Broom Park

Topsham, Exeter

Extended Phase 1 Habitat Survey & Ecological Appraisal

For

Heritage Homes Ltd.

October 2019

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Ecological Appraisal
Broom Park

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1 Summary

1.1 The purpose of this report is to provide an Ecological Appraisal of a proposal by Heritage Homes Ltd. to construct a range of houses within a field to the south of Broom Park, Exeter Road, to the west of Topsham. The primary aim of the ecological survey carried out by Sunflower Ecology, and on which this appraisal is based, was to provide the Local Planning Authority with a protected and or endangered species mitigation plan, should one be needed. The second aim of the survey was begin to inform an initial range of mitigation measures, which are designed to enhance the wildlife and habitat value of those parts of the site that would be affected by the development, together with those parts of the site that will not be built on or directly affected.

1.2 The site of the proposed housing development consists of block of 2.04 ha of grass and some buildings and hard standing. HC Turf seeded the grassland with fine lawn grasses, but the turves were not cut prior to the neighbouring land to the east being sold to the Exeter Golf and Country Club. The neighbouring land to the east and north is now a golf range. Because the ground was cultivated to provide turf for domestic lawns, it is species poor with very few broadleaved herbs. Part of the site near the south-west boundary has been treated with herbicide and an area near the large machinery shed had been cultivated. There are very few trees within the site and two ash trees, a cherry and a golden Monterey cypress are grow within the garden of the bungalow. The hedges that partially surround the site are made up almost exclusively of common elm, which was planted as suckers. A fence defines the northern boundary of the Broom Park site, but it is not a high fence, like those that run along the western and northern boundaries of the golf range. The owners of Broom Park have recovered a significant number of golf balls from their land.

1.3 Extended Phase 1 habitat and bat emergence surveys of the site have been carried out in March 2016 and again in August 2019. Numerous digital images were taken for record purposes during the August 2019 visits and fourteen of these are provided within **Appendix 1** of this assessment report. The report is written in the form of an Ecological Appraisal (EA), which includes indicative mitigation measures that are considered to be both appropriate and proportionate. It is the author's professional opinion that no additional surveys need to be carried out, for reasons that will be set out in **Section 6.** No protected and unprotected species are now known be totally dependent on the block of grassland, the buildings used by the former nursery, the bungalow and its annnex. Grant of Full Planning Consent for the proposed development is likely to require the provision a Landscape and Ecological Mitigation and Management Plan (LEMMP). An initial range of mitigation provisions will be identified within **Section 7** of this report. The aim of the mitigation provisions that will be recommended would be to enhance the biodiversity value of the whole site, which is currently low. These would include the recognition of the habitat value of the hedges and the margins along their bases.

1.4 The author considers that proposals to develop houses and associated infrastructure within the site would have no deleterious impact on the ecological and habitat value of this species-poor amenity grassland, or on the habitat value of adjoining land. Given the provision of appropriate mitigation, including retention of existing hedges and the creation of green open spaces, the proposed development would have no adverse impact on any protected species or semi-natural habitats nearby. The habitat value of the 'monoculture' hedges that act as boundaries along the eastern, western and part of the southern edges of the site is limited, but that habitat value could be enhanced. There is scope to plant an additional hedge or a strip of native woodland between the proposed development site and the golf range.

1.5 This EA report is based on a format devised by the Chartered Institute of Ecology and Environmental Management, for the presentation of findings of Ecological Appraisals and similar surveys.

1.6 The conclusion reached within this Preliminary Ecological Appraisal is that the actual development site is of very limited ecological value, largely as a result of the species paucity of the large area of amenity grassland and the way in which this is managed by frequent cutting throughout the year. The habitat value of those parts of the site in which houses and infrastructure would not be constructed, could be enhanced as part of a package of mitigation measures.

These measures will be referred to in **Section 7** in this report and would be dealt with in greater detail in a Landscape and Ecological Mitigation and Management Plan (LEMMP), should one be needed. Such a plan would, if required, be designed to enhance the biodiversity value of the development site significantly.

2 Introduction

2.1 Dr Peter Beale is the author of this report. He has been a consultant ecologist since 1990, having worked in a range of habitat management or ecologically related posts since 1964. He has carried out numerous site surveys and ecological appraisals during the last twenty-seven years. He holds a Diploma in Countryside Management (with Merit) and is actively involved in countryside and habitat management, in garden and landscape design.

2.2 The client is Heritage Homes Ltd., which proposes to construct a range of houses and associated infrastructure within the site. Sunflower Ecology has been commissioned to carry out habitat and ecological surveys and to recommend provisions to safeguard protected species and to provide habitat mitigation and enhancement.

2.3 The proposed development site is made up of a block of 2.04 ha of species-poor amenity grassland, farm buildings, a bungalow and annex and hard standing. Hedges surround the site on two sides and part of a third side. The only trees growing within the site are associated with the grounds of the bungalow.

2.4 The proposed layout will be shown in architect's drawings in due course. It would be appropriate for additional comments to be made about the ecological impact of the proposed development within a LEMMP, should one be required. That would address ways in which the site's potential to accommodate wildlife could be enhanced and it could be prepared, once detail to be set out in landscape proposals have been identified.

2.5 To the best of the author's knowledge, this particular site has not been surveyed by an ecological consultancy, other than Sunflower Ecology in March 2016, in order to assess its ecological and habitat value.

2.6 Purpose of the report :-

a) To identify the ecological value of the various habitat components within the site, particularly to assess the ecological value of any vegetation growing within the site that could be affected by the proposed developments;
b) To assess any impacts that the proposed development might have on any species that may depend on any part of the site, particularly on any European or UK Protected Species;
c) To identify opportunities for mitigation that could, or should, be incorporated into the site layout to enhance biodiversity in accordance with current legislation and directives.

3 Biodiversity and planning legislation

3.1 Local Planning Authorities are now charged with the responsibility for protection of endangered species, under the European Union Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC. This Directive was implemented, initially, in the UK by the Conservation (Natural Habitats & Conservation) Regulations 1994 (Statutory Instrument No 2716) amended in 2007. These Regulations were updated and consolidated, within the Conservation of Habitats and Species Regulations 2010. These have subsequently been amended within the Conservation of Habitats and Species (Amendment) Regulations 2012 (Statutory Instrument 2012 No.1927). The presence of a protected species is a **material consideration**, when a local authority is considering a planning application that could affect any protected species.

3.2 " However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of the species being present **and** affected by the development " Defra circular 01.2005 *Biodiversity and Geological Conservation – Statutory Obligations and their Impact Within the Planning System* 2005. This Circular remains in force, in terms of the *caveat* set out above.

3.3 Obligations placed on owners of land to comply with UK wildlife legislation, European Habitats Regulations and Directives, while they are using or developing the land in any way, have been taken into account and referred to, where directly relevant, within this report.

3.4 Local Authorities have a duty to maintain and enhance biodiversity within developments they permit. Local Planning Authorities will seek to produce a net gain in biodiversity by requiring developers to design wildlife into their plans and to ensure that any unavoidable impacts are appropriately mitigated for. The importance of habitat enhancement has been identified within Section 40 (1) of the *Natural Environment and Rural Communities Act* (2006). The revised National Planning Policy Framework (February 2019) states in Section 174(b) that "planning policies and decisions should identify and pursue opportunities for securing measurable net gains in biodiversity". It also states that applications that aim to conserve or enhance biodiversity, should be supported.

3.5 The author surveyed the Broom Park site in order to identify either the presence, or dependent use of the site, by protected or notable species. Habitat conditions capable of supporting some of the needs of protected species have been identified, but these were, with one exception, located outside the field in which development is proposed.

All species of bats are protected under Schedules 5 and 6 of the Wildlife and Countryside Act 1981 (and as amended) and they are also protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2010. Bats are listed under Appendix III of the Bern Convention and Annex IV of the EC Habitats Directive. Bats and their habitats are also listed under Appendix II of The Bonn Convention. However, the development site and hedged perimeter are generally unsuitable for roosting bats, but there was old evidence of bat roosting in the large shed and pipistrelle bats have been observed to forage along the western edge of the site.

There is no longer any evidence of badger activity within the site, which is also unsuitable for dormice or other protected mammals, for reasons that will be explained in sections later in this report.

It would be unlawful to disturb any wild birds, their eggs or chicks while they are nesting. There are hedges in which birds could nest around parts of the perimeter of the proposed development site. It would be prudent, if or when the need arises, to remove any lengths of roadside hedge to provide site access outside the bird-nesting season (1st March – 31st August). Any hedge removal that has to be carried out during any part of the nesting season would need to be overseen by a suitably qualified ecologist, to ensure that no nesting birds would be disturbed.

The provisions of the Hedgerow Regulations 1997 would apply to hedges that form the western, southern and eastern boundaries. These hedges are dominated by common elm but they are old farm boundary hedges, the majority of which will, it is assumed, be retained and therefore unaffected by the proposed development.

4 Biodiversity and ecological survey methodology

4.1 Data search The site in which the actual development is proposed, is made up species-poor amenity grassland, which is of low ecological and habitat value. However, the scale of the proposed development is such that it could impact on habitats that adjoin it, were it not for the fact that all of the land that surrounds Broom Park has already been developed or is used for recreation grounds by the University of Exeter and the Golf and Country Club. A Devon Biodiversity Records Centre data search would be unlikely to provide any data would influence the possible development of this 'landlocked' and species-poor site. Any possible detrimental influence on sites that have been designated or defined for their wildlife value will be addressed Section 5.3 of this report.

4.2 Ecological reports that relate to the site To the best of the author's knowledge, this particular site has only been surveyed by Sunflower Ecology on one previous occasion.

4.3 Survey methodology Recognised extended Phase 1 Habitat Survey methodologies were used to carry out the field survey of this site, including the use of techniques set out within JNCC's Manual *Handbook for Phase 1 Habitat Survey a technique for environmental audit* (2010).

It is the author's professional opinion that a detailed breeding bird survey would not be required, on the basis that hedgerow vegetation in which birds are likely to nest will be retained and enhanced. There is evidence that swallows have nested in one of the farm buildings. These buildings were surveyed to identify any use by roosting bats and that survey was followed up by two emergence surveys. Recommendations will be made in Section 7 of this report, with reference to the need for provision of bat roosts and bird nesting within the proposed development.

4.4 Reference to guidance used This PEA report is based on a format devised by the Chartered Institute of Ecology and Environmental Management, for the presentation of findings of Ecological Appraisals and similar surveys.

4.5 Limitations on survey efficacy

It is the author's professional opinion that there were no limitations in his ability to assess the habitat opportunities offered by the development area and its surrounds. Emergence surveys were carried out to identify use of any of the buildings by roosting bats or nesting birds. The whole site was accessible to an experienced surveyor. The need, if any, for additional surveys will be referred to in **Section 9**, to follow.

5 Ecological conditions, habitats and species

5.1 Overall site conditions The development site consists of a flat field of 0.5 ha of species-poor amenity grassland, which is mown regularly. Part of the site near the south-west boundary has been treated with herbicide and an area near the large machinery shed had been cultivated (see image 0444). The field is partially surrounded by hedges that are dominated by common elm (*Ulmus procera*), the majority of which will, it is assumed, be retained and enhanced. There is a bungalow and its annex, a group of sheds and other buildings that were used when the site was cultivated as a nursery. The field, the hedges and buildings are illustrated in images in **Appendix 1** of this report.

5.2 Description of the proposed development and impacts The developer proposes to construct a range of dwellings and associated infrastructure within the field. Given the provision of appropriate mitigation, the proposed development would have no significant deleterious ecological impacts within the site itself, or on any adjoining land. It is anticipated that the existing hedges that partially surround the site will be retained. Landscaping of the site and gardens that would run with the new houses, offers the potential to create greater biodiversity in terms of additional species diversity and the creation of new habitats. A range of indicative mitigation and biodiversity enhancement measures, which are recommended for provision within the site, are set out in **Section 7** of this report. These would be expanded within a LEMMP, should one be required by the LPA.

5.3 Impacts on designated, defined sites and BAP action plan features. A range of sites which have been designated or defined for their ecological value are located within the 1 km radius from the centre of this site. Broom Park is surrounded by existing and new development and by an intensively managed recreation ground. It is considered that the development would have no discernible impact on any of these sites. It has not, however, been possible to carry out any survey work as part of this Ecological Appraisal, to determine any effects of additional recreational use of the Exe Estuary SPA, the Dawlish Warren SAC and the East Devon Pebblebed Heaths SAC. Local authorities have made assumptions, that the construction of additional housing within a 10 km distance of these European Protected sites, would have a deleterious effect on their ecology. It has proved to be very difficult for Local Authorities to measure any deleterious effects, in a manner that meets or satisfies the level of scientific rigour that is required for an economic value to be attributed to them.

5.5 Plants, animals and impacts on them

5.5.1 Birds There was no physical evidence, in the form of current or old nests, within the hedges that partially surround the site. The only evidence to nesting activity in the sheds and buildings were some old swallows nest in the easternmost of the buildings. It is likely that some garden birds, like dunnocks and blackbirds will nest in the hedges that partially surround the site. It is assumed that the majority of the hedges will be retained for their habitat and landscape value and there would be scope for artificial nests to be provided within the proposed development.

Removal of any lengths of any lengths of hedge to provide access into the site should be carried out outside the bird-nesting season (1st March – 31st August). If the removal of any lengths of hedge were to be required at any time during the nesting season, it would need to be overseen by a suitably qualified ecologist, to ensure that no nesting birds would be disturbed.

5.5.2 Bats The site contains a range of buildings that were used as part of the former nursery business. They could potentially provide opportunities for bats to roost. Careful examination of all but one of the buildings provided no evidence of use by bats. The large shed at the western end of the complex showed some old bat droppings – probably those of a long-eared bat or bats (see image 0453). The droppings were very close to a grille and an open window at the western end of the shed (see image 0451). Emergence surveys were carried out on the 26th August and the 13th September, when optimum weather conditions prevailed. Not bats were seen to emerge from any of the sheds shown in images 0444 and 0061.

One or possibly two pipistrelle bats were recorded as foraging along the hedge that forms the western boundary and the bat or bats were seen to forage inside the south-western end of the golf range. They avoided the 10 metre high wire mesh fence that was erected to prevent golf balls from the driving range from landing in the Exeter University's sports fields. A recommendation will be made in **Section 7** of this report and in a LEMMP, if one is required, that a native-species hedge should be planted along the northern boundary of the Broom Park land, to provide an additional habitat, connectivity and a landscape screen between the golf range and any development that may be consented within the Broom Park site. Any lighting that is required within the site, if it is developed, should be set at a low level, using low lumen bulbs with the light well shielded downwards. Any security lights should be of the passive infrared variety set on a very short timer to prevent long periods of illumination over any of the boundaries.

5.5.3 Dormice. The hedges that partially surround the Broom Park site are dominated by common elm and there are virtually no shrubs that would provide dormice with the food they would require to sustain a dispersed population. Scanning of aerial images shows that there is very poor connectivity to significant areas of woodland or scrub vegetation that could sustain a dispersed population of these rodents.

5.5.4 Badgers The author looked for evidence of continuing badger activity with the site, but the former setting the bank that runs between the Broom Park field and the golf range parking area was abandoned some years ago. Rabbits and possibly a vixen now use the entrances of the former sett.

5.5.5 Reptiles and amphibians The Broom park field is mown on a regular basis and there is virtually no rough grassland within the site, not even along the bases of the hedges (see image 0443). A combination of regular mowing and a lack of tussocky grassland makes the field unsuitable for any reptiles. There is no open water within the site that would provide breeding habitat for amphibians. The site may be within a great crested newt consultation zone, but habitat conditions make it unsuitable for the terrestrial phase of these or other amphibians.

5.5.6 Herbaceous vegetation Images of the site show that the amenity grassland is very uniform, with the sward being dominated by 'lawn' grasses – primarily bents and fescues. There is a significant lack of broadleaved flowering herbs growing within the sward, due in the fact that the amenity grass mix was sown comparatively recently. Some rosette forming herbs, like common daisy, dandelion and common catsear are slowly becoming established.

5.5.7 Hedges Hedges run along three sides of the site. All three are dominated by common elm that was planted to create field boundaries. Occasional ash, sycamore, oak, hawthorn, elder and dogrose were recorded. Despite the fact that the hedges are recent and species-poor, they provide valuable habitat and connectivity for wildlife. They are also a useful landscape screen It is recommended that thought should be given to the planting of a new native species hedge or a narrow strip of woodland along the northern boundary of the site, if it is developed. line.

5.5.8 Trees There are a limited number of trees within the site and these are two ash trees, one ornamental cherry and a golden Monterey cypress. There would be significant scope for trees to be planted within the proposed development.

5.5.9 Streams, ponds and wetlands There are no stream, ponds or wetland within the site.

5.5.10 Biodiversity features The author was unable to identify any Biodiversity Action Plan features on the 30th August 2019, within those parts of the site that would be developed. Even though the hedges that partially surround the field are species-poor, they are 'farm' hedges and therefore BAP features.

6 Recommendations for additional survey work

The ecological surveys that have been carried out since March 2016 have enabled the author to assess the ecological and habitat value of the site and adjoining habitats. The survey has concluded that those parts of the site that would be developed to provide a range of houses and associated infrastructure are generally of very limited habitat value.

The western, eastern and southern hedges are considered to be of greatest ecological value, It is assumed that the majority of these will not only be retained, but that they would also be enhanced. No additional surveys of the site's vegetation are considered to be necessary

A bat roost survey and emergence surveys have been carried out and it is concluded that none of the buildings within the site are used as bat roosts and foraging by pipistrelle bats is largely restricted to the hedge that acts as boundary between the site and the adjoining Exeter University sports fields. It is considered that no additional bat surveys are required, depending on the time frame for the proposed development.

It is also considered that the results of extended Phase 1 habitat surveys and bat emergence surveys have provided sufficient information about the site's ecology, to inform a properly informed, reasonable and proportionate mitigation strategy to be recommended. This would be provided in greater detail, if required, within a LEMMP. Such a plan would be designed to provide enhancements to the site's biodiversity and habitat value, in accordance with obligations placed by local planning authority on a development.

> The revised National Planning Policy Framework (February 2019) states in Section 174(b) that "planning policies and decisions should identify and pursue opportunities for securing measurable net gains in biodiversity". It also states that applications that aim to conserve or enhance biodiversity, should be supported.

7 Assessment of effects, biodiversity conclusions, including ecological constraints, mitigation and enhancement

7.1 Those parts of the site that would be directly affected by the proposed house construction is of very low ecological value. There would be virtually no ecological losses within the area to be developed that would need to be compensated for, since proper precautions would be taken to safeguard protected species. Never the less:

- Local Authorities have a duty to maintain and enhance biodiversity within developments they permit. Local Planning Authorities will seek to produce a net gain in biodiversity by requiring developers to design wildlife into their plans and to ensure that any unavoidable impacts are appropriately mitigated for.

7.2 The needs of the Local Authority could, the author believes, be met by the provision of hard and soft landscaping within the development, in accordance with conditions that are likely to be set within a planning consent. The gardens of the new houses would be landscaped and planted in due course. The choice of plants to be used in soft landscaping should, wherever possible, include trees, shrubs and herbs that are not only visually attractive, but would attract beneficial insects. Research carried out by the Royal Horticultural Society has demonstrated that gardens and green open spaces with a range of native, northern and southern hemisphere plants provide optimum nectar and pollen availability for insects that play a critically important role in pollinating crops and other flowering plants throughout the year. Those areas that are capable of supporting nectar and pollen producing plants are therefore particularly valuable. The loss of biodiversity within farmland, puts a greater emphasis therefore on the need for gardens to provide as much nectar and pollen as possible.

The site itself is species-poor amenity grassland. It adjoins and is totally surrounded by sports fields, a golf driving range and housing development.

7.3 The western and eastern hedges that partially surround the site have the greatest habitat value. Their value could be greatly enhanced by the planting of new native species hedge or a strip of trees and shrubs along the northern boundary. The value of those hedges would be enhanced by the retention of a 1 – 1.5 metre strip of rough grass and broadleaved flowering herbs along the bases of the hedges. Widened hedges or strips of woodland would require periodic management and sufficient space would need to the left to allow machinery to be used to trim them.

7.4 There is likely to be a population of house sparrows and other garden birds in the immediate area and the author recommends the provision of individual sparrow nest boxes under the eaves of a quarter of the houses. Ten open-fronted and ten hole nest boxes should be mounted on trees growing within the western hedge or the ash and cherry trees that grow close to the bungalow. Some house owners are likely to feed birds in their gardens.

7.5 A limited amount of monitoring will be necessary during the construction period. The primary purpose of ecological site supervision would be to make sure that any plantings and other forms of mitigation provision, such as roost and nest box installation, are carried out in accordance with recommendations provided within this report, or in any landscape plan (LEMMP). Post-construction monitoring of the soft landscaping will necessary, to make sure that the take of plants, specified within any landscape plan is successful and in accordance with NBS specifications. It is particularly important that the success of any landscape planting that may be required by the LPA, can be demonstrated in order to meet planning conditions.

8 Overall conclusions

8.1 The author has, as an experienced and suitably qualified ecologist, carried out an extended Phase 1 habitat survey, a Preliminary Ecological Appraisal and bat emergence surveys of the Broom park site. It is his professional opinion that those parts of the site within which house construction and infrastructure provision would be carried out, are of very limited ecological value.

8.2 Reasonable and proportionate mitigation and enhancement provisions would need to be provided, in accordance conditions set out by the planning authority. They should be designed to enhance the integrity of the site for the joint benefit of wildlife and for the occupants of the new houses. Given the scale of the proposed development, the LPA is likely to require the production of a Landscape and Ecological Mitigation and Management Plan (LEMMP). A mitigation strategy would be set out in greater detail within such a plan.

8.3 Surveys have demonstrated that the site within which the actual development would be located does not provide a breeding or roosting/sheltering site for any European or Protected Species. The needs of bats, birds and other wildlife can be accommodated and enhanced by the provisions recommended above.

8.4 In the author's professional opinion, It is considered that no additional ecological surveys are required, depending on the time frame for the proposed development.

9 Acknowledgements

The author wishes to acknowledge the use of background information provided by Mr. David Lovell of Heritage Homes Ltd. and Mr. and Mrs. Collingwood, the owners of Broom Park.

10 References

HMSO Wildlife and Countryside Act 1981 – as amended

HMSO The Conservation of Habitats and Species Regulations 2010 - as amended

HMSO Habitats Directive (92/43/EC)

HMSO Protection of Badgers Act 1992

HMSO Hedgerow Regulations 1997

Gov. UK The National Planning and Policies Framework 2012 (Revised February 2019)

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Mitchell Jones A J. (2004) *Bat Mitigation Guidelines* English Nature

11 List of Appendices (The appendices are provided as separate files, not as an integral part of this EA report)

1 Digital images

2 Phase 1 habitat map

3 Wildlife checklists