

PRELIMINARY ECOLOGY SURVEY

FOR

FAIRWAYS, NEWTON , SUDBURY.

CO10 0QN

ON BEHALF OF

Mr M PHARE
OPUS ARCHITECTURE AND DESIGN

FOR

Dr WANG

JANUARY 8th 2021

TCW/FE/ 882121

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A Member of the Suffolk Bat Group

and C M Vickers BSc Hons

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For : Dr Wang
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CO10 0QN

PROPOSAL - Residential Development.
Ref drawing No 402/P/01 Opus 0.719 hectares.

Site --- Land ranger grid reference TL 913406
Red Line boundary site plan Opus Architecture

1 METHOD

SITE VISIT - FIELD STUDY

A walk over of the proposed development site, neighbouring ponds and building inspection was made on the 4th January 2021 by Tim Watts an independent, qualified and experienced ecologist.

The pond areas and pond bed of the neighbouring land were walked with the aid of chest waders and the use of a steel framed 650 by 450 mm - 2 mm mesh dip net. An investigations was made of invertebrate / macro invertebrate and flora – macrophytes – to aid HSI calculation for Great Crested Newts.

The sites buildings were inspected following Bat Conservation Trust - Good Practise Guidelines (3rd edition) PRA Preliminary Roost Assessment techniques.

All external surfaces carefully checked for evidence of potential and actual entry / exit points and roost places. This with the aid of 4.7 m Wolfwise Telescopic ladder and Led lenser head torch. Investigations made for live or dead specimens, droppings, urine splashings, fur-oil staining and any noise / squeaking that could be attributed to the presence of bats.

A thorough search was made of external wall bases, brickwork ,window sills, window glass (impact / staining), external cladding, felt tiles, eaves, soffits, fascias, and roof area of tile and chimney breast. Vision aided by the use of a 1,500,000 CP floodlight.

A systematic search was made of the internal areas of the buildings entering loft areas to inspect roof voids – ridge beam, purlings, chimney brickwork, any cracks or crevasses, ceiling felt and timber. The search carried out carefully and quietly to listen for any squeaking of bats, with an initial appraisal in darkness to establish any access points.

The upper floor surfaces of loft, buildings false flooring, and wall cavities were inspected for droppings, live or dead specimens, feeding remains – moth wings or staining.

Ground floor surfaces , window sills, cubbards and chimney hearth were inspected for evidence of bat droppings / staining and feeding remains within buildings / rooms which were not in regular use.

Full access was given to all buildings.

All main buildings / roof areas / internal loft spaces were in good and accessible condition with no barriers of safety concerns . Small single story sheds in poorer condition did not cause safety issues or access problems.

Buildings were inspected for birds nests and specifically evidence of Barn Owls – feathers, nesting material, pellets, or white splashing of excreta.

Mature trees and scrub were inspected for evidence of Bat roost features – and birds nests.

Consideration of terrestrial / understory habitats of amphibians, reptiles and small mammals.

A general inspection was made of the sites wild habitat, and consideration of merit to local EPS and LPS with regard to residence or corridor / connectivity.

2 OBJECTIVE

Objective to establish the possible presence and habitat suitability of protected species within the area of impact. Consideration given to land area of physical development and that of surrounding landmass – within viable / relevant distance with regard to particular species mobility / access to any change of use /development proposals .

3 LEGISLATION

The objective was to investigate for species which have specific protection within the Wildlife and Countryside Act 1981, European Habitats Directive on Conservation of Natural Habitats of Wild fauna and Flora 1994 and subsequent amendments to Conservation of Habitats and species regulations 2010 (paragraph 98 of circular 06/2005 accompanying PPS9) states ' the presence of a protected species is a material consideration where a development proposal that if carried out would be likely to result in harm to the species or it's habitat' Followed by the Conservation of Habitats and Species regulation 2017 articles 1(b) and 1 (h) of the habitats directive ' Priority Natural Habitat Type' and ' Priority Species' – ENGLANDS'S BIODIVERSITY 2020 : A Strategy for Wildlife and Ecosystem Services.

The threshold above which a person will commit the offence of deliberately disturbing a wild animal of European protected species has been raised. Now, a person will commit an offence if he deliberately disturbs such animals in a way as to be likely significantly to affect (a) the ability of any significant groups of animals of that species to survive, breed or rear or nurture their young, or (b) the local distribution of that species. However it is to be noted that the existing offences under the Wildlife and Countryside Act (1981) as amended which cover obstruction of places used for shelter or protection (for example bat roost-badger set) ,disturbance and sale – still apply to European protected species.

Survey consideration given to:

The Protection of Badgers Act 1992 consolidates previous badger legislation by providing comprehensive protection for badgers and their setts, with requirement that any authorised sett disturbance or destruction be carried out under NE licence.

The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC) sets out general rules for the conservation of all naturally occurring wild birds, their eggs and habitats. It requires a member states to designate Special Protected areas (SPAs) for protection of certain species.

The Survey was carried out with consideration of the Countryside and Rights of Way Act 2000 "Crow Act" and amendments to the species protection measures provided by the Wildlife and Countryside Act 1981. With particular reference to Great crested newts.

The Hedgerows Regulation 1997 aim to protect important hedgerows in the countryside. They make it illegal to remove most countryside hedges without first notifying the local planning authority, and provide protection for 'important hedgerows'. Particular seasonal reference to bird nesting regarding hedgerow management works.

In addition to investigate local species listed in the UK Biodiversity action plan for Suffolk/Essex - 'Species of Conservation Concern' to build up a reliable and responsible picture of localised populations where present.

IN CONSIDERATION OF THE LATTER ANY REQUIREMENT FOR FUTURE SURVEY WORKS.

4 SPECIES OF LEGAL PROTECTION

The species below have particular conservation status as mentioned within both local and European relevance, red/amber listed or covered by general protection within life cycle, migration, or habitat that may be considered and surveyed within an ecology statement.

Species covered by Statutory Instrument – Schedule 2EHD

Great Crested Newt (*triturus cristatus*)
Otter (*lutra lutra*)
Bats (all species *rhinolophidea* and *vespertilionidae*)
Dormouse (*muscardinus avellanarius*)

SPECIES COVERED BY LOCAL ACTION PLANS AND WILDLIFE AND COUNTRYSIDE ACT 1981 ---- SPECIALIST CONSERVATION / PRIORITY SPECIES.

Barn Owl (*tyto alba*)
Water vole (*arvicola terrestris*)
Hazel Dormouse (*muscardinus avellanarius*)
Hedgehog (*erinaceus europaeus*)
Badger (*meles meles*) covered by the Badgers Act 1992

All amphibians - Great crested, Smooth, and Palmate newts. Common and Natterjack Toad, and Common Frog.

All reptiles.

All wild birds nests and eggs
Specimen and specialist flora

Note and record non Native / invasive alien species such as Japanese knotweed / Signal Crayfish

IMPLICATIONS OF LEGISLATION AND POLICIES

With legal responsibilities and planning implications, it is essential that any ecological assessment of potential development site, including the area of this report, must determine the possible presence or absence of any protected species as part of any planning development consideration. Or make recommendations for further survey work to conclude presence of protected species.

Without this assessment the potential developer would be unable to demonstrate due diligence in his/her responsibilities. Further more the local planning authority would not have been provided with sufficient information for a planning decision to be made. This could result in the application being designated incomplete and not determined, or simply refused.

Where mitigation or compensation measures are required to ensure that no significant impacts will result on biodiversity from the development, the proposed measures may be secured through planning conditions or by EPS Mitigation Licences from Natural England.

5 CONSIDERATION WAS GIVEN TO THE SITES HABITAT SUITABILITY TO LOCAL PROTECTED SPECIES WITH REFERENCE TO THE SUFFOLK BIODIVERSITY INFORMATION SERVICE DATA.

CONSIDERATION GIVEN TO AREA OF IMPACT REGARDING HABITAT CHANGE AND DISTURBANCE TO THE LOCAL ENVIRONMENT.

6 A SEARCH WAS UNDERTAKEN FOR EUROPEAN AND UK STATUTORY DESIGNATED SITES WITHIN 7 KM OF THE SITE BOUNDARY USING MAGIC (MULTI AGENCY GEOGRAPHIC INFORMATION FOR THE COUNTRYSIDE) ON LINE DATA RESOURCE

7 SITE DESCRIPTION

The development proposals involve some 0.719 hectare of residential garden dominated by mown grass, residential buildings, storage sheds and barn garage / workshop.

The site is accessed by a tarmac road leading from the A134 Sudbury Road some 250 metres to the east.

A Public footpath crosses / divides the site following the access road, through the middle of the buildings area and continues westwards out onto managed Golf Course area.

The site is divided from Newton Green (Village Common) to the East by scrub , dry depression and pond.

A gappy hedge with occasional mature trees boundary the mown grass interior, to the South.

Perimeter scrub and buildings create the Western boundary of the site, which back directly onto the actively managed land area of Newton Golf Club.

The sites Northern boundary beyond a mown grass area is marked by fence panelling, dividing the site area from the Newton Golf Club House and Car park .

There are three main buildings on the site and a collection of small sheds and porto cabin.

8 FIELD SURVEY - HABITAT DETAIL

8.1 A mown grass of area of managed lawn stretch south from the central buildings of the site. The area is edged by the occasional mature Ash – *fraxinus*, Evergreen Oak – *quercus ilex*, Ivy – *hedra ilex* clad Common Hawthorn-*crataegus monogyna*, Silver Birch – *betula pendula* and Bird Cherry - *prunus padus*.

8.2 There is no formal hedge line to the mown grass of the southern boundary, but an adjoining area encompassing Bramble – *rubus fruticosus* understory to Blackthorn – *prunus spinosa* and Elder – *sambucus*. This creating a scrub belt to the East of of the site, South of the access.

8.3 This eastern boundary area encompasses a dry depression of historic pond system some ten to fifteen metres in width. It has been effected by water table loss and does not form part of any present water drainage.

8.4 The area is heavily shaded by scrub and retains one wet area of pond opposite Potash Cottage.

The pond is heavily shaded by over head mature Ash, and Hawthorn scrub to the East. It has retained some aquatic plant colonies of Purple loosestrife – *lythrum salicaria*, Gypsy wort – *lycopus europaeus*, with Yellow fag – *iris pseudacorus* and Greater Pond Sedge- *carex riparia* on existing waters edge.

There is evidence of Starwort - *callitriche* and Duckweed – *lema* on the pond surface.

8.4 The pond depth averages 350 mm and appears highly likely to dry out over the summer period. Heavy silt deposits have been created by leaf litter from surrounding trees and shrubs and there is evidence of historic pollutant amongst silt deposits.

There is no sign of aquatic root systems that would provide submersed spring / plant growth to enhance water quality.

The ponds invertebrate population appears extremely low with only Water slater – asellus aquatics identified.

8.5 The sites Southern boundary backs on to the residential gardens of Potash cottage and ornamental shrubs.

8.6 The western boundary consists of fencing and occasional sections of Bamboo – bambusa vulgaris and scrub Elder. Beyond is the managed area Newton Golf Course of semi mown / mown grassland with new plantings of English Oak – quercus robur and Birch.

8.7 The Northern area of the site consists of mown grass/ lawn with boundary wooden panel fencing. There is the occasional ornamental shrub but no hedging of any habitat merit. Beyond the fencing of the proposed development site is the car park and club house of Newton Golf Club .

8.8 A mature silver birch stands left of the sites entrance drive.

8.9 A dense clump of Bamboo some 50 sq.m in size stands central to the site amongst the buildings. There is some evidence of bird nesting but no evidence of droppings that would suggest it is a major roost.

8.10 Buildings on the site consist of fletton bricked bungalow, with concrete tile and cemented eaves and gable. Windows / doors / facia / chimney all in complete and secure condition. Internal loft with full access. Inspection carried out as per Method statement 1 regarding bats.

8.11 Single story wooden framed / ply shelled / felt / asbestos roofed storage sheds in varying states of condition. One birds nest identified .

8.12 A porta cabin -- timber frame and cladding, flat felt roof. In good condition and in regular use. No sign of wildlife access.

8.13 Main metalled Barn on west side of the site. Construction - steel RSJ main support with galvanised purlings , tin sheet cladding and roof. Concrete flooring, false floor with open roof void. Building some 1200 sq metres in area. Building in regular use and light illuminated. No signs of bird or bat activity.

9 DISCUSSION

9.1 The site - proposed development area does not contain areas of wild habitat.

9.2 Open areas consist predominately of regularly mown grass and hard standing / access ways with little merit to local wildlife.

9.3 Non native bamboo has developed in the centre of the site and its root systems have spread the surrounding building edges. Some has taken root on the margins of the site where it may spread to neighbouring land.

The Bamboo however has created some habitat for common bird species nesting area and potential winter roost.

9.4 The occasional mature trees and ornamental shrubs around the periphery of the site would provide shelter and nesting area to garden bird species.

9.5 An extensive investigation and search of the sites buildings show no evidence of Bats and limited evidence of bird nesting.

9.6 The neighbouring pond and terrestrial area (beyond the Eastern boundary of the site) would have some merit to amphibians. The water quality is poor with regard to breeding conditions and the immediate area requires woodland management. HSI calculations and an assessment was made regarding specifically Great crested Newts.

10 ASSESSMENT OF RELEVANT / REGIONAL PROTECTED - EPS / LPS SPECIES

10.1 AMPHIBIANS.

No evidence of the species was found, the site lacks suitable refuge material (where careful observation may be found at this time of year) The site lacks terrestrial habitat – understory, wood/ soft leaf litter, ground scrub and tussock grass that provide the predominate living environment of amphibian species.

Beyond the proposed development sites boundary, the neighbouring scrub and pond area provide some of ingredients that produce sustainable conditions for amphibians. The pond and water quality are the crucial factor to all amphibian breeding and sustainability for the long term. A Great Crested Newt - Habitat Suitability Index scores was calculated .

HSI DATA SHEET HABITAT SUITABILITY INDEX TABLE

HSI Criteria	POTASH COTTAGE
SI1 Location Field Score	1
SI2 Pond Area Field Score	0.1
SI3 Pond Drying Field Score	0.1
SI4 Water Quality Field Score	0.33
SI5 Shade Field Score	0.6
SI6 Fowl Field Score	1

SI7 Category	1
SI8 Ponds Field Score	1
SI9 Terrestrial habitat Field score	1
SI10 Macrophyt es Field score	0.3
TOTAL	$0.000594 \text{ to } 10^{\text{th}} \text{ root} = 0.475$

Categorisation of HSI Scores.

The Lee Brady developed HSI scoring system defines a ponds suitability for Great Crested Newts as below.

< 0.5 = Poor
 $0.5 - 0.59$ = below average
 $0.6 - 0.69$ = average
 $0.7 - 0.79$ = Good
 > 0.8 = excellent

The pond would show poor conditions / habitat suitability for GCN however other amphibians are more tolerant to these conditions.

10.2 REPTILES

The sites mowing management of grass / lawn, lack of hedge line understory – cover or refuge materials make the site unsuitable to reptiles.

10.3 BATS

An extensive search was made of the buildings and no evidence of the species was found.

The sites surrounding grassland Common and golf course area to the South (of less disturbance) may be visited as feeding area to bats however the proposed development area does not form part of any particular habitat flyway.

10.4 BARN OWLS

No evidence of Owls was found in the buildings or surrounding mature trees .

10.6 HEDGEHOGS

There is no hedge / scrub area that would provide shelter or viable habitat for the species on the proposed development area. Neighbouring habitats of scrub and grassland on the golf course and Common away from the road and access ways provide some merit.

10.7 OTTERS

The site does not provide habitat or corridor for otters.

10.8 WATER VOLE

The pond has some merit to the species however few colonies exist without steep banks in which to burrow and direct escape into deep water below --- this to avoid predation. No evidence of the species was found.

10.9 BIRDS / BIRDS NESTS

The site has limited merit and this confined to garden bird species. The site lacks the dense structure of hedges to provide shelter and food. The building shelter / nesting areas for birds is limited as most are sealed to wildlife.

10.10 NON NATIVE / INVASIVE SPECIES

Bamboo is not native to UK / Europe and can be considered invasive however it can only spread via it's root system, not by seed. However it should not be planted on the boundaries of the site, to avoid any future encroachment on neighbouring property.

11 IMPACT ASSESSMENT

11.1 The development proposals will not impact upon wild habitats.

11.2 There would be no loss of habitat on which EPS or LPS are dependant.

11.3 The proposals will not affect the movement of local wildlife species / break or disrupt existing wildlife corridor.

11.4 The demolition or construction process will not harm / endanger local wildlife provided the recommendations are followed.

11.5 There would be an enhancement of habitat if planting recommendations are followed.

12 RECOMMENDATIONS

12.1 Any works on the existing structures / buildings on the site from March 1st to September 1st should not take place before a birds nest survey has been undertaken , to ensure no active birds nests would be disturbed over the process.

12.2 Any planned clearance of the internal bamboo clump should be done outside the bird nesting season 1st March to 1st September.

12.3 Long term storage of demolition materials should be avoided to prevent injury to sheltering wildlife during later movement.

12.4

During the construction phase , trenches should be filled on the same day as excavation where possible to prevent animals from falling in. Where this is not possible any excavations should be firmly covered overnight with ply/OSB sheets, to exclude any access.

12.5 All building materials should be stored on bare firm ground or hard standing of the adjoining car park area. - on pallets, to avoid injury to sheltering animals during later movement. Long term storage of materials should be avoided.

12.6 Any building waste stored on site temporarily should be in skips to prevent animals taking refuge.

12.7 A triple row of native hedging should be planted around the perimeter of the site, edging the existing lawn area. This of Common Hawthorn, Field Maple, Dog rose, Spindle berry, Dog wood and Hazel. The hedging should be guarded to prevent rabbit damage. The small section of bamboo should be removed.

The hedging should be managed / trimmed to produce a dense structure of two metres in height and allow understory base growth of one and half metres.

This creation would compliment any future maintenance works of coppicing of the South eastern boundary scrub and pond area (in neighbouring ownership)

The future hedge line would produce and aid local wildlife corridors in the immediate vicinity and enhance general habitat of the site.

12.8 Two ' small hole – entrance nest boxes (Reference BTO Nest box guide) should be installed on the West side of future buildings, facing the new hedging.

13 REFERENCES

- Bat Conservation Trust – Bat Surveys for Professional ecologists
WildCare – NIBS 2020
Chris du Few BTO Nest Box Guide.
Gent T and Gibson S (2003) Herpetofauna Workers Manual, JNCC Peterborough
HMSO (1981) Wildlife and Countryside Act . HMSO London
Tom Langton, Catherine Becket, and Jim Foster – Great Crested Newt Hand Book
Frog Life (2001) – Halesworth Suffolk
Harris S, Cresswell P and Jefferies D (1989) Surveying Badgers, The Mammal
Society London.
Woodland management for Butterflies and Moths Clarke S A, Green DG, Bourn N
A, Hoares JA (2011)