



Home Farm Llay Ecological Assessment (TEP Report Ref: 4358.01.001) June 2014 Version 1.0

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**Home Farm
Llay
Ecological Assessment
TEP Report Ref: 4358.01.001
June 2014
Version 1.0**

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1.0 SUMMARY

- 1.1 TEP was commissioned in April 2014 by Michael Cunningham Architects to carry out an ecological assessment of an c.12ha parcel of land called Home Farm in Llay. This assessment has been requested to inform proposals for development of the site. The recommendations made in this report are provided in advance of a development proposals plan.
- 1.2 The most significant features for wildlife are the Waterbodies, mature trees and hedgerows which provide opportunities for wildlife, particularly bats, great crested newts and birds, as detailed below.
- 1.3 The trees identified as having potential to support roosting bats must be subject to further inspection prior to works commencing. In addition three transect surveys will be required.
- 1.4 Vegetation clearance, including tree and scrub removal and cutting back overhanging trees along boundaries, and building demolition should be implemented outside the bird nesting season (typically taken to extend from March to August inclusive) or a nesting bird check undertaken beforehand by a suitably qualified ecologist.
- 1.5 There are three Waterbodies on site and a number of ponds in the wider area of connected habitat which have the potential to support great crested newts (GCN). These will require detailed survey prior to works commencing in line with advice provided in Chapter 7.
- 1.6 Invasive Japanese knotweed and ornamental cotoneaster species were identified on site. These are listed under Schedule 9 of the *Wildlife and Countryside Act (as amended 1981)* which makes it an offence to “cause these species to spread or grow in the wild. A method statement for these species will be required.
- 1.7 Opportunities for protection and enhancement are made in section 7 and should be followed throughout.

2.0 INTRODUCTION

2.1 TEP was commissioned in May 2014 by Michael Cunningham Architects to carry out an ecological assessment of a site named Home Farm, Llay. This assessment has been requested to inform proposals for residential development of the site. No proposed layout or likely housing numbers were available to inform this report.

2.2 This report has the following objectives:

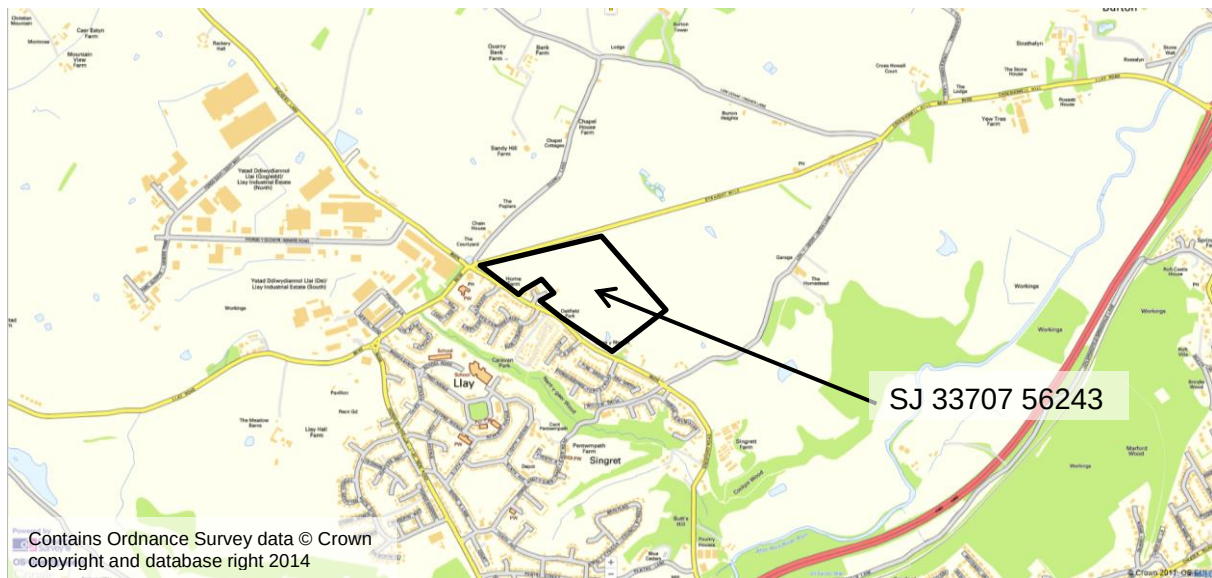
- to describe the existing vegetation and give an overview of the habitats present on the site;
- to identify whether there are any features of conservation value such as legally protected species or habitats of biodiversity importance;
- to advise of further surveys or mitigation requirements that might be needed prior to development of the site; and
- to outline opportunities to provide biodiversity enhancement within any future site proposals.

3.0 SITE DESCRIPTION

3.1 The site is approximately 12ha and comprises semi-improved grassland and species-poor intact hedgerows with small areas of mature trees and scrub, hardstanding and a single building. In addition, there are two water bodies on site.

3.2 The site is situated off Gresford Road in Llay, as shown in Figure 1. The approximate central grid reference is SJ 33707 56243. The site is situated close to the centre of Llay in an area that is largely composed of residential developments, pasture land and arable fields containing scattered trees. The site is bounded to the north by the Straight Mile road, to the south by Gresford Road and to the west by roads and industrial development. Open pasture land lies to the east.

Figure 1: Location of the site within the local landscape



4.0 METHODS

Desktop Study

- 4.1 Information regarding historic species records and protected sites within a 1km radius of the site was requested/gathered from the sources listed in Table 1.

Table 1: Ecological information and consultations

SOURCE OF INFORMATION	NATURE OF INFORMATION
MAGIC Map	Maps showing legally protected areas/ protected sites
Google Maps & Where's the path 2	Satellite imagery
Cofnod	Local records for European/UK protected species and sites

Habitats and Flora

- 4.2 A walkover assessment of the site was carried out by Ian Holland (FISC Level 3) on 13th May 2014. The survey was carried out in accordance with the Phase 1 assessment methods (JNCC 2010) and gives an overview of key habitats and wildlife corridors and any likely sites for species of conservation concern.

Fauna

- 4.3 During the walkover assessment, the habitats present were assessed for their potential to support species of conservation concern, particularly statutorily protected species or species of principal importance, as listed in Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act, 2006.
- 4.4 All accessible ponds and waterbodies, on site and within 500m were assessed using the Habitat Suitability Index (HSI) (ARG UK Advice Note 5). HSI assessment categorises ponds according to their potential to support great crested newt.
- 4.5 All trees on site were assessed from ground level for their potential to support roosting bats.

5.0 RESULTS

Desktop Study

- 5.1 A summary of the results of the desktop study is set out in Appendix A along with detailed data and maps of protected species and designated sites. The desktop summary results identified protected fish, birds, amphibians, reptiles and invertebrates which are discussed within the fauna results below.
- 5.2 A review of records provided by Cofnod indicated that there are four Local Wildlife Sites (LWS) and one Site of Special Scientific Interest (SSSI) within 1km of the proposed development site. Burton Tower Lake LWS, Nant-y-Gaer and Llay Valley LWS and Bryn Alyn and Wormswood LWS are all at least 600m away from the site. There are no potential wildlife corridors linking these three LWS with the proposed development site.
- 5.3 Ballswood Quarry and Cockpit Wood LWS, 600m northeast, has some connectivity to the site through the network of hedgerows which run between the two sites. The LWS is an active sand quarry with the principle habitats being scrub and grassland.
- 5.4 Chawel Singret SSSI is located some 500m east of site and has limited connectivity to the development site through a network of hedgerows. The SSSI contains an

important sequence of deposits from the last Ice Age exposed in a disused sand and gravel pit. The site is designated for its geology and not for ecological reasons

- 5.5 The records provided by Cofnod identified a number of protected fish species within 1km of the development site. The waterbodies present on site are not suitable to support these species.
- 5.6 Records were obtained of the Local Biodiversity Action Plan species buzzard, bluetit, common darter and early bumblebee.
- 5.7 Within the Wrexham Unitary Development Plan (Feb 2005) the site is not allocated a potential use.

Habitat Survey

- 5.8 Habitats present within the site include:
- Semi-improved neutral grassland;
 - Species-poor intact hedge;
 - Scattered scrub;
 - Scattered broad leaved trees;
 - Scattered coniferous trees;
 - Hardstanding;
 - Standing water (including ponds and wet ditch);
 - Buildings; and
 - Other habitat (defined below)
- 5.9 The habitats within the site are illustrated in Drawing G4358.01.001. The site is dominated by semi-improved neutral grassland separated into individual fields by mature species-poor intact hedgerows. In the western corner of the site is a small strip of broad leaved and coniferous trees with scrub below. In the centre of site is an area of hardstanding with a large open barn and an area of standing water. Further waterbodies are located in the south east of site (a pond) and in the south west (a wet ditch). For a full list of species identified on site see the Target Note (TN) report in Appendix 3.
- 5.10 The site is bordered by roads to the south and west. Arable fields and pasture lie to the north and east.

- 5.11 Semi-improved neutral grassland
The majority of the site is covered by semi-improved neutral grassland (TN1). This grassland is dominated by annual meadow grass *Poa annua* with frequent red fescue *Festuca rubra* and red clover *Festuca rubra*. False oat-grass *Arrhenatherum elatius*, soft brome *Bromus hordeaceus* and flattened meadow-grass *Poa compressa* were all found occasionally across the site with rare occurrence of sterile brome *Anisanthera sterilis*.
- 5.12 Species-poor intact hedgerow
The site is dissected by a number of species-poor intact hedgerows (TN3) which are dominated by hawthorn *Crataegus monogyna*. These hedgerows are frequented by white bryony *Bryonia dioica*, holly *Ilex aquifolium*, bramble *Rubus fruticosus* agg. and nettle *Urtica dioica*.
- 5.13 A hedgerow runs along the boundary with Gresford Road and connects to a stretch of stone wall. The adjacent roadside verge is c.1m wide (TN2) and dominated by false oat-grass with abundant field rose *Rosa arvensis* and bramble. The verge was rarely interspersed with wall cotoneaster *Cotoneaster horizontalis*, an unidentified cotoneaster species *Cotoneaster* sp., Japanese knotweed *Fallopia japonica* and hybrid bluebell *Hyacinthoides. x massartiana*.
- 5.14 Scattered scrub
In the west of the site is a row of trees; below this is a small amount of scattered scrub composed entirely of hawthorn.

Scattered trees

- 5.15 The west of site contains a small strip of broad-leaved and coniferous trees. These trees were dominated by English oak *Quercus robur* and pine *Pinus* sp with rarer wych elm *Ulmus glabra* and a single dead tree.

Standing Water

- 5.16 The desktop study identified ten ponds off-site within 1km. There are three waterbodies on site, namely a pond within grassland, a wet ditch and an area of shallow standing water on the hard standing in the centre of site. The pond in the south east of site was approximately 0.4m deep at the time of survey – the lack of aquatic or marginal vegetation indicate that this is an ephemeral feature likely to dry up during the summer months; this feature is also likely to be ephemeral.
- 5.17 In the south west of site is a wet ditch. The banks of this ditch (TN5) are botanically distinct from the adjacent grassland, being dominated by cow parsley *Anthriscus sylvestris* with abundant creeping buttercup *Ranunculus repens* and frequent soft rush *Juncus effusus*.

Hardstanding

- 5.18 In the centre of site is a small hardstanding farm yard; at the time of survey it contained piles of soil, machinery, logs and wrapped straw bales. This yard is surrounded by an area of planting (TN4). TN4 is composed of a soil mound with a line of fir trees *Abies* sp. above a mix of bare ground and ephemeral vegetation dominated by garlic mustard *Alliaria petiolata*, daffodil cultivars *Narcissus* cvr. and hedge mustard *Sisymbrium officinale*.

Buildings

- 5.19 A single building is located within the hardstanding on site, composed of an open structure with a wooden frame and corrugated sheeting. It did not contain features suitable to support roosting bats but birds were observed entering and leaving the building.

Invasive and protected plant species

- 5.20 The non-native invasive species Japanese knotweed and wall cotoneaster were identified on site; both are listed under Schedule 9 of the Wildlife and Countryside Act (as amended 1981). A number of other cotoneaster species were also identified on site; it was not possible to identify the specific species of these plants but as a number of cotoneaster species are listed under Schedule 9 it is recommended they are treated as non-native invasive species.
- 5.21 The locations of the non-native invasive species identified on site are shown on Drawing G4358.01.001.
- 5.22 No protected plant species were observed during the habitat survey.

Connectivity with the wider landscape

- 5.23 The site has good ecological connectivity within the site and limited connectivity with the wider landscape through the network of intact hedgerows which run across and beyond the site.

Fauna

Amphibians

- 5.24 The desktop study returned records of great crested newts within 1km of the site, with the nearest record being 750m southwest of site. There are three waterbodies on site, a wet ditch in the south of site, a pond of standing water in the centre of site and a pond in the south east corner. The pond in the south east corner appears to be seasonally dry due to a lack of aquatic vegetation. In the wider area there are ten ponds within 500m.
- 5.25 A habitat suitability index (HSI) assessment was carried out on all waterbodies on site and seven within the wider area. Three additional ponds within 500m of site could not be accessed as permission could not be granted from the land owner. Detailed results of the HSI are presented in Appendix E. The majority of the ponds in the wider area are categorised as having 'average' suitability to support great crested newt (a HSI score of 0.6 to 0.69). The wet ditch on site is also assessed as having 'average' suitability for great crested newt. The pond on site has 'below average' suitability for great crested newt (a HSI score of 0.5 to 0.59).

Badger

- 5.26 The desktop study returned records of badger within 500m of the site, with the nearest record centered 200m east of site. Whilst the habitats located on site may be suitable for foraging and dispersal, no signs of badger such as setts, latrines or hairs, were observed within or adjacent to the site.

Bats

- 5.27 Desktop records identified a number of bat species within 1km of the site, including common pipistrelle, Daubenton's, soprano pipistrelle and brown long-eared.
- 5.28 The mature trees located in the south west of site were assessed from the ground for their potential to support roosting bats. The trees are a mixture of Category 1, 2 and 3 trees, as defined by the Bat Conservation Trust Guidelines. Those trees identified as Category 1 or 2, which have or are likely to have bat potential, are shown in drawing G4358.01.001.
- 5.29 In the centre of site is a barn constructed of a wooden frame and corrugated iron sheeting. The building is deemed to have negligible potential for use by roosting bats, as per the Bat Conservation Trust Good Practice Guidelines (2012). The building lacks cracks and crevices and is made of materials that lead to unstable internal temperatures.

Birds

- 5.30 The trees, hedgerows, barn and scrub within the site provide suitable foraging and nesting habitat for birds. The grassland does not offer suitable habitat for ground nesting birds due to the heavily grazed nature of the site, which keeps the grass level low and the results in a high level of disturbance. The site is likely to be used by a range of birds common in rural environments. A number of protected bird species were identified within 1km of the site; these species may use the site for nesting, foraging and commuting.
- 5.31 Kingfisher was identified in the desktop records. Kingfisher is listed under Schedule 1 of the *Wildlife and Countryside Act 1981* (as amended). There is no suitable nesting habitat on or adjacent to the site for this species and the nearest record is 850m away. There are no implications for development with regard to this species.

Reptiles

The desktop search did not reveal any records of reptiles in the wider area or on site. The site is unsuitable to support reptiles due to a lack of suitable basking places.

Otter

- 5.32 Desktop records identified otter within 1km of the site; however, no otter or habitats suitable to support otter were observed during the site survey.

Invertebrates

- 5.33 The site is dominated by semi-improved grassland, which has little structural diversity and lacks assemblages of flower or nectar-producing plants, offering little foraging opportunity for invertebrates. The hedgerows on site are not botanically rich, the assemblage of invertebrates is likely to reflect the habitats present but unlikely to be of significant conservation importance.

6.0 CONCLUSIONS

Site designations

- 6.1 Of the five protected sites within 1km, two have some connectivity to the site, however as the habitats on the designated sites are different from the development site there will not be any issues caused by the development. No adjoining habitat will be lost and no polluted run-off can enter the designated sites from the development zone.
- 6.2 Due to the size of the site it is possible a significant increase in the local population will occur. This may produce added recreational pressures on local green space and protected sites.

Habitats

- 6.3 The range of habitats across the site is of low diversity and of little ecological value. The most significant features for wildlife are the areas of species poor hedgerow which run across the site and the row of mature trees in the south west of site.
- 6.4 The hedgerows on site are a Section 41 (S41) habitat.
- 6.5 Japanese knotweed and cotoneaster species plants were identified in the south east of the site. These are non-native invasive species listed under Schedule 9 of the

Wildlife and Countryside Act (as amended 1981). It is an offence to grow or otherwise cause Schedule 9 species to spread in the wild. Liability may also extend in situations where a landowner has knowingly permitted the spread of Japanese knotweed onto neighbouring land. Failure to manage and dispose of Japanese knotweed in accordance with current guidelines can lead to prosecution.

Fauna

Amphibians

- 6.6 The pond on site and those ponds within 500m were identified as having potential to support great crested newts. There are no significant barriers to amphibian migration that could prevent protected species from entering the site. The mosaic of grassland, scrub and hedgerows offer suitable terrestrial habitat for great crested newts. Great crested newt records were identified within 1km of site.

Bats

- 6.7 The site contained a number of trees with features suitable to support roosting bats (see drawing G4358.01.001) and numerous records of bats were identified in the desktop study. Further aerial inspections will be required prior to the commencement of works on site. Survey requirements are detailed in Chapter 7.

Birds

- 6.8 The trees, hedgerows, barn and scrub on site provide potential nesting habitat for breeding birds and in addition swallow/swift were observed entering the barn on site. Under the *Wildlife and Countryside Act, 1981* (as amended) it is an offence to take, damage or destroy the nest of any wild bird whilst it is in use or being built.
- 6.9 A number of protected bird species were identified in the desk study within 1km of the site. However, the habitats present on site are common in the surrounding area. There are no specific issues for the development with regard to birds, other than the general protection of birds while nesting.

Reptiles

- 6.10 Due to a lack of suitable habitat and basking places on site and the disturbance caused by grazing, the site is not considered to be suitable to support reptiles. There are no implications for the proposed development with regard to reptiles.

Invertebrates

- 6.11 Due to a lack of foraging opportunities on site, it is unlikely to support a significant assemblage of invertebrates.

7.0 RECOMMENDATIONS

Habitats and Flora

- 7.1 It is recommended that the hedgerows across the site and area of trees to the south west are retained within the development. If possible these features should be enhanced and extended to provide additional habitat for wildlife.
- 7.2 A tree protection plan must be implemented during development works to ensure that trees and scrub to be retained and trees in close proximity to the site are appropriately protected.
- 7.3 The ditch in the south of site should be extended and enhanced to provide additional habitat for the local fauna.
- 7.4 It is recommended that the creation of new ponds be included in the site design and that these ponds include native planting of local provenance.

Site designations

- 7.6 To minimise increased public pressure on local wildlife sites and green spaces it is recommended that green space and recreational features are included within the proposals.

Bats

- 7.7 Prior to works commencing the trees identified as having bat potential in drawing G4358.01.001 must be subjected to an aerial inspection by a licensed bat consultant to determine whether bat roosts are present. All advice provided by the licenced bat consultant following the inspection must be adhered to and further survey may be required during the period from early May to early September. Scrub, hedgerow and

tree removal should be avoided wherever possible to maintain the potential commuting routes and foraging habitats for bats within and across the site.

- 7.8 Due to the size of the site and the presence of features suitable to support foraging and commuting bats it is recommended that a bat transect survey is undertaken prior to development. Three transect survey visits should be undertaken between June and September 2014 to identify bat activity on site.

Birds

- 7.9 Vegetation clearance, works affecting trees and demolition of the buildings should be implemented outside of the bird nesting season (avoiding March to August inclusive). If this period cannot be avoided, alternative measures will need to be implemented prior to the site clearance. Any works undertaken during this period will require a nesting bird check to be carried out by a suitably qualified ecologist immediately prior to the works commencing, to establish that no active bird nests will be disturbed or destroyed. In the event that active nests are discovered, site clearance within an appropriate buffer zone would need to be delayed until nesting (and fledging of young) is complete. The size of the buffer zone would be dependent upon the species nesting.
- 7.10 Trees, hedgerows and scrub should be retained where possible and a tree protection plan should be prepared to safeguard retained features during construction.
- 7.11 The loss of nesting bird habitat should be mitigated through replacement planting in landscape proposals, using locally sourced, native species.

Non-native invasive plant species

- 7.12 A non-native invasive species method statement is required to cover development activities on site. All parts of cotoneaster plants, including berries, should be removed from site and disposed of at a waste facility. Although not classed as a controlled waste, confirmation should be sought from the Local Planning Authority as to whether disposal to landfill is acceptable.
- 7.13 Japanese knotweed treatment will require a more detailed management strategy. Treatment options for Japanese knotweed include:

- Herbicide spraying (in situ or excavated and stored in a secure area on barrier material): three treatments per year, requiring a minimum of three years to eradicate the plant;
- Excavation and removal to landfill: there are costs associated with disposal as Japanese knotweed material is controlled waste and must be sent to an appropriately licenced facility; or
- Excavation and burial on site: this requires sufficient space within the development site to bury the contaminated material.

Great Crested Newts

- 7.14 An amphibian survey of the waterbodies on site and within 250m is required. This will initially involve a minimum of four survey visits between March and mid-June (with at least two visits undertaken between mid-April and mid-May). Survey methods will include torch, bottle trapping, egg searching and/or netting. If great crested newts are found, a further two visits will be required before mid-June to provide a population estimate and inform a subsequent licence application. If great crested newts are identified during the survey, a licence would be required from Natural England to allow development works to proceed..
- 7.15 Alternatively to identify the presence of great crested newts, eDNA surveys can be undertaken. These involve a single visit to each pond, during which a small water sample is collected and then sent to a laboratory for testing. These tests provide a presence/absence result only and if great crested newts are found to be present, traditional survey methods (as outlined above) will be required to determine the population size and provide data to support a Natural England licence application. The eDNA surveys may only be undertaken from mid-March to the end of June.

Opportunities for enhancement

- 7.16 In line with advice provided under Chapter 11 of the National Planning Policy Framework, where possible features of the natural environment should be conserved and enhanced.

- 7.17 Biodiversity within the site could be maintained and enhanced by including a mix of wildlife friendly species in the planting scheme. Native species, ideally of local stock, should be used. Species could include hawthorn, blackthorn, dogwood *Cornus sanguinea* and hazel *Corylus avellana*. Further input to the detailed design can be provided on request.

- 7.18 Within the proposed development, boundary features should ideally include native hedgerow planting using a variety of native woody species.

Green trellising using ivy, honeysuckle *Lonicera periclymenum* or other scented and berry producing climbers could be installed on buildings, boundary walls or fences within the new build to provide additional foraging and sheltering opportunities for insects, birds and bats. Suggested plant species for planting schemes are listed in Appendix C

- 7.19 Bird and bat boxes could be incorporated into or onto new buildings and examples of these are provided in Appendix D. This would provide breeding opportunities for both bird and bat species. These should be located an appropriate height and aspect, with suitable lighting levels and close to vegetation.

Lighting near the site boundaries and near to any retained linear features should be designed to avoid or minimise adverse impacts on foraging and commuting routes for bats or on new bat boxes.

8.0 REFERENCES & FURTHER READING

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APPENDIX A: Desktop Study Information

Desk Based Ecology Assessment

Home Farm

Llay

Approximate Central Grid Reference: SJ33702 56269

Contents

- **Site location plan**
- **Desktop study results summary**
- **Extract from local plan**
- **Extracts of relevant planning policies**
- **Local site designations**
- **Local species records**
- **National site designations**
- **Habitat inventory records**
- **Wildlife site citations**

Site location plan



Contains Ordnance Survey data © Crown copyright and database right 2011

Desktop Study Results

Source	Protected/important species records, protected sites and priority habitats within 1km of the site	Metres from site/grid reference	Direction from site
Cofnod protected sites within 1km	Chawel Singret – Site of Special Scientific Interest (SSSI)	~500	E
	Ballswood Quarry and Cockpit Wood – Local Wildlife Site (LWS)	~600	NE
	Burton Tower Lake – LWS	~900	N
	Nant-y-Gaer and Llay Valley – LWS	~650	SE
	Bryn Alyn and Wormswood – LWS	~1000	S
Cofnod – Protected species within 1km. (closest record to site)	<u>Birds</u>		
	Kingfisher ^{2, 5}	850	SE
	Mallard ⁵	600	SE
	Bullfinch ^{4, 5}	600	SE
	Song thrush ^{4, 6}	800	SE
	Common snipe ^{4, 5}	200	E
	Green woodpecker ^{4, 5}	200	E
	<u>Amphibians</u>		
	Common toad ⁴	850	SE
	Common frog ²	600	SE
	Great crested newt ^{1, 2, 4, 5}	750	SW
	<u>Invertebrates</u>		
	Garden tiger ⁴	700	SW
	Small heath ⁴	200	E
	Goat moth ⁴	800	NE
	Ghost moth ⁴	800	NE
	Wall ⁴	800	W
	Grayling ⁴	200	E
	<u>Fish</u>		
	Eel ⁴	900	SE
	Atlantic Salmon ⁴	850	SE
	Brown sea trout ⁴	850	SE
	<u>Mammals</u>		
	Brown long-eared bat ^{1, 4}		
	Badger ³	200	E
	Hedgehog ⁴	750	S
	Common pipistrelle ^{1, 2, 4}	550	N
	Soprano pipistrelle ^{1, 2, 4}	1000	SW
	Pipistrelle species	1000	SW

Source	Protected/important species records, protected sites and priority habitats within 1km of the site	Metres from site/grid reference	Direction from site
	Bat species	1000	SE
	Daubenton's bat ^{1, 2, 4}	1000	S
	Otter ^{2, 4}	1000	SE
	Brown hare ⁴	850	N

¹ European Protected Species (Conservation of Habitats and Species Regulations 2010)

² Wildlife and Countryside Act 1981 (as amended)

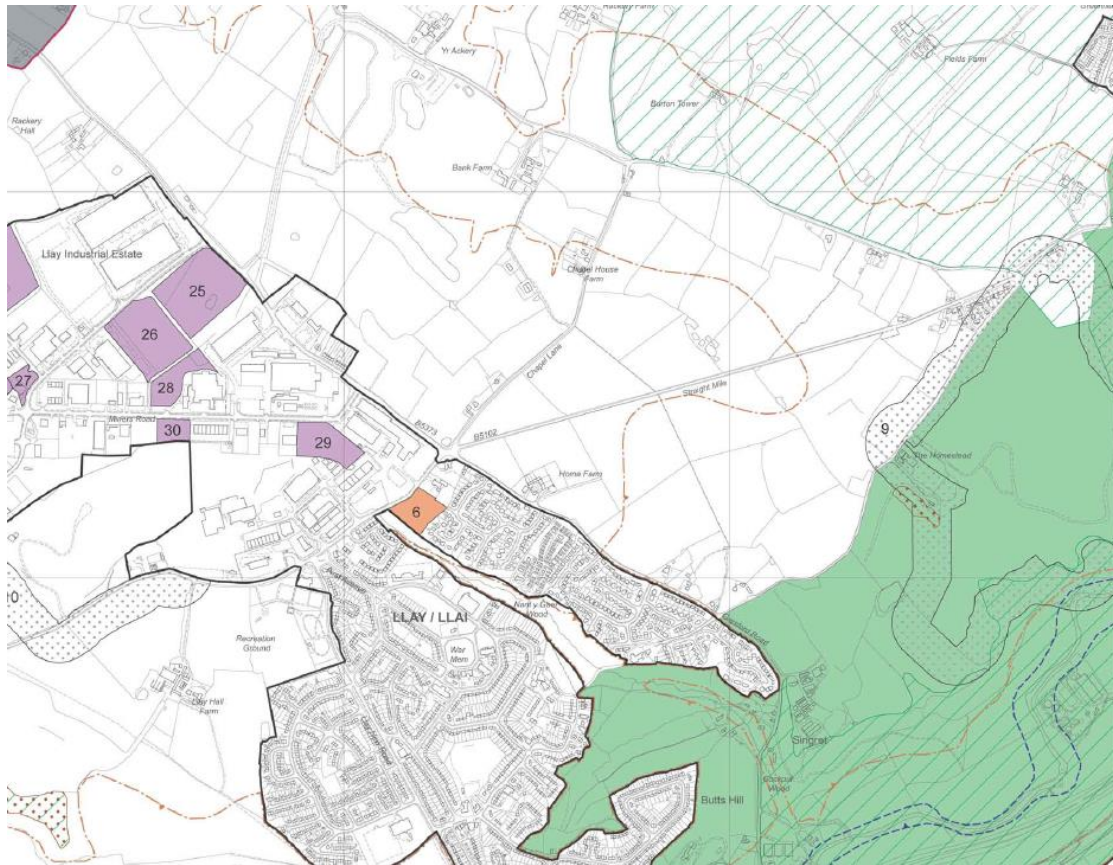
³ Protection of Badgers Act 1992

⁴ Section 41 or 42 Species of Principle Importance (NERC Act 2006)

⁵ Birds of Conservation Concern (BoCC) Amber listed species

⁶ Birds of Conservation Concern (BoCC) **Amber** & **Red** listed species

Extract of Wrexham Unitary Development Plan (Feb 2005) and supporting key



Inset Plan Notation / Nodiadau Map Mewnosodiad

	County Boundary / Ffin y Sir
	Settlement Limit / Ffin Anheddiad - PS1
	District Shopping Centre / Canolfan Siopa Cylch - S5
	Employment / Gwaith - E1
	Commercial Offices / Swyddfeydd Masnachol - E7
	Green Barrier / Ffin Gwyrdd - EC1
	Special Landscape Area / Ardal Tirlun Arbennig - EC5
	Biodiversity Conservation / Cadwraeth Bioamrywiaeth - EC6
	Conservation Area / Ardal Cadwraeth - EC7, EC8
	Development and Flood Risk / Datblygiad a Perygl Llif - EC12
	Housing / Tai - H1
	Railway Station / Gorsaf Rheilffordd - T3
	Protection of Mineral Resources / Diogelu Adnoddau Mwynau - MW6
	Minerals Buffer Zone / Cylchfeydd Rhagod Mwynau - MW11

Extracts of relevant planning policies and supplementary planning guidance

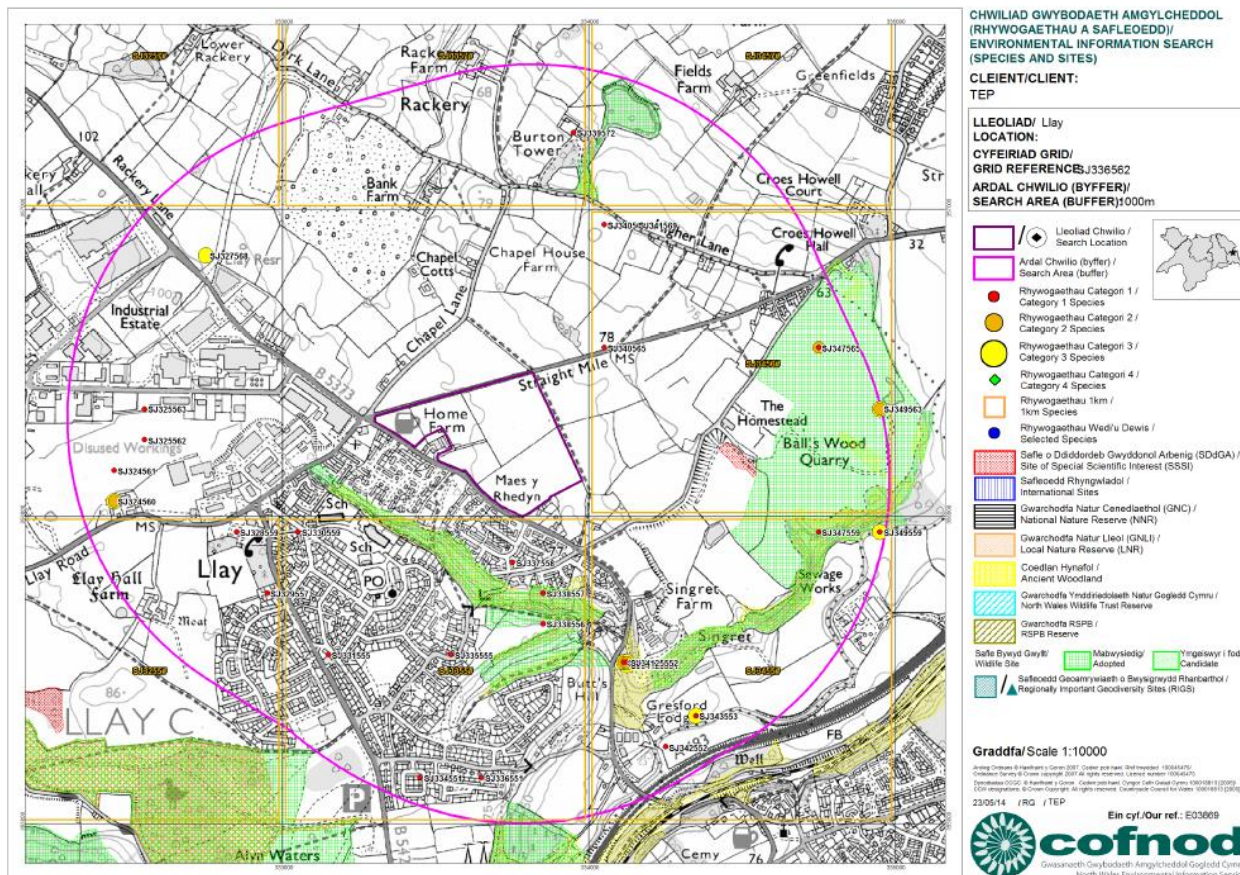
Policy EC1

Within Green Barriers, development will only be granted planning permission if it is for agriculture, forestry, essential facilities for outdoor sport and recreation, cemeteries and other uses of land which maintain the openness of the Green Barrier and do not conflict with the purpose of including land within it.

Biodiversity Conservation

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.

Map provided by Cofnod of site designations and species records within 1km



Extract of species data provided by Cofnod within 1km

Cofnod Environmental Information Search

- PUBLIC VERSION -



Please read **Important Issues** and **Notes** before interpreting the following information.

Our Ref.		Client Name		Date Run		Your Ref.					
ED3869		TEP		23/05/2014		4358					
Site Name/Reference											
Llay											
Category 1 Species (Species with European and/or UK Legal Protection, Section 42 (NERC) Species or UK BAP Priority Species) within 1000m buffer - all records											
In	Grid Reference	Taxon Name	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	N
B	SJ34115552	Alcedo atthis (Kingfisher/Glas y Dorian)	2 records, on 13/06/2012 and 15/06/2012	Paula Bardell- Hedley	1 Male, 1 Male		Pussy Willow	7:45 pm. Perched on Weeping willow over pond. Definite male, dark bill; In and around garden all day. Very noisy!	D1117/001/01	BDir, Bern, WBAm[RSPE], WCA1, LBAP[CON, DEN, FLI, GWY]	
B	SJ349559	Anguilla anguilla (Eel/Lysymen)	01/08/1998	Anon - CCW			Llay; River Alyn (Km 6.3)		D1153/001/02 (4437647)	S42, UKBAP, LBAP[CON, GWY]	3
B	SJ343553	Anguilla anguilla (Eel/Lysymen)	01/08/1998	Anon - CCW			Gresford; River Alyn		D1153/001/02 (4437649)	S42, UKBAP, LBAP[CON, GWY]	3
B	SJ328559	Arctia caja (Garden Tiger/Teigr yr Ardd)	24/07/1979	J.B. Formstone	3 Adult	Bred ex larvae	Llay Welfare	Substrate:Garden: rural.	D1285/001/01 (3049422)	S42, UKBAP, LBAP[GWY]	
B	SJ34115552	Bufo bufo (Common Toad/Llyffant Dafadennog)	24/07/2012	Paula Bardell- Hedley	1 Adult		Pussy Willow		D1117/001/01 (3861291)	S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY]	4
B	SJ33355	Chiroptera (Bat Species/Ystlum)	05/07/2001	Anon			Site Name Withheld		D1486/001/01 (4092338)	WCA5	3
B	SJ33355	Chiroptera (Bat Species/Ystlum)	06/08/1992	Anon			Site Name Withheld		D1486/001/01 (4094448)	WCA5	3
B	SJ33355	Chiroptera (Bat Species/Ystlum)	29/11/2001	Anon			Site Name Withheld		D1486/001/01 (4094625)	WCA5	3
B	SJ3455	Chiroptera (Bat Species/Ystlum)	03/11/1993	Anon			Site Name Withheld		D1486/001/01 (4094874)	WCA5	3
B	SJ325562	Coenonympha pamphilus (Small Heath/Gweirdyn Bach y Waun)	26/08/2005	Bryan Formstone	1 Adult	Daytime observation	Llay Ind. Estate	Substrate:Unknown.	D1373/001/02 (3101106)	S42, UKBAP, LBAP[GWY]	3
B	SJ347565	Cossus cossus (Giant Moth/Gwyfyn Dredwyl)	1979	A.G.Spencer	1 Pupal	Daytime observation	Ballswood quarry	Substrate:Quarry.	D1285/001/01 (3063043)	S42, UKBAP	3
B	SJ331555 (Selected from Interactive Map)	Erinaceus europaeus (Hedgehog/Draenog)	14/06/2013	Emma Broad	1 Adult	Dead on road	Llay	Time of sighting: 9:45; Habitat: Roadside; Food supply: Can't be sure; Previous sightings: Yes, once before; Badgers: Can't be sure.	D1383/001/01 (4088835)	S42, UKBAP, LBAP[ANG, CON, FLI, GWY]	1
B	SJ347565	Hepialus humuli (Ghost Moth/Gwisgwyfyn Rhithio)	12/06/1983	J.B. Formstone	1 Adult	Netted	Ballswood quarry	Substrate:Quarry.	D1285/001/01 (3055210)	S42, UKBAP, LBAP[GWY]	3
B	SJ325562	Lascommatia megera (Wall/Gweirdyn y Cloddiau)	26/08/2005	Bryan Formstone	1 Adult	Daytime observation	Llay Ind. Estate	Substrate:Unknown.	D1373/001/02 (3102308)	S42, UKBAP, LBAP[GWY]	3
B	SJ339572 (Selected from Interactive Map)	Lepus europaeus (Brown Hare/Ysgyfarnog)	28/04/2014	Steve Palin	1 Adult		Burton Towers	Seen early evening in adjacent field of winter wheat.	D1117/001/01 (4089574)	S42, UKBAP, LBAP[ANG, CON, DEN, FLI, GWY, SNP]	1
B	SJ3455	Lutra lutra (Otter/Dyfrgi)	4 records, between 14/07/1991 and 17/07/2002	Name Withheld; Elizabeth Andrews; Jane Walsh			Site Name Withheld	Comments Withheld	D0045/001/01 D1153/001/02	Bern, CITES, EPS, HDir, S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	3
B	SJ3455	Lutra lutra (Otter/Dyfrgi)	27/10/2009	Emma Broad	3 Droppings		Site Name Withheld		D1117/001/01 (2100273)	Bern, CITES, EPS, HDir, S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	4
B	SJ3455	Lutra lutra (Otter/Dyfrgi)	19/03/1998	Anon - CCW			Site Name Withheld	Comments Withheld	D1153/001/02 (4436382)	Bern, CITES, EPS, HDir, S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	3
B	SJ3455	Lutra lutra (Otter/Dyfrgi)	19/03/1998	Anon		Artificial holt	Site Name Withheld		D1118/006/01 (4685121)	Bern, CITES, EPS, HDir, S42, UKBAP, WCA5, LBAP[ANG, CON, DEN, FLI, GWY, SNP, WRE]	1
B	SJ3456	Meles meles (Badger/Mochryn Daear)	29/09/2010	Eric Fletcher	1 Adult		Site Name Withheld	Comments Withheld	D0969/001/04 (4877908)	BA, LBAP[CON, DEN, FLI, WRE]	4

In	Grid Reference	Taxon Name	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
B	SJ3355	<i>Pipistrellus pipistrellus</i> (Common Pipistrelle/Ystlum Lleiaf Cyffredin)	18/06/1986	Anon	26		Site Name Withheld		D1486/001/01 (4095255)	Bern, Bonn, EPS, HDIr, S42, WCAS, LBAP(ANG, CON, DEN, FLI, GWY, SNP)	3
B	SJ3355	<i>Pipistrellus pipistrellus</i> (Common Pipistrelle/Ystlum Lleiaf Cyffredin)	16/09/1996	Anon			Site Name Withheld		D1486/001/01 (4095362)	Bern, Bonn, EPS, HDIr, S42, WCAS, LBAP(ANG, CON, DEN, FLI, GWY, SNP)	3
B	SJ3355	<i>Pipistrellus pipistrellus</i> (Common Pipistrelle/Ystlum Lleiaf Cyffredin)	04/07/1995	Anon			Site Name Withheld		D1486/001/01 (4095399)	Bern, Bonn, EPS, HDIr, S42, WCAS, LBAP(ANG, CON, DEN, FLI, GWY, SNP)	3
B	SJ3355	<i>Pipistrellus pipistrellus</i> (Common Pipistrelle/Ystlum Lleiaf Cyffredin)	06/06/1996	Anon			Site Name Withheld		D1486/001/01 (4095408)	Bern, Bonn, EPS, HDIr, S42, WCAS, LBAP(ANG, CON, DEN, FLI, GWY, SNP)	3
B	SJ34125552	<i>Rana temporaria</i> (Common Frog/Llyffant Melyn)	26/05/2012	Paula Bardell-Hedley	1 Juvenile		Pussy Willow	Out of water. Moving through undergrowth. Quite small.	D1117/001/01 (3690029)	HDIr, WCAS, LBAP(ANG, CON, FLI)	4
B	SJ34115552	<i>Rana temporaria</i> (Common Frog/Llyffant Melyn)	09/08/2012	Paula Bardell-Hedley	5 Juvenile		Pussy Willow	Froglings crawling towards pond.	D1117/001/01 (3861290)	HDIr, WCAS, LBAP(ANG, CON, FLI)	4
B	SJ34115552	<i>Rana temporaria</i> (Common Frog/Llyffant Melyn)	10/04/2013	Paula Bardell-Hedley			Pussy Willow	Spawning in pond.	D1117/001/01 (4061868)	HDIr, WCAS, LBAP(ANG, CON, FLI)	1
B	SJ34959	<i>Salmo salar</i> (Atlantic Salmon/Eog)	01/08/1998	Anon - CCW			Llay, River Alyn (Km 6.3)		D1153/001/02 (4037577)	HDIr, S42, UKBAP, LBAP(ANG, CON, DEN, FLI, GWY)	3
B	SJ34353	<i>Salmo salar</i> (Atlantic Salmon/Eog)	01/08/1998	Anon - CCW			Gresford, River Alyn		D1153/001/02 (4037579)	HDIr, S42, UKBAP, LBAP(ANG, CON, DEN, FLI, GWY)	3
B	SJ34959	<i>Salmo trutta</i> (Brown/Sea Trout/Siwn; Brithyll)	01/08/1998	Anon - CCW			Llay, River Alyn (Km 6.3)		D1153/001/02 (4037147)	S42, UKBAP, LBAP(ANG, CON, DEN, FLI, GWY)	3
B	SJ34353	<i>Salmo trutta</i> (Brown/Sea Trout/Siwn; Brithyll)	01/08/1998	Anon - CCW			Gresford, River Alyn		D1153/001/02 (4037153)	S42, UKBAP, LBAP(ANG, CON, DEN, FLI, GWY)	3
B	SJ32957	<i>Triturus cristatus</i> (Great Crested Newt/Madfall Ddwr Gribog)	2 records, on 29/04/2003 and 09/06/2003	Donna Warren			0th:sa:24:2003		D1317/001/01	Bern, EPS, HDIr, S42, UKBAP, WCAS, LBAP(ANG, CON, DEN, FLI, SNP, WRE)	3
B	SJ32563	<i>Triturus cristatus</i> (Great Crested Newt/Madfall Ddwr Gribog)	7 records, between 15/03/2007 and 26/09/2007	Simon Holden			0th:sa:85:2007		D1317/001/01	Bern, EPS, HDIr, S42, UKBAP, WCAS, LBAP(ANG, CON, DEN, FLI, SNP, WRE)	3
B	SJ324561	<i>Triturus cristatus</i> (Great Crested Newt/Madfall Ddwr Gribog)	18/04/2007	Kate Finlinton			0th:sa:10:2007		D1317/001/01 (3976560)	Bern, EPS, HDIr, S42, UKBAP, WCAS, LBAP(ANG, CON, DEN, FLI, SNP, WRE)	3
B	SJ32563 (Supplied by Original Recorder (Checked))	<i>Triturus cristatus</i> (Great Crested Newt/Madfall Ddwr Gribog)	7 records, between 29/03/2007 and 17/04/2007	Simon Holden	Adult: 1 to 8		Llay Industrial Estate		D1310/001/01	Bern, EPS, HDIr, S42, UKBAP, WCAS, LBAP(ANG, CON, DEN, FLI, SNP, WRE)	1
B	SJ32957 (Supplied by Original Recorder (Checked))	<i>Triturus cristatus</i> (Great Crested Newt/Madfall Ddwr Gribog)	2 records, on 29/04/2003 and 09/06/2003	Donna Warren	+ Adult, + Adult		Llay	Bottle trapping.	D1310/001/01	Bern, EPS, HDIr, S42, UKBAP, WCAS, LBAP(ANG, CON, DEN, FLI, SNP, WRE)	1
B	SJ3456#	<i>Cononympha pamphilus</i> (Small Heath/Gweirdyn Bach y Waun)	2 records, both on 24/08/1993	Adrian Fowles	1	Field Observation; Field record / observation	Ballswood Sand Quarry, Gresford; SJ3456	Ballswood Quarry.	D0217/001/01 D0217/001/02	S42, UKBAP, LBAP(GWY)	3
B	SJ3456#	<i>Cononympha pamphilus</i> (Small Heath/Gweirdyn Bach y Waun)	24/08/1993	Fowles, Mr A.P.			Ballswood Sand Quarry, Gresford		D1050/003/01 (4112355)	S42, UKBAP, LBAP(GWY)	1
B	SJ3456#	<i>Hipparchia semele</i> (Graying/Gweirdyn Llwyd)	24/08/1993	Fowles, Mr A.P.			Ballswood Sand Quarry, Gresford		D1050/003/01 (4112472)	S42, UKBAP, LBAP(GWY)	4
B	SJ3456# (Centroid)	<i>Hipparchia semele</i> (Graying/Gweirdyn Llwyd)	2 records, both on 24/08/1993	Adrian Fowles	1	Field record / observation; Field Observation	SJ3456; Ballswood Sand Quarry, Gresford	Ballswood Quarry.	D0217/001/02 D0217/001/01	S42, UKBAP, LBAP(GWY)	3
B	SJ3257#	<i>Meles meles</i> (Badger/Mochyn Deasr)	27/02/2001	Olwyd Badger Group (CBG)			Badger Sett	CBG Ref: A3.0. Please contact CBG for more details.	D0059/001/01 (4071973)	BA, LBAP(ANG, CON, DEN, FLI, WRE)	3

In	Grid Reference	Taxon Name	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
B	SJ3357#	<i>Meles meles</i> (Badger/Mochyn Deasr)	30/12/2002	Olwyd Badger Group (CBG)			Badger Sett	CBG Ref: A4.0. Please contact CBG for more details.	D0059/001/01 (4071974)	BA, LBAP(ANG, CON, DEN, FLI, WRE)	3
B	SJ3457#	<i>Meles meles</i> (Badger/Mochyn Deasr)	30/12/2002	Olwyd Badger Group (CBG)			Badger Sett	CBG Ref: A28.0. Please contact CBG for more details.	D0059/001/01 (4072007)	BA, LBAP(ANG, CON, DEN, FLI, WRE)	3
B	SJ3456#	<i>Meles meles</i> (Badger/Mochyn Deasr)	2 records, both on 20/08/2002	Olwyd Badger Group (CBG)			Badger Sett	CBG Ref: A34.0. Please contact CBG for more details.; CBG Ref: A52.1.	D0059/001/01	BA, LBAP(ANG, CON, DEN, FLI, WRE)	3
B	SJ3456#	<i>Meles meles</i> (Badger/Mochyn Deasr)	3 records, all on 26/07/2002	Olwyd Badger Group (CBG)			Badger Sett	CBG Ref: A60.0. Please contact CBG for more details.; CBG Ref: A60.2; CBG Ref: A62.0.	D0059/001/01	BA, LBAP(ANG, CON, DEN, FLI, WRE)	3
B	SJ3456#	<i>Meles meles</i> (Badger/Mochyn Deasr)	29/09/1998	Joel Miller & Amanda Davies			Ballswood Quarry and Cockpit Wood	Setts found.	D0229/002/01 (4437982)	BA, LBAP(ANG, CON, DEN, FLI, WRE)	4
B	SJ3255#	<i>Myotis</i> (Myotis Bat Species)	2 records, on 05/08/2008 and 02/09/2008	Michael Sharp	1, 1		Llay Hall Barns		D1117/001/01	Bonn, EPS, WCAS	4
B	SJ3455#	<i>Myotis daubentonii</i> (Daubenton's Bat/Ystlum y Dwr)	2 records, on 02/08/1998 and 23/08/1998	Anon			Site Name Withheld		D1111/001/01	Bern, Bonn, EPS, HDIr, S42, WCAS, LBAP(ANG, CON, DEN, FLI, GWY)	3
B	SJ3255#	<i>Pipistrellus</i> (Pipistrellus Bat Species)	05/08/2008	Michael Sharp	10		Llay Hall Barns		D1117/001/01 (2100301)	Bonn, EPS, WCAS	4
B	SJ3255#	<i>Pipistrellus pipistrellus</i> (Common Pipistrelle/Ystlum Lleiaf Cyffredin)	3 records, between 05/08/2008 and 02/09/2008	Michael Sharp	1, 4, 2		Llay Hall Barns		D1117/001/01	Bern, Bonn, EPS, HDIr, S42, WCAS, LBAP(ANG, CON, DEN, FLI, GWY, SNP)	4
B	SJ3457#	<i>Pipistrellus pipistrellus</i> (Common Pipistrelle/Ystlum Lleiaf Cyffredin)	1987	Anon			Burton		D1072/001/01 (408457)	Bern, Bonn, EPS, HDIr, S42, WCAS, LBAP(ANG, CON, DEN, FLI, GWY, SNP)	3
B	SJ3355#	<i>Pipistrellus pipistrellus</i> (Common Pipistrelle/Ystlum Lleiaf Cyffredin)	1987	Anon			Llay		D1072/001/01 (408487)	Bern, Bonn, EPS, HDIr, S42, WCAS, LBAP(ANG, CON, DEN, FLI, GWY, SNP)	3
B	SJ3255#	<i>Pipistrellus pygmaeus</i> (Soprano Pipistrelle/Ystlum Lleiaf Uchelsain)	3 records, between 05/08/2008 and 02/09/2008	Michael Sharp	2, 3, 3		Llay Hall Barns		D1117/001/01	Bonn, EPS, S42, UKBAP, WCAS, LBAP(ANG, CON, DEN, FLI, GWY, SNP)	4
B	SJ3457#	<i>Plecotus</i> (Long-eared Bat Species)	1987	Anon			Burton		D1072/001/01 (408488)	Bonn, EPS, WCAS	3
B	SJ3255#	<i>Plecotus auritus</i> (Brown Long-eared Bat/Ystlum Hinglwt)	3 records, between 05/08/2008 and 21/09/2008	Michael Sharp	1, 1, 1		Llay Hall Barns		D1117/001/01	Bern, Bonn, EPS, HDIr, S42, UKBAP, WCAS, LBAP(ANG, CON, DEN, FLI, GWY)	4

Category 2 Species (Global Red List, British Red Data Book, Nationally Rare & Scarce, Welsh Red and Amber Birds & Welsh Vascular Plant Red Data List, where these are not identified in Category 1) within 1000m buffer - 17 records

In	Grid Reference	Taxon Name	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
B	SJ324560	<i>Aegithalos caedatus</i> (Long-tailed Tit/Tlwy Cyrrffon-Hir)	04/02/2008	Amber Flewitt	15		1 Bramble Court, Llay, Wrexham	Record submitted to eRecord on Wildlife Watcher 3. Diary postcard. Grid reference obtained from postcode using online converter. The Long-tailed Tits come round to feed twice a day, in groups of 3 to 15.	D1117/001/01 (2101105)	WBAn(RSPB)	4
B	SJ34115552	<i>Anas platyrhynchos</i> (Mallard/Hwyaden Wyllt)	2 records, on 04/03/2013 and 12/04/2013	Paula Bardell-Hedley	3 Adult, 2 Adult		Pussy Willow	2 males and 1 female. One drake obviously an interloper and attempting to take hen by force. Her mate very aggressive with him. On day two the three came again & 2nd drake seen off. Male and female on pond every day.	D1117/001/01	BDIr, Bonn, WBAn(RSPB), LBAP(ANG, CON, DEN, FLI, GWY)	4
B	SJ349563	<i>Anoplius (Anoplius) caviventris</i> (An Insect - Hymenopteran)	07/08/1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1013641)	RD2	3
B	SJ349563	<i>Choristops nagatomi</i> (Bright Four-spined Legionnaire)	07/08/1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1013643)	RD2	3
B	SJ349563	<i>Lasiolepis (Dolichopus) leucopus</i> (An Insect - Hymenopteran)	07/08/1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1013652)	RD1, LBAP(CON)	3
B	SJ349563	<i>Nysson trimaculatus</i> (An Insect - Hymenopteran)	1800 - 1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1010555)	RD2	3
B	SJ34125552	<i>Pyrrhula pyrrhula</i> (Common Bullfinch/Coch y Berllan)	2 records, on 04/06/2012 and 11/06/2012	Paula Bardell-Hedley	1 Male, 1 Male		Pussy Willow	Fitting about the garden. No sign of mate.; Male appeared to be alone.	D1117/001/01	WBAn(RSPB), LBAP(ANG, CON, DEN, FLI, GWY)	4
B	SJ349563	<i>Tiphia minuta</i> (Small Tiphia)	1800 - 1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1010556)	RD2	3

In	Grid Reference	Taxon Name	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
B	SJ3411555	<i>Turdus philomelos</i> (Song Thrush/Bronffraith)	27/03/2013 - 26/03/2013	Paula Bardell-Hedley	2		Pussy Willow	Rummaging about on bank behind house. First we've seen in a very long time.	D1117/001/01 (4000704)	RDW, WBAm(RSPB), LBAP(ANG, CON, DEN, FLI, GWY, SNP, WRE)	4
B	SJ347565	<i>Xylota xanthocoma</i> (An Insect - True Fly (Diptera))	27/06/1992	J. B. Formstone	1 Adult		Ballswood quarry	Habitat: Quarry. Method: Netted.	D1397/001/01 (489419)	RD2	1
B	SJ34556#	<i>Gallinago gallinago</i> (Common Snipe/Giach Cyffredin)	29/09/1998	Joel Miller & Amanda Davies			Ballswood Quarry and Cockpit Wood		D0229/002/01 (4587565)	RDW, Bonn, WBAm(RSPB), LBAP(ANG, CON, DEN, FLI, GWY)	1
B	SJ34556#	<i>Melocorus faber</i> (An Insect - Beetle (Coleoptera))	24/08/1993	Adrian Fowles		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1020150)	RD2	3
B	SJ34556#	<i>Wessex trimaculatus</i> (An Insect - Hymenopteran)	1994	Carl Clee		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1013210)	RD2	3
B	SJ34556#	<i>Picus viridis</i> (Green Woodpecker/Crocell Werdol)	28/09/1998	Joel Miller & Amanda Davies			Ballswood Quarry and Cockpit Wood		D0229/002/01 (4437994)	Bonn, WBAm(RSPB), LBAP(CON, DEN, FLI, GWY, SNP)	1
B	SJ34556#	<i>Pyrrhula pyrrhula</i> (Common Bullfinch/Coch y Berllan)	01/06/2007	Paula Bardell	2		Llay, E		D1297/002/01 (4429784)	WBAm(RSPB), LBAP(CON, DEN, FLI, GWY)	1

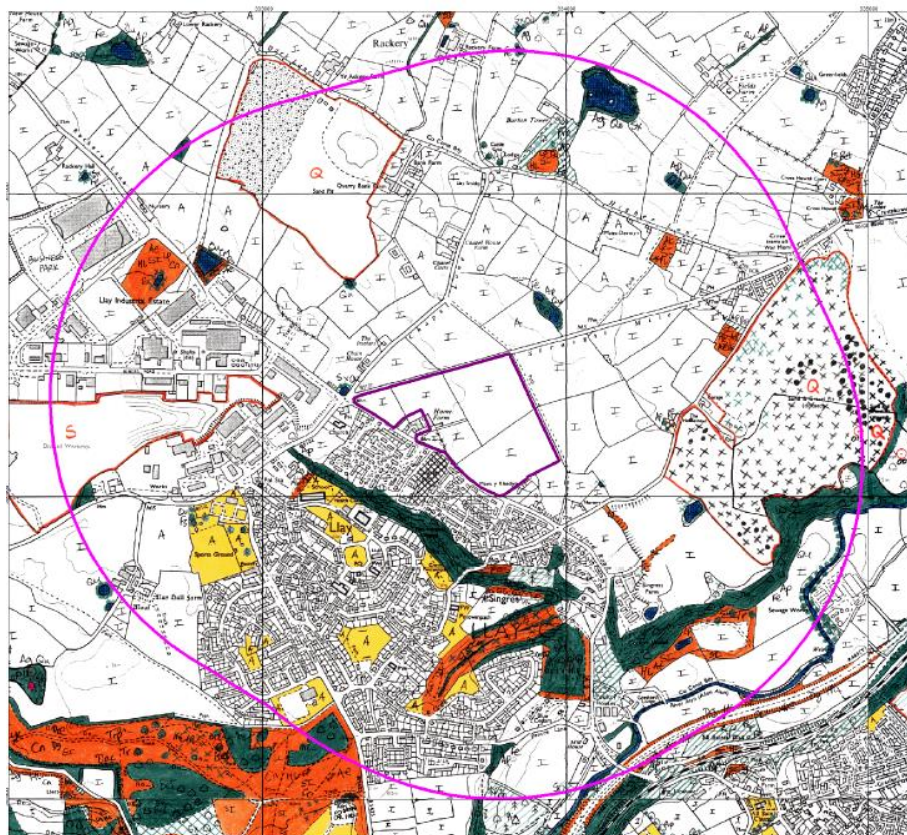
Category 3 Species (LBAP Species not identified under Categories 1 & 2, Locally Important species as specified by local experts) within 1000m buffer - 33 records

In	Grid Reference	Taxon Name	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
B	SJ327568	<i>Aedra grandis</i> (Brown Hawker/Gwas Neidr Brown)	04/08/1990	Weldrick, Julian C			Rubery Owen Pond	Phase One Habitat Code: G1.	D0158/003/01 (2506585)	LBAP(GWY, SNP)	4
B	SJ349559	<i>Barbatula barbatula</i> (Stone Loach/Gwrachen Farlog)	01/08/1998	Anon - CCW			Llay, River Alyn (Km 6.3)		D1153/001/02 (4437149)	LBAP(CON)	3
B	SJ349563	<i>Bombus (Bombus) lucorum</i> (White-Tailed Bumblebee)	07/08/1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1013609)	LBAP(FLI)	3
B	SJ349563	<i>Bombus (Bombus) terrestris</i> (Buff-Tailed Bumblebee)	07/08/1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1013631)	LBAP(FLI)	3
B	SJ349563	<i>Bombus (Melanobombus) lapidarius</i> (Large Red Tailed Bumblebee)	07/08/1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1013611)	LBAP(FLI)	3
B	SJ349563	<i>Bombus (Pyrobombus) pratorum</i> (Early Bumblebee)	07/08/1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1013622)	LBAP(FLI)	3
B	SJ349563	<i>Bombus (Thoracombus) pascuorum</i> (Common Cander Bee)	07/08/1994	Mike Edwards		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1013627)	LBAP(FLI)	3
B	SJ34115552	<i>Buteo buteo</i> (Buzzard/Bwncath)	10/08/2012	Paula Bardell-Hedley	3		Pussy Willow	3 have been circling very high overhead all day, calling out plaintively.	D1117/001/01 (3686290)	Bonn, CTES, LBAP(CON)	4
B	SJ34125552	<i>Calopteryx virgo</i> (Beautiful Demoiselle/Monwyn Dywyll)	3 records, between 01/06/2012 and 04/06/2012	Paula Bardell-Hedley	2 Female, 5 Male, 1 Female		Pussy Willow	Basking close to stream. Along stream and around pond. In back garden basking in sunshine. Not too far from our stream and pond.	D1117/001/01 (4000703)	LBAP(SNP)	4
B	SJ34125551	<i>Calopteryx virgo</i> (Beautiful Demoiselle/Monwyn Dywyll)	27/05/2012	Paula Bardell-Hedley	3 Male		Pussy Willow	Along woodland stream.	D1117/001/01 (3686022)	LBAP(SNP)	4
B	SJ34115552	<i>Carduelis spinus</i> (Siskin/Rha Gwydd)	23/03/2013	Paula Bardell-Hedley	1 Female		Pussy Willow	Sitting in plum tree.	D1117/001/01 (4000703)	Bonn, LBAP(CON)	4
B	SJ34115552	<i>Classtrina argulus</i> (Holly Blue/Gleisyn Celyn)	10/08/2012	Paula Bardell-Hedley	1 Male		Pussy Willow	Feeding from drain on the ground.	D1117/001/01 (4108847)	LBAP(CON)	4
B	SJ34125552	<i>Coenagrion puella</i> (Azure Damselfly/Musen Las Asur)	29/07/2012	Paula Bardell-Hedley	Present Adult		Denbighshire - Garden pond, Gresford area	Photo of male C. puella sent and IDed. Many blue damselflies around pond. Grid reference type: Imported.	D0067/001/03 (4854248)	LBAP(SNP)	3
B	SJ34125552	<i>Corvus corax</i> (Common Raven/Cigfran)	Mar 2012	Paula Bardell-Hedley	2 Adult		Pussy Willow	Nesting pair. Nest visible from house but no sign of young. Have been nesting here for several years. Usually see them feeding young in ngarden.	D1117/001/01 (3687258)	LBAP(CON)	4
B	SJ343553	<i>Cottus gobio</i> (Bullhead/Penllethead)	01/08/1998	Anon - CCW			Gresford, River Alyn		D1153/001/02 (4437154)	HDI, LBAP(CON, DEN, FLI)	3
B	SJ349559	<i>Cottus gobio</i> (Bullhead/Penllethead)	01/08/1998	Anon - CCW			Llay, River Alyn (Km 6.3)		D1153/001/02 (4437148)	HDI, LBAP(CON, DEN, FLI)	3
B	SJ34115552	<i>Cyanistes caeruleus</i> (Blue Tit/Titw Tonnas Las)	17/03/2013	Paula Bardell-Hedley	1 Nest		Pussy Willow	Nesting in dry stone wall. Much coming and going of both adults.	D1117/001/01 (4000705)	Bonn, LBAP(CON)	4
B	SJ3424560	<i>Cyanistes caeruleus</i> (Blue Tit/Titw Tonnas Las)	04/02/2008	Amber Flewitt	2		1 Bramble Court, Llay, Wrexham	Record submitted to eCORD on Wildlife Watcher_s Diary postcard. Grid reference obtained from postcode using online converter.	D1117/001/01 (2101107)	Bonn, LBAP(CON)	4
B	SJ34125552	<i>Dendrocopos major</i> (Great Spotted Woodpecker/Crocell Fraith Fywal)	22/05/2012 - 12/06/2012	Paula Bardell-Hedley	1 Female		Pussy Willow	Feeds on suet feeder several times a day.	D1117/001/01 (3687257)	Bonn, LBAP(CON)	4

In	Grid Reference	Taxon Name	Date	Recorder(s)	Abundance	Record Type	Site Name	Comments	Dataset ID	Lists	V
B	SJ34125552	<i>Enallagma cyathigerum</i> (Common Blue Damselfly/Musen Las Gyffredin)	2 records, on 25/05/2012 and 01/06/2012	Paula Bardell-Hedley	1, 4 Male		Pussy Willow	Edge of large garden pond.; Around large garden pond.	D1117/001/01 (2101107)	LBAP(SNP)	4
B	SJ3424560	<i>Parus major</i> (Great Tit/Titw Mawr)	04/02/2008	Amber Flewitt	3		1 Bramble Court, Llay, Wrexham	Record submitted to eCORD on Wildlife Watcher_s Diary postcard. Grid reference obtained from postcode using online converter.	D1117/001/01 (2101107)	Bonn, LBAP(CON)	4
B	SJ34115552	<i>Phylloscopus collybita</i> (Common Chiffchaff/Siff-Siaff)	13/04/2013	Paula Bardell-Hedley	1	Auditory record	Pussy Willow	Calling in woods. First time we've heard one this year.	D1117/001/01 (4000709)	LBAP(CON)	4
B	SJ34125552	<i>Pyrrhosoma nymphula</i> (Large Red Damselfly/Musen Fawr Coch)	26/05/2012	Paula Bardell-Hedley	1		Pussy Willow	Close to large garden pond.	D1117/001/01 (3686020)	LBAP(SNP)	4
B	SJ34125552	<i>Strix aluco</i> (Tawny Owl/Tylluan Ffreh)	06/06/2012 - 12/06/2012	Paula Bardell-Hedley			Pussy Willow	Can hear them outside. Sounds like young ones in trees behind house. At least one adult too.	D1117/001/01 (3667260)	Bonn, CTES, LBAP(CON)	4
B	SJ34125552	<i>Sympetrum striolatum</i> (Common Darer/Gwlell Gyffredin)	23/07/2012	Paula Bardell-Hedley	1 Adult		Denbighshire - Garden pond, Gresford area	General female striolatum identified from photo sent in Grid reference type: Imported.	D0067/001/03 (4855743)	LBAP(SNP)	3
B	SJ34555#	<i>Aloha aloha</i> (Common Aloe-moss)	1903	Jones, D.A.			Gresford	s.sr.	D1075/001/03 (4908439)	LBAP(CON, FLI)	3
B	SJ34555#	<i>Amblystegium tenax</i> (Fountain Feather-moss)	1859	Wilson, W.			Gresford		D1075/001/03 (4925988)	LBAP(CON)	3
B	SJ34556#	<i>Buteo buteo</i> (Buzzard/Bwncath)	29/09/1998	Joel Miller & Amanda Davies			Ballswood Quarry and Cockpit Wood		D0229/002/01 (4437992)	Bonn, CTES, LBAP(CON)	1
B	SJ34556#	<i>Hippodamia (Adonia) variegata</i> (Adonis Ladybird)	24/08/1993	Adrian Fowles		Field Observation	Ballswood Sand Quarry, Gresford		D0217/001/01 (1020164)	LBAP(CON)	3
B	SJ34555#	<i>Minus stellata</i> (Starry Thyme-moss)	1907	Jones, D.A.			Gresford		D1075/001/03 (4926122)	LBAP(CON)	3

Statutory Sites intersecting 1000m buffer	SSSI: CHWABEL SINGRET
Wildlife Sites intersecting 1000m buffer	Ballswood Quarry & Cockpit Wood (W331), Blyn Alyn & Wormwood (W309), Nant Y Gaer & Llay Valley (W305), Burton Tower Lake (W303)
WWWT Reserves intersecting 1000m buffer	None
RSPB Reserves intersecting 1000m buffer	None
RIGS intersecting 1000m buffer	None
Habitat type(s) intersecting 1000m buffer	Amenity Grassland, Arable, Bracken, Buildings, Caravan Site, Improved Grassland, Not Accessed Land, Planted Broad-leaved Woodland, Planted Coniferous Woodland, Planted Mixed Woodland, Quarry, Running Water, Semi-improved Neutral Grassland, Semi-natural Broad-leaved Woodland, Spoil, Standing Water, Tall Ruderal Herb
Ancient Woodland intersecting 1000m buffer	Ancient Semi Natural Woodland, Restored Ancient Woodland Site

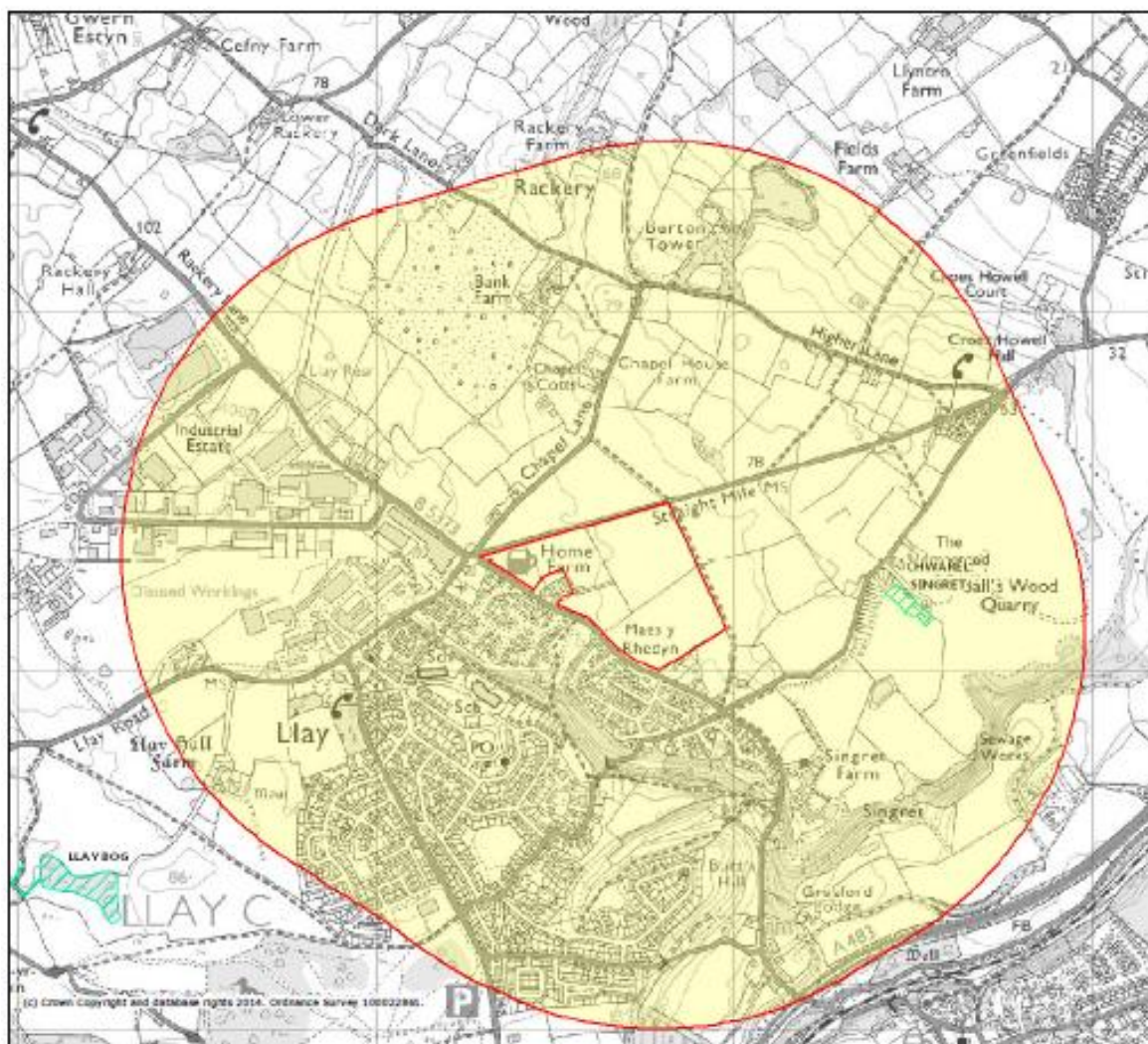
Map provided by Cofnod of Phase 1 habitats within 1km



Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit

A Woodland and Scrub 1 Woodland 1 Broad-leaved 1 Semi-natural 2 Plantation 2 Coniferous 1 Semi-natural 2 Plantation 3 Mixed 1 Semi-natural 2 Plantation 2 Scrub 1 Dense/Continuous 2 Scattered 3 Parkland/Scattered Trees 1 Broad-leaved 2 Coniferous 3 Mixed 4 Recently-felled Woodland 1 Broad-leaved 2 Coniferous 3 Mixed B Grassland and Marsh 1 Acid Grassland 1 Unimproved 2 Semi-improved 2 Neutral Grassland 1 Unimproved 2 Semi-improved 3 Calcareous Grassland 1 Unimproved 2 Semi-improved 4 Improved Grassland 5 Marsh/Marshy Grassland 6 Poor Semi-improved Grassland C Tall Herb and Fern 1 Bracken 1 Continuous 2 Scattered	2 Upland Species-rich Ledges 3 Other 1 Tall Ruderal 2 Non-ruderal D Heathland 1 Dry Dwarf Shrub Heath 1 Acid 2 Basic 2 Wet Dwarf Shrub Heath 3 Lichen/Bryophyte Heath 4 Montane Heath/Dwarf Herb 5 Dry Heath/Acid Grassland Mosaic 6 Wet Heath/Acid Grassland Mosaic E Mire 1 Bog 6 Sphagnum Bog 1 Blanket Bog 2 Raised Bog 7 Wet Modified Bog 8 Dry Modified Bog 2 Flush and Spring 1 Acid/Neutral Flush 2 Basic Flush 3 Bryophyte-dominated Spring 3 Fen 1 Valley Mire 2 Basin Mire 3 Flood-Plain Mire 4 Basic 4 Bare Peat F Swamp, Marginal and Inundation 1 Swamp 2 Marginal and Inundation 1 Marginal Vegetation 2 Inundation Vegetation	G Open Water 1 Standing Water 1 Eutrophic 2 Mesotrophic 3 Oligotrophic 4 Dystrophic 5 Marl 6 Brackish 2 Running Water 1 Eutrophic 2 Mesotrophic 3 Oligotrophic 4 Dystrophic 5 Marl/Trufa 6 Brackish H Coastland 1 Intertidal 1 Mud/Sand 2 Shingle/Cobbles 3 Boulders/Rocks 2 Saltmarsh 3 Saltmarsh/Dune Interface 4 Scattered Plants 6 Dense Continuous 3 Shingle above High Tide 4 Rocks above High Tide 5 Strandline Vegetation 6 Sand Dune 4 Dune Slack 5 Dune Grassland 6 Dune Heath 7 Dune Scrub 8 Open Dune 8 Maritime Cliff and Slope 1 Hard Cliff 2 Soft Cliff 3 Crinoid/Ledge Vegetation 4 Coastal Grassland 5 Coastal Heathland	I Rock Exposure and Waste 1 Natural 1 Inland Cliff 1 Acid/Neutral 2 Basic 2 Scree 1 Acid/Neutral 2 Basic 3 Limestone Pavement 4 Other Exposure 1 Acid/Neutral 2 Basic 5 Cave 2 Artificial 1 Quarry 2 Spoil 3 Mine 4 Refuse Tip J Miscellaneous 1 Cultivated/Disturbed Land 1 Arable 2 Amenity Grassland 3 EpheMERAL/Short Perennial 4 Introduced Shrub 5 Gardens 2 Boundaries (mapping optional) 1 Tintact Hedges 1 Species-rich 2 Species-poor 2 Defunct Hedges 1 Species-rich 2 Species-poor 3 Hedges and Trees 1 Species-rich 2 Species-poor 4 Fence 5 Wall 6 Dry Ditch 7 Boundary Removed 8 Earth Bank 3 Bulrush Areas 4 Caravan Site 5 Sea Wall 6 Buildings 4 Bare Ground 5 Other Habitat
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Magic Map 1km search zone for designated wildlife sites - Map



Legend

- National Nature Reserves (Wales)
- Ramsar Sites (Wales)
- Sites of Special Scientific Interest (Scotland)
- Sites of Special Scientific Interest (Wales)
- Special Areas of Conservation (Wales)
- Special Protection Areas (Wales)
- Biosphere Reserves (Wales)

Projection = OSGB36
min = 221200
max = 225200
minx = 224100
maxx = 227800

Map produced by MAHIC on 14 May, 2014.
Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAHIC is a snapshot of the information that is being maintained or continuously updated by the originating organisation. Please refer to the metadata for details as information may be outdated or representative rather than definitive at this stage.

Magic Map 1km search zone for designated wildlife sites - Report

Site Check Results

Site Check Report Report generated on Fri May 16 2014
You selected the location: Centroid Grid Ref: SJ336562
The following features have been found in your search area:

Sites of Special Scientific Interest (Wales) - points

Name	CHWAREL SINGRET
SSSI Code	31WSW
First Notified	04/12/2002
Last Notified	Null
Confirmation Date	27/08/2003
Eastings	334485
Northings	356182
Cartesian Area (Ha)	0.5

Sites of Special Scientific Interest (Wales)

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Wildlife Site Citations

Sites Report

W303: Burton Tower Lake

County: Wrexham

Centroid Grid Reference: SJ341573

Area: 7.41 acres / 3 hectares

Site Description: Fishing lake which is of ornithological importance. There is little marginal vegetation of interest. It is surrounded by a circle of semi-natural woodland of a mainly sycamore and alder canopy. Other species include hairy sedge, dog's mercury, wild cherry and gipsywort.

Habitats: *Fraxinus* - *Acer* - *Mercurialis* woodland, Semi-natural broad-leaved woodland, Standing water

Designation Reason:

W305: Nant-y-Gaer and Llay valley

County: Wrexham

Centroid Grid Reference: SJ336554

Area: 29.65 acres / 12 hectares

Site Description: Semi-natural woodland along two joining valleys. Nant-y-gaer wood has a mainly sycamore and ash canopy to the western end. The field flora is relatively poor. However to the south, oak is more frequent and species such as bluebell, wood melick, great wood-rush and goldenrod occur. On the slopes of Llay valley there is a grazed oak woodland with a grassy field layer. The valley floor is semi-improved neutral grassland with some scrub and bracken. There is more semi-improved grassland to the south of Nant y gaer wood. Species present include burnet-saxifrage, yellow oat-grass, harebell and yellow rattle.

Habitats: Dense/continuous scrub, *Fraxinus* - *Acer* - *Mercurialis* woodland, *Quercus robur* - *Pteridium* - *Rubus* woodland, Semi-improved neutral grassland, Semi-natural broad-leaved woodland

Designation Reason:

W309: Bryn Alyn and Wormswood

County: Wrexham

Centroid Grid Reference: SJ331536

Area: 105.32 acres / 42.62 hectares

Site Description: A series of semi-natural woods and semi-improved grasslands around a meander of the River Alyn. On the south side of the river is Wilderness Wood which is a mixture of wet alder and sycamore woodland. Species present include great horsetail, marsh hawk's-beard, soft shield fern, remote sedge, wood sedge, pendulous sedge and common twayblade. To the west of this wood is a semi-improved neutral pasture and marsh. To the east, along the railway line, is a neutral to calcareous industrial grassland with greater knapweed and restharrow. Further north is an area of reclaimed tip with birch woodland and neutral grassland. On the north side of the river is Fox Covert and Black Wood which have a canopy of oak, planted beech and sycamore. The field layer is good with wood anemone, hairy wood-rush and bluebell. There are semi-improved meadows between these two woods and one more along the river which has many bee orchid spikes. Wormswood occurs on the north bank of the River Alyn and it is a mixed semi-natural woodland with some conifer blocks. The western edge is a dry slope with a sycamore canopy and mainly ramsons, bramble and ivy beneath. On the flood plain, there is alder wet woodland to the north with abundant great horsetail, angelica, meadowsweet, hamp-agrimony, bittersweet and common figwort. The southern half is drier but with some damp patches. It has a predominantly sycamore canopy with ramsons, dog's mercury, sanicle, scaly male fern and pendulous sedge.

Habitats: *Alnus* - *Fraxinus* - *Lysimachia* woodland, Broad-leaved plantation, *Fraxinus* - *Acer* - *Mercurialis* woodland, Marsh/marshy grassland, *Quercus robur* - *Pteridium* - *Rubus* woodland, *Salix* - *Betula* - *Phragmites* woodland, Semi-improved neutral grassland, Semi-natural broad-leaved woodland

Designation Reason:

W331: Ballswood Quarry and Cockpit Wood

County: Wrexham

Centroid Grid Reference: SJ347361

Area: 89.21 acres / 36.1 hectares

Site Description: An active sand quarry site with large areas of primary grassland and scrub developing on old workings. The grassland is very diverse, with many calcicoles within a loose sward. Species present include yellowwort, blue fleabane, ploughman's spikenard, carline thistle, kidney vetch, common centaury, wild carrot and salad burnet. There is extensive willow scrub throughout the site and two ponds with good marginal vegetation. Around the edge of the quarry site are fragments of woodland. Extending to the southwest along the river the woodland is less disturbed. Ash and sycamore are the dominants within the canopy; elder, hazel and holly are the major understorey species. Beneath these is a diverse ground flora with species such as hart's tongue fern, wood melick, wood-sorrel, pendulous sedge and yellow archangel present.

Habitats: Dense/continuous scrub, *Fraxinus* - *Acer* - *Mercurialis* woodland, Quarry, Scattered scrub, Semi-natural broad-leaved woodland, Standing water, Unimproved neutral grassland

Designation Reason:

Exported from Safedil - A Local Sites System for Wales on 28/05/2014

APPENDIX B: Target Note Report

Target Notes Report HOME FARM

Target Note TN1

Ornamental shrubs along the northern site boundary.

<i>Prunus laurocerasus</i>	Cherry Laurel	D
<i>Berberis sp.</i>	Garden Berberis	F
<i>Buddleja davidii</i>	Buddleia	F
<i>Cotoneaster sp.</i>	Cotoneaster species	F
<i>Rosa arvensis</i>	Field Rose	F
<i>Alnus glutinosa</i>	Alder	O
<i>Mahonia aquifolium</i>	Oregon Grape	O
<i>Narcissus cvr.</i>	Narcissus cultivar	O
<i>Prunus lusitanica</i>	Portugal Laural	O
<i>Rhododendron ponticum</i>	Rhododendron	O
<i>Rubus fruticosus agg.</i>	Bramble	O
<i>Salix caprea</i>	Goat Willow	O
<i>Eleagnus x ebbingei</i>	Hybrid Oleaster	R
<i>Euonymus japonica</i>	Japanese Spindle	R
<i>Fraxinus excelsior</i>	Ash	R
<i>Hedera helix</i>	Ivy	R
<i>Prunus sp.</i>	Cherry species	R
<i>Pyracantha coccinea</i>	Firethorn	R
<i>Ribes sanguineum</i>	Flowering Currant	R
<i>Viburnum sp.</i>	Viburnum	R

Target Note TN2

Continuous scrub with scattered trees

<i>Ligustrum ovalifolium</i>	Garden Privet	D
<i>Hedera helix</i>	Ivy	A
<i>Salix caprea</i>	Goat Willow	A
<i>Lonicera sp.</i>	Honeysuckle species	F
<i>Rubus fruticosus agg.</i>	Bramble	F
<i>Buddleja davidii</i>	Buddleia	O
<i>Sambucus nigra</i>	Elder	O
<i>Acer pseudoplatanus</i>	Sycamore	R
<i>Ilex aquifolium</i>	Holly	R
<i>Symphoricarpos albus</i>	Snowberry	R

Target Note TN3

Scattered Scrub

<i>Buddleja davidii</i>	Buddleia	D
<i>Cotoneaster sp.</i>	Cotoneaster species	A
<i>Prunus laurocerasus</i>	Cherry Laurel	A
<i>Rosa arvensis</i>	Field Rose	A
<i>Rubus fruticosus agg.</i>	Bramble	A
<i>Salix species</i>	Willow species	A
<i>Acer pseudoplatanus</i>	Sycamore	F
<i>Hedera helix</i>	Ivy	F
<i>Alnus glutinosa</i>	Alder	O
<i>Epilobium sp.</i>	Willowherb species	O
<i>Sambucus nigra</i>	Elder	O
<i>Calystegia sp.</i>	Bindweed species	R
<i>Phalaris arundinacea</i>	Reed Canary-grass	R

<i>Viburnum lantana</i>	Wayfaring-tree	R
<i>Vinca major</i>	Greater Periwinkle	R

Target Note ABRAHAMT004

Dense Scrub

<i>Rubus fruticosus</i> agg.	Bramble	D
<i>Ligustrum ovalifolium</i>	Garden Privet	F
<i>Leycesteria formosa</i>	Himalayan Honeysuckle	R

Target Note ABRAHAMT005

An area of scrub with occasional ornamental species.

<i>Hedera helix</i>	Ivy	D
<i>Rubus fruticosus</i> agg.	Bramble	D
<i>Prunus laurocerasus</i>	Cherry Laurel	F
<i>Epilobium</i> sp.	Willowherb species	O
<i>Galium aparine</i>	Cleavers	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O
<i>Sambucus nigra</i>	Elder	O
<i>Betula pendula</i>	Silver Birch	R
<i>Lonicera</i> sp.	Honeysuckle species	R
<i>Rosa rugosa</i>	Japanese Rose	R
<i>Rubus idaeus</i>	Raspberry	R
<i>Salix fragilis</i>	Crack Willow	R

Target Note TN6

Modified neutral grassland located predominantly to the east and west.

<i>Agrostis stolonifera</i>	Creeping Bent	A
<i>Phalaris arundinacea</i>	Reed Canary-grass	A
<i>Poa annua</i>	Annual Meadow-grass	A
<i>Poa trivialis</i>	Rough Meadow-grass	A
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Epilobium</i> sp.	Willowherb species	F
<i>Phleum pratense</i>	Timothy	F
<i>Taraxacum officinale</i> agg.	Dandelion	F
<i>Bellis perennis</i>	Daisy	O
<i>Cirsium vulgare</i>	Spear Thistle	O
<i>Holcus lanatus</i>	Yorkshire-fog	O
<i>Lolium perenne</i>	Ryegrass	O
<i>Plantago lanceolata</i>	Ribwort Plantain	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Senecio jacobaea</i>	Ragwort	O
<i>Stellaria media</i>	Chickweed	O
<i>Urtica dioica</i>	Nettle	O
<i>Cardamine pratensis</i>	Cuckooflower	R
<i>Carex</i> sp.	Sedge species	R
<i>Cerastium fontanum</i>	Common Mouse-ear	R
<i>Euphorbia helioscopia</i>	Sun Spurge	R
<i>Geranium robertianum</i>	Herb-Robert	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Narcissus</i> cvr.	Narcissus cultivar	R
<i>Sedum rupestre</i>	Reflexed Stonecrop	R
<i>Sonchus asper</i>	Prickly Sow-thistle	R

<i>Tussilago farfara</i>	Colt's-foot	R
<i>Vicia sativa</i>	Common Vetch	R

Target Note TN7

A small footpath in the south east of site contains scrub to the north and scattered ephemeral vegetation to the south.

<i>Crataegus monogyna</i>	Hawthorn	D
<i>Rubus fruticosus</i> agg.	Bramble	A
<i>Taraxacum officinale</i> agg.	Dandelion	O
<i>Buddleja davidii</i>	Buddleia	R
<i>Carex flacca</i>	Glaucous Sedge	R
<i>Juncus effusus</i>	Soft Rush	R
<i>Urtica dioica</i>	Nettle	R

KEY - D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

APPENDIX C: Suggested plant species for planting scheme

Suggested species lists for planting schemes (native and exotic)

a) Vascular Plants (native herbs, bulbs/tuberous and grasses/sedges)

Native Herbaceous Species suitable for housing areas (grassland, borders, shade)		
Botanical Name	Common Name	Comments
<i>Achillea millefolium</i>	Yarrow	
<i>Achillea ptarmica</i>	Sneezewort	damp
<i>Ajuga reptans</i>	Bugle	shade
<i>Alliaria petiolata</i>	Garlic mustard	shade
<i>Cardamine flexuosa</i>	Wavy bitter-cress	shade
<i>Cardamine pratensis</i>	Cuckoo-flower	damp
<i>Centaurea nigra</i>	Knapweed	
<i>Eupatorium cannabinum</i>	Hemp agrimony	
<i>Filipendula ulmaria</i>	Meadowsweet	damp
<i>Galium mollugo</i>	Hedge bedstraw	
<i>Geranium pratensis</i>	Meadow cranesbill	
<i>Geranium robertianum</i>	Herb Robert	shade
<i>Geum urbanum</i>	Wood avens	shade
<i>Glechoma hederacea</i>	Ground-ivy	shade
<i>Hypericum maculatum</i>	Imperforate SJ-wort	
<i>Hypericum perforatum</i>	Perforate SJ-wort	
<i>Hypericum tetrapterum</i>	Square-stemmed SJ-wort	damp
<i>Hypochaeris radicata</i>	Cat's-ear	
<i>Lathyrus pratensis</i>	Meadow vetchling	
<i>Leucanthemum vulgare</i>	Ox-eye daisy	
<i>Linaria vulgaris</i>	Common toadflax	
<i>Lotus corniculatus</i>	Birds-foot trefoil	
<i>Medicago lupulina</i>	Black medick	
<i>Myosotis sylvatica</i>	Wood forget-me-not	
<i>Persicaria bistorta</i>	Bistort	
<i>Plantago lanceolata</i>	Ribwort plantain	
<i>Primula vulgaris</i>	Primrose	shade
<i>Prunella vulgaris</i>	Self-heal	
<i>Pulicaria dysenterica</i>	Fleabane	damp
<i>Ranunculus acris</i>	Meadow buttercup	
<i>Rumex acetosa</i>	Common sorrel	
<i>Silene dioica</i>	Red campion	
<i>Silene vulgaris</i>	Bladder campion	
<i>Sonchus arvensis</i>	Corn sow-thistle	
<i>Stachys sylvatica</i>	Hedge woundwort	
<i>Stellaria holostea</i>	Greater stitchwort	
<i>Succisa pratensis</i>	Devil's-bit scabious	
<i>Trifolium pratense</i>	Red clover	
<i>Trifolium repens</i>	White clover	
<i>Veronica chamaedrys</i>	Germander speedwell	shade
<i>Vicia cracca</i>	Tufted vetch	
<i>Vicia sepium</i>	Bush vetch	

Native Grass Species and Sedges		
Botanical Name	Common Name	Comments
<i>Agrostis capillaris</i>	Common bent	
<i>Agrostis stolonifera</i>	Creeping bent	damp
<i>Alopecurus pratensis</i>	Meadow foxtail	
<i>Anthoxanthum odoratum</i>	Sweet vernal-grass	
<i>Brachypodium sylvaticum</i>	False-brome	shade
<i>Carex flacca</i>	Glaucous sedge	damp
<i>Carex hirta</i>	Hairy sedge	
<i>Carex nigra</i>	Common sedge	damp
<i>Cynosurus cristatus</i>	Crested dog's-tail	
<i>Deschampsia cespitosa</i>	Tufted hairgrass	damp
<i>Deschampsia flexuosa</i>	Wavy hairgrass	shade
<i>Festuca ovina</i>	Sheep's fescue	
<i>Festuca rubra</i>	Red fescue	
<i>Holcus lanatus</i>	Yorkshire fog	
<i>Holcus mollis</i>	Creeping soft-grass	
<i>Luzula campestris</i>	Field woodrush	
<i>Melica uniflora</i>	Wood melick	shade
<i>Milium effusum</i>	Wood millet	shade
<i>Poa annua</i>	Annual meadowgrass	
<i>Poa pratensis</i>	Smooth meadowgrass	
<i>Poa trivialis</i>	Rough meadowgrass	

b) Woody Species: North-West, Native Trees, Shrubs and Climbers

Native Woody Species		
Botanical Name	Common Name	Comments
<i>Alnus glutinosa</i>	Alder	
<i>Betula pendula</i>	Silver birch	
<i>Betula pubescens</i>	Downy birch	
<i>Corylus avellana</i>	Hazel	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Cytisus scoparius</i>	Broom	
<i>Frangula alnus</i>	Alder buckthorn	Damp acid area
<i>Fraxinus excelsior</i>	Ash	
<i>Hedera helix</i>	Ivy	
<i>Ilex aquifolium</i>	Holly	
<i>Lonicera periclymenum</i>	Honeysuckle	
<i>Malus sylvestris</i>	Crab apple	
<i>Populus nigra betulifolia</i>	Black poplar	Not N of Ribble
<i>Populus tremula</i>	Aspen	
<i>Prunus avium</i>	Wild cherry	
<i>Prunus spinosa</i>	Blackthorn	
<i>Quercus petraea</i>	Sessile oak	
<i>Quercus robur</i>	Pedunculate Oak	
<i>Rosa arvensis</i>	Field rose	
<i>Rosa canina</i> agg.	Dog-rose	
<i>Rosa pimpinellifolia</i>	Burnet rose	
<i>Rubus fruticosus</i> agg.	Bramble	

Native Woody Species		
Botanical Name	Common Name	Comments
<i>Rubus idaeus</i>	Raspberry	
<i>Salix caprea</i>	Goat willow	
<i>Salix cinerea</i>	Grey willow	
<i>Salix pentandra</i>	Bay willow	
<i>Salix purpurea</i>	Purple willow	
<i>Salix repens</i>	Creeping willow	
<i>Sambucus nigra</i>	Elder	
<i>Solanum dulcamara</i>	Bittersweet	
<i>Sorbus aucuparia</i>	Mountain ash	
<i>Taxus baccata</i>	Yew	
<i>Tilia cordata</i>	Small-leaved lime	
<i>Ulex europaeus</i>	Gorse	
<i>Ulmus glabra</i>	Wych elm	
<i>Viburnum opulus</i>	Guelder-rose	
Long-established exotics (Archaeophytes)		
<i>Salix alba</i>	White willow	
<i>Salix fragilis</i>	Crack willow	
<i>Salix viminalis</i>	Osier	
<i>Tilia x europaea</i>	Lime	

- c) Exotic Wildlife Friendly Species,
From "Gardening with Wildlife in Mind", English Nature, 2005

Exotic Herbaceous Species suitable for attracting wildlife to housing areas		
Botanical Name	Common Name	Comments
<i>Aubretia deltoidea</i>	Aubretia	
<i>Monarda didyma</i>	Bergamot	
<i>Rudbeckia hirta</i>	Black-eyed Susan	
<i>Borago officinalis</i>	Borage	
<i>Primula chungensis</i>	Candelabra primula sp	Damp areas
<i>Cynara cardunculus</i>	Cardoon	
<i>Nepeta x faassenii</i>	Catmint	
<i>Malva sylvestris</i>	Common mallow	
<i>Chrysanthemum segetum</i>	Corn marigold	
<i>Onopordon acanthium</i>	Cotton thistle	
<i>Euphorbia cyparissias</i>	Cypress spurge	
<i>Hesperis matronalis</i>	Dame's violet	
<i>Verbascum nigrum</i>	Dark mullein	
<i>Lamium orvala</i>	Dead-nettle	
<i>Foeniculum vulgare</i>	Fennel	
<i>Tanacetum parthenium</i>	Feverfew	
<i>Geranium renardii</i>	French cranesbill	
<i>Centaurea macrocephala</i>	Giant hardhead	
<i>Cephalaria gigantea</i>	Giant scabious	
<i>Echinops bannaticus</i>	Globe thistle	
<i>Solidago spp</i>	Goldenrod species	
<i>Lunaria biennis</i>	Honesty	
<i>Sedum spectabile</i>	Ice-plant	

Exotic Herbaceous Species suitable for attracting wildlife to housing areas		
Botanical Name	Common Name	Comments
<i>Stachys lanata</i>	Lambs lugs	
<i>Melissa officinalis</i>	Lemon balm	
<i>Pulmonaria officinalis</i>	Lungwort	
<i>Aster spp</i>	Michaelmas daisies	Single varieties only
<i>Linaria purpurea</i>	Purple toadflax	
<i>Centranthus ruber</i>	Red valerian	
<i>Geranium macrorrhizum</i>	Rock cranesbill	
<i>Mentha suaveolens</i>	Round-leaved mint	
<i>Salvia officinalis</i>	Sage	
<i>Saponaria officinalis</i>	Soapwort	
<i>Scabiosa atropurpurea</i>	Sweet scabious	
<i>Symphytum tuberosum</i>	Tuberous comfrey	
<i>Lamium album</i>	White deadnettle	
<i>Achillea filipendulina</i> Gold Plate	Yarrow	

Exotic Shrub and Tree Species suitable for attracting wildlife to housing areas		
Botanical Name	Common Name	Comments
<i>Berberis x stenophylla</i>	Berberis	
<i>Buddleia davidii</i>	Butterfly bush	
<i>Buddleia globosa</i>	Orange-ball tree	
<i>Ceanothus divergens</i>	Californian lilac	
<i>Caryopteris x clandonensis</i>	Caryopteris	
<i>Prunus laurocerasus</i>	Cherry laurel	
<i>Clematis tangutica</i>	Clematis species	Climber
<i>Clematis montana</i>	Clematis species	Climber
<i>Olearia macrodonta</i>	Daisy-bush species	
<i>Escallonia spp</i>	Escallonia species	
<i>Robinia pseudoacacia</i>	False-locust	
<i>Pyracantha angustifolia</i>	Firethorn	
<i>Ribes sanguineum</i>	Flowering currant	
<i>Fuchsia magellanica</i>	Fuchsia	
<i>Hebe Midsummer beauty</i>	Hebe	
<i>Leycesteria formosa</i>	Himalayan honeysuckle	
<i>Amelanchier lamarckii</i>	June-berry	
<i>Lavandula angustifolia</i>	Lavender	
<i>Choisya ternata</i>	Mexican orange-blossom	
<i>Myrtus communis</i>	Myrtle	
<i>Pyrus communis</i>	Pear	
<i>Prunus lusitanica</i>	Portugal laurel	
<i>Rosmarinus officinalis</i>	Rosemary	
<i>Pinus sylvestris</i>	Scot's pine	

APPENDIX D

Examples of Habitat Enhancement Measures for Bats and Birds

BIRD BOX SPECIFICATIONS

BOXES TO FIT ON/IN BUILDINGS

Sparrow Terrace, Stone Colour

House sparrows are gregarious and prefer to nest close to each other, so this woodcrete box provides room for three families under one roof. Made from long-lasting, breathable woodcrete. Stone colour.

No maintenance required.

Dimensions 245 x 430 x 200 mm.

Weight 13kg. Designed for fixing to walls (not suitable for fences or sheds due to the weight of the box).

A02085 Sparrow Terrace, Stone Colour (also available in brown)



Schwegler 9A House Martin Double Nest

These woodcrete nests are durable and ready for immediate use when birds return each summer. Easily fixed under the eaves on the outside walls of buildings, at least 2 metres from the ground. The backing board may be painted to match the building. Model 9A is a double unit with two nests mounted side by side on a backing board, as shown. Model 9B is similar to the 9A above but with one single nest

A02018 Schwegler 9A House Martin Double Nest

A02019 Schwegler 9B Single House Martin Nest



Schwegler No 10 Swallow Box

This box should be located inside buildings such as barns, stables, sheds or outhouses, ensuring there is always access for the birds through a window or opening.

A02020 Schwegler No 10 Swallow Box



Droppings Board

To avoid problems with bird droppings from house martin or swallow nests, this board can be installed where necessary, for example over a window or door.

A02021 Droppings Board



Schwegler No 16 IMF Swift Box, Double Chamber

The design of this box mimics bell tower louvres. It has two removable panels for easy inspection of the two nest chambers.

Designed for fixing on or within walls (not suitable for fences or sheds).

Dimensions 460mm h x 430mm w x 225mm d

A02088 Schwegler No 16 IMF Swift Box, Double Chamber



Schwegler No 16 Swift Box, Single Chamber

Similar to the box above but with a single chamber and single front panel.

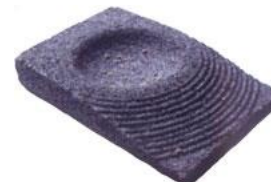
Dimensions 240mm h x 430mm w x 225mm d.

A02087 Schwegler No 16 Swift Box, Single Chamber

Nest Mould for No 16 Swift Boxes

This nest mould fits inside the nest chamber of the No16 or No16 IMF boxes above, to encourage nesting. Research shows that the birds are more likely to nest if a nest mould is used.

A02089 Nest Mould for No 16 Swift Boxes



Schwegler No 17 Swift Box

This box is constructed from plant-fibre based material. It should be sited 6-7m above the ground, near the roof of a building or on a steep rock face.

Interior dimensions 14 x 14 cm. Outer length 34cm

A02041 Schwegler No 17 Swift Box



Schwegler No 18 Swift Box

This nest box is suitable for fixing high under the eaves or under the guttering of a building.

Woodcrete on board backing.

Interior dimensions 14 x 34 x 15 cm.

Exterior dimensions 19 x 50 x 22 cm

A02041A Schwegler No 18 Swift Box



Schwegler N24 Nest Brick

Designed for installation into the fabric of a building, this box is suitable for tits and redstart etc. Woodcrete.

Weight 7.3kg

Entrance hole 32mm Dimensions 180w x 180d x 240h mm

A02043 Schwegler N24 Nest Brick



Schwegler N25 Nest Brick

Designed for installation into the fabric of a building, this box is suitable for swifts.

Woodcrete

Weight 8.8kg

Entrance hole 55x33mm. Dimensions 260w x 220d x 180h mm

A02044 Schwegler N25 Nest Brick



Schwegler N26 Nest Brick

Designed for installation into the fabric of a building, this box is suitable for pied wagtail, spotted flycatcher and black redstart etc. Woodcrete.

Weight 5.4kg

Entrance hole 110mm Dimensions 180w x 180d x 200h mm

A02045 Schwegler N26 Nest Brick



BOXES TO FIT FENCES, WALLS AND TREES

Schwegler 1B Bird Box, natural brown

The 1B appeals to a wide range of species, and is the official nest box of National Nest Box Week. The box can be nailed to the trunk of a tree, or hung from a branch. Schwegler boxes can be expected to last 25 years or more without maintenance.

Woodcrete, 23cm high x 16cm diameter.

With standard 32mm diameter entrance hole



Schwegler 2H Open Fronted Nest Box

This box is attractive to this box is attractive to robins, pied wagtails, spotted flycatcher, wrens and black redstarts. Best sited on the walls of buildings with the entrance on one side. Schwegler boxes have the highest occupation rates of all box types. They are carefully designed to mimic natural nest sites and provide a stable environment for chick rearing and winter roosting. They can be expected to last 25 years or more without maintenance.

A02015 Schwegler 2H Open Fronted Nest Box



Schwegler Roundhouse Wren Box 1ZA - Autumn Red

Well insulated and mimics natural nest sites

This nest box provides the enclosed, round space preferred by wrens for nesting. They will line the nest with moss, feathers and fur. The 1ZA is made from long-lasting, breathable Schwegler Woodcrete and provides excellent protection from nest predators. It not only houses wrens when bringing up their young but also provides a sheltered place where they can roost in the winter. Strong hanging cable included to site the nest amongst shrubbery.

Code: 002096D



Gable Nest Box

A substantial wooden bird box with a gable roof and 28mm entrance hole. Made of 15mm thick softwood, external dimensions 14.5cm x 14.5cm x 26cm high (to top of gable). Suitable for the smaller garden birds.

A03008 Gable Nest Box



Wooden Bird Box

A simple wooden bird box with sloping roof, suitable for the smaller garden birds. Made from substantial 2cm thick softwood. 14cm w x 18cm d x 26cm h (backplate 33.5cm h). The standard model has a 32mm diameter entrance hole attractive to a wide range of smaller garden birds.

A03004 Wooden Bird Box



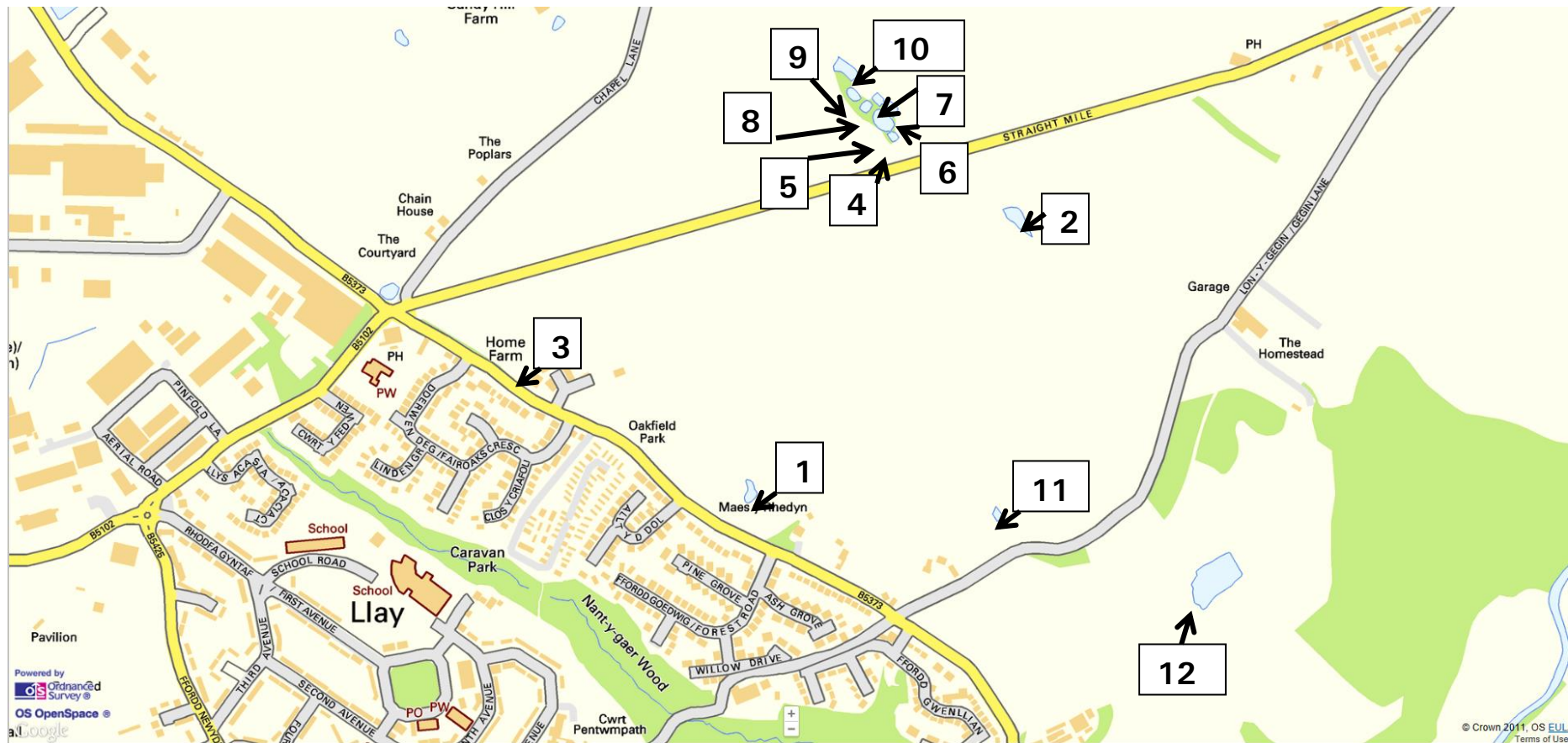
Roosting Pockets.

These attractive roosting/nest pockets can be used by wild birds in autumn, winter and spring. The birds can save energy during the colder months by roosting in a sheltered place. These pockets also provide a warm nesting place in the spring for smaller birds such as wrens. Made from natural materials. The pockets have a wire at the back to fix onto a branch, or they can be stapled or nailed to a fence or trellis with plant cover. Pack of 3 assorted roost pockets (styles may vary).

A02090 Roosting Pockets

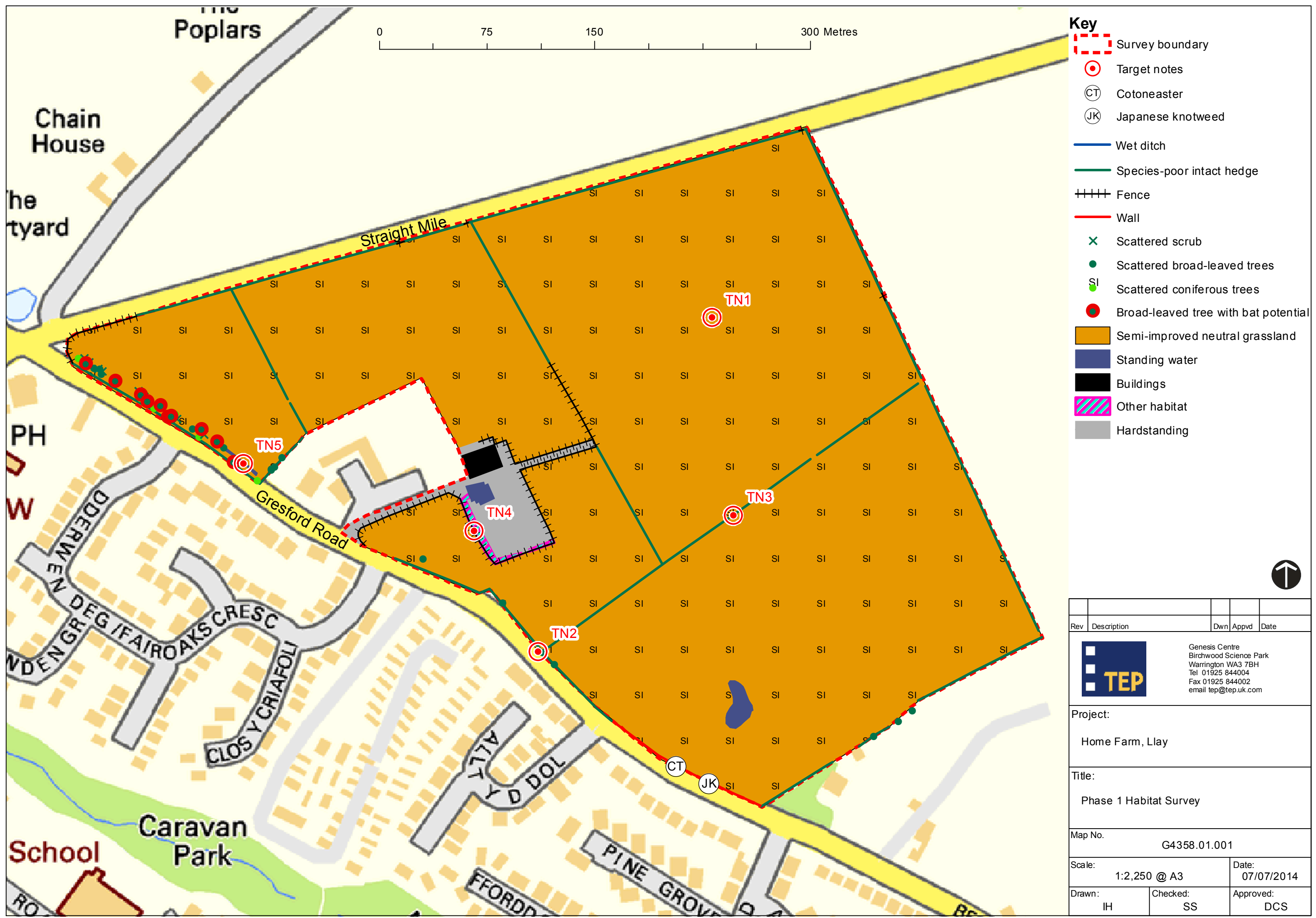


Appendix E: HSI results and pond locations



Pond Reference	Habitat Suitability Index (HSI) Result
1	poor
2	average
3	average
4	average
5	average
6	average
7	average
8	average
9	average
10	average
11	Unable to gain access
12	Unable to gain access

DRAWINGS



Key

- Survey boundary
- Target notes
- Cotoneaster
- Japanese knotweed
- Wet ditch
- Species-poor intact hedge
- Fence
- Wall
- Scattered scrub
- Scattered broad-leaved trees
- Scattered coniferous trees
- Broad-leaved tree with bat potential
- Semi-improved neutral grassland
- Standing water
- Buildings
- Other habitat
- Hardstanding

Rev	Description	Dwn	Appvd	Date
 Genesis Centre Birchwood Science Park Warrington WA3 7BH Tel 01925 844004 Fax 01925 844002 email tep@tep.uk.com				
Project: Home Farm, Llay				
Title: Phase 1 Habitat Survey				
Map No.		G4358.01.001		
Scale: 1:2,250 @ A3			Date: 07/07/2014	
Drawn: IH		Checked: SS		Approved: DCS