ECOLOGICAL REPORT AND SITE ASSESSMENT FOR THE PROPOSED HOUSING SITE IN CHURCH LANE AT WHITBURN

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1. INTRODUCTION

1.1 These surveys and report were commissioned by Fitz Architects in October 2013 in relation to a site that is to be developed adjacent to Church Lane in Whitburn. Because of changes to the development site boundary the site was re-surveyed in September 2014 as nearly a year had elapsed since the first survey.
The aims of the study were as follows:-

1. To carry out an extended Phase 1 habitat survey of the site that is to be developed and to identify any areas of ecological interest.

2. To outline ways in which the proposed development can maintain and enhance the ecological value of the area to be developed.

1.2 The site is a small area rough ground and bramble scrub with trees along the southern boundary and a small area of woodland to the north of the proposed development site. The previous property has been demolished and the land is presently unused and unmanaged.

Site Description (See Photos)

1.3 The development site is divided from the woodland to the north by the remains of an old stone wall that has been painted with graffiti. The site is dominated by bramble scrub and stinging nettles with patches of bare ground with evidence of past bonfires.

1.4 The area is surrounded by housing to the west and north and amenity grassland to the east and south. It is subject to a relatively high level of human disturbance as there are signs that it is used as a play area and for informal recreation. There is litter, particularly beer cans, spread throughout the site and evidence that in the past fires have been lit on the site.

Scrub

Corner of site with bare ground and rubbish

2.1 POLICY CONSIDERATIONS

2.1.1 The most pertinent consideration is the legislation laid down in the Wildlife and Countryside Act (1981) (Amended 1985). This Act allows for the designation by the relevant statutory agency, in this case English Nature, of National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs).
These sites are designated because of their special botanical, zoological, geological or physiographic interest. The Act also provides protection to those plant and animal species listed in the Schedules of the Act.

2.1.2 European legislation is also pertinent, since it places certain obligations on the member states. The Habitats Directive (92/43/EEC) - The Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. This Directive is designed to schedule important wildlife sites through the EC as Special Areas of Conservation (SACs). It gives protection to specific habitat types and species listed as being under threat.

2.1.3 In addition to statutory designations, a site may be categorised by a local conservation organisation, usually the County Wildlife Trust as a Site of Nature Conservation Importance (SNCI). This non-statutory designation applies to sites which are too small for SSSI status or fall just below the other ecological criteria used for SSSI designation. The ecological value of such sites is generally recognised by local authorities.

2.1.4 Most local authorities have produced a Biodiversity Action Plan for the county or region which identifies locally significant habitats and species for which action plans have been or will be prepared, these include the Durham

Biodiversity Action Plan. Any development should seek to minimise the impact on all habitats and species, with special regard for those identified in this Plan.

2.2 THE LAW RELATING TO PROTECTED SPECIES

2.2.1 BATS

All bats in Britain are protected by law. Under the 1981 Wildlife and Countryside Act and the Conservation (Natural Habitats) Regulation 1994, (Directive 92/43/EEC) it is illegal to :-

* catch, injure, kill or sell any bat
* damage, destroy or obstruct bat roosts (even when bats are not present)
* disturb bats while they are roosting, for example by entering known roosts or hibernation sites.

A breeding site or resting site of any bat is known as a bat roost. A bat roost is any structure as bat use for shelter or protection. It is an offence to damage or destroy a bat roost at any time of year.

The following activities are those most likely to cause disturbance to bat roosts:-

* Demolition of buildings
* Restoration, building conversion or remedial work including re-roofing, repointing of stonework.
* Timber treatment.
* Tree felling or extensive tree surgery.

Some of the disturbance problems may be overcome by avoiding the time of year when the bats are in residence. This is mainly during the breeding season April to late September.

2.2.2 BADGERS

Badgers are protected by a series of legislation - The Badgers Act 1973 and the Protection of Badgers Act 1992, plus amendments to the Wildlife and Countryside Act 1981.

Under these laws it is illegal to :-

* wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so.
* intentionally or recklessly interfere with a badger sett, this includes disturbing badgers in a sett, damaging a sett or obstructing access.

(A sett is defined as ‘any structure or place which displays signs indicating current use by a badger’).

2.2.3 BIRDS

Under the Wildlife and Countryside Act (1981) it is illegal to :-

* Kill, injure or take any wild bird (unless under licence)
* Take, damage, or destroy a bird’s nest whilst in use or being built.
* Take or destroy the egg of any wild bird.

* Disturb any wild bird listed on Schedule 1 of the Act while it is nest building or at a nest containing eggs or young, or disturb the dependant young of such a bird.

2.3 METHODOLOGY

2.3.1 The habitats present were mapped using the Phase 1 Habitat Survey methodology. This is a standardised system for classifying and mapping wildlife habitats in Great Britain. The full methodology is set out in the 'Handbook for Phase 1 Habitat Survey, JNCC, 2003)

2.3.2 The area was assessed as possible habitat for protected species in particular bats, badgers and breeding birds. A data search from the NE Data Base (ERIC) found very few records for any protected species or breeding birds. There were no recent records for the Church Lane area.

Bats
Trees - The trees that may be felled or where branches may be removed were checked for holes or crevices in the trunks that could be used a bat roosts or hibernation sites. The trees surveyed may be cross-referenced with those identified in the tree report and include all the within site trees and those that overhang the site from the woodland to the north of the site and from the amenity area to the south. To the west side of the site is a private garden and this could not be surveyed completely as there was no access, but as the trees are outside the site no trees can be removed as part of the proposed development.
Cross-reference – Groups 1 & 7 (South Boundary) – T49-T63
Group 2 (North Boundary) – T30, T31, T32, T39, T40, T43, T44, T47, T48
Group 3 (West side) – T64, T65
There were also small saplings growing in the scrub area that were totally unsuitable as bat roost sites.

Badgers
The area was surveyed for signs of badger including setts, latrine sites, feeding areas and badger paths.

Since badgers are known to use latrine sites, feeding areas and certain routes on a regular basis such signs are easy to identify. Badgers setts remain in use for many years and these can be identified as 'active' by the presence of footprints, recently excavated soil and discarded bedding.

Birds
The trees that are to be felled or where branches are to be removed were checked for potential nest sites for hole nesting birds or for signs of old nests in the canopy that would indicate use in previous years.
The scrub areas were assessed for their potential as bird nesting sites.

2.4 RESULTS OF SITE ASSESSMENT

Habitats

2.4.1 Most of the site is dominated by thick bramble scrub with some patches of snowberry near the southern boundary. There are a few young trees plus several elder bushes within the site and a number of larger trees along the southern boundary. These are mainly sycamore. The whole area has a low plant species diversity. (For plant species list see Appendix)

2.4.2 The site is divided from the wooded area to the north by some remnants of a stone wall and there is another stone wall along the eastern site boundary.

Protected Species

2.4.3 **Bats -** There are no buildings on site and the remnants of the stone walls were assessed as unsuitable for bat use. A daylight survey of the trees within the site found no rot holes or loose bark that was assessed as suitable for bat use and no sings of bats were found.

2.4.4 **Badgers –** There were no signs of badgers using the site and the high level of human disturbance locally and the location of the site within the village would deter this species from using the area.

The data search found only one record for badgers for the whole Whitburn area. This was for a corpse recorded in 1997.

2.4.6 **Reptiles –** There are no basking areas or likely hibernation sites within the site and much of the area is heavily shaded by trees or scrub.
There are no records for reptiles from the Whitburn area.

2.4.7 **Breeding Birds –** The trees provide potential nest sites, though not for hole-nesting species. The bramble scrub provides good cover for nesting birds.
Data from 2003 for the Church Lane area all date from late October and are probably migratory records The recorder appears to have concentrated on the rarer species passing through the area. All are for the same date.
The species recorded were great spotted woodpecker, brambling, firecrest, goldcrest and woodcock, plus one swallow.
All are listed as unconfirmed records.
The site surveys were completed outside the bird breeding season and no birds were recorded in the area though there was potential for birds to feed.

2.3.8 **Amphibians –** There is no standing water on the site or on adjoining land so it is unlikely the area would be used by amphibians. As the site is almost completely surrounded by a high stone wall there is very limited access to the site for any amphibians. The access opens directly onto a tarmac road and is also very unlikely to be used by amphibians. In addition, the site is surrounded by amenity grassland on two sides and a road on the third. Neither of these habitats is likely to provide corridors between the site and any more distant water body. ***Please see Habitat Suitability Index (HSI) assessment.***

3. ECOLOGICAL EVALUTAION OF SITE

3.1.1 Approach to Ecological Evaluation

A guideline approach for assessing the value of ecological features and sites has been published by the Institute of Ecology and Environmental Management (IEEM).This approach has been adopted when assessing the site.

The assessment is based on assigning a level of geographical importance to ecological features. Six levels of geographical importance are included in the IEEEM guidelines and these are summarised as follows:-

Table 1

Level of Value	Examples
International	* Internationally designated sites or candidate sites. (e.g. SPA, pSPA, SAC, pSAC, RAMSAR) * A viable area of habitat listed in Annex 1 of the Habitats Directive. * A site supporting internationally important species, which is threatened or rare in Britain. * A nationally significant population/number of a internationally important species.
National	* Nationally designated sites (SSSI, NNR, ASSI) * A viable area of priority habitat listed in the UK BAP * A regularly occurring population of a nationally important species which is threatened or rare. * A regularly occurring, regionally significant population/number of a nationally important species. * A feature identified as of critical importance in the UK BAP.
Regional	* Viable areas of key habitat identified in the Regional BAP. * Viable areas of key habitat identified as being of regional value within a SNH Natural Heritage Zone. * A regularly occurring, locally significant population of a nationally scarce species which occurs in 16-100 10km squares in the UK or in a Regional BAP * A regularly occurring, locally significant number of a regionally important species. * Site which just fall short of the SSSI designation criteria but exceed SNCI (county level) designation
County/ Metropolitan	* Semi-natural woodland >0.25ha * County/Metropolitan sites and other sites designated by the local authority including Local Nature Reserves. * A viable area of habitat listed in County BAP

	* Any regularly occurring, locally significant population of a species listed in a County 'red data book' or BAP on account of its regional rarity or localisation.
District/Borough	* Semi-natural woodland < 0.25ha * SNCI designated sites and sites designated by local authorities. * Sites/features that are scarce in the local area. * Viable areas of the habitats listed in the District/Local BAP. * A regularly occurring population of a species listed in a District/ Local BAP * A diverse and/or ecologically valuable hedgerow network
Parish/ Neighbourhood	***** Areas of habitat considered to appreciably enrich the habitat resources within the context of the Parish or Neighbourhood. * Local Nature Reserve selected on Parish ecological criteria

In this instance the Biodiversity Action Plan is the **Durham Biodiversity Action Plan.** This provides information on the local and regional occurrence of habitat types and key species and identifies those that are a priority for conservation in the South Tyneside area. The function of this document is to ensure that national targets for habitats and species identified in the UK Biodiversity Action Plan are met at a regional level by setting appropriate regional conservation targets.

3.2 Site Status

The ecological importance of the site can be assessed by reviewing the results of the field surveys against the criteria in Table 1.

Criterion	**Comment**	**Level of Importance**
Is the land included in a designated nature conservation site?	No	N/A
Does the site support habitats or species listed in the area BAP ?	No	N/A
Are there habitats present that enrich the habitat resource in the neighbourhood ?	Yes	Local
Dose the site support any species in Schedules 5 or 8 of the Wildlife & Countryside Act.	No	N/A

3.3 Site Evaluation - Habitats

The habitats present on the site are very limited and those found are widely spread throughout Britain. The site is too small and too subject to human disturbance to have any significant ecological value.

No species was recorded in the area of local, regional or national rarity. There is limited plant species diversity. No Durham BAP species or habitat was recorded on the site.

Overall the site has a very limited ecological value due to the limitations described above and because of the high level of human disturbance. Its main value is that it provides feeding and nesting habitat for some species of birds and small mammal habitat.

3.4 Site Evaluation – Protected Species

3.4.1 Bats

There are no suitable trees or buildings on the site that could provide potential bat roost sites. None of the trees on the southern boundary where a number of trees are to be removed is of sufficient age to have rot holes or loose bark that could be used as roost sites.
These trees and the adjoining park to the south, woodland to the north and the many trees in the grounds of local properties may provide bat feeding habitat but no suitable roost sites were identified in any trees within the site or in those on the site boundaries.
Noctule bat has been recorded in the Whitburn area and the habitat in the village will also support common pipistrelle and soprano pipistrelle bats. There are many properties in the village that could offer potential roost sites.

3.4.2 Badgers

The location of the site close to housing and the high level of human disturbance mean that the area is unsuitable for badger use.

3.4.3 Birds

The thick bramble scrub that dominated the site provides potential nesting habitat for birds such as blackbird. None of the trees provide potential nest sites for hole nesting species. The bramble scrub and elder bushes provide feeding habitat for birds in the Autumn.

3.4.4 Other protected species

There is no standing water on site that could support amphibians. The site is enclosed by a high stone wall (the site forms part of an old walled garden) and the only potential site access opens directly onto a tarmac road. In addition the surrounding habitats of roads and amenity grassland are unsuitable for use as ‘green corridors’ by amphibians so any cover that the site could provide is isolated from the water bodies in the area including any garden ponds in neighbouring properties. (There are no amphibian records for the Whitburn area). The pond in the nearby Cornthwaite Park no longer holds water and

there has obviously been no standing water in the park for some time. (A photo of the old pond site is given at the end of this report). The small waterways that once fed into the pond are also dry.

4 IMPACT ASSESSMENT

4.1 Habitats

There will be a loss of a small area of scrub and some of the trees on the southern boundary will be removed. This is very unlikely to have a significant impact on the wildlife of the Whitburn area. The species diversity is very limited and there is a high level of human disturbance and some vandalism in the area. The presence of a high stone wall around most of the site limits access to the area for many species.

4.2 Protected Species

Bats

There may be a small loss of bat feeding habitat if trees are removed but a new garden is to be developed that will provide new habitat. The loss of a small number of trees from the site is very unlikely to having any significant impact on bats as the trees offer no potential roost sites.

Badgers

The site is in a built up area with a high level of disturbance so unsuitable for badger use. In addition there is very little evidence of badgers in the Whitburn area.

Breeding Birds

There will be a loss of potential bird nesting habitat when the bramble scrub is removed.

Other species

There is no habitat suitable for use by other protected species and the site is isolated from other 'natural' areas of habitat by amenity grassland, cultivated areas and roads. The only other mammal records for the Whitburn area are for grey squirrel. There is no habitat for amphibians and though there was once a pond in the park to the south of the site this has been dried out and has now been colonised by grasses.

5. MITIGATION

5.1 As a precautionary measure all tree and scrub removal should avoid the bird breeding season.

5.2 The planting of small trees and shrubs that have berries in the autumn would help to maintain the available food supply for birds such as members of the thrush family, including song thrush. This is one of the key species identified in the Durham BAP. Suitable species would be rowan, whitebeam, elder, hawthorn and firethorn.

5.3 The erection of bird boxes suitable for small hole-nesting birds such as tits, wren and robin would increase the number and type of potential nest sites in the area. Bat boxes erected on some of the remaining boundary trees could also increase the number of potential roost sites in the area.

5.4 Development of shrubberies within the new landscaping scheme would help to maintain potential bird nesting sites in the area.

APPENDIX

PLANT SPECIES LIST

Urtica dioica	stinging nettle (LD)
Rubus x fruticosus agg.	bramble (D)
Cirsium arvense	creeping thistle (O)
Cirsium vulgaris	spear thistle (O)
Sonchus asper	sow thistle (O)
Geranium robertianum	herb Robert (O)
Agrostis stolonifera	creeping bent (O)
Poa annua	annual meadow grass (O)
Ranunculus repens	creeping buttercup (LF)
Senecio vulgaris	groundsel (O)
Chamerion angustifolium	rosebay willowherb (O)
Tanacetum parthenium	feverfew (O)
Geum urbanum	wood avens (O)
Sisymbrium officinale	hedge mustard (R)
Rumex obtusifolius	broad-leaved dock (O)
Anthriscus sylvestris	cow parsley (O)

Sambucus nigra	elder
Acer pseudoplatanus	sycamore
Salix sp.	willow (ornamental)
Sorbus intermedia	Swedish whitebeam (ornamental)
Symphoricarpos rivularis	snowberry (ornamental)

Pond in park February 9th 2015

Pond in park March 17th 2015