# CHEQUERSFIELD WELWYN GARDEN CITY

## PRELIMINARY ECOLOGICAL APPRAISAL

ACD ENVIRONMENTAL

Ecology
Archaeology
Arboriculture
Landscape Architecture

Taylor Wimpey

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| **Written By:** | DW |
| **Date:** | 22.05.18 |
| **Document File Ref:** | TWNT20972 |
| **Revision:** | * |

# Contents

# 1.0 EXECUTIVE SUMMARY

1.1 In January, 2017, ACD Environmental Ltd carried out an extended Phase 1 Habitat Survey of a parcel of land at Chequersfield, Welwyn Garden City.

1.2 The site comprises a small strip of brownfield land which is currently used by Network Rail for maintenance work access. The site contains compacted bare ground, a mound of earth, and peripheral scrub.

1.3 The site is of negligible ecological value. No evidence of protected species was found during the survey. No specific mitigation measures are proposed.

1.4 Rabbit activity is present in an overgrown hedgerow on the northern boundary. If construction begins more than 12 months after the date of the survey, an updated site visit should be carried out to check for badger holes.

1.5 The development of the site should provide ecological enhancements to deliver net gains for biodiversity, in accordance with Policy 11 of the NPPF. With regards to soft landscaping, we advocate the use of native high wildlife value planting, to strengthen the existing hedge and provide food and shelter for wildlife. The Local Authority would expect nesting and roosting boxes to be included as part of the fabric of the building. As a guideline, the number of built-in provision of nest or roost sites per development should be approximately the same number of residential units.

1.6 Implementing all of the above recommendations will ensure that there are no significant impacts upon protected species and that the proposals will be in conformity with relevant legislation and policy.

1.7 Measures to mitigate for impacts have been set out along with recommendations for enhancement of the site’s ecological value.

# 2.0 INTRODUCTION, CONTEXT AND PURPOSE

## Introduction

2.1 In January 2017, ACD Environmental Ltd was commissioned by Taylor Wimpey North Thames to carry out a Preliminary Ecological Appraisal (PEA) of a parcel of land at Chequersfield, Welwyn Garden City (OS Grid Reference TL 23601 11312), hereinafter referred to as the 'site'.

2.2 The site comprises a 0.3 parcel of brownfield land, currently used as a maintenance access by Network Rail. The site is bordered by the Chequersfield residential development to the south, a grassland field to the north, a railway line to the west and the A1000 road to the east.


**Image 1: Site location and approximate site boundary shown in red.**

## Context

2.3 Plans are being drawn up to re-develop the site for residential. Hitherto, a draft layout for the site has been produced, which will form the basis (but not the final form) of a planning application in the near future.

**Purpose**

2.4 The purpose of this assessment is to:

- Ascertain the general ecological value of the application site by:
  - Identifying and assessing the main habitats and plant communities;
  - Assessing the potential for protected species to use the application site;
  - Feeding into refinements of the masterplan; and
- To assess any ecological impacts of the proposed scheme and recommend appropriate mitigation and enhancements.

# 3.0 METHODOLOGY

## Names and qualifications of surveyors

3.1 The survey was carried out by Daniel Wood (MCIEEM) of ACD Environmental. Daniel is a Principal Ecologist for ACD Environmental and oversees all work carried out by the ACD Environmental team. Daniel has 10 years' experience working for commercial consultancies and specialises in European Protected Species legislation and mitigation. Daniel holds Natural England Class Licences for bats, great crested newts, hazel dormice and barn owls. Daniel has extensive development project experience, on sites of varying sizes from individual dwellings to strategic land allocations involving a wide range of issues.

## Background Data Search

3.2 Whilst field survey is invaluable and provides a "snap-shot" of the species and habitats present on a site, it is also important to research existing ecological knowledge of the site, such as biological records, and any relevant ecological information from the surrounding area.

3.3 The data search has been commissioned by Hertfordshire Environmental Records Centre (HERC) for a 2km radius around the Site for non-statutorily protected sites, statutory protected sites and protected species.

3.4 The Multi-Agency Geographic Information for the Countryside website[1] was accessed for information on Habitats of Principal Importance.

## Habitat Survey

3.5 The site was surveyed on 18.01.17 using the Phase I survey methodology[2]. This 'extended' Phase I technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail. The vegetation present was clearly visible and allowed an accurate assessment to be made.

[1] http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx
[2] JNCC, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit.* JNCC, Peterborough.

3.6 Although the survey falls outside the recommended seasonal period for botanical work and could, therefore, have some limitations, ACD Environmental believe that the evaluation and habitat descriptions, and hence the impacts and their significance are fully accurate for the following reason:

- Given the type of vegetation and habitats present, the valuation of the intrinsic interest is very unlikely to change;

3.7 Using the above method, the site was classified into areas of similar botanical community types with a representative sample of those species present at the time of the survey being described.

**Fauna**

3.8 Incidental records of fauna were also made during the survey and the habitats identified were evaluated for their potential to support legally protected species and other species of conservation concern, including Habitats and Species of Principal Importance.

**Habitats and Species Evaluation and Impact Assessment**

3.9 The habitats and species evaluations are made with reference to the Chartered Institute of Ecology and Environmental Management's (CIEEM) guidelines for Ecological Report Writing and Guidelines for Preliminary Ecological Appraisal (PEA). The Preliminary Ecological Appraisal (PEA) provides the results of the Extended Phase 1 Habitat Survey. The report is used to identify further ecological surveys necessary to inform an Ecological Impact Assessment (EcIA), to identify ecological constraints to a project, make recommendations for design changes, and to highlight opportunities for ecological enhancement. It can be used as a scoping report, but unless it can be determined that the project would have no significant ecological effects, no mitigation is required and no further surveys are necessary; should be superseded by an EcIA report.

3.10 Where possible, the habitats and species evaluations are made with reference to the Chartered Institute of Ecology and Environmental Management's (CIEEM) guidelines for Ecological Impact Assessment.

3.11 The value of specific ecological receptors (sites, habitats or species) is assigned according to their level of importance using the following terms:

- International value;
- UK value;
- National value (i.e. England/Northern Ireland/Scotland/Wales);
- Regional value;
- County value;
- District value (or Unitary Authority, City, or Borough);
- Local or Parish value; and
- Of value within the zone of influence or a larger defined area.

# 4.0 RESULTS AND EVALUATION

4.1 Set out below are the results of the background data searches and field surveys.

**Data Search Results**

**Designated Sites**

4.2 The nearest statutory designated nature conservation sites within 5km of the site are as follows:

- Stanborough Reedmarsh Local Nature Reserve (LNR), which is approximately 829m south west of the site and is designated for its reed bed habitats, which support water voles, rare aquatic plants, and important water bird populations; and

- The Commons LNR which lies approximately 1650m to the east of the site and is designated for its broad-leaved woodland interest and associated damp grassland and ground flora, including scare plants; and

4.3 LNRs are notified under Section 21 of the National Parks and Access to the Countryside Act 1949 by local authorities. They are not necessarily of great ecological value, and are intended for public appreciation and enjoyment of wildlife. The LNR designation does not afford special protection, although LNRs are protected under legislation and planning policy.

4.4 LNRs are of **Local Value**

4.5 The nearest non-statutory designated nature conservation sites within 2km of the site are as follows:

- Lemsford Mead Local Wildlife Site (LWS) which lies approximately 1360m to the north west of the site and is designated for its rough semi-improved neutral grassland interest;

- Stanborough Reed Marsh LWS which lies approximately 800m to the south west of the site and is designated for its fen and swamp indicators and associated wildlife interest (as described above);

- Lemsford Springs LWS which lies approximately 1340m to the north west of the site and is designated for fen and swamp indicators associated with its previous use as cress beds;

- Woodhall Farm Meadows LWS which lies approximately 910m to the south of the site and is designated for its grassland indicators interest associated with the River Lea flood plain;

- Brocket Park North LWS which lies approximately 1940m to the north west of the site and is designated for its veteran trees, part ancient woodland, woodland and grassland indicator interest;

- Meadow W. of Stanborough Yachting Lake LWS which lies approximately 910m to the south west of the site and is designated for its grassland indicators associated with neutral wet grassland interest;

- Wood S. of Woodhall Farm LWS which lies approximately 940m to the south of the site and is designated for its wet woodland associated with its semi-natural broad leaved woodland, carr and tall herb fen/swamp interest;

- Valley Road Open Space LWS which lies approximately 1390m to the north west of the site and is designated for its mosaic habitats and grassland indicator interest;

- Creswick Plantation LWS which lies approximately 370m to the south of the site and is designated for its ancient woodland interest;

- Twentieth Mile Bridge Allotments LWS which lies approximately 1090m to the north of the site and is designated for its protected species interest;

- The Commons LWS which lies approximately 1340m to the east of the site and is designated for its broad leaved woodland and woodland indicator plant interest;

- The Commons LNR which lies approximately 1650m to the east of the site and is designated for its mosaic of habitats including the Blackfan Valley, broadleaved woodland, grassland, fen and swamp indicators;

- Home Park, Hatfield Estate LWS which lies approximately 1600m to the south of the site and is designated for old/ancient broadleaved woodland, woodland indicators and grassland indicators interest.

4.6 LWSs are of **County value**.

**Protected Species Records**

4.7 The relevant protected species records are incorporated into the Fauna section, below, with due acknowledgement.

## Survey Results

**Habitats**

4.8 The site supports the following habitats:

- Bare ground (J4);
- Scattered scrub (A2);
- Spoil heap (J2.8); and
- Intact hedge (offsite) (J2.1)

4.9 For ease of reference, habitat types have been described alphabetically, below. All the features described are shown on the Ecological Features Plan at Appendix 1.

*Bare ground (J4)*

4.10 Bare ground is the dominant habitat type in the site. The site has been subject to some re-levelling and compaction in order to fulfil its current use as a maintenance access for Network Rail.

**Photograph 1: Site entrance looking west**

**Photograph 2: Site looking south west**

**Photograph 3: Site looking south east**

**Photograph 4: Site looking east**

*Scattered scrub (A2)*

4.11 The southern site boundary comprises an earth bank which has grown over with bramble scrub, and small patches of grass. The scrub is isolated, of limited size and is therefore of negligible ecological value.

**Photograph 5: Scrub-covered bank looking west**

*Spoil heap (J2.8)*

4.12 The site contains a small spoil heap (Photograph 4) which was presumably created when the site was re-levelled and compacted to create the maintenance access. The spoil heap is small, well-compacted and of negligible ecological value.

Intact Hedge (J2.1)

4.13 A hedgerow (offsite) runs along the northern site boundary, separating the site from a grassland field which is used by dog walkers. The hedge is mature, shrubby, dense, untrimmed, wide and very overgrown, without retaining any clear evidence of its original shape. Within the middle of the hedgerow, the ground level drops away from the site, the middle channel almost resembling a ditch. It is likely that the land has been subject to historic re-levelling. Consequently, the trees could have grown up naturally, not having been planted. The hedge contains a good diversity of species including hawthorn *Crataegus monogyna*, elder *Sambucus nigra*, goat

willow *Salix caprea*, wild briar (dog rose) *Rosa canina*, and wild hop *Humulus lupulus*. The hedge also contains piles of buried debris and litter, but is considered to be of local value on the basis of its size, shape and diversity.

**Photograph 6: Hedge on north site boundary, viewed from adjacent field.**

**Photograph 7: Hedge viewed from adjacent field.**

**Photograph 8: Hedge (right of photo) viewed from site entrance**

**Fauna**

4.14 For ease of reference, descriptions of the fauna have been described alphabetically, below.

*Amphibians*

4.15 There are no water bodies in or adjacent to the site. Subsequently it is considered that amphibians (in particular great crested newts) are reasonably likely to be absent from the site. No further recommendations are made in respect of this species.

*Badgers*

4.16 HERC returned 19 local records for badger; the closest of which is 860m from the site. The site (in particular the offsite hedge) was searched methodically for evidence of badgers. No badger evidence was found. There are clusters of mammal burrows within the hedge, all of which are attributable to rabbits.

4.17 Given the limited size of the site, the presence of HERAS fencing and the generally unsuitable habitats (mainly comprising bare ground), it is considered that badgers are reasonably unlikely to use the site. They may use the adjacent grassland field and hedgerow occasionally, but the field contains rough grassland (on the contrary

badgers like to forage in pasture for earthworms) and is relatively isolated by roads. The site is considered to be of negligible value to badgers.

4.18 Badgers are likely to use the railway corridor on a regular basis, which is located approximately 50m from the site (Photograph 9). On this basis, precautionary methods of working are outlined in the Recommendations section to prevent any harm to badgers during construction work.

Photograph 9: Footpath running alongside the railway (likely to be used by badgers)

*Bats*

4.19 There are no trees or buildings in the site that could be used by roosting bats. Bats are likely to use the northern offsite boundary hedge to commute, but are more likely to use the field-side, rather than the site-side. Consequently no specific mitigation measures are proposed, but we would advocate the use of wildlife friendly lighting, and landscape screening, to maintain and enhance this linear feature in the landscape that the bats can use for cover and flight paths.

*Birds*

4.20 The site itself is considered to be of negligible value to birds, although the offsite hedge is likely to support several pairs of nesting birds and regular flocks of foraging birds. Provision of built-in nesting features is advocated on this basis, in accordance with the NPPF.

*Reptiles*

4.21 Although the southern boundary contains a narrow strip of scrub, given the isolated nature of this habitat, reptiles are considered reasonably likely to be absent from the site. A reptile population could be present in the offsite northern field, which contains rank, tussocky grassland. However, site clearance is unlikely to encounter any reptiles or put them at significant risk of harm. On this basis, no specific precautions are considered necessary.

# 5.0 LEGISLATION AND PLANNING POLICY

5.1 This section summarises the legislation and national, regional and local planning policies, as well as other reference documents, relevant to the baseline ecology results.

## Legislation

5.2 Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- The Wildlife and Countryside Act 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2010;
- The Countryside and Rights of Way Act 2000;
- The Hedgerows Regulations 1997;
- The Protection of Badgers Act 1992; and
- The Natural Environment and Rural Communities Act 2006.

5.3 Where relevant, the assessment takes account of the legislative protection afforded to specific habitats and species.

### Wildlife Legislation

*Non-European Protected Species*

5.4 Badgers and their setts are protected under the Protection of the Badgers Act 1992[3]. Activities that can harm badgers include destroying a sett, causing noise, additional lighting or vibration and pile driving, quarry blasting, lighting fires or using chemicals. It is an offence to:

- Wilfully capture, kill or injure badgers;
- Damage, destroy or block access to setts (even accidentally);

[3] http://www.legislation.gov.uk/ukpga/1992/51/pdfs/ukpga_19920051_en.pdf

- Disturb badgers in their setts;
- Cruelly ill-treat a badger;
- Deliberately introduce a dog into a sett;
- Bait badgers;
- Dig for badgers;
- Possess, sell to offer for sale a live badger;
- Possess or control a dead badger or parts of the a badger (if unlawfully obtained); or
- Mark or attach a device to a badger.

5.5 All wild birds[4] and their nests are protected under the WCA as amended. It is an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- intentionally take or destroy the egg of any wild bird;
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954;
- have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954;
- use traps or similar items to kill, injure or take wild birds;
- have in one's possession or control any bird of a species occurring on

[4] https://www.gov.uk/wild-birds-protection-surveys-and-licences

Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations (see *Schedules*); or

- intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

## Planning Policy

### National Planning Policy Framework

5.6 The National Planning Policy Framework[5] sets out planning policies on protection of biodiversity and geological conservation through the planning system for local authorities in England. The NPPF outlines the role of the decision maker in considering the requirements of wildlife legislation to protect wildlife.

5.7 The Framework states that the planning system should contribute to and enhance the natural and local environment, by measures including the following:

- Minimising impacts on biodiversity and providing net gains in biodiversity where possible;
- Contributing to the Government's commitment to halt the overall decline in biodiversity;
- Establishing coherent ecological networks that are more resilient to current and future pressures; and
- Recognising the wider benefits of ecosystem services.

5.8 The Framework states that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying principles including the following:

- If significant harm from a development cannot be avoided (through locating on

[5] Department for Communities & Local Government (2012). *National Planning Policy Framework*. [Online]. Available at <http://www.communities.gov.uk/publications/planningandbuilding/nppf> [Accessed 19th June 2012].

an alternative site with less harmful impacts), adequately mitigated for, or, as a last resort, compensated for, then planning permission should be refused.

- Proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on that designated site (either individually or in combination with other developments) should not normally be permitted. Where adverse effects on the site's notified special interest features is likely, an exception should only be made where the benefits of the development clearly outweigh both the impacts that it is likely to have on the features of the site that make of special scientific interest and any broader impacts on the national networks of Sites of Special Scientific Interest.

- Opportunities to incorporate biodiversity in and around developments should be encouraged.

5.9 The Government Circular 06/2005[6] accompanies the National Planning Policy Framework and sets out the application of the law in relation to planning and nature conservation in England.

**Local Planning Policy**

5.10 The Hertfordshire Local Nature Partnership has produced a Guidance Document called "*Planning for biodiversity and the natural environment in Hertfordshire – guiding principles".*

5.11 Of relevance to a development of this type, Principle 4 stipulates that the built environment should also aim to be permeable to wildlife. This can be achieved via wildlife-friendly landscaping and gardening and through integrating spaces for nature in buildings themselves. Examples of biodiversity measures that can be incorporated into developments include installing artificial nest sites to provide nesting and roosting opportunities for birds, bats and some invertebrates and planting living (green) roofs and walls to provide valuable habitats in areas that are often lacking in biodiversity. This should be guided by what is locally appropriate.

[6] Office of the Deputy Prime Minister (2005). *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. [Online]. Available at: < http://www.communities.gov.uk/documents/planningandbuilding/pdf/147570.pdf> Accessed: 19th June 2012.

## 6.0 DISCUSSION AND RECOMMENDATIONS

### Designated Sites

6.1 The site does not fall within 2km of any nationally designated nature conservation sites (i.e. Sites of Special Scientific Interest) or Natura 2000 sites (i.e. Special Protection Areas or Special Areas of Conservation).

6.2 The site does not share any boundaries with any statutory (i.e. Local Nature Reserves) or non-statutory (i.e. Local Wildlife Sites) nature conservation sites.

6.3 On this basis, the development of the site is reasonably unlikely to cause any adverse effects to any designated sites. No mitigation is required.

### Habitats

6.4 The habitats within the site are of negligible ecological value. The intact hedge on the northern boundary is of local value, and we would advocate retention of this feature where possible. Depending on where the exact site boundary is, the hedge may require some pruning back to facilitate construction work. Ideally, the outermost part of the hedge should be laid traditionally to create a visually pleasing, stock proof boundary. During construction, the hedge should be adequately protected with tree protection fencing.

6.5 We advocate that hedge buffer planting is incorporated into the landscape design, which could comprise a wildflower border, a shrub border dogwood, or a low beech hedge.

6.6 Provided the above measures were followed, overall residual impacts would be positive.

## Fauna

*Badgers*

6.7 If more than 12 months passes since the survey, an updated survey should be carried out to check for badger setts.

6.8 Site workers should be made aware of the potential presence of badgers. All trenches and holes should be covered at night or provided with a ramp to allow any animals to escape, should they become trapped. All chemicals should be stored away.

## Enhancements

*Bats and birds*

6.9 No specific mitigation measures are proposed for bats, but we would advocate a wildlife-friendly lighting scheme to reduce lightspill on the northern boundary.

6.10 The National Planning Policy Framework encourages development to provide net gains in biodiversity where possible.

6.11 Most Local Authorities will expect provision of bat roost boxes and bird nest boxes to be included as part of the fabric of the building. As a guideline, the number of built-in provisions of roost and nest sites per development should be approximately the same as the number of residential units.

6.12 Nesting and roosting boxes to be built as part of the fabric of the building should be designed for building reliant birds (e.g. swift, swallow and house martin) and bats and birds associated with urban areas (e.g. house sparrow, starling, pipistrelle bat, brown long eared bat).

6.13 Some locations in the development might be more suitable than others and provision could be more concentrated on appropriate buildings.

## 7.0 CONCLUSIONS

7.1 The site is of negligible ecological value. There is potential to achieve net biodiversity gains by incorporating built-in roosting and nesting provision for bats and birds, in addition to wildlife-friendly, soft landscape planting.

7.2 Badgers are not currently present but are likely to be present in surrounding habitats. Their potential presence should be acknowledged when carrying out construction activities.

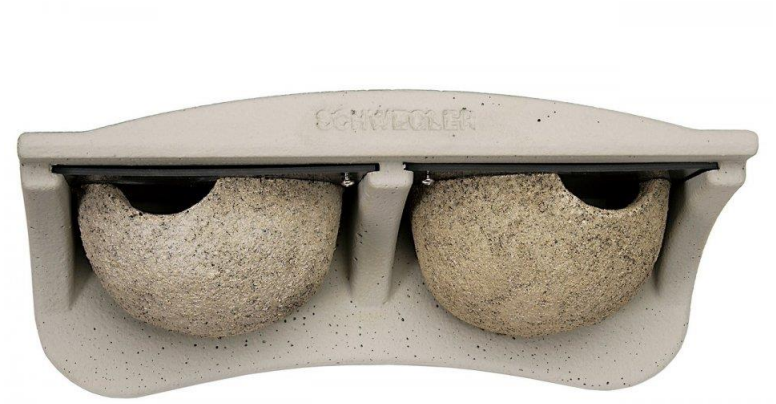
7.3 Measures to mitigate for impacts have been set out along with recommendations for enhancement of the site's ecological value.

7.4 Implementing the recommendations will ensure that there are no significant impacts upon protected species and that the proposals will be in conformity with relevant legislation and policy.

## 8.0 RECOMMENDED PRODUCTS

**Swift box**

**House Martin Box**



**Sparrow Box**


**Brick Bat Box**

**Bat Tube**

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