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Quality Assurance

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Revision of assessment/ conclusions with regards bats following provision of further information.				

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

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The evaluation and assessment provided in this report is specific to the iteration of the proposal detailed in *Section 1*. It would no longer be valid should the layout be changed in anyway, should the report be used for a different proposal at the same site or should it be used a maximum of 12 months after the date of issue.

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Figure 1 – Extended Phase 1 Habitat Survey

1 INTRODUCTION

1.1 Project Background

1.1.1 Marches Ecology was commissioned by Mr. Steven Jones to undertake a Preliminary Ecological Appraisal of land off Stryt-Issa, Penycae, Wrexham (approximate OS Grid Ref. SJ 286 456). This Preliminary Ecological Appraisal (PEA) comprised an Extended Phase 1 Habitat Survey. This report is provided as supporting information to a planning application for the construction of two semi-detached residential dwellings along with renovation of an existing detached dwelling (50 Stryt-Issa).

1.1.2 This survey report has three key aims:

- to provide an initial appraisal of the ecological value of the site and local ecological resource and thereby identify ecological constraints relevant to the proposal;
- to identify further surveys that may be required; and
- to identify potential mitigation/ compensation measures where possible along with opportunities to deliver ecological enhancement.

The structure of this Preliminary Ecological Appraisal Report (PEAR) is based on the guidance provided in the Chartered Institute of Ecology and Environmental Management (CIEEM) documents CIEEM (2017a) and CIEEM (2017b).

1.2 Report Author

1.2.1 This report was produced by Tom Knight of Marches Ecology. Tom Knight is an ecologist with over eighteen years of consultancy experience and has undertaken Extended Phase 1 Habitat Surveys on a wide range of sites. His relevant academic qualifications and professional memberships are as follows:

- Chartered Environmentalist (Society for the Environment).
- Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).
- PgDip Conservation Management.
- BSc (Hons) Environmental Studies.
- C&G Biological Surveying.

1.3 Site Description and Context

1.3.1 The survey site extends to approximately 425 m^2. It includes the residential property at 50 Stryt-Issa along with the associated detached garage and garden. It is located on the northern edge of the semi-rural village of Penycae. The survey site is relatively flat and the site boundaries are formed by stone or brick walls.

1.3.2 The survey site is bordered to the south by Stryt-Issa, on the opposite side of which are residential housing estates. To the east and west there are further residential houses along Stryt-Issa. To the north and northwest there is the landscaped grounds associated with the Rhosllanerchrugog Rugby Club with other sports pitches. There is a small field unit currently grazed by horses to the northeast.

1.4 The Proposal

1.4.1 The proposal concerns the construction of two new semi-detached residential dwelling units and the renovation of an existing detached residential dwelling (50 Stryt-Issa). The new residential dwellings would be constructed within the garden area of the existing dwelling.

1.4.2 The proposed development is presented on an EDW Architecture Ltd plan entitled 'Proposed Site Plan', dwg. no. 117/03, dated 18/01/18. This plan shows the location of the new dwellings with associated soft and hard landscaping along with the boundary treatments. It also shows the external landscaping works to be undertaken at 50 Stryt-Issa. The proposed development site would be divided into three private units separated by timber fencing and low brick walls. The front and side elevations of the houses would be bordered by areas of hard-standing facilitating car parking. Small gardens (ranging between 35 m^2 and 50.5 m^2) would be provided at the rear of the properties.

1.4.3 The proposal would necessitate the felling of a single tree. This tree is located immediately outside the western site boundary. An existing detached garage would also be demolished.

1.4.4 Elevations of the proposed new dwellings are illustrated on an EDW Architecture Ltd plan entitled 'Elevations of Proposed Houses', dwg. no. 117/06, dated 19/01/18. The proposed ground floor and western elevation of 50 Stryt-Issa is illustrated on an EDW Architecture Ltd plan entitled 'Proposed Ground Floor Plan and Side Elevation of Existing House', dwg. no. 117/04, dated 18/01/18.

1.4.5 It is understood that renovation of 50 Stryt-Issa would comprise the following works:

- Removal of the small single-storey lean-to currently attached to the rear (north) elevation.
- The small porch on the front (south) elevation is to be moved.
- The render/ pebble-dash is to be removed to up to 1 m above ground level to facilitate the installation of a new damp course, then re-rendered.
- Internal works would include re-wiring; re-plastering to 1 m above ground level; installation of a new kitchen and bathroom; and re-decoration throughout.

1.4.6 No further detailed information regarding the proposed development has been provided.

1.5 Planning Policy

Introduction

1.5.1 This section provides a brief summary of key national and local planning policies. It is not a comprehensive review of all such planning policy, the intention being to identify those considered to be of most relevance to ecology and provide context for the proposal.

Wales

Planning Policy Wales

1.5.2 Planning Policy Wales (PPW) sets out national land use planning policies (Welsh Government 2016). Chapter 5 is of particular relevance and is entitled 'Conserving and Improving Natural Heritage and the Coast'. With specific reference to development proposals the following key statements are made:

- '*Biodiversity and landscape considerations must be taken into account in determining individual applications and contributing to the implementation of specific projects. The*

effect of a development proposal on the wildlife or landscape of any area can be a material consideration'.

- '*When considering any development proposal... local planning authorities should consider environmental impact, so as to avoid, wherever possible, adverse effects on the environment*'.

1.5.3 Chapter 5 further covers statutory designations, protected species and specific habitats/ areas. National policy statements are listed at the end of the Chapter and cross-referenced to paragraphs.

Technical Advice Note 5

1.5.4 PPW is supplemented by a series of Technical Advice Notes (TAN). TAN 5 covers 'Nature Conservation and Planning' (Welsh Government 2009). It provides advice to local planning authorities on how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation. It includes chapters covering the key principles of planning for nature conservation; the preparation and review of development plans; nature conservation in development control procedures; the conservation of internationally and nationally designated sites, habitats and local sites; and the conservation of protected and priority habitats and species.

1.5.5 In paragraph 2.4 it states that '...*when deciding planning applications that may affect nature conservation, local planning authorities should:*

- *pay particular attention to the principles of sustainable development, including respect for environmental limits, applying the precautionary principle, using scientific knowledge to aid decision making and taking account of the full range of costs and benefits in a long term perspective (PPW 2.2.1[1]);*
- *contribute to the protection and improvement of the environment, so as to improve the quality of life and protect local and global ecosystems, seeking to avoid irreversible harmful effects on the natural environment (PPW 2.3.2);*
- *promote the conservation and enhancement of statutorily designated areas and undeveloped coast (PPW 2.3.2);*
- *ensure that appropriate weight is attached to designated sites of international, national and local importance (PPW 5.3.2);*
- *protect wildlife and natural features in the wider environment, with appropriate weight attached to priority habitats and species in Biodiversity Action Plans (PPW 5.2);*
- *ensure that all material considerations are taken into account and decisions are informed by adequate information about the potential effects of development on nature conservation (PPW paragraphs 5.5.1 and 5.5.2);*
- *ensure that the range and population of protected species is sustained (PPW 5.2.3, 5.5.11 and 5.5.12);*
- *adopt a step-wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation; where there may be significant harmful effects local planning authorities will need to be satisfied that any reasonable alternative sites that would result in less or no harm have been fully considered (PPW 5.2.2, 5.2.7 and 5.5.2)*.

[1] References to the relevant part of PPW.

Wrexham

1.5.6 Local planning authorities will consider biodiversity/ nature conservation issues in accordance with adopted policies and plans. The following are considered of particular relevance to the proposal.

Wrexham Unitary Development Plan

1.5.7 The Wrexham Unitary Development Plan (UDP) was adopted in February 2005. It will be replaced (currently scheduled for adoption in 2018) by the Local Development Plan. The UDP '...*provides a framework for local decision making and the reconciliation of development and conservation interests...*'.

Relevant strategic and general development policies include:

- *Policy PS2. Development must not materially detrimentally affect countryside, landscape/townscape character, open space, or the quality of the natural environment.*
- *Policy PS11. Encouragement will be given to proposals which improve the biodiversity value of sites and to the establishment of local nature reserves where the nature conservation and landscape interest of the land will be protected and enhanced.*
- *Policy GDP1f). Ensure the safety and amenity of the public and safeguard the environment from the adverse effects of pollution of water, land or air, hazards from industry and quarrying, and associated noise, odour or vibration arising from development.*
- *Policy GDP1h). Safeguard sites and areas of nature conservation and wildlife interest, and to provide new habitats where there is an unavoidable loss of existing habitats and areas of wildlife interest.*

Section 5 of the UDP concerns 'Environment and Conservation'. The relevant policies listed are as follows:

- *Policy EC4. Development proposals should provide for the conservation and management of hedgerows, trees, orchards, woodland, wildlife and other natural landscape and water features, and include new planting in order to enhance the character of the landscape and townscape. Development which results in the loss or significant damage to valuable trees, important hedgerows or ancient woodland sites will not be permitted.*
- *Policy EC6. Development either within or close to sites of biodiversity interest will only be permitted where it can be clearly demonstrated that the need for the development outweighs the need to safeguard the intrinsic nature conservation value of the site. Where such development is permitted, damage should be kept to a minimum, and compensatory measures should be provided. Measures to improve the biodiversity value of sites and enhance their natural conservation interest and landscape quality including the establishment of local nature reserves, will be supported.*
- *Policy EC13. Development which would result in an unacceptable adverse impact on the water environment due to additional surface water run-off will not be permitted.*
- *Policy EC14. Development which would have an unacceptable adverse impact upon the capacity, flow, quality or availability of controlled waters and associated land will not be permitted.*

Local Planning Guidance

1.5.8 Wrexham County Borough Council (WCBC) has produced a series of supplementary planning guidance documents which set out detailed advice on the way in which Development Plan policies will be applied. Supplementary planning guidance is a material consideration in the determination of planning applications for development. The following Local Planning Guidance (LPG) notes are of particular relevance:

- LPG 17 Trees and Development. Adopted September 2000, Updated December 2012. Provides further advice in relation to UDP policy EC4.
- LPG 32 Biodiversity and Development. Adopted March 2011. Provides further advice in relation to UDP policies PS2, PS11, EC4 and EC6. Of particular importance it details the requirements for ecological survey and reporting.

1.5.9 The Wrexham Biodiversity Action Plan (WBAP) is also listed as supplementary planning guidance on the WCBC website. This reference is out-of-date, the WBAP has been archived and is no longer available.

1.6 Legislation

Introduction

1.6.1 This sub-section provides a brief summary of key legislation relevant to ecology/ nature conservation and the proposal. It should not be considered a comprehensive review and is not meant to be so. It is provided here for information only and is not intended to replace specialised legal advice. It does not replace the text of the legislation, but summarises the salient points. Further information on how this legislation affects the protection of particular species is provided in *Appendix 1*.

***The Conservation of Habitats and Species Regulations 2017* (The Regulations)**

1.6.2 Transposes the *EC Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora 1992* into UK law. The Regulations provide for the protection of sites in the UK that support habitats and species of European importance (*e.g.* Special Protection Areas (SPAs) and Special Areas of Conservation (SACs)). The Regulations also provide full protection for certain species which are frequently referred to as European Protected Species (EPS). EPS of potential relevance to the site include bats and Great Crested Newt (*Triturus cristatus*).

***The Wildlife and Countryside Act 1981, as amended* (WCA)**

1.6.3 The WCA strengthened protection for nature conservation sites of at least national importance, and provides varying levels of protection for a number of species within the UK. This protection may include prohibition of some or all of: killing, injuring, disturbing, taking, sale/barter or possession of species and also protection of breeding/ sheltering places. The following species/ species groups that receive some level of protection under the WCA and are of potential relevance to the proposal include Badger (*Meles meles*), bats, Great Crested Newts, reptiles and birds. The WCA also prohibits the spread of certain non-native invasive species.

***The Countryside and Rights of Way Act 2000* (The CRoW Act)**

1.6.4 The CRoW Act includes legislation in relation to the Biodiversity Action Plan; more stringent management, protection and consenting measures for SSSIs; greater penalties for wildlife

crime; and greater protection for species listed in the WCA. Some of this legislation was superseded by the NERC Act.

***The Natural Environment and Rural Communities Act 2006* (The NERC Act)**

1.6.5 *Sections 40* to *42* of the NERC Act replace *Section 74* of the CRoW Act. *Section 40* of the NERC Act extends to all public authorities (including local planning authorities) the existing *Section 74* duty to have regard to biodiversity as far as is consistent with the proper exercise of their functions. In addition, *Sections 41* (England) and *42* (Wales) provide a list of species and habitats of principal importance for conservation of biological diversity. Government has a statutory duty to promote steps "to further the conservation" of habitats and species listed in *Sections 41* and *42*.

Environment (Wales) Act 2016

1.6.6 The Environment Act enhances and replaces the current NERC Act (*Section 40*) duty to require all public authorities, when carrying out their functions in Wales, to seek to 'maintain and enhance biodiversity' where it is within the proper exercise of their functions. In doing so, public authorities must also seek to 'promote the resilience of ecosystems'. *Section 7* of the Environment Act provides a list of the living organisms and habitats of principal importance for the purpose of maintaining and enhancing biodiversity in Wales. This list replaces that previously provided in *Section 42* of the NERC Act.

***The Protection of Badgers Act 1992* (The Badgers Act)**

1.6.7 The Badgers Act provides for the protection of Badgers and their setts. This legal protection is provided for welfare rather than the conservation value of the species.

2 METHODOLOGY

2.1 Field Survey

Extended Phase 1 Habitat Survey

2.1.1 The Extended Phase 1 Habitat Survey was carried out on 24th January 2018 by Tom Knight of Marches Ecology. The Extended Phase 1 Habitat plan is provided as *Figure 1*. The survey focussed on land within the site boundary (henceforth referred to as the 'survey site', refer to *Figure 1*). Immediately adjacent habitat was considered where deemed appropriate and viewed from the survey site boundary where possible. The weather during the survey was 100% grey cloud with some rain and strong wind.

2.1.2 Phase 1 Habitat Survey involves identifying areas or features of particular interest either in terms of their botanical interest, and/or habitat potential for protected or other notable species that are likely to occur in the region and within the survey site. The Phase 1 Habitat Survey has been adapted in this instance as an 'extended' Phase 1 Habitat Survey, where more information has been obtained to inform site assessment. The methods used centre on the Phase 1 Habitat Survey approach (JNCC 2010) as extended for use in Environmental Impact Assessment (Institute of Environmental Assessment 1995). Extended Phase 1 Habitat Survey involves the following elements:

- Habitat mapping using a set of standard colour codes to indicate habitat types on a Phase 1 Habitat map.
- Description of features of ecological or nature conservation interest in notes relating to numbered locations on the Phase 1 Habitat map, called target notes.

2.1.3 In addition to the habitat map and target notes, a plant species list was compiled (provided in *Table 1, Section 8*). Plant nomenclature in this report follows Stace (2010). January is outside the accepted survey period for Extended Phase 1 Habitat Surveys. Some flowering species would not be evident at this time. It is unrealistic to suppose that walk-through surveys can generate completely exhaustive species lists at any time of year. It is considered that the list in this report indicates the character of the vegetation and the ecological value of the area inspected.

2.1.4 Further information describing the assessment conducted during the Extended Phase 1 Habitat Survey for particular species is provided briefly below:

- Badger. Areas within the survey site that might be used by Badger for foraging and sett building were assessed. Incidental foraging signs, tree scratching, paths, latrines and setts were recorded if found (Harris *et al.*, 1989).
- Bats. The potential value of the habitat for foraging/ commuting and roosting was assessed in accordance with *Table 4.1* provided in Collins (2016).
- Great Crested Newts. The assessment of terrestrial habitat was based on information provided in Langton, *et al*. (2001) while the assessment of aquatic habitat was based on the Habitat Suitability Index (Oldham, *et al*. 2000).
- Reptiles. A qualitative assessment of the habitat for reptiles was undertaken and involved identifying potential basking areas, hibernation sites and foraging habitat. English Nature (2004) provides information on the distribution and ecology of the four widespread species. Habitat requirements differ between species but are summarised in Edgar *et al*. (2010).

- Birds. The habitat within the survey site was assessed for its potential value for breeding birds based on guidance provided in *e.g*. JNCC (2004).

2.2 Survey Limitations

2.2.1 The following may be considered survey limitations:

- The Extended Phase 1 Habitat Survey was undertaken outside the accepted optimal period for such surveys. Many plants may not be visible at this time of year.

2.3 Evaluation

2.3.1 The ecological importance (value) of habitats and/or species is often assessed according to a number of widely used criteria of which perhaps the most frequently used are naturalness, extent, rarity, and diversity. For the purpose of this report the ecological importance of the habitat and species present on the site has been determined using the approach detailed in CIEEM (2016). Geographical context is used as a frame of reference for identifying the importance of ecological features. The frame of reference has the following categories: International/ European - National - Regional - Metropolitan/County/Vice-county/ other local-authority wide area - Local. Within this report Local is defined as relating to district or parish; less than local refers to features of value at a Site level

2.3.2 Broadly speaking habitat importance should be determined by identifying designated sites, 'priority habitats' (as defined in CIEEM, 2017a) or by using published, ideally local, site selection criteria. The ecological importance of a species considers its distribution and legal or conservation status, the latter is mostly due to inherent rarity. 'Priority species' are also defined in CIEEM (2017a) and include legally protected species as well as those identified on various conservation lists.

3 BASELINE ECOLOGICAL CONDITIONS

3.1 Habitats and Flora

Introduction

3.1.1 The Extended Phase 1 Habitat map is provided as *Figure 1*. The Target Notes (numbered 1 to 7) are provided in *Section 5* and shown on *Figure 1*.

Poor Semi-improved Grassland

3.1.2 The western two-thirds of the survey site are characterised by poor semi-improved grassland that has developed following the cessation of management of an area of amenity grassland (*Target Note 2*). It is dominated by *Agrostis capillaris* (Common Bent) with frequent *Cynosurus cristatus* (Crested Dog's-tail), *Festuca rubra* (Red Fescue), *Lolium perenne* (Perennial Rye-grass), locally frequent *Ranunculus repens* (Creeping Buttercup), occasional *Dactylis glomerata* (Cock's-foot), *Holcus lanatus* (Yorkshire-fog), *Prunella vulgaris* (Selfheal), *Taraxacum officinale* (Dandelion), *Senecio jacobaea* (Common Ragwort) and lesser amounts of *Rumex acetosa* (Common Sorrel) and *Ranunculus bulbosa* (Bulbous Buttercup). The sward is species-poor, grass-dominated, currently unmanaged and is likely to reach approximately 1 m high in the growing season.

Part of the poor semi-improved grassland at *Target Note 2*.

The remaining poor semi-improved grassland at *Target Note 2*.

Hedge/ Shrubs

3.1.3 Approximately half of the southern site boundary is formed by a hedge of *Ligustrum ovalifolium* (Garden Privet) (*Target Note 1*). It is currently unmanaged with approximate dimensions of 2.2 m tall and 2 m wide.

The hedge at *Target Note 1*.

3.1.4 There is a small number of ornamental shrubs including a line of conifers in the garden.

Other Habitat

3.1.5 The existing residential house (*Target Note 4*) is described below under 'bats'. The house is bounded by areas of concrete hard-standing. There is also a detached single garage in the garden (*Target Note 3*) which is also described below under 'bats'.

3.1.6 The survey site is bounded by stone/ brick walls that vary in height between approximately 0.7 m to 1.85 m above the survey site ground level.

3.2 Species/ Species Groups

Badger

3.2.1 No setts were recorded within the survey site. There are no particular opportunities for sett excavation within the survey site. Some opportunities for sett excavation exist outside the survey site.

3.2.2 No evidence of Badger activity was recorded within the survey site. The grassland within the survey site provides potential foraging habitat of moderate quality.

Bats

3.2.3 There are two built structures within the survey site; the existing residential house at *Target Note 4* and the detached garage at *Target Note 3*.

3.2.4 The detached two-storey house at *Target Note 4* has a rear extension. The walls are covered in render/ pebble-dash. It has a pitched slate-tiled roof. Both gable ends have been entirely pebble-dashed and as such there are no obvious gaps. The rear gable end is also pebble-dashed. There appear to be gaps at the wall-tops behind the fascia on both sides of the rear extension. There are also gaps beneath slates and the ridge tiles on the rear extension. There is a small single storey lean-to with a sloping roof at the rear of the extension. At the front of the house there appears to be some gaps beneath slates and the ridge tiles as well as along the wall top. The house is currently unoccupied. It is of low potential value for roosting bats.

The southern elevation of the house (*Target Note 4*).

The western elevation of the house (*Target Note 4*).

3.2.5 The detached single garage (*Target Note 3*) has a timber frame and timber doors. Two of the walls are constructed with corrugated metal sheets and the other two walls are of timber slats that are generally in poor condition. It has a sloping roof also of corrugated metal sheets. It is located on a brick floor. It is partly filled with stored timber and other items. There are gaps at the wall tops and holes in the timber walls which could provide potential access for bats. The rear timber wall is well rotted/ collapsing and appears to be held in place by the *Hedera helix* (Ivy) on the outside. There is a large (approximately 1 m by 0.5 m) gap in this back wall and a window that has fallen out of the timber frame. The interior is draughty, open and cold. It is of negligible potential value for roosting bats.

The southern and eastern elevations of the garage (*Target Note 3*).

The northern elevation of the garage (*Target Note 3*).

3.2.6 There are no trees within the survey site. There is a mature *Salix caprea* (Goat Willow) tree immediately outside the western survey site boundary (*Target Note 5*). It is multi-stemmed and appears to have been cut back in the past. The largest stems have an approximate diameter at breast height (dbh) of 0.3 m. No features of potential value for roosting bats were identified.

3.2.7 The poor semi-improved grassland that characterises much of the survey site is of moderate potential value for foraging/ commuting bats particularly as the surrounding walls/ hedge/ tree provide fairly sheltered conditions. The habitat associated with the sports pitches and field to the north, northeast and northwest of the survey site is of moderate or high potential value for foraging/ commuting bats and is also contiguous with the wider countryside.

Great Crested Newts

3.2.8 There is no aquatic habitat within the survey site.

3.2.9 An initial review of the OS map 1:25, 000 scale and relevant internet-based mapping including aerial photography[2] indicates that there are no waterbodies within approximately 500 m of the survey site with the exception of several watercourses. No detailed pond scoping exercise has been undertaken.

3.2.10 To the immediate north of the survey site there is a ditch/ watercourse and associated area of swamp (*Target Note 7*). The watercourse is very slow-flowing and drains an area of marshy ground to the west. It enters a stone-lined culvert beneath the survey site. The culvert measures approximately 0.6 m by 0.6 m. The channel is approximately 2-2.5 m wide and held water to approximately 0.3 m deep at the time of the survey. It is likely that the water level is lower at certain times of the year. The channel is heavily vegetated/ choked. It is dominated by *Agrostis stolonifera* (Creeping Bent) with frequent *Juncus effusus* (Soft

[2] https://www.google.co.uk/maps/place/Rhosllanerchrugog/@53.0044119,-3.0640159,1526m/data=!3m1!1e3!4m5!3m4!1s0x487ac7f998f75891:0xa0d8b265e0a7900!8m2!3d53.013057!4d-3.057852

Rush), *Ranunculus repens* (Creeping Buttercup), *Lemna minor* (Common Duckweed), locally frequent *Epilobium hirsutum* (Great Willowherb) and small amounts of *Rorippa nasturtium-aquaticum* (Water-cress). *Typha latifolia* (Bulrush) is locally abundant at one end of the channel. The margins are dominated by Soft Rush with locally frequent Great Willowherb and occasional *Stachys palustris* (Marsh Woundwort). The banks (approximate 30-45° slope) rise to approximately 0.5-0.7 m above the water level. This watercourse provides sub-optimal potential aquatic habitat for Great Crested Newts.

The watercourse at *Target Note 7*.

3.2.11 The watercourse is located in an area of unmanaged grassland, stands of tall herbs, swamp vegetation and patches of *Rubus fruticosus* agg. (Bramble) scrub. The adjacent small area of swamp to the northeast is dominated by Bulrush with locally abundant Soft Rush, locally frequent Great Willowherb and occasional Water-cress. It held surface water to an approximate depth of 0.2 m at the time of the survey though this is likely to be lower for much of the year.

3.2.12 There is an attenuation lagoon at Ysgol I D Hooson. It is located approximately 300 m to the northeast of the survey site. No direct access was possible; the lagoon was viewed from a boundary fence through a young plantation woodland. The lagoon did not appear to hold much surface water at the time of the survey (approximately 1-2 cm depth). Various plant species associated with marsh/ wet grassland were visible though no stands of tall emergents or aquatic plants could be seen. This lagoon is unlikely to provide potential aquatic habitat for Great Crested Newts though this could not be confirmed.

3.2.13 The survey site is largely characterised by unmanaged poor semi-improved grassland, existing built structures and hard-standing. The unmanaged grassland provides terrestrial habitat of moderate potential value for Great Crested Newts. The various built structures, including the edges of hard-standing, walls and building foundations, provide potential refugia/ hibernacula that could potentially be utilised by Great Crested Newts

3.2.14 The areas of rough grassland, stands of tall herbs, swamp, scrub and plantation woodland, to the north and outside the survey site (*e.g. Target Note 7*) provide terrestrial habitat of high potential value for Great Crested Newts.

Area of rough grassland, tall herbs and scrub to the rear of the survey site. The brick wall that denotes the northern survey site boundary is on the right. The watercourse at *Target Note 7* is towards the centre of this view.

Reptiles

3.2.15 The small area of unmanaged grassland that characterises part of the survey site is likely to be of potential low/ moderate value for reptiles. The areas of hard-standing/ buildings are not of any particular value.

3.2.16 The area of rough grassland, tall herbs and scattered scrub to the north of the survey site provides potential habitat of moderate/ high value.

Birds

3.2.17 No birds were recorded during the Extended Phase 1 Habitat Survey either within the survey site or flying over it. There is an old timber nest-box attached to the garage at *Target Note 3* which contains old nesting material. The dense Ivy growing on this garage and the adjacent wall provide potential opportunities for nesting birds. Other opportunities for nesting birds within the survey site include the hedge at *Target Note 1* as well as other shrubs in the garden, the various walls (*e.g. Target Note 6*) and the existing house (*Target Note 4*). Birds that could nest within the survey site include some priority species[3] such as the House Sparrow (*Passer domesticus*) and the Dunnock (*Prunella modularis*).

[3] As defined in CIEEM (2017a).

4 EVALUATION, ASSESSMENT AND RECOMMENDATIONS

4.1 Introduction

4.1.1 Brief details regarding the proposal are provided in *Section 1.4*. An assessment of ecological issues based on the information provided is detailed below and considers:

- potential ecological constraints relevant to the proposal;
- further survey requirements; and
- potential mitigation/ compensation measures along with opportunities for ecological enhancement.

These are dealt with in turn for habitats and flora, and specific species groups in the section below. Potential impacts have been considered with reference to the plans/ information provided only.

4.2 Evaluation, Assessment and Recommendations

Habitat

4.2.1 The survey site includes the following habitat resources:

- Poor semi-improved grassland;
- A hedgerow;
- Ornamental shrubs;
- An existing house and separate garage; and
- Hard-standing.

4.2.2 Due to the size, quality and geographical location of the habitat resources listed above they are considered to be of no more than site value[4]. No further survey of the habitat within the survey site is currently considered necessary. The proposal would result in the permanent loss of all of the habitat from the survey site with the exception of the house at *Target Note 4*. The loss of this habitat would not result in any significant impacts.

4.2.3 The mature Goat Willow tree at *Target Note 5*, outside the survey site, is likely to be of no more than local value. This tree would be felled as part of the proposal. The loss of this tree would not result in any significant impacts. It is recommended that three locally native trees are planted in this area as compensation subject to agreement with the landowner.

4.2.4 Due to the proximity of the watercourse and adjacent vegetation at *Target Note 7* to the survey site it is possible that it could be inadvertently impacted. It is recommended that this feature should be protected wherever possible during the construction phase.

4.2.5 General best practice measures should be implemented during the construction phase to avoid any indirect impacts (*e.g*. dust, diffuse and water-borne pollution, *etc*) on adjacent habitat. In order to protect the feature at *Target Note 7* a suitable temporary protective fence (*e.g*. heras) should be installed along the survey site boundary at this location prior to the start of any preparatory or construction works. This fence should remain in-situ until the completion of the construction work. No access/ storage of materials/ work, *etc* should be allowed beyond this fence.

[4] In accordance with CIEEM (2016).

Flora

4.2.6 No species of plant listed in categories (above Least Concern) in the most recent Vascular Plant Red Data List for Wales (Dines 2008) or in Williams (2014) were recorded from the survey site. No further survey of the flora within the site and no specific mitigation measures are currently considered necessary.

4.2.7 It is illegal to plant or otherwise cause to grow in the wild any plant listed in *Schedule 9* to the *Wildlife and Countryside Act 1981* (as amended). The *Schedule 9* list of animal and plant species has been amended by the *Wildlife and Countryside Act 1981 (Variation of Schedule 9)(England and Wales) Order 2010*'[5]. *Section 14 (1)* covers spreading the species or transferring polluted ground material from one area to another.

4.2.8 There is some *Fallopia japonica* (Japanese Knotweed) in the area of land near the tree at *Target Note 5*, approximately 5 m from the survey site boundary wall. Some of the Japanese Knotweed appears to have been chemically treated. It is possible that this area may be subject to some disturbance during the felling of the tree. As such appropriate control measures should be implemented during this work in order to avoid spreading Japanese Knotweed to any other site.

Fauna

Badgers

4.2.9 No setts were recorded within the survey site and there are no particular opportunities for sett excavation within the survey site. No evidence of Badger activity was recorded within the survey site although part of the habitat resource is of moderate potential value as a foraging resource. At present no impacts on Badgers or their habitats are predicted due to the proposal.

4.2.10 As no evidence of Badger activity was recorded no mitigation measures are proposed. If site clearance/ construction work is not implemented within 12 months of the Extended Phase 1 Habitat Survey then the site should be re-surveyed by a suitably qualified ecologist to check for any setts.

Bats

4.2.11 The existing detached house at *Target Note 4* is of low potential value for roosting bats. Based on the scope of the works proposed it is considered unlikely that bats that may use the building for roosting would be subject to potential disturbance or otherwise be prevented from accessing/ egressing from such features. No further survey is considered necessary and no mitigation measures are proposed. No significant impacts are predicted.

4.2.12 Should the scope of works proposed for 50 Stryt-Issa change in any way from that detailed in *Section 1.4* then this would require re-assessment. Should this be the case it may subsequently be necessary to undertake further survey. In the first instance a Preliminary Roost Assessment (PRA) in accordance with Collins (2016) including internal inspection is likely to be required. The PRA would identify whether further survey is required at an appropriate time of year (usually May-September). It would also consider compensation/ enhancement measures for bats in accordance with Technical Advice Note 5.

[5] http://www.nonnativespecies.org/index.cfm?pageid=67

4.2.13 Regardless of the above should a bat be found at any time during the renovation/ construction works then all work should immediately cease while advice is obtained from a suitably qualified ecologist.

4.2.14 The detached garage at *Target Note 3* is of negligible potential value for roosting bats. No further survey is considered necessary and no mitigation measures are proposed with regards the garage.

4.2.15 There are no trees within the survey site. The Goat Willow at *Target Note 5* that would be felled does not contain any features of potential value for roosting bats.

4.2.16 No information is currently available on external lighting with regards the proposal. The potential impact of lighting (both during construction and operation) on bats that may use the survey site/ adjacent habitat should be considered. Lighting at the proposed development site should follow guidance provided by The Bat Conservation Trust (2014) and Institution of Lighting Engineers (2011). Lighting that reduces vertical and horizontal light spillage should be used. Measures to avoid/ minimise light spillage should include:

- 'Warm white' LED lamps should be used;
- All luminaires used should be fully directional (*e.g*. LED using variable aim luminaires) and should point straight down to where the light is required;
- The number of poles/ bollards/ lamps installed should be kept to a minimum and should be as low (in height) as possible;
- No external lights should be installed on the north side of the buildings;
- The brightness of all lamps should be as low as legally possible. Low wattage lamps (<70W) should be used; and
- Any external lighting installed should be fitted with a motion detector so that is not continuously on.

4.2.17 Some of the habitat within the survey site is considered to be of moderate potential value for foraging/ commuting bats. Based on the small-scale of the proposal it is considered unlikely that the loss of this habitat would result in a significant impact on foraging bats.

Great Crested Newts

4.2.18 The habitat within the survey site is generally considered to be of moderate potential value for Great Crested Newts. There are no known waterbodies within 500 m of the survey site. An attenuation lagoon described in *Section 3* does not hold sufficient depth of water to provide a potential breeding waterbody. The watercourse described at *Target Note 7* is of sub-optimal potential value for Great Crested Newts.

4.2.19 The potential presence of Great Crested Newts in terrestrial habitat is governed more by the proximity of a suitable breeding waterbody than by the quality of the terrestrial habitat. Due to the isolation of the watercourse at *Target Note 7* from any other waterbody the likelihood that Great Crested Newts may be present is considered to be negligible/ low.

4.2.20 Furthermore, the survey site is bounded by brick/ stone walls on all sides except vehicular/ pedestrian access along Stryt-Issa. While these walls do contain some holes, and are therefore not an absolute barrier, they do represent a considerable barrier to the movement of amphibians. The risk that individual Great Crested Newts may access the survey site is considered to be negligible. No mitigation measures are proposed other than the precautionary approach detailed below.

Part of the wall at *Target Note 6*, along the northern boundary of the survey site. The watercourse at *Target Note 7* is towards the left of this view.

4.2.21 The walls on the west, north and eastern boundaries should be retained throughout the construction phase. It is understood that these walls are to be replaced with fencing. The removal of these walls should be programmed for the end of the construction phase when all other work has been completed. Should a Great Crested Newt be found at any time during the construction phase all work should immediately cease while advice is obtained from a suitably qualified ecologist.

Reptiles

4.2.22 The grassland within the survey site is of low/ moderate potential value for reptiles. This grassland is likely to have developed since the cessation of management of amenity grassland. When this grassland was regularly mown it is unlikely to have been of particular value for reptiles. The habitat to the north of the survey site is of moderate/ high potential value for reptiles. As mentioned above the walls around the survey site are likely to be a considerable barrier to the movement of reptiles. Due to the quality of the available habitat within the survey site and the barrier created around the site by the boundary walls it is considered unlikely that individual reptiles might access the survey site.

4.2.23 No mitigation measures are proposed. Should any reptile be found at any time during the construction phase all work should immediately cease while advice is obtained from a suitably qualified ecologist.

Birds

4.2.24 The breeding bird assemblage supported by the survey site is likely to be of no more than site value. The proposal would result in the loss of a small stretch of hedge, some ornamental shrubs, the dense Ivy on the garage at *Target Note 3* and a nest-box attached to the garage. Some loss of nesting opportunities may also be associated with the renovation of the existing building. Based on the scale of the proposal it is considered unlikely that this would give rise to a significant impact on local bird populations.

4.2.25 The proposal presents an opportunity to enhance the site for a priority species; the House Sparrow. Four nest-boxes specifically designed for this species (*e.g*. Schwegler Brick Box

No.24[6] or EcoSurv Sparrow[7] nest-boxes) should be built into the two new houses on the north-east and or east elevations. The Brick-box No.24/ EcoSurv box should be installed within the wall. Full instructions for their installation are provided in Gunnell, Murphy & Williams (2013). These nest-boxes should ideally be installed at soffit/ eaves level (more than 2 m above ground level) and at least 1 m apart. They should have unobstructed access and should not be located directly above any windows or doors.

4.2.26 No further survey for birds is deemed necessary (other than a pre-work check should work be undertaken during the nesting season as detailed below).

4.2.27 The destruction of any bird nests that are in use is illegal. The simplest option to avoid issues arising from the presence of nesting birds is to schedule work that affects nesting habitat (*e.g*. clearance of trees/ shrubs, demolition of buildings) outside the nesting period (March to August inclusive). Should any occupied nests be found during the construction phase, a buffer zone (determined on the basis of the species concerned and the location of the nest in the context of the surrounding vegetation, but no less than 5 m) would be retained until it can be ascertained that the chicks have left the nest. The buffer zone will be appropriately fenced and signed.

4.2.28 If it is not possible to clear vegetation/ fell/ prune trees/ demolish buildings outside the nesting season all such areas should be checked by a suitably qualified ecologist prior to commencement of works. If any active nests are found at this time a buffer zone as detailed above would be provided.

[6] http://www.nhbs.com/title/173236/schwegler-brick-nest-boxes
[7] http://www.ecosurv.co.uk/product/bird-box-range

5 SUMMARY CONCLUSIONS

5.1.1 This report concludes the following with regards existing (on- and off-site) ecological resources:

- The habitat within the survey site is of no more than site value. Small areas of poor semi-improved grassland, a short stretch of hedge, ornamental shrubs, hard-standing and a garage would be lost due to the proposal.
- The Goat Willow outside the survey site is of local value. It would be felled as part of the proposal.
- Japanese Knotweed is a non-native invasive plant listed on *Schedule 9* of the *Wildlife and Countryside Act 1981*, as amended. It was recorded outside the survey site near the tree at *Target Note 5*.
- No evidence of Badgers was recorded.
- The existing house is of low potential value for roosting bats while the garage is of negligible value. The proposed scope of renovation works on 50 Stryt-Issa is unlikely to cause disturbance to any bats that might roost in the house. Demolition of the garage would have no particular implications for bats. There are no trees within the survey site. Some of the habitat is of moderate value for foraging/ commuting and would be lost due to the proposal.
- The terrestrial habitat within the survey site is of potential value for Great Crested Newts. There are no waterbodies within 500 m of the survey site. The watercourse immediately adjacent to the survey site at *Target Note 7* is of sub-optimal value. The risk that this species might be found on the survey site is considered to be negligible.
- The habitat within the survey site is of low/ moderate potential value for reptiles. It is considered unlikely that individual reptiles might access the survey site.
- Some features within the survey site are of value for nesting birds and would be lost due to the proposal.

5.1.2 This report recommends the following avoidance/ mitigation measures:

- Three locally native trees should be planted to replace the tree to be felled subject to landowner agreement.
- General best practice measures should be implemented during the construction phase including the installation of fencing to protect the adjacent habitat at *Target Note 7*.
- The Japanese Knotweed outside the survey site should be subject to control measures during the felling of the tree.
- Should site clearance/ construction work not be implemented within 12 months then the site should be re-surveyed for Badger setts.
- If the proposed scope of works for 50 Stryt-Issa changes in any way then further (bat) survey may be required. Should a bat be found at any time all work should cease and the ecologist contacted for further advice. Any external lighting provided as part of the proposal should accord with best practice guidance to minimise impacts on foraging/ commuting bats.
- The walls on the west, north and eastern boundaries should be retained throughout the construction phase to minimise the possibility of Great Crested Newts and reptiles accessing the site. Should either species/ species group be found at any time all work should cease and the ecologist contacted for further advice.

- Site clearance/ construction works should be undertaken outside the bird nesting season. Should this not be possible then suitable habitat would need to be checked by a qualified ecologist prior to the commencement of work.

5.1.3 This report recommends the following enhancement measures:

- Four Sparrow nest-boxes should be built into the new houses.

6 TARGET NOTES

Target Note 1. A hedge of *Ligustrum ovalifolium* (Garden Privet). Currently unmanaged with approximate dimensions of 2.2 m tall and 2 m wide.

Target Note 2. Poor semi-improved grassland that has developed following the cessation of management of an area of amenity grassland. It is dominated by *Agrostis capillaris* (Common Bent) with frequent *Cynosurus cristatus* (Crested Dog's-tail), *Festuca rubra* (Red Fescue), *Lolium perenne* (Perennial Rye-grass), locally frequent *Ranunculus repens* (Creeping Buttercup), occasional *Dactylis glomerata* (Cock's-foot), *Holcus lanatus* (Yorkshire-fog), *Prunella vulgaris* (Selfheal), *Taraxacum officinale* (Dandelion), *Senecio jacobaea* (Common Ragwort) and lesser amounts of *Rumex acetosa* (Common Sorrel) and *Ranunculus bulbosa* (Bulbous Buttercup). The sward is species-poor, grass-dominated, currently unmanaged and is likely to reach approximately 1 m high in the growing season.

Target Note 3. A detached single garage with a timber frame and timber doors. Two of the walls are constructed with corrugated metal sheets and the other two walls are of timber slats that are generally in poor condition. It has a sloping roof also of corrugated metal sheets. It is located on a brick floor. It is partly filled with stored timber and other items. There are gaps at the wall tops and holes in the timber walls which could provide potential access for bats. The rear timber wall is well rotted/ collapsing and appears to be held in place by the *Hedera helix* (Ivy) on the outside. There is a large (approximately 1 m by 0.5 m) gap in this back wall and a window that has fallen out of the timber frame. The interior is draughty, open and cold. It is of negligible potential value for roosting bats.

The dense Ivy on the outside provides potential opportunities for nesting birds. There is an old nest-box present which contains old nesting material.

Target Note 4. A detached two-storey house with a rear extension. The walls are covered in render/ pebble-dash. It has a pitched slate-tiled roof. Both gable ends have been entirely pebble-dashed and as such there are no obvious gaps. The rear gable end is also pebble-dashed. There appear to be gaps at the wall-tops behind the fascia on both sides of the rear extension. There are also gaps beneath slates and the ridge tiles on the rear extension. There is a small single storey lean-to with a sloping roof at the rear of the extension. At the front of the house there appears to be some gaps beneath slates and the ridge tiles as well as along the wall top. The house is currently unoccupied. It is of low potential value for roosting bats.

Target Note 5. A large *Salix caprea* (Goat Willow) tree immediately outside the wall of the survey site. It is multi-stemmed and appears to have been cut back in the past. The largest stems have an approximate diameter at breast height (dbh) of 0.3 m. No features of potential value for roosting bats were identified. There is some *Fallopia japonica* (Japanese Knotweed) in the area of land near this tree, approximately 5 m from the survey site boundary wall. Some of the Japanese Knotweed appears to have been chemically treated.

Target Note 6. While there are holes in this wall it presents a considerable barrier to the movement of amphibians. It is approximately 2 m above the ground level outside the survey site at its highest.

Target Note 7. A very slow-flowing ditch/ watercourse that drains an area of marshy ground to the west. It enters a stone-lined culvert beneath the survey site. The culvert measures approximately 0.6 m by 0.6 m. The channel is approximately 2-2.5 m wide and held water to approximately 0.3 m deep at the time of the survey. It is likely that the water level is lower at certain times of the year. The channel is heavily vegetated/ choked. It is dominated by *Agrostis stolonifera* (Creeping Bent) with frequent *Juncus effusus* (Soft Rush), *Ranunculus repens* (Creeping Buttercup), *Lemna minor* (Common Duckweed), locally frequent *Epilobium hirsutum* (Great Willowherb) and small amounts of *Rorippa nasturtium-aquaticum* (Water-cress). *Typha latifolia* (Bulrush) is locally abundant at one end of the channel. The margins are dominated by Soft Rush with locally frequent Great Willowherb and occasional *Stachys palustris* (Marsh Woundwort). The banks (approximate 30-45° slope) rise to approximately 0.5-0.7 m above the water level. The channel is located in an area of unmanaged grassland, stands of tall herbs, swamp vegetation and patches of *Rubus fruticosus* agg. (Bramble) scrub.

The adjacent small area of swamp to the northeast is dominated by Bulrush with locally abundant Soft Rush, locally frequent Great Willowherb and occasional Water-cress. It held surface water to an approximate depth of 0.2 m at the time of the survey though this is likely to be lower for much of the year.

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8 DATA

Table 1 – Vascular plant species recorded within the survey site

Plant Species	*Glechoma hederacea* (Ground-ivy)
Forsythia ×intermedia (Forsythia)	*Hedera helix* (Ivy)
Ilex aquifolium (Holly)	*Holcus lanatus* (Yorkshire-fog)
Juniperus sp.	*Hyacinthus* sp.
Ligustrum ovalifolium (Garden Privet)	*Hypochaeris radicata* (Cat's-ear)
Quercus robur (Pedunculate Oak)	*Lamium purpureum* (Red Dead-nettle)
	Lolium perenne (Perennial Rye-grass)
Achillea millefolium (Yarrow)	*Lonicera* sp.
Agrostis capillaris (Common Bent)	*Phyllitis scolopendrium* (Hart's-tongue)
Agrostis stolonifera (Creeping Bent)	*Plantago lanceolata* (Ribwort Plantain)
Alliaria petiolata (Garlic Mustard)	*Poa annua* (Annual Meadow-grass)
Anthriscus sylvestris (Cow Parsley)	*Primula* sp.
Arrhenatherum elatius (False Oat-grass)	*Prunella vulgaris* (Selfheal)
Asplenium adiantum-nigrum (Black Spleenwort)	*Ranunculus bulbosus* (Bulbous Buttercup)
Asplenium ruta-muraria (Wall-rue)	*Ranunculus repens* (Creeping Buttercup)
Asplenium trichomanes (Maidenhair Spleenwort)	*Rosa* sp.
Bellis perennis (Daisy)	*Rubus fruticosus* agg. (Bramble)
Cardamine hirsuta (Hairy Bitter-cress)	*Rumex acetosa* (Common Sorrel)
Cerastium fontanum (Common Mouse-ear)	*Sagina apetala* (Annual Pearlwort)
Cirsium vulgare (Spear Thistle)	*Senecio jacobaea* (Common Ragwort)
Cynosurus cristatus (Crested Dog's-tail)	*Senecio vulgaris* (Groundsel)
Dactylis glomerata (Cock's-foot)	*Sonchus arvensis* (Perennial Sowthistle)
Dianthus sp.	*Taraxacum* sect. *Ruderalia* (Common Dandelion)
Dryopteris filix-mas (Male-fern)	*Trifolium pratense* (Red Clover)
Epilobium montanum (Broad-leaved Willowherb)	*Trifolium repens* (White Clover)
Erophila verna (Common Whitlowgrass)	*Urtica dioica* (Common Nettle)
Festuca rubra (Red Fescue)	*Veronica persica* (Common Field-speedwell)
Galium aparine (Cleavers)	*Vicia sativa* (Common Vetch)

9 APPENDIX 1 - SPECIES-SPECIFIC LEGISLATION

9.1 Introduction

9.1.1 The species-specific legislation below is presented here due either to the actual or suspected/ possible presence of each species on the site or within the zone of influence and is therefore considered to be relevant for this study.

9.1.2 This sub-section provides a brief summary of key relevant species legislation. It should not be considered a comprehensive review and is not meant to be so. It is provided here for information only and is not intended to replace specialised legal advice. It does not replace the text of the legislation, but summarises the salient points.

9.2 Badger

9.2.1 The 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 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.

9.3 Bats

9.3.1 All species of British bat are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. They are also listed as European Protected Species on *Schedule 2* of *The Conservation of Habitats and Species Regulations 2017* which gives them full protection under *Regulation 42(1)*. Protection was extended by the *Countryside and Rights of Way Act 2000* (the *CRoW Act 2000*).

9.3.2 Under the above legislation it is an offence to intentionally or recklessly:

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

9.3.3 Several species of bat are included on *Section 7* of the *Environment Act 2016*.

9.3.4 All species of British bat are also protected under *Schedule 6* of the *Wildlife and Countryside Act 1981* (as amended). This protection relates specifically to trapping and direct pursuit of the species.

9.4 Great Crested Newt

9.4.1 Great Crested Newts are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. The 1981 Act was amended by the *CRoW Act 2000* which further extends the protection. It is also listed on *Annexes II* and *IV* of the European Union Directive on Natural Habitats and Wild Fauna and Flora (*Council*

Directive 92/43/EEC), which is implemented in the UK by *The Conservation of Habitats and Species Regulations 2010* (as amended). It is included on *Schedule 2* of the Habitats Regulations which gives it full protection under *Regulation 40(1)*. The Great Crested Newt is therefore a so-called European Protected Species. The legislation applies to all life stages of the Great Crested Newt, including eggs, larvae, juveniles and adults.

9.4.2 Under the above legislation it is an offence to intentionally or recklessly:

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

9.4.3 The Great Crested Newt is included on *Section 7* of the *Environment Act 2016*.

9.5 Reptiles

9.5.1 Viviparous Lizard, Grass Snake, Slow-worm and Adder are all 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 *CRoW Act 2000*.

9.5.2 Under the above legislation it is an offence to:

- intentionally or recklessly kill or injure any individual of such a species; or
- sell or attempt to sell any part of the species alive or dead.

9.5.3 All four of the above listed reptiles are included on *Section 7* of the *Environment Act 2016*.

9.6 Birds

9.6.1 All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). The protection was extended by the *CRoW Act 2000*.

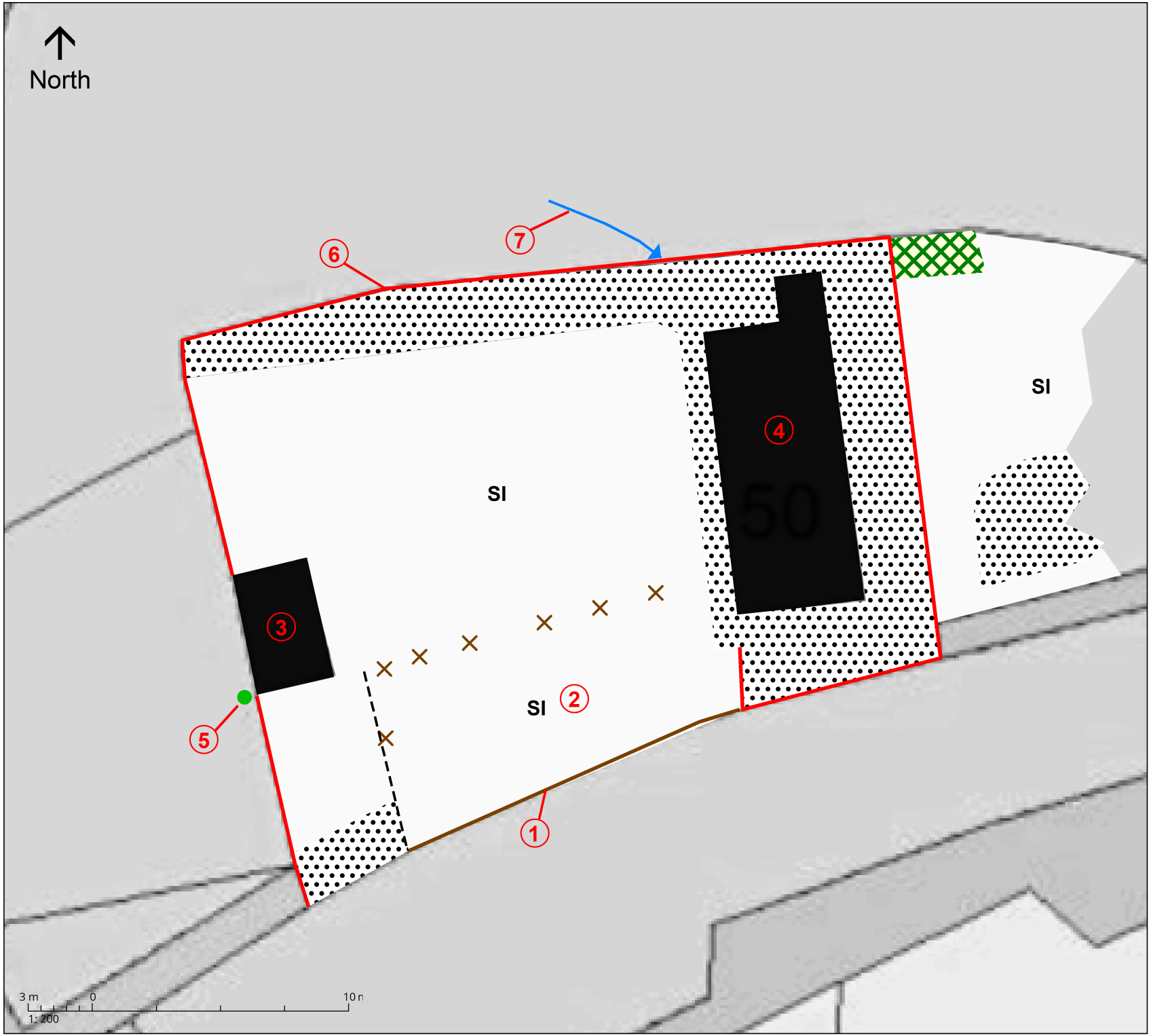
9.6.2 The legislation makes it an offence to intentionally or recklessly:

- 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.

9.6.3 Certain species of bird are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)* of the Act. The legislation confers special penalties where the above mentioned offences are committed for any such bird and also make it an offence to intentionally or recklessly:

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

9.6.4 *Section 7* of the *Environment Act 2016* includes several birds.



Dense/ continuous scrub

Individual broad-leaved tree

SI Poor semi-improved grassland

Introduced shrub

Scattered introduced shrub

Running water

Building

Hard-standing/ bare ground

Wall

Target Note

C355 Proposed Development on land off Stryt-Issa, Penycae, Wrexham - Preliminary Ecological Appraisal

Figure 1 **- Extended Phase 1 Habitat Survey**

Date: 30/01/2018

marches ecology

www.marchesecology.co.uk

Base mapping provided by Mr Steven Jones.