

3 Baseline Ecological Conditions

3.1 Desk Study

- 3.1.1 There are no designated sites for wildlife conservation and no Protected Species Licences have been granted by Natural England within 1 km of the Site.

3.2 Habitats

- 3.2.1 The Site is located in a rural environment and the surrounding habitats are predominantly arable fields within small woodland blocks and tree lines scattered throughout.

Figure 2 - The Surrounding Habitats



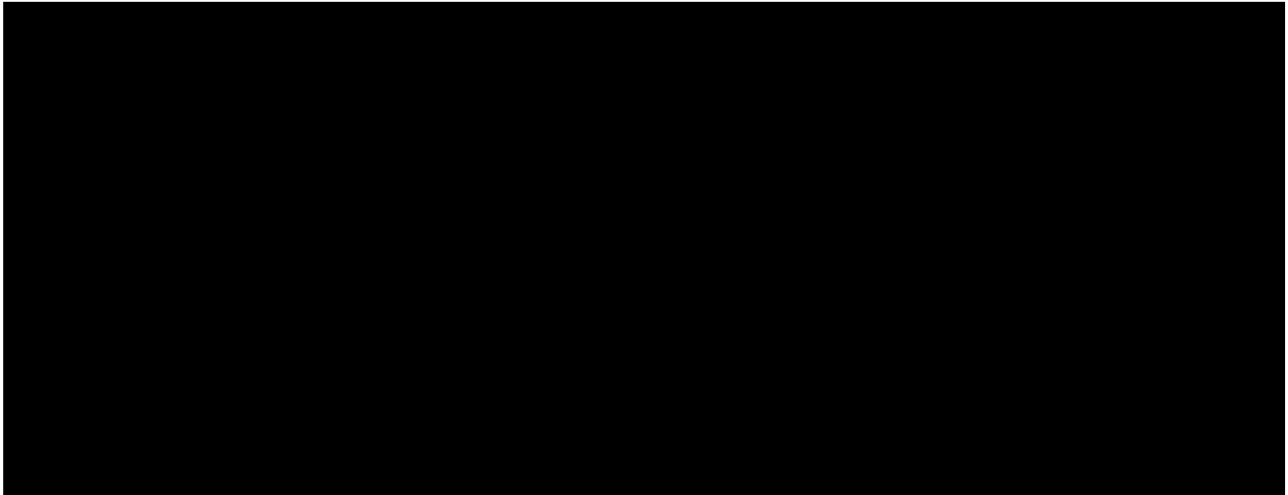
- 3.2.2 The Site is a part of a small industrial site comprised of workshops and hardstanding. A grassland field, dominated by barren brome, common bent, rough meadow grass and cock's foot, makes up the areas in the south and east of the Site. Residential properties and gardens abut the north and north-west boundaries and tree lines make up the east, south and south-west boundaries of the Site.
- 3.2.3 The Development Area contains the ruins of a former building which was constructed of breeze blocks, a recently erected metal barn with a flat roof, a recently laid area of hardstanding and cleared areas which have had some hardcore laid down in preparation for the new access road. Vegetation around the edge of the Development Area and an overgrown partial hedge, which can be seen on the aerial images and tree database maps, has been removed.
- 3.2.4 An earth bund has been created along the eastern boundary of the Site.

Poplars Farm, Aythorpe Roding

3.2.5 Photographs of the Site are presented in Appendix 3 and a habitat map and target notes are presented in Appendix 4.

3.3 Species

3.3.1 There are no habitats within the Development Area which are suitable to support protected or notable species as it is predominantly buildings (with negligible suitability for roosting bats), hardstanding and hardcore.



4 Ecological Constraints and Opportunities

4.1.2 In addition, enhancement opportunities are presented for the following species based on the opportunities provided by the proposed development.

- Wildflowers
- Nesting birds
- Bats

4.2 Habitats

4.2.1 The grassland field is currently dominated by grasses, but there is an opportunity here for enhancement through management and seeding of a suitable wildflower mix.

4.2.2 The Site is on lime-rich loam soils which are free draining and so the seed mixture most suited to this is either an EM2 (standard general-purpose meadow mixture) or EM5⁶ (meadow mixture for loam soils).

4.2.3 Successful wildflower creation requires good preparation of the habitat and the following steps should be applied:

- Remove all weeds from the area to be seeded either via repeated cultivation or the application of herbicide.
- Dig or plough the soil to bury the surface vegetation.
- Harrow or rake the soil to produce a medium tilth.
- Finally, roll or tread to create a firm surface.

4.2.4 Seeds can be sown any time of the year, but Spring or Autumn are the optimum periods. Seeds can be sown by machine or scattered by hand. The seeds should be then rolled or tread into the soil.

4.2.5 Most meadow wildflower will not usually flower in the first growing season and there may be a flush of annual weed growth during this time. The weeds should be controlled by topping or mowing. The mowing should be frequent during the first growing season to a height of 40-60 mm and all arisings removed. Spot digging should be carried out to remove any perennial weeds such as docks.

4.2.6 In the following years, the cutting regime should not be as frequent, and the grassland should not be cut at all between spring and late July/August. After flowering has finished in July or August then the sward should be cut using a scythe, petrol strimmer or tractor mower to a height of approximately 50 mm and all arisings should be removed.

⁶ <https://wildseed.co.uk/mixtures/view/6> (Accessed 19/04/2020)


4.3 Species

4.3.2 Nesting Birds


Enhancement opportunities

- 4.3.5 Two bird boxes should be installed with the new development, these can be attached to the new building or the trees along the boundaries of the Site. The boxes should be suitable for use by species such as sparrows, tits, nuthatches, or flycatchers.
- 4.3.6 The boxes should be built from long-lasting materials such as woodcrete. Examples of the type of boxes which can be used are presented in Table 2.

Table 2 – Examples of Bird Boxes

Description of Box	Example Dimensions	Example Image
<p>A double-chambered box manufactured from WoodStone® (a mix of concrete and FSC wood fibres) which provides two nesting chambers which provide a thermally stable environment.</p> <p>The box can be integrated into the brickwork or attached onto the façade.</p>	<p>Width: 290 mm Height: 210 mm Depth: 160 mm Weight: 7.5 kg</p>	 <p>Photo Courtesy of Vivara pro</p>

Poplars Farm, Aythorpe Roding

<p>A single-chambered box manufactured from WoodStone® with an entrance hole which is suitable for passerine birds such as tits, sparrows, nuthatches, and flycatchers.</p> <p>The box can be attached to brickwork or attached to trees.</p>	<p>Width: 200 mm Height: 310 mm Length: 200 mm Weight: 6.9 kg</p>	 <p>Photo Courtesy of Vivara pro</p>
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4.3.7 Bird boxes should ideally be located away from windows or doors to prevent droppings causing future conflict.

4.3.3 Bats

Enhancement opportunities

4.3.8 Two bat boxes should be included within the final design of the development. The boxes should be attached to mature trees along the boundaries of the Site to provide new roosting opportunities.

4.3.9 The boxes should be built from long-lasting materials such as woodcrete. An example of the type of box which can be used is presented in Table 3.

Table 3 – Example of Bat Box

Description of Box	Example Dimensions	Example Image
<p>This type of box is of a suitable design for use by bat species which typically roost in woodland environments. It has two entrances at the rear and front and a domed top to allow bats to roost in clusters. Due to the open bottom, the box does not require cleaning or maintenance and the design is effective against small predators and excludes drafts.</p>	<p>Height: 360 mm Diameter: 160 mm Weight: 4.3 kg</p>	 <p>Photo courtesy of Schwegler</p>

4.3.10 The boxes should not be directly lit and should be located a minimum of 3 m from the ground in a south or east-facing direction.

5 Conclusions

- 5.1.1 On the 10th April 2020, Samsara Ecology completed a PEA at Poplars Farm, Aythorpe Roding. The survey identified an area of hardstanding, hardcore and the ruins of a former building.
- 5.1.2 The construction area was not considered suitable to support any notable or protected species.
[REDACTED]
- 5.1.3 Enhancement opportunities have been recommended in accordance with national policies for biodiversity net gain (See Appendix 1).

Appendix 1 Legislation and Policy

Many active pieces of legislation are aimed at protecting wildlife and habitats within the UK. These are summarised in Table 4

Table 4 – Summary of Primary Legislation in the UK

Legislation or Species	Description
The Wildlife and Countryside Act (WCA) 1981	<p>The WCA is the primary piece of legislation relating to nature conservation in Great Britain. The Act is supplemented by provisions in the CRoW Act 2000 and the NERC Act 2006. It provides for the notification and confirmation of Sites of Special Scientific Interest by Natural England. It also sets out, in schedules, important and invasive species which are legally protected or require active management.</p> <p>The WCA consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)).</p>
The Conservation of Habitats and Species Regulations 2017	<p>The Conservation of Habitats and Species Regulations 2017 consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations came into force on 30th November 2017 and extend to England and Wales (including the adjacent territorial sea) and, to a limited extent, in Scotland (reserved matters) and Northern Ireland (excepted matters).</p> <p>The draft Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 were laid before Parliament on 28 January 2019. The draft Regulations ensure that the habitat and species protection and standards derived from EU law will continue to apply after the UK has left the European Union. This draft came into force on the exit day (January 31st, 2020).</p>
The Countryside and Rights of Way (CRoW) Act 2000	<p>The CRoW applies to England and Wales only, received Royal Assent on 30 November 2000, with the provisions it contains being brought into force in incremental steps over subsequent years. Containing five Parts and 16 Schedules, the Act provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation, and provides for better management of Areas of Outstanding Natural Beauty (AONB). The Act is compliant with the provisions of the European Convention on Human Rights, requiring consultation where the rights of the individual may be affected by these measures.</p>
Natural Environment & Rural Communities (NERC) Act 2006	<p>The NERC places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.</p> <p>The NERC Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list replaces the UK Biodiversity Action Plans (UKBAP) and</p>

Legislation or Species	Description
	<p>has been drawn up in consultation with Natural England, as required by the Act.</p> <p>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 NERC Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.</p> <p>Fifty-six habitats of principal importance (HPI) are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. Of most relevance to the Site, they include ponds, open mosaic habitats on previously developed land and lowland heathland.</p> <p>There are 943 species of principal importance (SPI) included on the S41 list. These are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.</p>
Non-native species	<p>Certain non-native plants and animals are recognised as invasive. The WCA makes it an offence to:</p> <ul style="list-style-type: none"> • Release or allow to escape into the wild any animal which is not ordinarily resident in Great Britain and is not a regular visitor to Great Britain in a wild state or is listed in Schedule 9 to the Act. • Plant or otherwise cause to grow in the wild any plant listed in Schedule 9 to the Act. • Sell, offer, or expose for sale, or possess or transport for the purposes of sale, non-native species that are listed in Schedule 9. <p>Species control agreements and orders can be made by environmental authorities to ensure that landowners take action on invasive non-native species. The NERC Act allows the Secretary of State to issue or approve codes of practice on invasive species. The codes alone cannot be used to prosecute but must be taken into account by a court in any case in which they appear to the court to be relevant.</p>
Great Crested Newts	<p>Great crested newts are protected under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 making them a protected species. The Regulations state that:</p> <p>(1) A person who—</p> <ol style="list-style-type: none"> (a) deliberately captures, injures, or kills any wild animal of a European protected species (b) deliberately disturbs wild animals of any such species (c) deliberately takes or destroys the eggs of such an animal (d) damages or destroys a breeding site or resting place of such an animal is guilty of an offence. <p>(2) For the purposes of paragraph (1)(b), disturbance of animals includes, in particular, any disturbance which is likely—</p> <ol style="list-style-type: none"> (a) to impair their ability— <ol style="list-style-type: none"> (i) to survive, to breed or reproduce, or to rear or nurture their young, or (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate, or (b) to significantly affect the local distribution or abundance of the species to which they belong.

Appendices

Legislation or Species	Description
	<p>Offences under the Habitats Regulations can be licensed by Natural England for a number of purposes, including 'imperative reasons of overriding public interest', which can include development. Licences can only be issued where full survey data is available, where there is no satisfactory alternative and where the action authorised will not adversely affect the favourable conservation status of the species involved.</p>
Reptiles	<p>All UK native reptile species are protected by law. The Wildlife & Countryside Act 1981 (and later amendments) provides the legal framework for this protection which makes it an offence to intentionally (or recklessly, in Scottish law) kill or injure a reptile.</p> <p>Sand lizard and smooth snake and their places of shelter have the greatest level of legal protection under Schedule 2 of the Conservation of Habitats and Species Regulations.</p>
Nesting Birds	<p>All wild bird nests are protected under The Wildlife and Countryside Act 1981 (as amended), making it an offence to:</p> <ul style="list-style-type: none"> • Intentionally kill, injure, or take any wild bird or their eggs or nests (with certain exceptions). • Disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting. • Nests of the golden eagle, white-tailed eagle and osprey are protected year-round.
Bats	<p>All species of bat in Britain are protected species under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, and the Wildlife and Countryside Act 1981, as amended by the Countryside & Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to bats and their habitats, making it an offence to:</p> <ul style="list-style-type: none"> • Deliberately capture, injure, or kill a bat. • Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats. • Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time). • Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat. • Intentionally or recklessly obstruct access to a bat roost. <p>The Natural Environment & Rural Communities (NERC) Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.</p>
Water vole	<p>The water vole is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 and is a priority conservation species making it an offence to:</p> <ul style="list-style-type: none"> • intentionally capture, kill, or injure water voles • damage, destroy or block access to their places of shelter or protection (on purpose or by not taking enough care) • disturb them in a place of shelter or protection (on purpose or by not taking enough care) • possess, sell, control or transport live or dead water voles or parts of them (not water voles bred in captivity)
Otters	<p>The Eurasian otter is the only native UK otter species. It's a protected species under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and is also protected under sections 9 and 11 of the Wildlife and Countryside Act 1981 making it an offence to:</p>

Appendices

Legislation or Species	Description
	<ul style="list-style-type: none"> • capture, kill, disturb, or injure otters (on purpose or by not taking enough care) • damage or destroy a breeding or resting place (deliberately or by not taking enough care) • obstruct access to their resting or sheltering places (deliberately or by not taking enough care) • possess, sell, control or transport live or dead otters, or parts of otters
Hazel Dormice	<p>Hazel dormice, their breeding sites and resting places are fully protected under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and under Schedule 5 of the Wildlife and Countryside Act 1981 making it an offence to:</p> <ul style="list-style-type: none"> • deliberately capture, injure, or kill hazel dormice • damage or destroy a dormouse resting place or breeding site • deliberately or recklessly disturb a hazel dormouse while it is in a structure or place of shelter or protection • block access to structures or places of shelter or protection • possess, sell, control or transport live or dead hazel dormice, or parts of hazel dormice
Badgers	<p>Badgers are protected and so are the setts (burrows) they live in. Under the Protection of Badgers Act 1992, in England and Wales (the law is different in Scotland) it is an offence to:</p> <ul style="list-style-type: none"> • Wilfully kill, injure, or take a badger (or attempt to do so). • Cruelly ill-treat a badger. • Dig for a badger. • Intentionally or recklessly damage or destroy a badger sett or obstruct access to it. • Cause a dog to enter a badger sett. • Disturb a badger when it is occupying a sett.
Hedgehogs	<p>Hedgehogs are protected, in England, Scotland and Wales, under the Wildlife and Countryside Act 1981, Schedule 6 and in Northern Ireland under the Wildlife (NI) Order 1985, Schedules 6&7. This means they are protected from being killed or taken by certain methods under Section 11(1) of the Wildlife and Countryside Act 1981.</p> <p>Hedgehogs are also Species of Principal Importance (SPI) included on the S41 list (See NERC above).</p>

Policy

National Planning Policy Framework (NPPF) (2018)

Chapter 15 of the National Planning Policy Framework (NPPF) aims at conserving and enhancing the natural environment and states that planning policies and decisions should contribute to and enhance the natural and local environment. In terms of biodiversity, this should be achieved by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils,
- recognising the intrinsic character and beauty of the countryside, and wider benefits from natural capital and ecosystem services, and
- minimising impacts on and providing net gains for biodiversity, by establishing coherent ecological networks that are more resilient to current and future pressures.

The NPPF states that to protect and enhance biodiversity, [local] plans should:

- identify and safeguard components of wildlife-rich habitats and wider ecological networks, and
- promote the conservation and enhancement of priority habitats and ecological networks and the protection and recovery of priority species.

The NPPF states that when determining planning applications, local planning authorities should refuse applications which:

- cause significant harm to biodiversity which cannot be avoided, adequately mitigated or as a last resort, compensated for,
- plan to develop on land within or outside of a Site of Special Scientific Interest (SSSI) and which is likely to have an adverse effect on it (either individually or in combination with other developments) and/or
- result in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) unless there are wholly exceptional reasons and where a suitable compensation strategy exists.

The local planning authority should support developments whose primary objective is to conserve or enhance biodiversity, especially where this can secure measurable net gains in biodiversity.

HM Government – 25 Year Environment Plan

The 25-year plan to improve the environment sets out what the government intends to do to increase biodiversity, reduce climate change and secure ecosystem services. It aims to deliver cleaner air and water, protect threatened species, and provide richer wildlife habitats.