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Ecological Walkover Assessment

**Proposed flood abatement wetland area,
Emsworth
Paul Whitby**

25th October 2013

Report Summary:

- 1. A survey was undertaken on 14/10/13 by Paul Whitby to assess the ecological value of farmland where it is proposed to build a new flood abatement wetland and construct a bund out of the excavated earth.**
- 2. Surveys already conducted by Azure Ecology have identified a small population of common lizards on grassland directly adjacent to the proposed new wetland, and it is assumed that reptiles will be present on grassland where a new bund is proposed.**
- 3. Two ponds are found within 500 metres of both proposed construction zone have already been assessed for great crested newts with presence/absence surveys at an appropriate time of the year. It is considered highly unlikely that any great crested newts would be found on the construction zones at any time.**
- 4. There is potential for ground nesting birds to use the grassy buffer strips on the site and this vegetation should only be cut back/cleared outside of the nesting birds season (1st March to 30th August) unless a hand search by a suitably qualified ecologist is conducted first.**
- 5. It is recommended that repeat reptile surveys are conducted of the grassland buffer strips where the bund and wetland are proposed in order to best inform the mitigation process to protect reptiles.**

This report has been prepared by Azure Ecology, with all reasonable skill, care and diligence within the terms of the Contract with the client.

We disclaim responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

1 INTRODUCTION

1.1 Purpose of the Report

This report gives details of a walk over assessment for protected species carried out at a plot of farmland near to Horndean Road on the western side of Emsworth, Hampshire. The grid reference for the site is SU 742069.

This survey comprised an ecological walkover survey for all protected wildlife and was carried out by Paul Whitby, a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). This report has been written incorporating the 'Guidelines for Preliminary Ecological Appraisal' by the CIEEM.

This survey and report was carried out and produced at the request of Bidwells.

1.2 Background

This report is intended to assess the present ecological value of a plot of farmland near to Horndean Road in Emsworth. The intention is to excavate a new flood abatement wetland and to create a bund from the excavated spoil. Where necessary further surveys or mitigation has been prescribed to ensure that protected species would be protected from disturbance or harm during the construction process.

This survey report has been written following a previous ecological assessments of adjacent land proposed for residential development, including a Phase 1 habitat survey, reptile and great crested newt presence/absence surveys.

1.3 Site Description/Ecological Context

The two proposed construction zones are on farmland west of Horndean road in Emsworth and to the east of Denvilles. The landscape is very flat and comprises of large arable fields, drained by a ditch network. At the time of the survey all of the surrounding fields were being left as stubble for the winter, having been harvested wheat crops in August

The areas that will specifically be impacted through the development process is best shown in picture 1 below, with the proposed wetland area illustrated in blue and the proposed new earth bund illustrated in brown.



Picture 1 – An aerial picture of the site, with indicative illustrations of the proposed wetland site and associated bund.

The location where the new earth bund is proposed is to the side of a ditch that runs between an arable field boundary and a wooded embankment formed to serve the A27. At the time of the survey this ditch was not holding any water and the strong growth of grass in the bottom of the ditch suggested that it is unlikely that this ditch holds water for very long periods of the year. The adjacent wooded embankment supports trees estimated to be up to 30 years of age and included field maple (*Acer campestre*), Ash (*Fraxinus excelsior*) and hawthorn (*Crataegus monogyna*). The ditch itself is well vegetated and includes a very short width of uncut grass to the side of it, with a wider buffer strip which shows signs of more regular cutting and use as an access track by farm vehicles. Notable plants included tufted vetch (*Vicia cracca*), false oat grass (*Arrhenatherum elatius*), maretail (*Equisetaceae spp*), common hogweed (*Heracleum sphondylium*), common bent (*Agrostis capillaris*), cocksfoot (*Dactylus glomerata*), yorkshire fog (*Holcus lanatus*) soft rush (*Juncus effusus*), yarrow (*Achillea millefolium*), creeping cinquefoil (*Potentilla reptans*), common fleabane (*Pulicaria dysenterica*), bristly ox-tongue (*Helminthotheca echioides*) hedge bedstraw (*Galium album*), wild carrot (*Daucus carota*) and bulrush (*Typha latifolia*). It is understood that the ditch would be protected through the development process and therefore the more species-rich parts of this buffer bordering the ditch would be retained.



Picture 2 –The narrow field buffer largely used for access, where the new bund will be created.

The area where the proposed flood abatement wetland would be created includes a wide field buffer strip, a wet ditch and parts of the adjacent arable field, currently in stubble. The wet ditch as a steady but very shallow water flow along it and the dominant vegetation in the bottom, permanently wet part of the ditch is lesser-water parsnip (*Berula erecta*), with some bulrush, american willowherb (*Epilobium ciliatum*) and branched-bur-reed (*Sparganium erectum*).



Picture 3 – The existing wet ditch that will be lost during the creation of the new wetland.

The buffer strip adjacent to the ditch that will be lost during the construction of the new wetland feature has a semi-improved characteristic and is tall, rank and reasonably diverse for an arable field buffer. Noted plants included ragwort, Yorkshire fagg, common fleabane, broad-leaved dock (*Rumex obtusifolius*), creeping thistle (*Cirsium arvense*), ribwort plantain (*Plantago lanceolata*), lesser trefoil (*Trifolium dubium*),

dove's-foot crane's-bill (*Geranium molle*), common vetch (*Vicia sativa*), teasel (*Dipsacus fullonum*), field rose (*Rosa arvensis*), rye grass (*Lolium perenne*) and dandelion (*Taraxicum officinale*).



Picture 4 – Part of the wide grassland buffer strip bordering the wet ditch that will be replaced with a new wetland feature.

1.3.1 Constraints/Limitations

An initial site assessment such as this is only able to act like a 'snapshot' to record any flora or fauna that is present at the time of the survey. It is therefore possible that some species may not have been present during the survey, but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence (such as droppings) has been found.

2 SURVEY METHODOLOGY

2.1 Scope of the survey

A protected species walkover assessment was carried out on 14/10/13 to evaluate the site for its potential to support protected species. Taking into consideration the geographical region and habitat type, species that could be encountered are:

- Badger;
- Bats;
- Nesting birds;
- Great crested newt and;
- Reptiles.

In addition, observations of any important plant communities or other valuable ecological features will have been recorded and detailed. Details of initial survey method for each species are given below.

2.1.1 Badger

An initial assessment was carried out to identify areas that might be used by Badgers (*Meles meles*). Signs of Badgers including setts, incidental foraging signs, runs and latrines, are recorded if encountered during the survey.

2.1.2 Bats

Trees, buildings, and other structures were assessed for the potential to support roosting bats. Bats can use a variety of roost areas including trees with holes, splits, cracks, cavities, Ivy and loose bark as well as a variety of roosting areas within buildings.

A detailed survey was carried out looking for any evidence indicating the presence of bats using buildings or trees, such as rub marks, staining or droppings inside or outside any potential roost sites.

If any definite signs of bats or other evidence had been found (such as actual sightings, droppings, urine stains, odour, scratch marks, grease stains and feeding remains), they would have been recorded.

2.1.3 Breeding Bird Habitat

Habitats were assessed for their suitability for nesting birds. This could include ground nesting species, such as Skylark (*Alauda arvensis*) and Lapwing (*Vanellus vanellus*) or birds that favour urban environments. Where buildings were present, possible use by Starlings (*Sturnus vulgaris*) House Sparrow (*Passer domesticus*), or Barn Owls (*Tyto alba*)

2.1.4 Reptiles

The site was assessed for reptiles, with particular attention paid to those features that provide suitable basking areas (e.g. south-facing slopes), hibernation sites (e.g. banks, walls, piles of rotting vegetation) and opportunities for foraging (rough grassland and scrub).

2.1.5 Great Crested Newt

Initial surveys centre on identifying suitable habitat. If there are ponds or wet ditches that are considered to be suitable breeding habitats for Great Crested Newt (*Triturus cristatus*) within 500 m that are not isolated from the site by unsuitable habitat or physical barriers, then this species could be using terrestrial habitat on the site.

2.1.6 Water Voles

Habitats were assessed for their suitability for supporting water voles. Such habitats could include ponds, lakes and wet ditches. All habitats deemed suitable for water voles were inspected for signs of presence by walking the banks of these feature and looking for burrows, latrines, runs, feeding remains and incidental sightings. Such features are distinguished from other small mammals such as bank voles and rats by an experienced ecologist.

2.2 Legal Protection

Legal protection applying to relevant bird, mammal and herpetofauna species is briefly detailed in *Appendix 1* of this report.

3 RESULTS

3.1 *Badgers*

The site was walked to look for signs of badger activity or any badger setts, but none was seen. The ground across the farm is very flat and whilst the steep sides of the drainage ditches could offer an easy embankment for badgers to excavate into, these ditches are liable to flooding and very wet conditions. The embankment along the side of the A27 is wooded and does include suitable habitat for badgers, however the noise and vibration disturbance associated with the heavy traffic on the A27 makes this a much reduced value habitat for badgers.

3.2 *Bats*

The proposed construction zone includes four mature oak trees that have already been assessed under a separate report. A bat activity survey showed that the ditch and mature trees could act as a poor value flight line, whilst the trees themselves have features suitable for roosting bats.

There were no features associated with the proposed bund that would be considered suitable for bats.

3.3 *Breeding Birds*

The field buffer strips at both the proposed wetland and the proposed bund locations could support ground nesting birds, although their proximity to trees does significantly reduce their value (trees providing easy vantage points for predators such as crows and birds of prey). No features such as trees or scrub are to be lost through development.

3.4 *Reptiles*

The grassy buffer strips that would be lost at both the wetland site and bund site are suitable for supporting some common reptile species, with an estimated total loss of grassland habitat of approximately 0.46 ha in the short-term, during the construction process. A reptile presence/absence survey was undertaken by Azure Ecology of the buffer strip adjacent to the proposed wetland area and identified a low population of common lizards. Additionally survey undertaken by Aluco Ecology approximately 500-600 metres to the north west of the site identified a small population of slow worms and grass snakes, which suggests that due to connecting habitat features, these species could also be present within the vicinity. As the reptile survey by Azure Ecology took place directly adjacent to the proposed wetland area, it must be assumed that the population of reptiles on this site is connected. Similarly, it is likely that a population of common lizards exists across the majority of the farms buffer strips where conditions

are suitable.

3.5 *Great Crested Newts*

A presence/absence survey was undertaken by Azure Ecology in May 2013 in order to establish if any Great Crested Newts were breeding within a pond situated approximately 150 metres to the north east of the proposed wetland. Following four surveys following guidance outlined by Natural England, no Great Crested Newts were identified.

This assessment has looked for any other potential breeding locations for newts within 500 metres of the proposed construction zones and a single pond was identified approximately 200 metres to the north west. This pond is situated close to a housing development called 'Manor Farm' and a planning search revealed that as part of the planning process for this development, GCN presence/absence surveys were conducted of this pond in 2011 by Aluco Ecology, in which no GCN were identified.

3.6 *Water Voles*

The wet ditch adjacent to the proposed wetland had already been surveyed during a survey undertaken for the proposed housing development in May 2013. The ditch was re-assessed during this appraisal and suitability for this species was deemed to be low as despite recent heavy rain it was holding very little water. No signs of water vole activity was identified during the assessment.

The ditch adjacent to the proposed bund location was dry at the time of the survey and did not show signs of regularly holding water, making it an unsuitable habitat for this species.

4 CONCLUSION AND EVALUATION

4.1 Badger

No evidence of any badger activity was identified during the survey assessment, and the proposed construction zones are unlikely to be suitable for this species, due to noise and disturbance along the adjacent A27 and because of the wet ground along the ditch where the wetland area is proposed.

As a precautionary measure a repeat assessment for badgers was recommended for the proposed residential development on adjacent land and this re-assessment should cover the proposed wetland area and the new bund location near to the A27 also in the unlikely event that a sett should become established prior to construction.

4.2 Bats

The creation of the new wetland habitat will almost certainly result in an improvement in foraging value for bats, given the invertebrate prey associated with such habitats. Whilst the construction phase could result in some noise disturbance around the mature oak trees lining the wet ditch, there are no significant impacts anticipated upon bats in the long-term.

Additional enhancements intended to improve foraging habitat and flight lines are to be outlined within a Mitigation Statement for this development and the adjacent residential development.

4.3 Breeding Birds

As habitat that has some potential to support ground nesting birds has been identified, it is recommended that all vegetation should either be removed or cut short and kept short throughout the nesting bird season (March to August inclusive). If this is not achieved, then a search can be made by an ecologist, but construction may not start if any nests or dependant young birds are identified on or near to the construction zone.

4.4 Reptiles

A reptile presence/absence survey conducted by Azure Ecology in May 2013 has already demonstrated that a low population of common lizards is present along the buffer strips bordering the wet ditch where the new flood abatement wetland is proposed, whilst surveys in 2011 by Aluco Ecology identified a population of slow worms and grass snakes on land situated approximately 500-600 metres to the north west of the proposed bund site, connected via buffer strips and hedgerow habitat. Because the buffer strips surveyed at both sites offer suitable habitat for reptiles, it is

certain that the common lizard population identified by Azure Ecology on adjacent land is connected to the area proposed for the new wetland development (with a grassy land bridge across the wet ditch connecting the two features directly).

A strategy of mitigation will be required in order to protect the reptile population present, including the translocation of the common lizards and any other reptiles found to an area of suitable habitat. In order for this to take place it is recommended that a repeat phase of reptile surveys are undertaken ahead of the development phase to include an assessment of the potential receptor site and population assessments of the buffer strips that will be affected by the wetland and bund creation. This appraisal will be used to ensure that any receptor site is both of appropriate size and quality in order to accommodate the translocated reptile population.

It has been estimated that an area of 0.46 Ha of grassland could be directly lost during the construction phase of this development, although in the long-term the newly created earth bund is proposed for seeding with a wildflower meadow mixture and at 20 metres wide would create up to 0.86 Ha of new reptile habitat in the long-term.

4.5 *Great Crested Newts*

The pond to the north east of the proposed wetland has already been assessed for great crested newts by Azure Ecology during presence/absence surveys conducted in May 2013, whilst surveys were carried out by Aluco Ecology at a pond to the north west of the proposed bund location. Both surveys did not identify great crested newt presence and as the only identified potential breeding location for amphibians identified within 500 metres of the proposed construction zones, it is therefore highly unlikely that and great crested newts would be present on the site at any time.

4.6 *Water Voles*

No evidence of water voles was identified during the survey assessment and the ditches likely to be affected during the construction process are not considered to be particularly suitable for this species.

No further surveys or mitigation is recommended for water voles.

5 APPENDIX 1 – LEGAL PROTECTION

General

This section briefly describes the legal protection afforded to protected species. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation, but summarises the salient points.

Badger

Badger is protected in Britain under the Protection of Badgers Act 1992 and Schedule 6 of the Wildlife and Countryside Act 1981 (as amended).

The legislation affords protection to Badger and Badger setts, and makes it a criminal offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or to attempt to do so;
- interfere with a sett by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

Bats, Dormouse and Great Crested Newt

Dormouse (*Muscardinus avellanarius*), Great Crested Newt (*Triturus cristatus*), and all species of British bat (*Vespertilionidae* and *Rhinolophidae*) are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. These species are also all listed as European Protected Species on *Schedule 2* of the *Conservation (Natural Habitats, etc.) Regulations 1994* which gives them full protection under *Regulation 39*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the CROW Act). Under the above legislation it is an offence to:

- kill, injure or take an individual;
- possess any part of an individual either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by these species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb these species whilst using any place of shelter or protection; or
- sell or attempt to sell any individual.

It is also an offence to set and use articles capable of catching, injuring or killing bats (for example a trap or poison), or knowingly cause or permit such an action. In the case of Dormouse and all species of British bat there is also protection under *Schedule 6* of *The Wildlife and Countryside Act 1981* (as amended) relating specifically to trapping and direct pursuit of these species.

Dormouse, Great Crested Newt and all species of British bat are included as priority species in the *UK Biodiversity Action Plan* and as species of principal importance for the conservation of biological diversity in England under *Section 74 of the Countryside and Rights of Way (CRoW) Act 2000*.

Reptiles

Common Lizard (*Lacerta vivipara*), Grass Snake (*Natrix natrix*), Slow-worm (*Anguis fragilis*), and Adder (*Vipera berus*) are listed under *Schedule 5 of the Wildlife and Countryside Act 1981* (as amended), in respect of *Section 9(5)* and part of *Section 9(1)*. This protection was extended by the *Countryside and Rights of Way (CRoW) Act 2000*. Under the legislation it is an offence to:

- intentionally or deliberately kill or injure any individual of these species; or
- sell or attempt to sell any part of these species either alive or dead.

Nesting Birds

All species of bird are protected under *Section 1 of the Wildlife and Countryside Act 1981* (as amended). Protection was extended by the *Countryside and Rights of Way (CRoW) Act 2000*. Under the above legislation it is an offence to intentionally:

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

Certain species are listed on *Schedule 1 of the Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4) and 1(5)*. The protection was extended by the *Countryside and Rights of Way (CRoW) Act 2000*. There are special penalties where the offences listed above are committed for any *Schedule 1* species and it is also an offence to intentionally or recklessly:

- disturb any such bird when it is building its nest or while it is in or near a nest containing dependant young; or
- disturb the dependant young of any such bird.