

**MANOR FARM, LOWER ROAD, BEDHAMPTON,
HAVANT, HAMPSHIRE**

ECOLOGICAL MITIGATION STRATEGY

Final Document (Revision 1)

March 2021

Preliminary Ecological Appraisals • Protected Species Surveys and Licensing • NVC • EclA • HRA • Management Plans
Habitats • Badger • Bats • Hazel Dormouse • Birds • Reptiles • Amphibians • Invertebrates • Riparian and Aquatic Species

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ECOLOGICAL MITIGATION STRATEGY

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1.0 INTRODUCTION

1.1 Background

Ecological Survey & Assessment Limited (ECOSA) have been appointed by Bargate Homes to produce an Ecological Mitigation Strategy in order to mitigate for identified adverse effects on habitats, bats, breeding and wintering birds, reptiles, and invertebrates as a result of the proposed development of Manor Farm, Lower Road, Bedhampton, Havant, Hampshire, PO9 3LH (hereafter referred to as the site).

A planning application was submitted to Havant Borough Council in 2019 for the development of 50 residential dwellings on site (Planning reference: APP/19/00427). This application was refused by Havant Borough Council. At the time of preparation of this report an appeal to this decision has been lodged and is currently ongoing (Reference: APP/19/00427).

Aluco Ecology have previously undertaken an Ecological Assessment of the site (Aluco Ecology, 2019) and an addendum (Aluco Ecology, 2020) which confirmed the site remains unchanged since the previous assessment.

It has been recommended by Hampshire County Council's County Ecologist that in the event that planning is granted, ecological mitigation, compensation and enhancement measures are secured through planning condition requiring the provision of a single site-wide Ecological Mitigation Strategy. The draft wording for the planning conditions is as follows:

"Prior to the commencement of development activities, a site-wide ecological mitigation strategy shall be submitted for approval to the Local Planning Authority. This strategy shall be in accordance with the outline ecological mitigation, compensation and enhancement measures detailed within the Ecological Assessment (Aluco, April 2019) and shall be in accordance with any submitted landscape, drainage and lighting strategies. All ecological mitigation, compensation and enhancement measures shall be implemented in accordance with the agreed details and maintained in perpetuity in a condition suited to their intended function, unless otherwise agreed in writing by the Local Planning Authority. Reason: to provide ecological protection and enhancement in accordance with the Conservation Regulations 2017, Wildlife & Countryside Act 1981, NPPF, NERC Act 2006 and Policy CS 11 of the Havant Borough Core Strategy March 2011."

ECOSA were subsequently appointed to prepare this Ecological Mitigation Strategy to address this draft condition. Should the final version of the condition be amended then this document may require updating accordingly.

1.2 The Site

The site is located in Bedhampton, centred on National Grid Reference (NGR) SU 7002 0613 (**Map 1**).

The site covers approximately 3.8 hectares and comprises a parcel of an agricultural field and associated boundary vegetation. A farm track runs through the east of the site. The site is bounded by Lower Road and residential development to the north and north-west, the remainder of the agricultural field to the west, a further agricultural field to the east and a railway line to the south. A bridge traversing the railway line is located immediately off-site to the south.

The towns of Bedhampton and Havant are located further to the north and east. The A27 Havant Bypass is located 200 metres south, and the A3(M) motorway and junction roundabout between the A3(M) and A27 is located 180 metres west. Beyond the A27 to the south is the coast, with associated marshland and floodplains.

1.3 Aims and Scope of Ecological Mitigation Strategy

The aim of this document is to provide a summary of the ecological baseline of the site and detail suitable mitigation, compensation and enhancement measures, in response to previously identified potential ecological impacts (Aluco Ecology, 2019) (Aluco Ecology, 2020) as a result of the proposals.

A number of European designated sites have the potential to be impacted by this development, however mitigation in relation to designated sites is covered in a separate Habitats Regulations Assessment Screening and Appropriate Assessment (Havant Borough Council, 2020). Refer to this separate document for details on designated sites and proposed mitigation.

1.4 Site Proposals

The proposals entail the development of the site and erection of 50 residential dwellings with associated landscaping and open space. A new access road is proposed from Lower Road to the north. The residential dwellings are proposed to be located in the north and west of the site, with open space proposed in the south and south-east.

The Ecological Mitigation Strategy is based on a 'Proposed Site Layout' plan produced by HGP Architects, dated June 2018 (Drawing No. 17.043.102, revision S) (**Appendix 1**) and a landscape proposals plan produced by Terra Firma, dated October 2019 (Drawing no. 1860-TF-00-00-DR-L-1002, Rev. P07, Sheets 1-5) (**Appendix 2**).

An appeal has been lodged with a decision due in March 2021. If the appeal is successful, it is anticipated that construction works will commence soon after permission has been granted.

2.0 SUMMARY OF ECOLOGICAL SURVEY RESULTS AND ASSESSMENT

2.1 Introduction

This section summarises the ecological survey work in respect of habitats, bats, birds, reptiles and invertebrates carried out by Aluco Ecology between August 2016 and September 2020.

2.2 Habitats

The majority of the site comprises arable, with areas of grassland located along the northern boundary, along the farm track, and in the south of the site on the ramp leading up to the railway bridge and along the railway bridge itself. The south-eastern corner of the site has also started to develop into grassland. The northern and north-western boundaries of the site comprise hedgerows. The western boundary is not depicted by any linear feature and comprises arable. The southern boundary is formed of a chain-link fence, with a number of semi-mature and mature trees present along this boundary. The eastern boundary of the site comprises a tall non-native fir hedgerow.

2.3 Bats

The site provides suitable foraging and commuting habitat for bats which are of highest value around the site boundaries, particularly the hedgerows and fir hedgerow. The remainder of the site is open with limited bat foraging and commuting habitat. Bat activity surveys recorded low use of the site by small numbers of common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus*. Lower numbers of noctule *Nyctalus noctula*, *Myotis* bat species¹ and serotine *Eptesicus serotinus* were recorded.

2.4 Birds

2.4.1 Breeding Birds

The hedgerows and eastern fir hedgerow offer suitable habitat for nesting birds. Breeding bird surveys recorded a small number of widespread species of conservation on or around site including the red listed² house sparrow *Passer domesticus*, starling *Sturnus vulgaris*, and song thrush *Turdus philomelos*, and the amber listed³ dunno

¹ There are seven species of *Myotis* bats in Britain. *Myotis* bats are very difficult to identify specifically, this can generally only be done by examination of physical features and Phylogenetic Analysis Identification of bat droppings. Many of these bats are common and will utilise buildings for roosting often occupying small and inaccessible voids. For the purpose of this report all species shall be referred to as *Myotis* bat species unless a specific identification has been possible.

² The UK's birds are split in to three categories of conservation importance - red, amber and green. Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by green. Red List criteria include species which are: globally threatened; have been subject to historical population decline in UK during 1800–1995; are in severe (at least 50%) decline in UK breeding population over last 25 years, or longer-term period, or; subject to severe (at least 50%) contraction of UK breeding range over last 25 years, or longer-term period.

³ Amber list criteria include species which are: in unfavourable conservation status in Europe; subject to historical population decline during 1800–1995, but recovering; subject to moderate (25–49%) decline in UK breeding population or contraction of UK breeding range over last 25 years, or the longer-term period; subject to moderate (25–49%) decline in UK non-breeding population over last 25 years, or the longer-term period; rare breeders (1–300 breeding pairs in

Prunella modularis and house martin *Delichon urbicum*. The arable offers suitable habitat for ground-nesting birds but no typical farmland bird species were recorded during the breeding bird surveys.

2.4.2 Wintering Birds

The site forms part of a 'Secondary Support Area' (site H05A) under the Solent Waders and Brent Goose Strategy (SWBGS) (Solent Wader and Brent Goose Strategy, 2021). The arable farmland offers suitable habitat for wintering birds, however no waterfowl were recorded on site during 17 survey visits undertaken by Aluco Ecology. The site is maintained as intensive arable farmland and as such is of lower value to wintering waterfowl being generally stubble or ploughed land or young crops during winter periods.

The Solent Wader and Brent Goose Strategy identified positive records of brent goose *Branta bernicla* from H05A in 2002, a single record of 150 brent goose at H05A in 2003, and a single record of 50 lapwing *Vanellus vanellus* at H05A in 2013.

2.5 Reptiles

The grassland on site provides suitable habitat for reptiles. Reptile surveys recorded a small population of slow-worm *Anguis fragilis* on site, with a peak count of three adults and three juveniles recorded. All individuals were recorded along the northern boundary of the site with Lower Road.

UK); rare non-breeders (less than 900 individuals), or; internationally important species with at least 20% of European breeding or non-breeding population in UK.

3.0 MITIGATION, COMPENSATION AND ENHANCEMENT MEASURES

3.1 Introduction

This section details the measures required to be implemented on site to mitigate for the previously identified potential impacts on ecological features at the site. Details of the potential impacts are provided in the Ecological Assessment (Aluco Ecology, 2019) and addendum (Aluco Ecology, 2020). Mitigation features are also detailed on **Map 2** and **Map 3**.

3.2 Habitats

3.2.1 Retained Habitats

Most woody boundary features are to be retained, including the majority of the northern boundary hedgerow and all trees along the southern site boundary. Retained boundary trees to be retained will be protected with Root Protection Zones established in accordance with BS 5837:2012 (British Standards, 2012).

The existing hedgerow along the northern boundary is to be mostly retained, with the exception of access creation and a footpath from Lower Road. The retained hedgerow will be maintained and enhanced with additional species planting where required. Additionally, the grassland strip at the base of the hedgerow will be retained and managed.

A construction and Environmental Management Plan (CEMP) will be produced, detailing measures to prevent pollution to retained and surrounding habitats, such as dust pollution, run off and noise.

3.2.2 Newly Created Habitats

New areas of public open space will be provided, predominantly in the south of the site. A mosaic of habitats will be created in these areas, including semi-natural grasslands and scrub/woody features. Different areas of grassland will be sown with different seed mixtures including Emorsgate EH1 hedgerow mixture, Emorsgate EM2-standard general purpose meadow mixture, and Emorsgate EM8 Meadow mixture for wetlands (or similar approved mixtures).

New native tree and shrub planting will be undertaken throughout the open space to compensate for the loss of any woody vegetation on site. Species to be planted include field maple *Acer campestre*, pedunculate oak *Quercus robur*, wild cherry *Prunus avium*, alder *Alnus glutinosa*, hazel *Corylus avellana*, hawthorn *Crataegus monogyna*, and blackthorn *Prunus spinosa*.

Additionally, tree planting will be undertaken along newly created residential streets, and new shrub planting will occur associated with plot boundaries. Tree species to be planted will be predominantly native, including beech *Fagus sylvatica*, wild service tree *Sorbus torminalis*, pedunculate oak, holly *Ilex aquifolium*, hawthorn, field maple and apple *Malus* species.

The non-native fir hedgerow in the east of the site is to be subject to a phased removal plan and replaced with a more diverse native tree species tree belt, resulting in an overall enhancement. This will be undertaken post development, and will be undertaken by the management company for the site once construction works are complete. Species will include field maple, hazel, hawthorn, holly, pedunculate oak, blackthorn and bird cherry *Prunus padus*. A fence line will be erected on the eastern side of the newly planted tree belt, to protect the new planting from damage from the adjacent agricultural field.

New hedgerow planting will also be undertaken along the western site boundary and along the southern boundary of the proposed new housing. These hedgerows will comprise predominantly native species. These hedgerows will be staggered double line and will be planted natural with diversity through the hedgerow.

For more information of the proposed landscaping see **Appendix 2**.

3.2.3 Management

Once established, management of woody scrub and hedgerow habitats will be undertaken on a two-to-three-year basis, with cutting undertaken in late winter (January to February). Cutting either side of the hedgerow will be undertaken on an alternating basis, leaving one side uncut per cutting year.

Creation of new meadow grasslands will involve preparation of the ground during autumn, to allow seed sowing during the best period for wildflower uptake. During establishment (likely a number of years) the grasslands will be monitored and the removal of weeds will be undertaken. In areas of low wildflower uptake, additional scarifying of the ground will be undertaken in the second or third autumn, with additional wildflower seeding taking place, including yellow rattle *Rhinanthus minor*, to reduce grass vigour. Meadow grassland will be cut annually in the late summer/autumn, and cuttings will be removed. The borders of meadow grassland with other habitats will be managed less to allow to develop into rough grassland.

Tall grassland habitats, including the retained grassland along the northern boundary hedgerow, and newly created areas in the public open space will be subject to less management than meadow grasslands. These areas will not be regularly cut. Long swards will be retained, with annual or bi-annual cutting of encroaching woody

vegetation undertaken to ensure areas of tall grassland are maintained. Tussocky areas and rough grassland areas will be allowed to develop around the site.

A single hoggin based path will be created and maintained running through the new public open space, to encourage residents to use this path and prevent degradation of surrounding areas.

Management of the newly created tree belt in the east will be minimal, allowing for natural establishment and the development of a thick wooded strip. Any areas where planting has failed to establish will be subject to remedial planting to ensure a continued connected tree belt. Tall grassland will be allowed to develop along the edges of this strip.

Newly planted hedgerows on the western site boundary and southern boundary of the proposed new housing will not be intensely managed. Cutting will take place on a two-to-three-year rotation, to allow the hedgerow to grow out wider over time. Bases of hedgerows in open spaces will be allowed to grow a tall grassland sward, similar to that of the northern boundary hedgerow. These will have a sward of at least 50 centimetres, with cutting of woody material in this line only.

3.3 Bats

The foraging and commuting routes recorded across the site will be maintained as the majority of the boundary vegetation is to be retained.

No new lighting will be incorporated at the boundaries of the site, both during and post construction. This will ensure that there will be no increased lighting impacts as a result of the proposals. 'Complete darkness' (less than 0.4 lux⁴) will be maintained across key areas of suitable foraging and commuting habitat including the boundary hedgerows and existing fir hedgerow and proposed native tree belt (Institution of Lighting Professionals, Bat Conservation Trust, 2018).

As detailed in Paragraph 3.2.2 and Paragraph 3.2.3, the eastern fir hedgerow will be subject to phased removal and gradually replaced with a native species tree belt. This phased removal will ensure no short-term loss of suitable foraging and commuting habitat.

New hedgerow, tree-belt, and other native species planting and management to be undertaken on site as detailed in Paragraphs 3.2.2 and Paragraph 3.2.3 will result in an overall enhancement in foraging and commuting habitat.

⁴ 'Complete darkness' is considered to be less than 0.4 lux on a vertical plane, and 0.2 lux on a horizontal plane. For reference, 1 lux is considered equivalent to the maximum illuminance of the moon on a clear night.

Six bat boxes will be installed on site to provide enhanced roosting opportunities. Six Habibat 003 bat boxes (or similar) will be integrated into newly constructed on-site buildings. These will be located away from artificial light sources and will be at the peak of the gable ends. See **Map 2** for the proposed locations of these bat boxes.



Figure 1: Habibat 003 Bat Box (NHBS, 2021)

3.4 Birds

3.4.1 Breeding Birds

Woody vegetation clearance will be undertaken between the months of September and February (inclusive) outside the nesting bird season (March to August inclusive). If any woody vegetation is required to be removed during the nesting bird season, the areas to be removed will be checked by a suitably qualified ecologist immediately prior to removal. Any active nest identified will be left *in situ* with a suitable buffer until the chicks have fledged or the nest is no longer in use.

New woody vegetation planting and management as detailed in Paragraph 3.2.2 and Paragraph 3.2.3 will result in an overall enhancement for nesting birds on site.

Six bird nest units will be incorporated into the newly constructed on-site buildings. These will comprise three Vivara Pro WoodStone house sparrow nest boxes (or similar) (**Figure 2**) and three Manthorpe Swift Bricks (or similar) (**Figure 3**). The house sparrow nest boxes will be integrated into the masonry of new houses and will be positioned near vegetation, at least two metres above ground. The Manthorpe Swift Bricks will be situated a minimum of five metres above ground level. See **Map 2** for the proposed locations of these nest units.



Figure 2: Vivara Pro House Sparrow Nest Box (NHBS, 2021)



Figure 3: Manthorpe Swift Brick (NHBS, 2021)

3.4.2 *Wintering Birds*

A financial contribution has been agreed in accordance with the SWBGS Guidance on Mitigation and Off-Setting Requirements (Solent Waders and Brent Goose Strategy, 2018) to off-set the habitat loss of the secondary support area caused by the development. Further details are provided in the Habitats Regulations Assessment (Havant Borough Council, 2020).

Production of a CEMP, as detailed in Paragraph 3.2.1, will mitigate for any construction-related impacts on wintering birds. Likely measures relevant to wintering birds may include minimising idling by machinery, locating construction compounds in less noise sensitive areas of the site and maintaining machinery to further reduce noise levels.

3.5 *Reptiles*

3.5.1 *Translocation*

The majority of the existing suitable reptile habitat on site is to be retained outside of the construction zone. However, two small areas of suitable reptile habitat are to be lost to facilitate new road and foot access from Lower Road.

Given the presence of a low population of slow-worm within the site it will be necessary to ensure that these animals are not harmed during the creation of new access. It will also be necessary to ensure that reptiles are not present within the development area during construction works. Therefore, a reptile mitigation strategy including a translocation exercise will be undertaken to remove the population from the construction area. For further details regarding the reptile mitigation strategy refer to **Map 3**.

An on-site receptor area has been identified in the south-eastern corner of the site which will form the receptor site during the translocation works. This area is formerly arable but has been left unmanaged and has begun to develop into grassland and therefore provides suitable reptile habitat. It is also adjacent to the railway boundary

and as a result is connected to a wider green corridor. The receptor area is considered to have more than adequate capacity to support the low numbers of slow-worm recorded on site. Prior to any translocation works being undertaken the habitat of the receptor site will be re-inspected by the ecologist leading the translocation in order to confirm suitability of the habitat for receiving the population. Should the area not be suitable then the proposed re-landscaping works will need to be undertaken in advance of the translocation. This area will then remain unmanaged for the duration of the construction phase in order to ensure continued suitability of the receptor area for reptiles. Prior to the commencement of the translocation exercise, reptile proof fencing will be erected during the active reptile season (April to October, weather dependent) along the northern boundary of the site and in the south of the site, immediately north of the existing track and north of the receptor area (**Map 3**). This fencing will separate the majority of the suitable reptile habitat on site from the construction zone. This will prevent reptiles from colonising the construction area, should the arable land remain unmanaged and develop into suitable reptile habitat.

The reptile fencing will be located outside of protective fencing depicting the construction area (e.g. Heras fencing), to ensure the fencing is protected during construction works. Fencing will consist of 1000-gauge polythene or geotextile fence buried into the ground by 100 millimetres with an external return to prevent reptiles burrowing beneath it. Posts will be erected at approximately one to two metre intervals to support the fence. The fence is to be 750 millimetres to one metre in height.

Following the installation of the reptile fencing, a translocation of the suitable reptile habitat on site, including the grassland along the northern boundary, will be undertaken. Should any other areas of suitable vegetation have established in the interim then this would also be subject to the translocation exercise.

Reptile capture and removal will be undertaken by a suitably qualified ecologist during the active season of April to October, when reptiles are not in hibernation. A high density of refugia (at least 100 refugia per hectare) will be distributed throughout the suitable reptile habitat on site (with the exception of the receptor site). Suitable habitat on site is primarily the grassland along the northern boundary, but suitable habitat may also be present along the existing track (see paragraph 3.5.2), depending on the level of management that has been undertaken in recent months.

Following a 'bedding in' period of approximately two weeks, the refugia will be inspected on a daily basis until five clear visits have been achieved or sufficient effort has been deemed to be expended by the ecologist leading the translocation. The translocation exercise will likely take a minimum of 30 working days. All captured animals will be placed in a secure container and transported to the receptor area.

Following an appropriate number of clear days, a destructive search will be undertaken of the suitable reptile habitat to be lost to the proposals. This will entail the careful strimming of the grass to approximately 10 centimetres using hand tools and a search for the presence of any reptiles. Any additional reptiles encountered as part of the destructive search will be captured by the ecologist and relocated to the receptor area.

Once the destructive search has been completed, the removal of the areas of hedgerow on the northern boundary to be cleared will then be able to proceed under ecological supervision, to avoid impacts to reptiles or nesting birds. Once this has been completed, further reptile fencing will be erected either side of the new access points to prevent recolonisation of the construction zone. Upon completion of the installation of this additional fencing, the development works will be able to proceed.

As the development progresses and areas of the development are completed, the reptile fencing will be able to be removed using a phased approach. The approximate phasing of this fencing removal is set out on **Map 3**. The timing of this removal will be agreed between the site contractors and project ecologist. Fencing will only be removed during the active season (April to October, weather dependent) and once landscaping and construction works in the area of fencing to be removed have been sufficiently progressed so that the risk to reptiles is minimal.

Once the development is complete, the reptile fencing will be removed from the receptor site, allowing reptiles to disperse into the newly created grassland habitats within the new public open space, as detailed in Paragraph 3.2.2. At this point the re-landscaping of the receptor site can take place under ecological supervision (as necessary).

3.5.2 Existing Track Upgrade Works

Upgrade works are required to be undertaken of the existing track in the east and south of the site. Prior to these upgrade works commencing, the track will be inspected by a suitably qualified ecologist to assess its suitability to support reptiles.

If the track is assessed as unsuitable for reptiles the following will occur:

- Upgrade works can commence prior to erection of reptile proof fencing and the translocation exercise being undertaken.
- Once the track upgrade works are completed, the reptile fence erection and translocation will commence.

If the track is assessed as suitable for reptiles the following will occur:

- Reptile fencing will be erected in the north of the site and along the northern boundary of the receptor area.
- The translocation exercise will be undertaken, including of the existing track.
- Once reptiles have been translocated from the existing track, the upgrade works can commence.
- Once the upgrade works are complete, further reptile fencing will be erected in the south of the site, north of the upgraded track, to prevent colonisation of the site by reptiles during the construction period.

3.5.3 Management

The management detailed in Paragraph 3.2.3 for newly created grassland habitats will ensure these areas are suitable for use by reptiles, creating large areas of new reptile habitat on site which translocated populations will be able to disperse to.

The receptor site will be left unmanaged during construction works. Once works have been completed and the reptile fencing has been removed, the receptor site will also be managed in line with those detailed for tall grassland habitats in Paragraph 3.2.3, in order to secure its continued suitability for reptiles. The grassland strip along the northern hedgerow will also be managed in this way.

When managing habitats on site, regard to reptiles will be given. Vehicles will not be permitted to track over tall grassland edges and cutting of woody vegetation will not be lower than 10-15 centimetres, to leave the ground undisturbed.

4.0 SUMMARY AND TIMINGS

A summary of the works and associated timings included in the Ecological Mitigation Strategy for the site are provided in **Table 1**. These timings should be treated as provisional and will be updated as works progress. Timings have been assumed based on ecological works being able to commence on site in April 2021. Construction works would be able to commence following the completion of Task 9.

Table 1: Summary Tasks and Timings

Task	Ecological Feature	Timings Restrictions	Paragraph Reference	2021												2022	2023
				J	F	M	A	M	J	J	A	S	O	N	D		
1. No new lighting incorporated at the boundaries of the site	Bats	Both during and post construction	3.3														
2. CEMP produced	Habitats	Prior to commencement	3.2.1														
3. Reinspection of receptor site and existing track	Reptiles	Prior to Task 4	3.5.1, 3.5.2														
4. Erection of reptile fencing	Reptiles	Upon completion of Task 3, between the months of April and September inclusive	3.5.1														
5. Reptile translocation exercise	Reptiles	Upon completion of Task 3 and 4, between the months of April and October inclusive	3.5.1														
6. Reptile destructive search under ecological supervision	Reptiles	Upon completion of Task 5, between the months of April and October inclusive	3.5.1														
7. Clearance of areas of northern hedgerow under ecological supervision for access	Reptiles, Birds	Upon completion of Task 6, between the months of April and October inclusive	3.5.1														

Task	Ecological Feature	Timings Restrictions	Paragraph Reference	2021												2022	2023
				J	F	M	A	M	J	J	A	S	O	N	D		
8. Erection of additional reptile fencing around access (and north of existing track, if required)	Reptiles	Upon completion of Task 7, between the months of April and October inclusive	3.5.1, 3.5.2														
9. Retained boundary trees protected with Root Protection Zones	Habitats	Duration of development, following completion of Task 8	3.2.1														
10. Installation of bat boxes	Bats	During construction of new buildings	3.3														
11. Installation of bird boxes	Birds	During construction of new buildings	3.4.1														
12. Woody vegetation clearance undertaken outside of the nesting bird season	Birds	Undertaken between September and February Inclusive (or under supervision of a suitably qualified ecologist)	3.4.1														
13. Establishment of new areas of grassland	Habitats, Reptiles	During development	3.2.2, 3.2.3, 3.5.3														
14. New native tree and shrub planting in new public open space	Habitats, Birds	During development	3.2.2, 3.2.3, 3.4.1														
15. New native hedgerow planting on western boundary and at southern boundary of new houses	Habitats, Bats, Birds	During development	3.2.2, 3.2.3, 3.3, 3.4.1														
16. New native tree and shrub planting in development area	Habitats, Birds	During development	3.2.2, 3.2.3, 3.4.1														

Task	Ecological Feature	Timings Restrictions	Paragraph Reference	2021												2022	2023
				J	F	M	A	M	J	J	A	S	O	N	D		
17. Phased removal of reptile fencing	Reptiles	Throughout lifecycle of development as sections are completed (April to October).	3.5.1														
18. Phased removal and replacement of non-native fir hedgerow with native species tree belt	Habitats, Bats, Birds	Post development	3.2.2, 3.2.3, 3.3, 3.4.1														
19. Management of newly created and retained habitats	Habitats, Reptiles	Post development in perpetuity	3.2.3, 3.5.3														

5.0 REFERENCES

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Map 1 Site Location Plan



MANOR FARM, LOWER ROAD BEDHAMPTON, HAVANT, HAMPSHIRE

ECOLOGICAL MITIGATION STRATEGY

Map 1 - Site Location Plan

Client: Bargate Homes

Date: March 2021

Status: Final (Rev. 1)

KEY

Site Boundary



Source: Esri, Navar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and

Scale at A4: 1:10,000

0 100 200 400 Metres



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Map 2 Ecological Mitigation, Compensation and Enhancement Features

MANOR FARM, LOWER ROAD BEDHAMPTON, HAVANT, HAMPSHIRE

ECOLOGICAL MITIGATION STRATEGY

Map 2 - Ecological Mitigation, Compensation and Enhancement

Client: Bargate Homes
Date: March 2021
Status: Final (Rev. 1)

KEY

-  Site Boundary
-  Habitat 003 Bat Box (or similar) x6
-  Vivara Pro House Sparrow Nest Box (or similar) x3
-  Manthorpe Swift Brick (or similar) x3

NOTE:
Proposed replacement
refer to drawing no
1006 by Terraforma

N.B. Mitigation features are not to scale and are indicative of location only.

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Map 3 Reptile Mitigation Strategy



**MANOR FARM, LOWER ROAD
BEDHAMPTON, HAVANT, HAMPSHIRE**

ECOLOGICAL MITIGATION STRATEGY

Map 3 - Reptile Mitigation Strategy

Client:	Bargate Homes
Date:	March 2021
Status:	Final (Rev. 1)

KEY

-  Site Boundary
-  Receptor Area

**Indicative route of boundary reptile
fencing**

Removal Phasing

-  On access creation
-  Phase 1
-  Phase 1 additional (erected after new access creation)
-  Phase 2
-  Phase 3

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Source: Esri, Mapbox, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,
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