to provide buffers of 20-150m between the it and development. This will avoid adverse effects to otters using the river during construction and operation. Furthermore, the flowing ditches on site will also be retained and protected with landscape buffers. As discussed above, a SuDS system will treat any surface water which discharges into the watercourses and the sensitive lighting strategy will prevent light spill above 1 lux on watercourses which could be used by otters. Any vehicle or pedestrian crossings of watercourses will incorporate a mammal shelf allowing a minimum of 500mm clearance above the level of peak flow to allow continued access for otters.

Water voles

As discussed above, measures are proposed to avoid disturbance of species using the River Lodden and connected watercourses. It is considered that the measures to avoid disturbance of otters will also avoid disturbance of water voles. In addition, it is recommended that prior to the detailed design of any bridges, and construction, an update survey for water vole is completed. This will either inform a design/location which avoids impacts to water voles, or if necessary to inform mitigation measures and any licensing requirements.

Following the construction of any crossing points required over the streams, the banks will be reinstated to the same height and profile and allowed to vegetate naturally from the surrounding area.

Birds

Some vegetation that will be lost to the proposed development (trees, scrub and hedgerows) provides nest sites for woodland birds, whilst the grassland provides nesting opportunities for ground-nesting birds, as well as a foraging resource (although none were confirmed as breeding on site).

Works affecting potential bird nesting habitat will be completed outside the breeding season (generally considered to be March to September, inclusive) where practicable. Where vegetation clearance works cannot avoid the bird breeding season, an ECoW will check the vegetation, building and/or areas of grassland for nests in advance of any works taking place. Where birds are found to be nesting, clearance of the supporting structure will be postponed and a buffer around the nest



established until the chicks have fledged. This will be determined by a suitably qualified ECoW. These requirements will be detailed within the CEMP.

An update barn owl nesting survey will be completed to inform detailed design and layout for each application and prior to construction works in each phase of development. During construction, suitable buffer zones will be implemented as required around any active barn owl nests should they be found. These buffers will be maintained until nesting is complete and compensation nest boxes erected in the open space on site.

The proposed open space will provide large amounts of additional bird foraging and nesting habitat. This will be supplemented with a scheme of artificial bird boxes to be installed in retained habitats. Predation by cats will be mitigated as far as possible with open spaces screened and buffered by roads, and dwellings fronting on to open space, rather than back gardens. Homeowners will be provided with information to encourage further measures to reduce predation such as keeping cats inside at night.

Ecological Appraisal



6.0 References

- Bright PW, Morris PA and Mitchell-Jones A (2006). Dormouse Conservation Handbook, 2nd Edition. English Nature, Peterborough.
- Chartered Institute for Ecology and Environmental Management (2013). Guidelines for Preliminary Ecological Appraisal.
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed). The Bat Conservation Trust, London.
- Communities and Local Government (2012) National Planning Policy Framework.
- Ecology Solutions (2012). Ham Farm, Gillingham, Dorset: Ecological Assessment.
- English Nature (2011). Badgers and Development. English Nature, Peterborough, UK.
- Footprint Ecology (2015). Habitats Regulations Assessment of the North Dorset Local Plan (Part 1) Submission Version and Modifications.
- Gent, T. & Gibson, S. (2003). Herpetofauna Workers' Manual. JNCC, Peterborough.
- Hundt (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. JNCC, Peterborough.
- Langton, T.E.S, Beckett, C.L and Foster, J.P. (2001). Great Crested Newt Conservation Handbook. Froglife, Halesworth.
- Morris, P. A., Morris, M. J., MacPhearson, D., Jefferies, D. J., Stachan, R. and Woodroffe, G. L. (1998). Estimating numbers of the water vole Arvicola terrestris: a correction to the published method. Journal of Zoology 246. 61-62.
- North Dorset District Council (2016). North Dorset Local Plan Part 1 2011 -2031.
- Oldham R.S., Keeble J., Swan M.J.S & Jeffcote M., (2000). Evaluating the Suitability of Habitat for the Great Crested Newt (Triturus cristatus). Herpertological Journal 10 (4), 143-155
- Stace, C. (2010) New Flora of the British Isles (3rd edition). Cambridge University Press, Cambridge.
- WYG (2017a) South Gillingham Extended Phase 1 Habitat Survey Report.
- WYG (2017b) South Gillingham Great Crested Newt Presence/Likely Absence Survey.
- WYG (2017c) South Gillingham Reptile Presence/Likely Absence Survey.
- WYG (2017d) South Gillingham Breeding Birds Report.
- WYG (2017e) South Gillingham Bat Activity Report.
- WYG (2017f) South Gillingham Dormouse Presence/Likely Absence Survey.

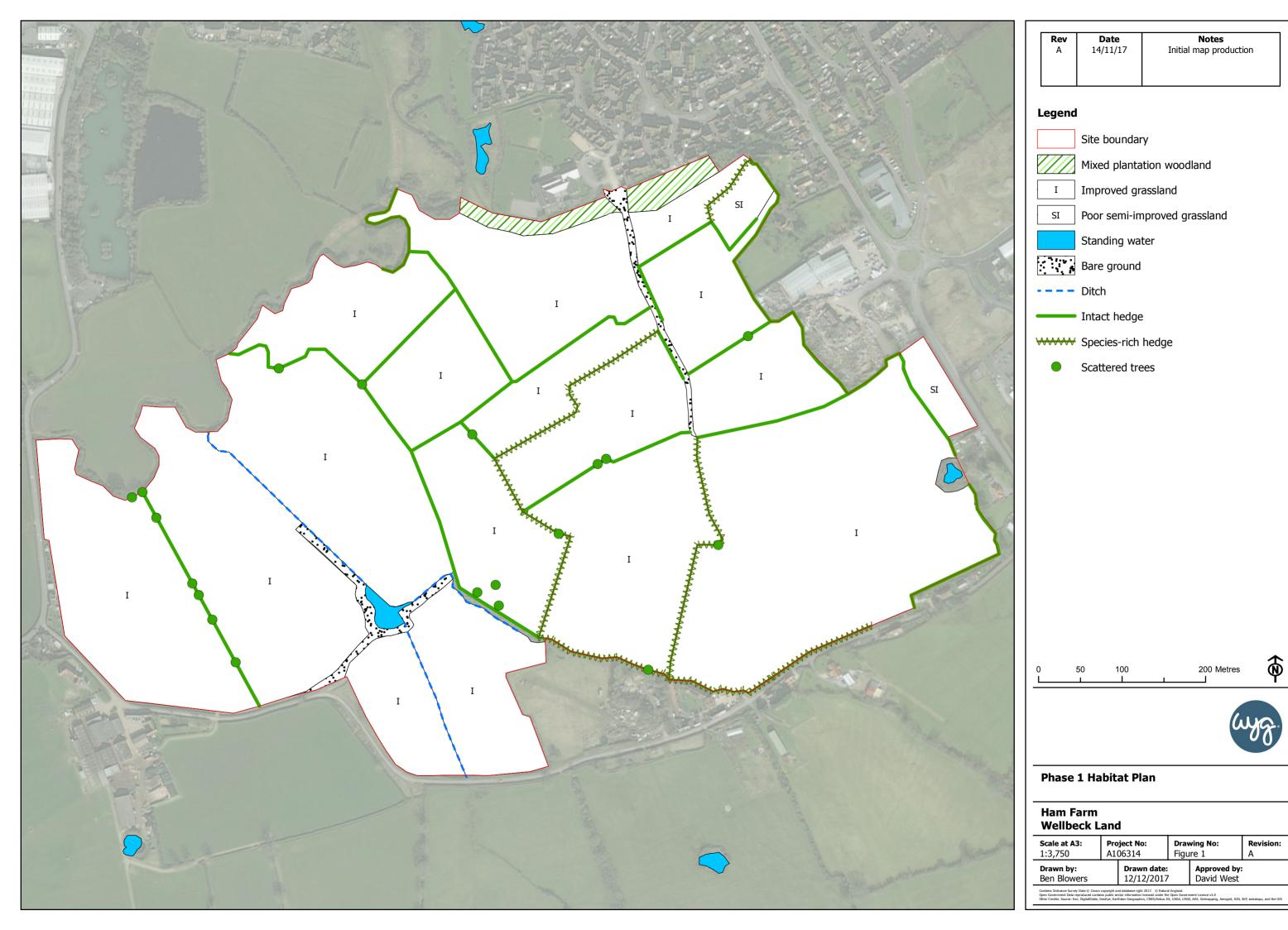


FIGURES

Figure 1 – Phase 1 Habitat Plan

Figure 2 – Land Use Plan

Figure 3 - Phase 1 Habitat Plan



uthampon/A106314_Han fam/VXXD/Phase11Figure1_Phase1_14117.mrd



All contractors must visit the site and be responsible for taking and checking

All construction information should be taken from figured dimensions only. Any discrepancies between drawings, specifications and site conditions must be

brought to the attention of the supervising officer. This drawing and the works depicted are the copyright of JTP. This drawing is for planning purposes only. It is not intended to be used for

construction purposes. Whilst all reasonable efforts are used to ensure drawings are accurate, JTP accept no responsibility or liability for any reliance placed on, or use made of, this plan by anyone for purposes other than those stated above.

Application boundary

Existing watercourse and water body

Proposed principal street

____ 30m corridor for principal street*

Potential primary school extension

Children's play area (NEAP) with 30m buffer

Children's play area (LEAP) with 10m buffer

Village square

Formal sports pitch (incl. community building)

Allotment

Proposed structural planting

SuDS attenuation basin^^

*The alignment of principal street may deviate within the limits of the 30m corridor.

^ The different types of green spaces within the public open space are described in the Landscape Strategy Parameter Plan (Drawing no. 01050_PP06).

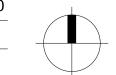
^^ The SuDS attenuation basins proposed show the area to accommodate the volume required however the shapes are indicative.

D4 16.10.17 Amendments made to red line boundary
D3 31.08.17 Update Principal Street junctions
D4 14.08.17 Update red line, local centre, apply 15m stand off for trees
D1 20.06.17 Amendments made to roads
- 10.04.17 First issue JH ECC YQ ECC YQ ECC



Land South of Gillingham_Dorset

Parameter Plan 02: Land Use Plan







Appendix A – Wildlife Legislation

Ecological Appraisal



Bern Convention

The *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the of the Convention, and regulate the exploitation of speices listed in Appendix 3. The regulation imposes legal obligations on participating countires to protect over 500 plant species and more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the *EC Birds Directive* (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1st December 2009, European legislation has been adopted by the European Union.

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or 'Bonn Convention' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.

In the UK, the requirements of the convention are implemented via the Wildlife & Countryside Act 1981 (as amended), Wildlife (Northern Ireland) Order 1985 (as amended), Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 and the Countryside and Rights of Way Act 2000 (CRoW).

Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Fora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2010 (as amended) in England and Wales, and via the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Birds Directive

The EC Directive on the Conservation of Wild Birds (791409/EEC) or 'Birds Directive' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

Ecological Appraisal



Conservation of Habitats and Species Regulations 2010 (as amended)

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. Amendments made in 2012 stipulated that public bodies help preserve, maintain and re-establish habitats for wild birds.

The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 - see below:

Schedule 2 – European Protected Species of Animals	Schedule 5 – European Protected Species of Plants
Horseshoe bats Rhinolophidae - all species	Shore dock Rumex rupestris
Common bats Vespertilionidae - all species	Killarney fern Trichomanes speciosum
Wild cat Felis silvestris	Early gentian Gentianella anglica
Dolphins, porpoises and whales <i>Cetacea</i> – all sp.	Lady's-slipper Cypripedium calceolus
Dormouse Muscardinus avellanarius	Creeping marshwort Apium repens
Pool frog Rana lessonae	Slender naiad Najas flexilis
Sand lizard Lacerta agilis	Fen orchid <i>Liparis loeselii</i>
Fisher's estuarine moth Gortyna borelii lunata	Floating-leaved water plantain <i>Luronium natans</i>
Great crested newt <i>Triturus cristatus</i>	Yellow marsh saxifrage Saxifraga hirculus
Otter Lutra lutra	
Lesser whirlpool ram's-horn snail Anisus vorticulus	
Smooth snake Coronella austriaca	
Sturgeon Acipenser sturio	
Natterjack toad <i>Epidalea calamita</i>	
Marine turtles Caretta caretta, Chelonia mydas,	
Lepidochelys kempii, Eretmochelys imbricata,	
Dermochelys coriacea	

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' and the Birds Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use; or
- take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

- disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;

Ecological Appraisal



- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and
- The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to:

- intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant;
- unless an authorised person, intentionally uproot any wild plant not included in Schedule 8;
 or
- sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise case to grow in the wild any plant which is listed in Part II of Schedule 9.

It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

Schedule 1 - Birds which are protected by special penalties					
Avocet	Recurvirostra avosetta	Osprey	Pandion haliaetus		
Bee-eater	Merops apiaster	Owl, Barn	Tyto alba		
Bittern	Botaurus stellaris	Owl, Snowy	Nyctea scandiaca		
Bittern, Little	Ixobrychus minutus	Peregrine	Falco peregrinus		
Bluethroat	Luscinia svecica	Petrel, Leach's	Oceanodroma leucorhoa		
Brambling	Fringilla montifringilla	Phalarope, Red-necked	Phalaropus lobatus		
Bunting, Cirl	Emberiza cirlus	Plover, Kentish	Charadrius alexandrinus		
Bunting, Lapland	Calcarius lapponicus	Plover, Little Ringed	Charadrius dubius		
Bunting, Snow	Plectrophenax nivalis	Quail, Common	Coturnix coturnix		
Buzzard, Honey	Pernis apivorus	Redstart, Black	Phoenicurus ochruros		
Capercaillie	Tetrao urogallus	Redwing	Turdus iliacus		
Chough	Pyrrhocorax pyrrhocorax	Rosefinch, Scarlet	Carpodacus erythrinus		
Corncrake	Crex crex	Ruff	Philomachus pugnax		
Crake, Spotted	Porzana porzana	Sandpiper, Green	Tringa ochropus		
Crossbills (all species)	Loxia	Sandpiper, Purple	Calidris maritima		
Curlew, Stone	Burhinus oedicnemus	Sandpiper, Wood	Tringa glareola		
Divers (all species)	Gavia	Scaup	Aythya marila		
Dotterel	Charadrius morinellus	Scoter, Common	Melanitta nigra		
Duck, Long-tailed	Clangula hyemalis	Scoter, Velvet	Melanitta fusca		
Eagle, Golden	Aquila chrysaetos	Serin	Serinus serinus		
Eagle, White-tailed	Haliaetus albicilla	Shorelark	Eremophila alpestris		
Falcon, Gyr	Falco rusticolus	Shrike, Red-backed	Lanius collurio		
Fieldfare	Turdus pilaris	Spoonbill	Platalea leucorodia		
Firecrest	Regulus ignicapillus	Stilt, Black-winged	Himantopus himantopus		
Garganey	Anas querquedula	Stint, Temminck's	Calidris temminckii		
Godwit, Black-tailed	Limosa limosa	Swan, Bewick's	Cygnus bewickii		



Goshawk	Accipiter gentilis	Swan, Whooper	Cygnus cygnus
Grebe, Black-necked	Podiceps nigricollis	Tern, Black	Chlidonias niger
Grebe, Slavonian	Podiceps auritus	Tern, Little	Sterna albifrons
Greenshank	Tringa nebularia	Tern, Roseate	Sterna dougallii
Gull, Little	Larus minutus	Tit, Bearded	Panurus biarmicus
Gull, Mediterranean	Larus melanocephalus	Tit, Crested	Parus cristatus
Harriers (all species)	Circus	Treecreeper, Short-toed	Certhia brachydactyla
Heron, Purple	Ardea purpurea	Warbler, Cetti's	Cettia cetti
Hobby	Falco subbuteo	Warbler, Dartford	Sylvia undata
Ноорое	Upupa epops	Warbler, Marsh	Acrocephalus palustris
Kingfisher	Alcedo atthis	Warbler, Savi's	Locustella luscinioides
Kite, Red	Milvus milvus	Whimbrel	Numenius phaeopus
Merlin	Falco columbarius	Woodlark	Lullula arborea
Oriole, Golden	Oriolus oriolus	Wryneck	Jynx torquilla
Invasive plant species	listed in Schedule 9		
Australian swamp	Crassula helmsii	Japanese rose	Rosa rugosa
stonecrop or New Zealand			
pygmyweed			
Californian red seaweed	Pikea californica	Japanese seaweed	Sargassum muticum
Curly waterweed	Lagarosiphon major	Laver seaweeds (except native species)	<i>Porphyra</i> spp
Duck potato	Sagittaria latifolia	Parrot's-feather	Myriophyllum aquaticum
Entire-leaved cotoneaster	Cotoneaster integrifolius	Perfoliate alexanders	Smyrnium perfoliatum
False Virginia creeper	Parthenocissus inserta	Pontic rhododendron	Rhododendron ponticum
Fanwort or Carolina water-	Cabomba caroliniana	Purple dewplant	Disphyma crassifolium
shield	cabomba caromnana	Tarpic acvipiant	Dispriyma crassironam
Few-flowered garlic	Allium paradoxum	Red algae	Grateloupia luxurians
Floating pennywort	Hydrocotyle	Rhododendron	Rhododendron ponticum
	ranunculoides		× Rhododendron
			maximum
Floating water primrose	Ludwigia peploides	Small-leaved cotoneaster	Cotoneaster microphyllus
Giant hogweed	Heracleum	Three-cornered garlic	Allium triquetrum
	mantegazzianum		
Giant kelp	Macrocystis spp.	Variegated yellow	Lamiastrum galeobdolon
		archangel	subsp. <i>argentatum</i>
Giant knotweed	Fallopia sachalinensis	· ·	Parthenocissus quinquefolia
Giant rhubarb	Gunnera tinctoria	Wakame	Undaria pinnatifida
Giant salvinia	Salvinia molesta	Wall cotoneaster	Cotoneaster horizontalis
Green seafingers	Codium fragile	Water fern	Azolla filiculoides
Himalayan cotoneaster	Cotoneaster simonsii	Water hyacinth	Eichhornia crassipes
Hollyberry cotoneaster	Cotoneaster bullatus	Water lettuce	Pistia stratiotes
Hooked asparagus seaweed	Asparagopsis armata	Water primrose	Ludwigia grandiflora
Hottentot fig	Carpobrotus edulis	Water primrose	Ludwigia uruguayensis
Hybrid knotweed	Fallopia japonica ×	Waterweeds	Elodea spp.
Tryblia kilotweea	Fallopia sachalinensis	vvalci weeus	<i>Liuuca</i> spp.
Indian (Himalayan) balsam	Impatiens glandulifera	Yellow azalea	Rhododendron luteum
Japanese knotweed	Fallopia japonica	-	
- Spanista Michigan	. zep.z japonica		

Ecological Appraisal



Protection of Badgers Act 1992

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger"

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

Hedgerow Regulations 1997

The Hedgerow Regulations were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

Birds of Conservation Concern

This is a review of the status of all birds occurring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

The latest report was produced in 2015 (Eaton *et al*, 2015) and identified 67 red list species, 96 amber species, and 81 green species. The criteria are complex, but generally:

- Red list species are those that have shown a decline of the breeding population, nonbreeding population or breeding range of more than 50% in the last 25 years.
- Amber list species are those that have shown a decline of the breeding population, non-breeding population or breeding range of between 25% and 50% in the last 25 years. Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population is localised in 10 sites or fewer and those whose 20% of the European population is found in the UK.
- **Green list** species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed



Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories is complex, and consider several principles.

Local Biodiversity Action Plan (LBAP)

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision making process.

Wild Mammals (Protection) Act 1996

This Act offers protects a form of protection to all wild species of mammals, irrespective of other legislation, and focussed on animal welfare, rather than conservation.

Unless covered by one of the exceptions, a person is guilty of an offence if he mutilates, kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering.

It's application is typically restricted to preventing deliberate harm to wildlife (in general) during construction works etc.





