## Appendix 1 - Biodiversity and Designated Sites

The author of this Appendix is Mr Danial Winchester who is a local resident of Flexford, a professional Senior Ecologist with a BSc (Hons) degree in Animal Biology and Conservation and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Danial holds current Natural England survey licences for great crested newt, sand lizard, smooth snake, dormouse and Roman snail, is an active conservation volunteer and is Amphibians Officer of the Surrey Amphibian and Reptile Group.

The Parish of Normandy is a very special place comprising of a series of hamlets; Flexford, Christmaspie, Wyke, Pinewoods, Willey Green and Normandy. It is surrounded by countryside which makes up the Green Belt and to the north of the Parish is a large extensive tract of predominantly lowland heathland known as Ash Ranges, whilst south of the Parish is the Hog's Back part of the North Downs and the Surrey Hills Area of Outstanding Natural Beauty (AONB) and a statutory designated site.

The Green Belt has five purposes<sup>1</sup>;

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns from merging into one another;
- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns; and
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

It should also be noted that The Green Belt is to contribute to the openness of the countryside.

Once Green Belts have been defined, land within them has a positive role to play in fulfilling the following six objectives:

- To provide opportunities for access to the open countryside for the urban population;
- To provide opportunities for outdoor sport and outdoor recreation near urban areas;
- To retain attractive landscapes, and enhance landscapes, near to where people live;
- To improve damaged and derelict land around towns;
- To secure nature conservation interest; and
- To retain land in agricultural, forestry and related uses.

## **Designated Sites**

There are a number of designated sites for nature conservation within and adjoining the Parish.

## **Statutory Designated Sites**

Ash Ranges forms part of the Thames Basin Heaths Special Protection Area (SPA), a statutory designated site and designated for its rare and vulnerable birds, specifically nightjar, Dartford warbler and woodlark under the EC Birds Directive. This site also forms part of the Thursley, Ash, Pirbright and Chobham Special Area of Conservation (SAC), a statutory designated site and designated for its North Atlantic wet heaths, European dry heaths and peat bogs.

Ash Ranges also forms part of the Ash to Brookwood Heaths Site of Special Scientific Interest (SSSI), a statutory designated site and designated for its dry heathland, wet heathland and bog, bryophytes (mosses and lichens), invertebrates (such as the scarce bog bush cricket), birds (such as hobby, stonechat, yellowhammer, reed bunting, tree pipit, meadow pipit and the previously mentioned SPA bird species); and reptiles (all six native species including the European Protected Species sand lizard and smooth snake).

<sup>&</sup>lt;sup>1</sup> Natural England and the Campaign to Protect Rural England (2010). *Green Belts: A greener future*. http://www.cpre.org.uk/resources/housing-and-planning/green-belts/item/1955-green-belts-a-greener-future-summary

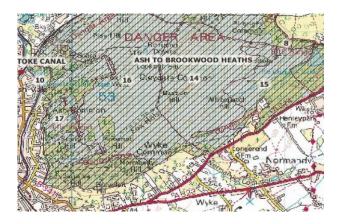
Map showing Thames Basin Heaths Special Protection Area (SPA)



Map showing Thursley, Ash, Pirbright & Chobham Special Area of Conservation (SAC)



Map showing Ash to Brookwood Heaths Site of Special Scientific Interest (SSSI)



# **Non-Statutory Designated Sites**

There are eight non-statutory designated sites currently identified within 2 km of the grid reference SU9337550302 (Plot 2011 of proposed development as indicated in the SHLAA<sup>2</sup>). These sites are known as Sites of Nature Conservation Importance (SNCIs) and are identified on account of the habitats and flora/fauna they support, and are of County or regional wildlife importance.

The eight SNCIs and their designations are listed in the following table and can be seen on the map below;

Site Name	Nature Conservation Interest
Broadstreet Common and Backside Common SNCI	Public access site supporting significant areas of unimproved acidic and mesotrophic grassland, as well as semi-improved grassland, broadleaved semi-natural woodland, scrub, ponds and a stream.  The site supports a number of locally scarce species and a nationally scarce and declining plant (namely Small Fleabane).
Wanborough and Normandy Woods SNCI (includes Broadmead Row, Inwood Copse and Whitegrass Copse, Green Lane East, Ash Green Wood, Grubground Copse, Whitegate Copse, Highfield Copse, Kiln Copse (North), Highfield Copse (North), Cathrine Frith, Wyke Wood, Kiln Copse, Wanborough Wood,)	The site consists of a complex of privately owned woods (most of which are ancient semi-natural) lying over the Reading Beds and London Clay.  The majority of woodland stands are composed of base-enriched Ash (Fraxinus excelsior) – Field Maple (Acer campestre) – Hazel (Corylus avellana) coppices with Oak (Quercus robur) standards; Wanborough Wood displays one of the best examples of this type of woodland in Surrey.  More acidic Oak – Birch (Betula sp.) stands are also present, for example in Grubground Copse and Catherine Frith. Small areas also support Alder (Alnus fruticosa) – Birch woodland.  In total, more than 300 vascular plant species have been recorded from the SNCI, including a large number of locally rare and scarce species and a county rarity, at its only known west Surrey location.  The SNCI is also important for mammals, birds,
Wyke Churchyard SNCI	fungi, bryophytes and invertebrates.  The site supports unimproved and semi-improved mesotrophic grassland.
	Important for one of the handful of known sites of a rare and declining Surrey plant (Green-winged orchid).
Greencut Copse SNCI	Ancient semi-natural woodland lying over the London Clay and Reading Beds. Characteristic base-rich Ash ( <i>Fraxinus excelsior</i> ) – Hazel ( <i>Corylus avellana</i> ) - Field Maple ( <i>Acer campestre</i> ) coppice with Oak

<sup>&</sup>lt;sup>2</sup> Guildford Borough Council December 2012 Strategic Housing Land Availability Assessment

	(Quercus robur) standards.
Normandy Pond SNCI	Normandy Pond is a shallow mesotrophic pond dating back at least 100 years.
	Recently restored the pond is valuable for a variety of wetland flora and fauna.
	Surrounding Oak ( <i>Quercus robur</i> ) – Birch ( <i>Betula</i> sp.) woodland, with Willow ( <i>Salix</i> sp.) and Gorse ( <i>Ulex europaeus</i> ) scrub and small areas of open acid grassland add diversity to the site.
Wyke School Wood SNCI	The site is important for its large central swathe of relict wet heath. The surrounding Oak ( <i>Quercus robur</i> ) – Birch ( <i>Betula</i> sp.) woodland is included within the SNCI boundary.
Little Flexford SNCI	Two semi-improved mesotrophic grassland paddocks divided by a central stream. Locally scarce plant species and nationally declining mammal (water vole).
Withybed Copse and Henley Park Fields SNCI	Wet woodland and stream, mostly dominated by overstood Alder (Alnus glutinosa) coppice.
	Includes Marsh Marigold ( <i>Caltha palustris</i> ). Selected in 1996 for wet woodland habitat. Includes 12 Ancient Woodland Indictor species (AWI)

It should be noted that Little Flexford SNCI is Plot 2011 of proposed development as indicated in the  $SLAHH^2$ .

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Map showing all Sites of Nature Conservation Interest within 2 km of Plot 50.



# **Ancient Woodland**

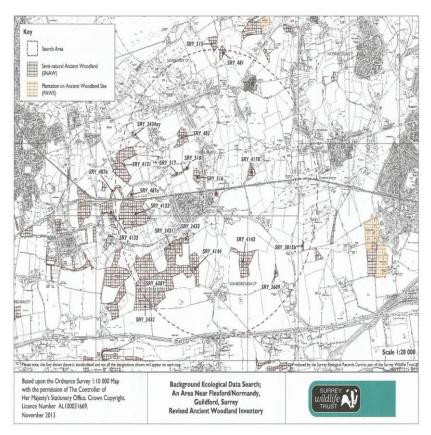
Ancient woodland is defined by Natural England as a site that has had a continuous woodland cover since at least 1600 AD. It is an irreplaceable, wildlife-rich habitat, and often includes important archaeological features.

Twenty one sites are within the two kilometre search area of grid reference SU9337550302 (Plot 2011 of proposed development as indicated in the SLAHH<sup>2</sup>) and appear on the Revised Ancient Woodland Inventory for the County<sup>3</sup>. The twenty one ancient woodlands and their designated code, type and grid reference are listed in the following table and can be seen on the map below;

Code	Туре	Grid Reference
SRY_481	Ancient Semi-natural Woodland	SU934522
SRY_482	Ancient Semi-natural Woodland	SU926518
SRY_487a	Ancient Semi-natural Woodland	SU916503
SRY_487b	Ancient Semi-natural Woodland	SU913503
SRY_515	Ancient Semi-natural Woodland	SU933523
SRY_516	Ancient Semi-natural Woodland	SU929505
SRY_517	Ancient Semi-natural Woodland	SU926505
SRY_518	Ancient Semi-natural Woodland	SU927506
SRY_2431	Ancient Semi-natural Woodland	SU924495
SRY_2432	Ancient Semi-natural Woodland	SU919487
SRY_2433	Ancient Semi-natural Woodland	SU927496
SRY_2434xy	Ancient Semi-natural Woodland	SU917511
SRY_3609	Ancient Semi-natural Woodland	SU945492
SRY_3815b	Ancient Semi-natural Woodland	SU950495
SRY_4131	Ancient Semi-natural Woodland	SU915507
SRY_4132	Ancient Semi-natural Woodland	SU917500
SRY_4133	Ancient Semi-natural Woodland	SU912500
SRY_4143	Ancient Semi-natural Woodland	SU939493
SRY_4144	Ancient Semi-natural Woodland	SU929492
SRY_4178	Ancient Semi-natural Woodland	SU940505
SRY_6387	Ancient Semi-natural Woodland	SU923491

<sup>&</sup>lt;sup>3</sup> Davies, R., (2011); *A Revision of the Ancient Woodland Inventory for Surrey*, Surrey Biodiversity Information Centre, Pirbright.

Map showing all Ancient Woodlands within 2 km of Plot 2011.



## **Other Habitats of Importance**

There are a number of other habitats of importance within the Parish, which are important for biodiversity and enhance the natural beauty of the area.

#### Hedgerows

Hedgerows surround many of the fields within the Parish. These are important habitats for nesting and foraging birds, small mammals including dormice, amphibians and reptiles, and many invertebrates and plants, and also function as green corridors for wildlife.

## **Traditional Orchards**

Traditional orchards are also present within the Parish which are all Priority Habitats. The Normandy Traditional Community Orchard at SU921521 is home to a number of species and some of these are Notable Rare or Scarce Species.

These orchards are located at the following locations;

- Flexford at SU936499 and SU933501 near to Plots 2011 and 2010 and;
- Normandy at SU927513, SU926514, SU915517, SU921521, SU926518 and SU931516 near to Plots 2007, 1280, 2009 and part of 48.

# **Ponds and Streams**

A number of important wetland habitats are located within the Parish. Two of these ponds (Normandy Pond and Little Flexford Flax Pond) have been designated as Sites of Nature Conservation Importance (see earlier table on SNCIs). The Flax Pond and stream at Little Flexford (Plot 2011) have records of water voles (UK's fastest declining mammal species), and the Flax Pond has anecdotal records of great crested newts (European Protected Species).

The stream and Normandy Pond on Normandy Common have records of water voles and Normandy Pond in particular has records of several dragonfly species. There are anecdotal records of great crested newts present on Normandy Common, particularly in the wooded areas between Normandy Pond and plot 2009.

Some large ponds also adjoin Plot 2010. These are home to many species of waterfowl, as well as providing breeding sites for common frogs and toads and foraging sites for grass snakes.

# **Protected Species**

The Parish of Normandy is rich in wildlife which further enhances the natural beauty, landscape and rural community appeal of the various hamlets. Data was gathered from the author's own records, local residents, Surrey Biodiversity Information Centre, Surrey Amphibian and Reptile Group, Surrey Bat Group and the National Biodiversity Network Gateway by the author. The list was extensive and a selection of protected species along with (where possible) the closest proposed development plot, reason for protection and their protected status are listed in the table below;

Species Group	Species Name	Closest proposed	Protected Status	Reason for protection
		development plot (where possible)		protection
Amphibian	Great crested newt	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	European Protected Species under The Conservation (Natural Habitats, &c.) Regulations 2010 (Sch. 2), W&C Act 1981 (Sch. 5 All Sections) Priority Species of Conservation Concern	Declining mainly due to terrestrial habitat loss and loss of breeding ponds.
Amphibian	Common toad	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	W&C Act 1981 (Sch. 5 Sec. 9.5a), W&C Act 1981 (Sch. 5 Sec. 9.5b) Priority Species of Conservation Concern	Declining mainly due to terrestrial habitat loss and loss of breeding ponds, plus direct mortality from crossing roads in breeding season.
Reptile	Adder	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	W&C Act 1981 (Sch. 5 Sec. 9.1 (killing/injuring)), W&C Act 1981 (Sch. 5 Sec. 9.5a), W&C Act 1981 (Sch. 5 Sec. 9.5b)  Priority Species of Conservation Concern	Declining mainly due to terrestrial habitat loss
Reptile	Grass snake	Plots 2011, 2010,	W&C Act 1981	Declining mainly

Reptile	Common lizard	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.  Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	(Sch. 5 Sec. 9.1 (killing/injuring)), W&C Act 1981 (Sch. 5 Sec. 9.5a), W&C Act 1981 (Sch. 5 Sec. 9.5b)  Priority Species of Conservation Concern  W&C Act 1981 (Sch. 5 Sec. 9.1 (killing/injuring)), W&C Act 1981 (Sch. 5 Sec. 9.5a), W&C Act 1981	due to terrestrial habitat loss  Declining mainly due to terrestrial habitat loss
			(Sch. 5 Sec. 9.5b)  Priority Species of Conservation Concern	
Reptile	Slow worm	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	W&C Act 1981 (Sch. 5 Sec. 9.1 (killing/injuring)), W&C Act 1981 (Sch. 5 Sec. 9.5a), W&C Act 1981 (Sch. 5 Sec. 9.5b) Priority Species of Conservation Concern	Declining mainly due to terrestrial habitat loss
Mammal	Water vole	Plots 2011, 2010, part of 368, 2008 and 2009.	W&C Act 1981 (Sch. 5 All Sections)  Priority Species of Conservation Concern	Declining due to habitat loss and predation by North American mink
Mammal	Dormouse	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.  The woodland and some hedgerows on the Parish are ideal for this species.	European Protected Species under The Conservation (Natural Habitats, &c.) Regulations 2010 (Sch. 2), W&C Act 1981 (Sch. 5 All Sections)  Priority Species of Conservation Concern	Declining mainly due to habitat loss and fragmentation
Mammal	Western European hedgehog	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	Priority Species of Conservation Concern	Declining mainly due to habitat loss and fragmentation, road deaths and pesticides.
Mammal	Brown long-eared bat	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	European Protected Species under The Conservation (Natural Habitats, &c.) Regulations 2010	Declining mainly due to habitat loss including loss of roosts

		confirmed roost close to plot 2008.	(Sch. 2), W&C Act 1981 (Sch. 5 All Sections) Priority Species of Conservation Concern	
Mammal	Serotine bat	Plots 2009 and part of 48.	European Protected Species under The Conservation (Natural Habitats, &c.) Regulations 2010 (Sch. 2), W&C Act 1981 (Sch. 5 All Sections)	Declining mainly due to habitat loss including loss of roosts
Mammal	Common pipistrelle bat	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.  There are confirmed roosts close to plots 2001 and 2008.	European Protected Species under The Conservation (Natural Habitats, &c.) Regulations 2010 (Sch. 2), W&C Act 1981 (Sch. 5 All Sections)	Declining mainly due to habitat loss including loss of roosts
Mammal	Soprano pipistrelle bat	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.  There are confirmed roosts close to plots 2001 and 2008.	European Protected Species under The Conservation (Natural Habitats, &c.) Regulations 2010 (Sch. 2), W&C Act 1981 (Sch. 5 All Sections)  Priority Species of Conservation Concern	Declining mainly due to habitat loss including loss of roosts
Mammal	Natterer's bat	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	European Protected Species under The Conservation (Natural Habitats, &c.) Regulations 2010 (Sch. 2), W&C Act 1981 (Sch. 5 All Sections)	Declining mainly due to habitat loss including loss of roosts
Mammal	Badger	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	Badgers and their setts are protected under The Protection of	Protected against deliberate harm and persecution

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Bird	Skylark	Plots 2011, 2010, part of 368 and 2008.  Skylarks have been seen in the field adjoining plot 2011 by the author.	Badgers Act 1992 The skylark is fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult skylark, or to take, damage or destroy an active nest or its contents.  Red List Bird Species of Conservation Concern and Priority Species of Conservation Concern	Declining mainly due to habitat loss for foraging and nesting
Bird	Stock Dove	Plots 2011, 2010, part of 368 and 2008.  This species has been recorded nesting in the Traditional Community Orchard at SU921521.	The stock dove is fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult stock dove, or to take, damage or destroy an active nest or its contents.  Amber List Bird Species of Conservation Concern and Priority Species of Conservation Concern	Declining mainly due to habitat loss for foraging and nesting
Bird	Barn owl	Plots 2001, 2010, part of 368, 2008, 2007, 2009 and 1280.  A known roost with feeding signs was recorded by the author between plots 2010 and 2009 in November 2013.	The barn owl is fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult barn owl, or to take, damage or destroy an active nest or its contents.  Amber List Bird Species of Conservation Concern.	Declining mainly due to habitat loss for foraging and nesting
Bird	Kestrel	Plots 2001, 2010, part of 368 and 2008.	The kestrel is fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult kestrel, or to take, damage or	Declining mainly due to habitat loss for foraging and nesting

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			destroy an active nest or its contents.	
			Amber List Bird Species of Conservation Concern.	
Bird	Red kite	Plots 2001, 2010, part of 368 and 2008.	The red kite is fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult red kite, or to take, damage or destroy an active nest or its contents.  Amber List Bird Species of Conservation	
Bird	Yellowhammer	Plots 2001, 2010, part of 368 and 2008.	Concern.  The yellowhammer is fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult yellowhammer, or to take, damage or destroy an active nest or its contents.  Red List Bird	Declining mainly due to habitat loss for foraging and nesting
			Species of Conservation Concern and Priority Species of Conservation Concern.	
Bird	House sparrow	Plots 2011, 2010, part of 368, 2008, 2007 and 1280.  Breeding house sparrows have been recorded by the author in the vicinity of plot 2011.	The house sparrow is fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult house sparrow, or to take, damage or destroy an active nest or its contents.	Declining mainly due to habitat loss for foraging and nesting
			Red List Bird Species of Conservation Concern and Priority Species of Conservation Concern.	
Bird	Starling	Plots 2011, 2010,	The starling is fully	Declining mainly

		part of 368, 2008, 2007 and 1280.	protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill,	due to habitat loss for foraging and nesting
			injure or take an adult starling, or to take, damage or destroy an active nest or its contents.	
			Red List Bird Species of Conservation Concern and Priority Species of Conservation Concern.	
Bird	Marsh tit	Plots 2011, 2010, part of 368 and 2008.	The marsh tit is fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult marsh tit, or to take, damage or destroy an active nest or its contents.  Red List Bird	Declining mainly due to habitat loss for foraging and nesting
			Species of Conservation Concern and Priority Species of Conservation Concern.	
Bird	Bullfinch	Plots 2011, 2010, part of 368 and 2008.	The bullfinch is fully protected under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult bullfinch, or to take, damage or destroy an active nest or its contents.  Amber List Bird	Declining mainly due to habitat loss for foraging and nesting
Bird	Nightingale	Plots 2011, 2010,	Species of Conservation Concern and Priority Species of Conservation Concern. The nightingale is	Declining mainly
5110	Highlingale	part of 368 and	fully protected	due to habitat

		2008.	under the Wildlife and Countryside Act 1981, which makes it an offence to kill, injure or take an adult nightingale, or to take, damage or destroy an active nest or its contents.  Amber List Bird Species of Conservation Concern and Priority Species of Conservation Concern.	loss for foraging and nesting
Invertebrate	Stag beetle	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	W&C Act 1981 (Sch. 5 Sec. 9.5a), W&C Act 1981 (Sch. 5 Sec. 9.5b) Priority Species of Conservation Concern	Declining mainly due to habitat loss, loss of dead wood for larvae and persecution
Invertebrate	Black-headed cardinal beetle	Plots 1280 and 2007	Although not legally protected this species is Nationally Scarce	Declining mainly due to habitat loss
Invertebrate	Hoverfly Volucella zonaria	Plots 1280 and 2007	Although not legally protected this species is a Nationally Notable Species	Declining mainly due to habitat loss
Plant	Greater butterfly orchid	Plot 2008	W&C Act 1981 (Sch. 8) and is listed as Near Threatened	Declining mainly due to habitat loss
Plant	Green winged orchid	Plots 2008, 1280 and 2007	W&C Act 1981 (Sch. 8) and is listed as Near Threatened	Declining mainly due to habitat loss
Plant	Stinking hellebore	Plots 2008, part of 368 and 2011.	W&C Act 1981 (Sch. 8) and is Nationally Scarce	Declining mainly due to habitat loss
Plant	English Bluebell	Plots 2011, 2010, part of 368, 2008, 2007, 1280, 2009 and part of 48.	W&C Act 1981 (Sch. 8)	Declining mainly due to habitat loss

A list of wildlife that has been recorded by local residents within Plots 2011, 2010 and part of 368 are;

- Hedgehog
- Stoat
- Weasel
- Wood mouse
- Field vole
- Bank vole
- Dormouse
- Badger
- Fox
- Roe deer (Red deer and Chinese muntjac deer have also been seen within the Parish)
- Rabbit
- Little owl
- Tawny owl
- Barn owl

- Fieldfare
- Redwing
- Song thrush
- Mistle thrush
- Skylark
- Linnet
- Goldfinch
- Reed bunting
- Yellowhammer
- Green woodpecker
- · Great spotted woodpecker
- Nuthatch
- Buzzard
- Sparrowhawk
- Grey heron
- Common lizard
- Grass snake
- Adder
- Slow worm
- Common toad
- Common frog
- Smooth newt
- Palmate newt
- Red Admiral butterfly
- Peacock butterfly
- Meadow brown butterfly
- Ringlet butterfly
- Grayling butterfly
- Holly blue butterfly
- Small blue butterfly
- Brimstone butterfly
- Small copper butterfly
- Stag beetle
- Banded demoiselle damselfy
- Beautiful demoiselle damselfly

Any development on these plots would have a detrimental affect on habitats and wildlife that use these areas of land and in some cases could contribute to the national and local decline of a number of these species. This would be a great loss not only to all the residents who live in the hamlets of the Parish, but also to visitors who come and enjoy the natural beauty of the countryside by walking, riding and cycling along many bridleways, public rights of way and permissive footpaths.

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