

COYNE ENVIRONMENTAL

Orchard Cottage

Pipers End

Letty Green

SG14 2PB



ECOLOGICAL APPRAISIAL

October 2023

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INTRODUCTION

Coyne Environmental has been instructed to undertake an Ecological Appraisal (EA) of Orchard Cottage, Pipers End, Letty Green SG14 2PB to find if there is any ecology of significance for a planning application to be submitted. It is proposed to replace the existing cottage with a new dwelling .

To assess the ecology of the site it is proposed that a Preliminary Ecological Appraisal (PEA) survey and Report be prepared. This will assist the local planning authority (LPA) on what environmental studies may be required when determining the application or which may be appropriately dealt with by a suitably worded planning condition.



From the survey and analysis, it will be possible to review the proposals to ascertain what measures are needed, to achieve a satisfactory result for the site. The PEA will enable the LPA to consider the impact of the proposal on the environment. It can then discharge its legal obligations under the “Conservation of Habitats and Species Regulations (2018) and any” Outline Mitigation and Compensation Strategy” if required.

I am a qualified Ecologist, Associate of the Institute of Ecology & Environmental Management with over 35 years’ experience in the environmental field. The survey was carried out on the 22nd September 2023. This was conducted in the day time, in good weather (21C), dry, calm, cloudy conditions.

LOCATION

The site is in the hamlet of Pipers End, east of Letty Green, in the parish of Hertingfordbury, East Hertfordshire, and is noted for St. Johns Church, Grade 11 Listed Building (LB) and Woolmer Park country house Grade11 LB, home of the Archer family. Thomas Archer emigrated to Van Damen’s Land (Tasmania) in 1817

where the Woolmer Estate is now a noted historic house. The Archers have become an established Australian family and William Archer became a prominent anti-transportist.

Orchard Cottage was built by the Royal Air Force in 1915 as mess rooms for personal manning the adjacent anti-Zeppelin searchlight station. This later became The Elms and is now a separate dwelling on the same site and ownership. The proposal is a self-build project to replace this small, one-bedroom wooden dwelling, with a modern sustainable alternative, for the owners to re-locate from the larger property.

AREA DESIGNATIONS

Management and protection of biodiversity within the UK planning system is set out through European and UK legislation. The Wildlife and Countryside Act (1981) is the main protection for wildlife. There is also legislation for specific species, Protection of Badgers Act 1992, EU Habitats and Birds Directive and more general guidance, EU Biodiversity Strategy 2011-2020. This study and report have also taken into account BS 42020 (2013) Biodiversity -Code of Practice for Planning and Development

Bats are additionally protected under Schedule 5 of WCA. However, since 2007 the effective protection for bats now comes under Schedule 2 of the Conservation (Natural Habitats &c) Regulations 1994, which defines "European protected species " (EPS). All bats and their habits are protected and must not be harmed in any way. It is an offence to disturb or harm a bat, or damage or obstruct access to a roost This survey will be undertaken in accordance with the Bat Conservation Trust Good Practice Guidelines, 3rd edition, 2016.

The Hertfordshire Biodiversity Partnership has developed the Biodiversity Action Plan (BAP) for the county as A 50-year Vision for wildlife and natural habitats of Hertfordshire along with the Hertfordshire Strategic Green Infrastructure Plan 2010. At the local level East Herts Council (EHC) has a Landscape Character Area (LCA) Plan for the whole district. This is LCA 66 Cole Green & Hertingfordbury Settled Farmland which states the following:

LANDSCAPE CHARACTER A mainly pastoral area of small hamlets, with parkland and mineral extraction along its southern edge and urban influence at its eastern extent **KEY CHARACTERISTICS** • small double gravel ridge between two rivers, with a small valley between • although focused on Hertford at its eastern end, most of this area is remote and tranquil, despite the presence of the A414 in the north west. • small variable villages and hamlets, long established and with 20th-century additions, clustered around village greens • influence of rivers not apparent, even at confluence within the area. **DISTINCTIVE FEATURES** • use of disused railway for Lea Valley Walk. Possibly the best signed and accessed footpath in the county, but dull and gloomy • railway viaduct at

eastern end PHYSICAL INFLUENCES Geology and soils. Clay soils over till (glacial drift); gravel locally Topography. Gently undulating minor ridges with a small valley between them Degree of slope. 1 in 35 Altitude range. 44m to 75m Hydrology. The Mimram and the Lea flow eastwards to their confluence on the western edge of Hertford. Both rivers are covered in other landscape character area descriptions • Woolmer's Park springs within the central valley and a designed lake at Holwell Court. Land cover and land use. This area consists mainly of treed arable farmland with small settlements. There are a few nurseries and some pasture around the settlements. Vegetation and wildlife. There is little woodland, mainly focused in small blocks along the Lea, but the general impression of the area is of views filtered by vegetation. Woodland species are hornbeam, with ash and sycamore. Field boundaries are tall hedges of hawthorn and hazel with hedgerow oaks or ash. Elm is seen locally, as are relic orchards around East End Green and Letty Green.

SITE

A full Phase 1 Habitat Survey was not deemed necessary as although the site (part of The Elms garden) has a rich and varied landscape, the Orchard Cottage plot appeared to be one with no important habitats or ecology of significance. A Walkover Ecological Survey has therefore been undertaken. However, if the survey identifies any wildlife of significance, measures will be taken as set out in the JNCC guidance Handbook for Phase 1 Habitat Surveys (2010) and CIEEM Guidelines (2017).



The application site covers only part of the land (1.3 acres) all in the ownership of the adjacent property (The Elms). This is a rectangular plot within a large rural garden. The area of the existing cottage (0.2 acres) is a corner nearest to Chapel Lane with a boundary hedge and fruit trees behind. As this was never intended as a habitat accommodation, it is now well below current environmental and sustainability standards for housing. It is proposed to replace this with a larger

dwelling, in a more central position on the site, as the owners of The Elms wish to move into a smaller retirement property.

Orchard cottage is a single storey wooden dwelling (softwood feather -edged boarding with slate roof and small extension with a clay tile roof, adjacent stone terrace and parking area. A small greenhouse is also within the proposed site. This is currently a grassed area (mainly *Poa pratensis*) with a hornbeam (*Carpinus betulus*) hedge, and mature trees, including fruit trees. The larger area of The Elms has extensive herbaceous borders, a natural pond and tree planting in an overall natural garden. This is all in keeping with the rest of Pipers End and the Green Belt (GB) location.

GARDEN DESIGN

The owners of The Elms are keen gardeners, which is evident in the extensive planting, native pond and wild areas of the site. This principle will be carried on into the proposals with a new garden of similar character.

There will be a new native hedge (hawthorn, hornbeam, holly etc.) round the property (in part replacing the existing dead Wych Elm hedge) interplanted with new fruit trees (replacing older trees) to form a contained garden. Within this, around the proposed dwelling, will be a garden of floristically rich herbaceous planting (good for nectar seeking insects) and associated mixed deciduous /evergreen shrubs (good for birds seeking perching, nesting, food source -berries).

This will be planted in a no-dig technique of sand and materials to suppress the exiting grass, in which the new planting will be able to use this to develop and thrive. Additional trees (including native cherry) planting is proposed, along with small ponds, a pergola (with climbers) on one elevation of the new dwelling, with bulb planting under the retained existing oak tree. Bird boxes will add to the biodiversity of the proposals. These are set out in the sketch design in this report.

ECOLOGICAL ASSESSMENT

The cottage, considering its age, on visual inspection, would appear to be in reasonable condition. Boarding and windows, show no signs of general deterioration. Similarly, the roof was in reasonable condition, with no visible broken or missing tiles. As The Elms is not part of the application site, it was not specifically inspected along with its garden, apart from assessing Orchard Cottage in its overall context.

One of the main ecological concerns is for bats, European Protected Species (EPS) The building was inspected first. This is a simple wooden structure which is open

to the roof and does have an internal ceiling but no loft. This type of building is not suitable for bats and therefore in accordance with the Bat Conservation Trusts Bat Surveys, Good Practice Guidelines, 3rd. edition 2016 it is deemed to have a negative possibility as a bat roost.



The area around the garden was inspected next. This is an informal grass area with mature trees surrounding the cottage. A general amenity area of rough grass (*Poa spp.*, *Deschampsia spp* etc) and a few ephemerals (*Stellaria media*, *Lamium purpureum*). A habitat that would attract bees, butterflies and other invertebrates. This extends to the areas around the greenhouse with a few more pioneers (*Hieracium vulgatum*, *Achillea millefolium*, *Sonchusa arvensis*) and continues into the garden of The Elms. These would be used by insects for feeding and possibly crickets and similar for egg laying in the tussocky edges. There were no runs, holes or burrows seen in the vegetation that small animals (voles, shrews) would exploit or mole hills found

There are no areas of discarded material, (brick, rocks) which could be used as temporary refugia for small animals (mice, hedgehogs) or reptiles (common lizard, slow worm) but there are no places for larger wildlife like [REDACTED] deer with no signs of footprints, droppings /latrines, discarded food was found.

It is only the trees that have any particular ecological importance. The oak (*Quercus robur*) is the main significant tree the rest being ornamental and fruit trees, of limited value for wildlife. They do however have merit for birds as perching and possible nesting sites. The fruit trees will also attract a range of birds and animals. No nests were noted as this is out of the normal breeding season (May - Aug.). Using the British Trust for Ornithology (BTO) guidelines the site is classed as low for Avifauna.

There is no water on plot. Within the garden of The Elms is a large natural pond where Great Crested Newts (*Triturus cristatus*) EPS, or other amphibians (frogs, toads) may have colonised. However, this is far enough away from the proposed

new building to be unlikely to be within the range of foraging. No wildlife was found under selected stones (potential refugia) on the inspection. Using the Great Crested Newt (GCN) Suitability Index the site has a negative score.

This ecological assessment indicates that although the area around Orchard Cottage has only limited ecology of limited wildlife value it is within a larger garden with more natural areas of higher conservation importance. Also, the garden proposals for the new dwelling will increase the range of habitats for wildlife. Given that the proposal is in effect part of The Elms Garden wildlife has free access to move around the whole area. It is therefore proposed that a Precautionary Working Method Statement (PWMS) be set to ensure the site works do not unduly affect the ecology of the site

PRECAUTIONARY WORKING METHOD STATEMENT

- 1 Some of the existing trees will be retained. These should be protected with 2m Heras (or similar) fencing in accordance with BS 5837(2012) Trees in Relation to Construction etc. and retained in this position until the end of the site works.
- 2 The trees may be used by birds for nesting. Between March -August any arboricultural work should not be undertaken if birds are affected and particularly important for House Sparrows (*Passer domesticus*) which are in steep decline (Red Listed).
- 3 If this is necessary in the breeding season, the vegetation should be inspected to see if nest sites are present and active. If this is the case the ecologist should be contacted for advice.
- 4 It is also important to ensure that if clearance does involve wood fires these are inspected to ensure animals like hedgehogs have not temporarily taken refuge here.
- 5 Although the likelihood of wildlife being present on the site has not been found, as a precautionary measure, works to prepare the land should be timed to minimise the potential impact on possible wildlife.
- 6 Any vegetation clearance should ideally be removed in winter (Dec-Feb) to ensure that any possible foraging / migrating between areas are not affected.
- 7 Any soil stripping should ideally be undertaken during the active season, between Mar-Oct and in suitable weather conditions. Given that wildlife is potentially likely to visit the site, simple precautions will be sufficient to ensure that they do not exploit more attractive or useful habitats created during the works by keeping the site tidy and storing materials off the ground. Any soils stacking should be smoothed to prevent potential cavities and covered in tarpaulin.
- 8 If in the unlikely event that animals are found on site, they should be left to disperse of their own accord. Any that need assistance should be gently placed in a clean bucket and moved on to a safe location away from the development.

BIODIVERSITY NET GAIN

The Environment Act 2021 has a mandatory require for Biodiversity Net Gain (BNG) on developments of a minimum of 10%. However, this does not apply to schemes of 10 units or less but developments are still expected to provide suitable mitigation or enhancement and incorporated into the ecological and landscape design.

The client has shown in his garden design proposals, that the replacement dwelling will not only be more sustainable but also much more environmentally friendly to wildlife. On this basis the proposals should meet the requirement for ecological mitigation and enhancements.

CONCLUSIONS

Coyne Environmental has been instructed to undertake an ecology study of Orchard Cottage, Pipers End, Letty Green to find if there are any protected wildlife or sensitive habitats, prior to assessing the application for development. This Report indicates that no wildlife of significance was found on the site on the survey.

The trees are the only vegetation of ecological value and need to be protected before any works take place and the required protective fence maintained in good order, until all the works are complete. The garden design proposals show that this will be a scheme to increase the overall biodiversity of the site.

As the overall area may be used as a temporary refuge for small animals a PWMS is proposed. This will ensure any wildlife on site or passing through the area is not unduly affected by the proposal.

With these recommendations I consider this Report would satisfy the LPA requirement for information on biodiversity and the impact on wildlife, EPS in particular, and mitigation recommendations. On this basis, in my professional opinion, I consider that the application can be assessed and that no further ecological studies would be required to determine the submission.

REFERENCES

Sketch Planting Plan

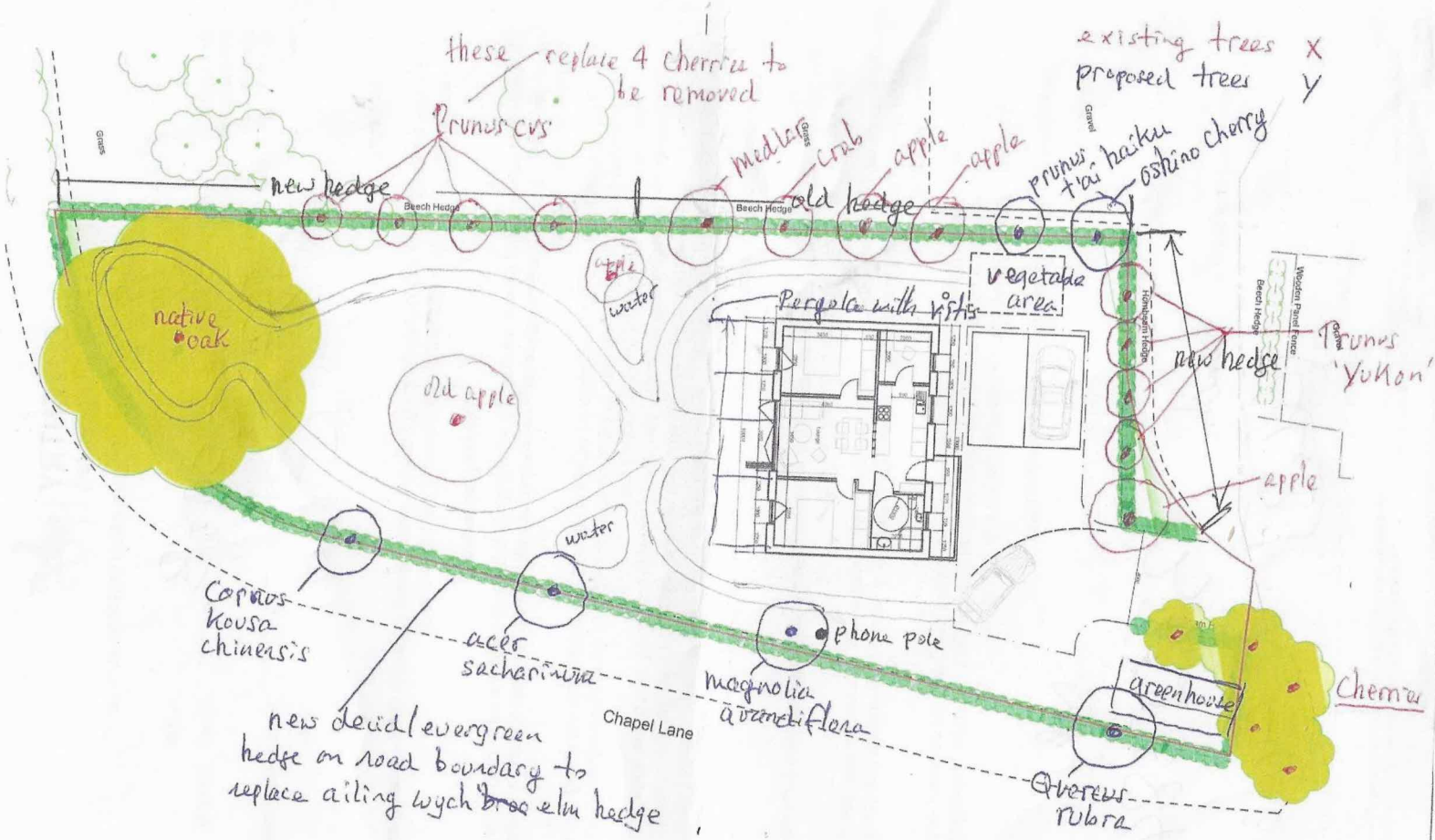
Landscape Character Area Map

Proposals Plan

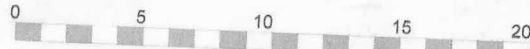
Planning Statement , Alison Young Planning Associates

The Wildlife and Countryside Act (1981)

BS 42020 (2013) Biodiversity -Code of practice for planning and. development.



Scale line @ 1:150



Revisions

1. This drawing and all the designs herein are the sole property of HNT and may not be used without written authorization.
2. These drawings are not for construction and the contractor must verify all dimensions and materials before any construction.
3. Dimensions for this drawing are approximate and to be confirmed on site prior to construction.
4. All measurements in metric.



Project	SITE PLAN		
Drawing	REAR ELEVATION & SECTION		
Scale	Date	Drawing No	Revision
1:200@A3	SEPT 2023	252_GA-10	

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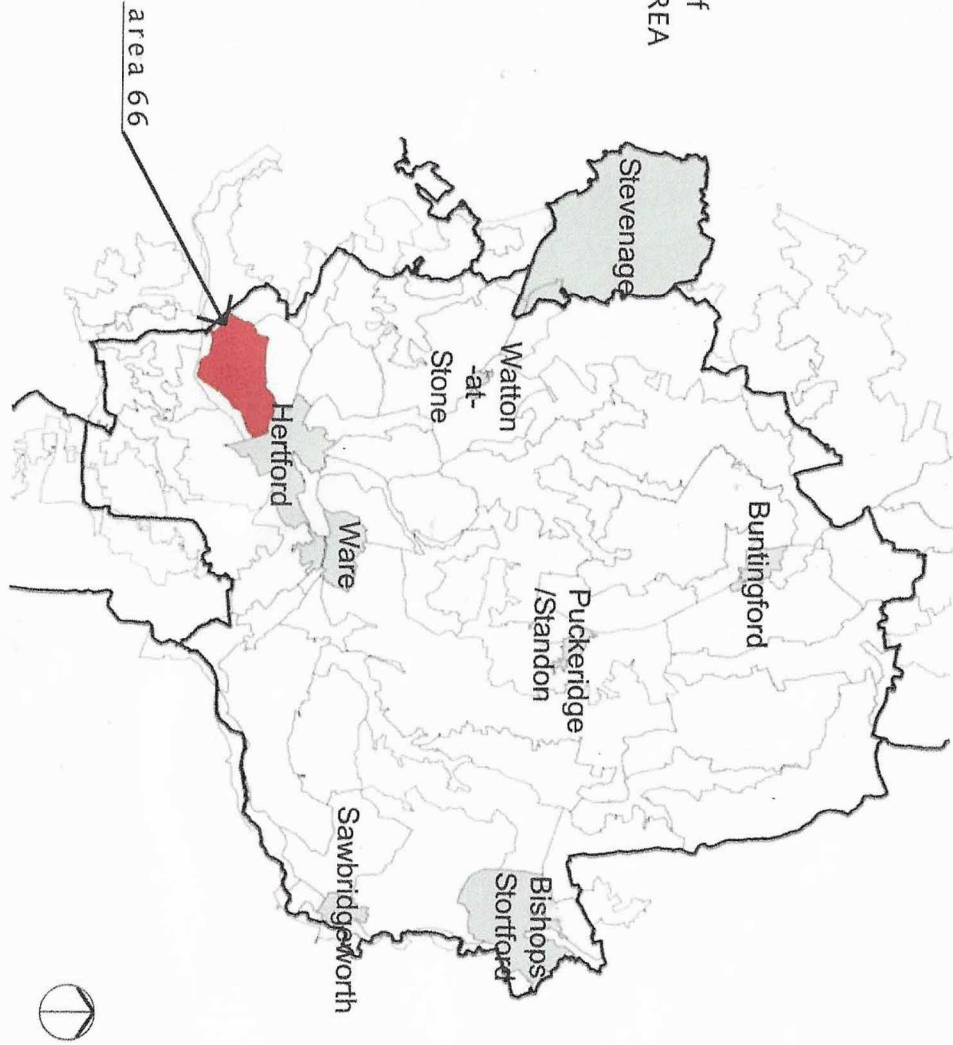
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COLE GREEN AND HERTINGFORDBURY SETTLED FARMLAND

area

County map showing location of
LANDSCAPE CHARACTER AREA

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<p>Revisions</p> <p>1. To show ground level, including the location of the proposed driveway, and the location of the proposed driveway, and the location of the proposed driveway.</p> <p>2. To show the location of the proposed driveway, and the location of the proposed driveway, and the location of the proposed driveway.</p> <p>3. To show the location of the proposed driveway, and the location of the proposed driveway, and the location of the proposed driveway.</p> <p>4. To show the location of the proposed driveway, and the location of the proposed driveway, and the location of the proposed driveway.</p>	
<p>Project</p> <p>SITE PLAN</p> <p>Scale: 1:200@A3</p>	
<p>Drawing</p> <p>REAR ELEVATION & SECTION</p> <p>Date: SEPT 2023</p>	
<p>Drawing No</p> <p>252_GA-10</p>	
<p>Revision</p> <p>-</p>	
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