

ECOLOGICAL SURVEY OF LAND OFF COLCHESTER BYPASS, LEXDEN, COLCHESTER, ESSEX

1 INTRODUCTION

- 1.1 ESL (Ecological Services) Ltd has been commissioned by The Robert Doughty Consultancy to carry out an ecological survey of a plot of land off Colchester Bypass, Lexden, Colchester (NGR: TL 968255), prior to development. An assessment of the potential for ecological enhancement of the site was also undertaken. The survey was carried out by two experienced ecologists on 11 August 2006. This reports details the findings and provides recommendations.
- 1.2 A habitat map is given as Figure 1 and photographs are included within the text. English names are used in the text for species recorded on the site, with scientific names included in the site species list in Appendix 1. Both English and scientific names of higher plants are according to Stace (1997).

2 METHODS

- 2.1 Information regarding the location of statutory and non-statutory sites was collected from the websites of English Nature, Essex County Council and Essex Wildlife Trust.
- 2.2 The survey comprised a walkover of the site to map and characterise each habitat and plant community. An assessment of the hedgerows was made against the criteria given in the Hedgerow Regulations (1997). A search for signs of use by protected species was made which included some 'cold searching' for reptiles. The trees on site were assessed for their potential to support roosting bats and all habitats were assessed for their potential to support breeding birds.

3 SITE DESCRIPTION

- 3.1 The triangular-shaped site is bounded to the north and east by the A12 and to the south by the Colchester Bypass. A track leading to a camping and caravan park and Maltings farm is present on the third side.
- 3.2 A tree-lined dog walk separates the survey site from the camping site. A blackthorn hedge borders the A12 to the north and extends on to the site as scrub. Elder dominates the hedges lying adjacent to the Colchester Bypass and the farm track, with sycamore, lime, hawthorn and ash also present.

- 3.3 A shallow stream at the southern-most point of the site flows adjacent to the track, passing under a land bridge which gives access to the site. The stream runs along the western side of the site and is dry for part of its length. To the north it widens into a shallow pond approximately 0.25m deep. Clear water is only present in the outer part of this pond. The inner section is almost dry and well vegetated with Indian balsam, common reed, great willowherb and water parsnip. Indian balsam also lines the banks of the stream. The pond is heavily shaded by a mature pedunculate oak (T1), willows and bramble scrub.



Photograph 1 Pond with central vegetated area



Photograph 2 Central rough grassland area

- 3.4 The centre of the site comprises rough grassland supporting meadow foxtail, false oat-grass and common ragwort. The edge of the site is dominated by tall ruderals comprising common nettle and spear thistle.

4 POTENTIAL CONSTRAINTS

4.1 IMPORTANT SITES

- 4.1.1 The Roman River SSSI lies within 5km of the site. This comprises a mosaic of woodland, scrub, heath and acid grassland.
- 4.1.2 The Lexden Gathering Grounds Nature Reserve lies south of Maltings farm, within 2km of the site. This comprises semi-natural woodland with acidic grassland dominated by sheep's sorrel.
- 4.1.3 Neither site abuts the potential development area, so there will be no direct impacts. The nature of the proposed development is as yet unknown but it is unlikely that there will be an impact on these sites from the development.

4.2 HABITATS, PLANT COMMUNITIES AND SPECIES

- 4.2.1 All habitats and plant communities present are locally and nationally common and widespread and do not feature in the UK or Essex Biodiversity Action Plans (Anon, 1998, 1999 and ukbap.org.uk)
- 4.2.2 All plant species present are similarly common and widespread. None of the important acid grassland species found on the Lexden Gathering Grounds NR is present on this site.
- 4.2.3 Indian balsam lines the banks of the stream. This invasive alien plant grows in dense stands that suppress the growth of native grasses and other flora. It is an annual, dying back in autumn and leaving the ground below bare of vegetation. On stream or riversides this leaves the banks vulnerable to erosion.
- 4.2.4 This is not in itself a constraint on development, but care should be taken not to cause spread. See also section 5 below.

4.3 AMPHIBIANS

- 4.3.1 In England, Scotland and Wales, great crested newts are fully protected under the Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CROW) Act 2000. They are also protected under European legislation, being included on Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994. Taken together, this legislation makes it illegal, *inter alia* to:
- intentionally or recklessly kill, injure or capture a great crested newt
 - damage or destroy habitat which a great crested newt uses for shelter or protection
 - deliberately disturb a great crested newt when it is occupying a place it uses for shelter and protection.
- These provisions apply to all life-stages of protected animals, and in the case of amphibians, to both their terrestrial and aquatic habitats.
- 4.3.2 An aquatic survey was not carried out due to seasonal constraints (the English Nature guideline survey period runs from mid-March to mid-June) and no amphibians were found under adjacent terrestrial refugia. The pond is heavily shaded by encroaching scrub (preventing sample netting) and there was little clear open water and no obvious areas of deeper water. Whilst these conditions are sub-optimal for use by great crested newts, egg-laying plants are present, water clarity was reasonably good and the adjacent terrestrial habitat is suitable. Therefore a survey for this species would need to be carried out in season and in advance of an application for planning permission even if the pond is not directly affected by development proposals.

4.4 REPTILES

- 4.4.1 All four of the more widespread species of native reptiles, that is common lizard, grass snake, slow worm and adder, are given partial protection under the Wildlife and Countryside Act (1981 and as amended) which prohibits *inter alia* the intentional killing, injuring or taking of any of these species. The habitats used by these common species are not protected under the Act and the animals are also not protected from disturbance whilst occupying their habitat.
- 4.4.2 If an unlawful act could be committed during the course of implementing a planning permission it is necessary to be able to demonstrate (in a court of law if necessary) that 'it could not reasonably have been avoided'. The law thus requires that a reasonable effort be made to avoid killing or injuring protected animals in the course of site clearance or development, and this normally requires animals be caught and/or excluded from the impact area in advance of such work.
- 4.4.3 No reptiles were observed on site at the time of survey. However, the central rough grassland area has some potential to support common lizard which is commonly found in Essex. It is recommended that further surveys are carried out to determine whether the site is used by lizards. Such surveys must be carried out during the reptiles' active period i.e. from mid-March to mid-October.

4.5 MAMMALS

- 4.5.1 In England, Scotland & Wales, all species of bats are fully protected under the Wildlife & Countryside Act 1981 and as amended, including amendments in the Countryside and Rights of Way Act 2000. They are also included on Schedule 2 of the Conservation (Natural Habitats, &c.) Regulations 1994. Taken together, this legislation makes it illegal to:
- intentionally or recklessly kill, injure or capture a bat
 - deliberately disturb bats
 - damage, destroy or obstruct access to bat roosts
- 4.5.2 A bat roost is defined as being any structure or place that is used for shelter or protection, and a roost retains such designation whether bats are present or not.
- 4.5.3 Of the trees on site only the mature oak tree T1 has the potential to support roosting bats. It has cracks and fissures in its bark which bats could enter. Bats may feed over the trees and hedgerows and if aerial access to the pond is improved by pruning the overhanging trees they may use this for feeding as well. The close proximity of the roads will be a deterrent to an approach from the north and south but the site could be safely accessed by bats from the adjacent farmland. It is recommended that this tree be retained.

4.5.4 No signs of use by water voles were found and the banks of the stream and the pond were too shallow to support water vole burrows. Therefore there is no constraint to development from this species.

4.5.5 No signs of use by badgers, such as setts, dung pits or feeding remains, were found anywhere on the site or within 30m of its immediate boundaries. At the time of survey there is no constraint to development from this species.

4.6 BIRDS

4.6.1 The Wildlife and Countryside Act (1981 and as amended) protects all wild birds and their nests and eggs. Under this Act it is an offence to:

- kill, injure or take any wild bird
- take, damage or destroy the nest of any wild bird while it is in use or being built
- take or destroy the egg of any wild bird.

4.6.2 In addition, certain rare breeding birds, listed on Schedule 1 to the Act, are also protected against disturbance whilst building a nest or on or near a nest containing eggs or dependent young.

4.6.3 A reasonable assemblage of common birds was heard on site and all of the habitats present have the potential to support breeding birds. Any pruning or felling of trees or shrubs should be completed outside the breeding bird season i.e. from the end of August to the beginning of March. If this is not possible any active nests found must be cordoned off and the nest left undisturbed until the young have fledged and left the nest.

4.6.4 The central rough grassland area could support ground nesting species and should also be cleared outside the breeding season. The pond and stream may also support breeding waterfowl and any clearance work on these should also be carried out outside the breeding bird season.

5 POTENTIAL ECOLOGICAL ENHANCEMENTS

5.1 The site has not been maintained for several years but has several attractive features which could be improved to enhance both its ecological and amenity value.

5.2 The boundary features of this site, namely the trees and the hedges, provide screening from the roads and caravan park and represent good habitat for birds and movement corridors for small mammals. They should be retained as far as possible with removal of some of the elder and the scrub. Some pruning of the trees to improve their growth potential and for safety

reasons may be necessary. The resultant branches should be stacked in piles at the edges of the hedgerow to provide habitat for invertebrates.

- 5.3 More rigorous scrub clearance and tree pruning should take place along the banks of the stream and the pond, both of which are currently heavily shaded. The stands of Indian balsam should be treated/removed to prevent further colonisation by this invasive plant. Removal of this source of spread would constitute a useful enhancement for all downstream habitats.
- 5.4 There is potential for the stream and pond to be an attractive feature. Both are very shallow and hold little water. They should be deepened, the detritus removed from both and the vegetation cleared from the centre of the pond. The pond supports several marginal and aquatic plant species and a proportion of these should be retained as habitat for aquatic animal species and to enhance the visual aspect of the pond.

6 REFERENCES

Anon. 1998. UK Biodiversity Group Tranche 2 Action Plans. Volume 2: Terrestrial and Freshwater Habitats. English Nature, Peterborough.

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