



Preliminary Roost Assessment Survey

Althrey Cottage, Overton Road, Bangor on Dee, Wrexham, Denbighshire, LL13 0DA

Mr Ken Roberts

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Executive summary

Arbtech Consulting Limited was commissioned by Mr Ken Roberts to undertake a Preliminary Roost Assessment (PRA) at Althrey Cottage, Overton Road, Bangor on Dee, Wrexham, Denbighshire, LL13 0DA. The survey was completed on 27/07/2021. The aim of the assessment was to search for bats/field signs of bats and to consider the value and suitability of the structures for roosting bats. The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls.

The development proposal is for the conversion of the existing garage into an annex from the main house. A planning application is being prepared for submission to Wrexham County Council.

Summary of Survey and Recommendations

The site lies within a small residential area on the outskirts of Bangor on Dee, located south-east of Wrexham. The landscape is dominated by agricultural field along with scattered residential properties with associated gardens. A low number of scattered copses and tree lines are present within the local area. The River Dee is located to the north of the site which will provide abundant insect foraging for several protected species.

The building was assessed as having **negligible** habitat value for roosting bats due to a lack of potential roosting features and limited connective habitat. Therefore, no further surveys have been recommended.

No evidence of nesting birds was identified during the survey. The surrounding gardens will likely support nesting birds however they will be left unaffected by the proposed development. Site specific enhancements have been made in evaluation table (See “4.0 Conclusions, Impacts and Recommendations”) to increase the potential for protected species on site in line with the Local Planning Authority’s duty to ask for enhancements under the NPPF (2019).

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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was commissioned by Mr Ken Roberts to undertake a Preliminary Roost Assessment (PRA) at Althrey Cottage, Overton Road, Bangor on Dee, Wrexham, Denbighshire, LL13 0DA. The survey was completed on 27/07/2021. The aim of the assessment was to search for bats/field signs of bats and to consider the value and suitability of the structures for roosting bats. The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls. The assessment is informed by the Bat Conservation Trust publication, *Bat Surveys for Professional Ecologists – Good Practice Guidelines* (Collins, 2016). No previous reports have been produced for this site by Arbtech.

1.2 Site Context

The site is located at National Grid Reference SJ 38548 44524 and has an area of approximately 0.02ha. The site consists of one single-storey stable style building adjacent to an existing dwelling. Only the stable building was surveyed as it is the only building affected by the proposed development.

1.3 Scope of the report

This report provides a description of all features suitable for roosting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on constraints to the proposals as a result of roosting bats, and summarises the requirements for any further surveys, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

The aim of the assessment was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how they could use the site. To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken, including an external survey and internal inspection where possible.
- An outline of likely impacts on any known roosts has been provided, based on current development proposals.
- Recommendations for further survey and assessment have been made, along with advice on the requirements of a European Protected Species Mitigation Licence (EPSML) application if appropriate.

A survey plan is presented in Appendix 1, proposed plans in Appendix 2, desk study results in Appendix 3 and a summary of relevant legislation is presented in Appendix 4.

1.4 Project Description

The development proposal is for the conversion of the existing garage into an annex from the main house. A planning application is being prepared for submission to Wrexham County Council.

2.0 Methodology

2.1 Desk Study methodology

The desk study included a 2km radius review of statutory and non-statutory designated sites, Biodiversity Action Plan (BAP) Priority Habitats and granted EPSML records for bats held on magic.gov.uk database. An assessment of the surrounding landscape structure was also completed using aerial images from Google Earth and OS maps.

To conform to best practice guidelines biological records data (BRD) within a 2km radius of the site has been obtained from the local biological records centre - Cofnod - North Wales Environmental Information Service (Cofnod). The data search is confidential information that is not suitable for public release and has been analysed and summarised for presentation in this report.

2.2 Site Survey methodology

The survey was undertaken by Elen Griffin BSc (Hons), MRSB Consultant - accredited agent to NRW licence number: 79422:OTH:CSAC:2018.

All features that will be impacted by the project proposals were assessed for their bat roosting and/or commuting habitat. The surveyor systematically surveyed all features suitable for-bats and signs of bat activity.

For any surveyed buildings:

A non-intrusive visual appraisal from the ground using binoculars, inspecting the external features of the building(s) for potential access/egress points, and for signs of bat use. An internal inspection of the building was also made, including the living areas of derelict or abandoned buildings and the accessible roof spaces of all buildings, using an endoscope, torch and ladders. The surveyor paid particular attention to the floor and flat surfaces, window shutters and frames, lintels above doors and windows, and carried out a detailed search of numerous features within the roof space.

For any surveyed trees:

A visual inspection from ground level using binoculars and where accessible and safe to do so, an internal inspection of potential roosting features using an endoscope, torch and ladders.

2.3 Breeding birds and other incidental observations

The surveyor also made note of any other ecological constraints observed during the survey, notably the likelihood of presence or signs of breeding birds, and the suitability of the site for barn owls *Tyto alba*.

2.4 Suitability Assessment

All affected survey features on site were categorised according to the likelihood of bats being present, in line with best practice guidelines (Collins, J. (ed) 2016). The features that dictate the likelihood of roosting bats are summarised in Tables 1 and 2 below. Roost suitability is classified as high, moderate, low and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats

Likelihood of bats being present	Feature of building and its context
Higher	Buildings/structures with features of particular significance for roosting bats e.g. mines, caves, tunnels, icehouses and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g. river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data).
Lower	A small number of possible roost sites/features, used sporadically by more widespread species. Habitat suitable for foraging in close proximity, but isolated in the landscape. Or an isolated site not connected by prominent linear features. Few features suitable for roosting, minor foraging or commuting.

Table 2: Features of a tree that are correlated with use by bats

Likelihood of bats being present	Feature of tree and its context
Higher	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Lower	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.

2.5 Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected bats being present. This is based on suitability of the habitats on site and in the local area, the ecology and biology of bats as currently understood, and the known distribution of bats as recovered during the desk study.

To date biological records data has not been commissioned by the client. This limitation has been taken into account during the evaluation of the site and requirement for further surveys.

3.0 Results and Evaluation

3.1 Desk Study Results

A summary of the desk study results is provided below; full details are included in Appendix 3.

3.2 Designated sites

Details of any statutory and non-statutory designated sites within a 2km radius of the survey site, including their reasons for notification, are provided in Table 4 below.

Table 3: Designated sites within 2km radius of the site

Designated Site Name	Distance from Site (approx.)	Reasons for Notification from Natural Resources Wales and/or BRD or LPA policy maps
Statutory Sites		
River Dee Site of Special Scientific Interest (SSSI)	~282m north	<i>Afon Dyfrdwy (River Dee) is of special interest for its fluvial geomorphology, Carboniferous geology, range of river habitat types, saltmarsh transition habitats, populations of floating water plantain Luronium natans, slender hare's-ear Bupleurum tenuissimum, sea barley Hordeum marinum, hard-grass Parapholis strigosa, otter Lutra lutra, salmon Salmo salar, bullhead Cottus gobio, brook lamprey Lampetra planeri, river lamprey Lampetra fluviatilis, sea lamprey Petromyzon marinus, club-tailed dragonfly Gomphus vulgatissimus and other aquatic invertebrates.</i> <i>The main channel of the River Dee lies within both Wales and England, and is notified as two separate SSSIs – the Afon Dyfrdwy (River Dee) SSSI in Wales and the River Dee (England) SSSI in England. The features for which the SSSIs are notified, in particular migratory fish, depend upon the whole river ecosystem. Salmon, otter, club-tailed dragonfly, and fluvial geomorphology are of special interest in both Wales and England.</i>
River Dee and Bala Lake / Afon Dyfrdwy a Llyn Tegid (Wales) Special Area of Conservation (SAC)	~282m north	<i>The Dee is the largest river in North Wales with a catchment area of more than 1,800 km². It is one of the most highly regulated rivers in Europe, and along with Llyn Tegid it has been designated as a Special Area of Conservation (SAC).</i> <i>From its headwaters in the uplands of Snowdonia, the Dee descends via Llyn Tegid, the largest natural lake in Wales. After flowing through a broad valley to Corwen, it tumbles eastwards through the spectacular Vale of Llangollen, under the famous Pontcysyllte Aqueduct World Heritage Site, before breaching the Welsh foothills near Bangor-on-Dee, and meandering northwards through the Cheshire plain to its tidal limit just below Chester.</i>
Non-statutory Sites		
None.		

3.3 Landscape

A review of the designated sites, aerial photographs (Figure 1), the magic.gov.uk database and OS maps has been undertaken. Collated together, the site's local habitat is described below:

The site lies within a small residential area on the outskirts of Bangor on Dee, located south-east of Wrexham. The landscape is dominated by agricultural field along with scattered residential properties with associated gardens. A low number of scattered copses and tree lines are present within the local area. The River Dee is located to the north of the site which will provide abundant insect foraging for several protected species.

Priority habitats within 2km of the site are listed in Table 4.

Table 4: priority habitat inventory within 2km (Magic.gov.uk):

Habitat	Closest distance from site
National Forest Inventory	~623m south
Broadleaved Woodland	~623m south

* The desk study results may not include certain habitats due to limited data being available on MAGIC for Wales and further data should be obtained from the LRC to support the desk study



Figure 1: Aerial photo of site, showing landscape structure

3.4 Historical records

Existing bat records relating to the site and a surrounding 2km radius are required to conform to national guidelines. The data search is confidential information that is not suitable for public release. The client has been advised that biological records data for the local area is necessary to facilitate a complete assessment. To date Arbtech has not been authorised to purchase these records from Cofnod - North Wales Environmental Information Service (Cofnod). The local planning authority (LPA) may request that bat records data are obtained to conform to national guidelines, and these can be incorporated into the report at a later date.

Table 5: Historical records* within 2km of the site

Taxon Group	Common name	Scientific binomial	Record details
The client has not authorised Arbtech to purchase BRD to incorporate into the evaluation.			

*Records from the past 10 years

A search of the Magic database for granted European Protected Species Mitigation Licences (EPSMLs) for bats within a 2km radius of the site is yet to be completed. However, this database only includes licences granted by Natural England. There is currently no online database of bat mitigation licences granted by Natural Resources Wales. As the 2km search radius does not cross the Wales-England border, it is not known if there are any nearby sites with bat mitigation licences issued by Natural Resources Wales.

3.5 Field Survey Results

The site consists of the site consists of one building directly adjacent to an existing dwelling and associated gardens and is illustrated in the map in Appendix 1. The weather conditions recorded at the time of the survey are shown in Table 6.

Table 6: Weather conditions during the survey

Date: 27/07/2021	
Temperature	19°C
Relative Humidity	80%
Cloud Cover	50%
Wind	1mph
Rain	None

3.6 Site Feature descriptions and photos

B1 Exterior

B1 - north east elevation (pictured opposite).

B1 is a single-storey brick built stable style building that has been converted into garages. The roof is clad with slate roof tiles. The roof is in excellent condition with no damaged or lifted tiles which could provide potential roosting features for bats.

A small covered section is located the south east of the building.

The window and door frames along with the soffits and bargeboards are constructed of wood. All are tightly fitting with no gaps which would provide potential roosting habitat for crevice dwelling species such as pipistrelle bats.

All brick-work is in excellent condition with no missing mortar which could provide suitable roosting features for crevice dwelling bats.



B1 – south west (pictured opposite).

The south west elevation roof is covered with solar panels. The roof tiles surrounding the panels are well fitted with no gaps or missing tiles that could provide suitable roosting features for bats.



B1 – north west gable (pictured opposite).

The gable ends are in excellent condition. No gaps were noted between the brick work.

Some damage was noted along the fascia boards however upon closer inspection the damage was identified as being cosmetic only.



B1 - north east elevation roof (pictured opposite).

The roof along the north east elevation is in excellent condition. All the slate tiles were well fitted with no gaps or damage which could provide potential roosting features. The ridge tiles were in excellent condition with no areas of missing mortar.



B1 - north east elevation soffit boxes (pictured opposite).

The soffit boxes are in excellent condition. Some cosmetic damage was noted however no suitable roosting features were noted.



B1 Interior

B1 – interior looking south east (pictured opposite)

A false ceiling is present at the centre of B1 which creates a false loft space. The roof structure is built from timber beams including the ridge beam. The roof is lined with bitumen felt. The lining is in exceptional condition with no areas of damage.

Areas of cobwebs were noted along the beams which can indicate lack of recent flying activity by void dwelling species such as brown long-eared bats. All internal areas are subject to high levels of disturbance as B1 is currently used as a garage and for storage.



B1 – interior roof (pictured opposite).

The rooms at either gable end of B1 are open from floor to roof. Within these areas the roof lining is also in excellent condition with no areas of damage. Cobwebs were noted around the beams including between the joints which can indicate lack of recent use by bats.



B1 – central interior roof (pictured opposite).

A false ceiling is present in the centre of B1. The area below is used as a garage and is subject to high levels of daily disturbance.



B1 Evidence of bats

Internally there was no evidence of bat use within B1 and no evidence was found in the storage container. In addition there was no evidence of bat use (e.g. bat droppings) found on external features. However, this kind of evidence is easily weathered away on the exterior of buildings and is rarely visible.

B1 Breeding birds and other incidental observations

No evidence of nesting birds was identified internally or externally during the survey.

4.0 Conclusions, Impacts and Recommendations***4.1 Informative guidelines***

Bats are protected under the Wildlife and Countryside Act and Conservation Regulations (see Appendix 4 for a summary of legislation protecting bats in the UK). Legislation protects all wild birds whilst they are breeding, and prohibits the killing, injuring or taking of any wild bird or their nests and eggs. Certain species of bird, including the barn owl, are subject to special provisions; it is an offence to disturb any bird or their young during the breeding season.

There are three possible outcomes of this survey, each with specific recommendations. These are outlined below:

Confirmed bat roost

Best practice survey guidelines (Collins, 2016) recommends additional surveys for confirmed roosts. Three further surveys are required to characterise the bat roost present including species, roost type and access points to inform a European Protected Species Mitigation Licence (EPSML) application with Natural Resources Wales. Surveys must be completed during the active bat season (May – September). At least two of the surveys should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey (Collins, J. 2016).

Low, moderate or high likelihood of a bat roost present

Best practice survey guidelines (Collins, 2016) recommends additional surveys for features assessed as having low to high suitability for roosting bats. One, two or three further surveys are required to confirm presence/likely-absence of a bat roost, based on a low, medium or high roost likelihood evaluation. Surveys must be completed during the active bat season (May – September). If more than one survey is recommended, at least one of them should be completed during the optimal survey period mid-May to August, and at least one of the surveys should be a dawn re-entry survey (Collins, J. 2016). If two or one further survey is recommended these surveys must be completed during the optimal survey period (mid-May to August). For low

and moderate roost likelihood evaluation the survey effort recommended at this stage is iterative and if bats roosts are confirmed in the building, a further survey will be required to provide sufficient information to inform an EPSML application to Natural England.

Negligible likelihood of a bat roost present

Buildings assessed as comprising negligible suitability for roosting bats do not normally require further surveys. However, if bats are found during any stage of the development, work should stop immediately and a suitably qualified ecologist should be contacted for further advice.

4.2 Evaluation

Taking the desk-based assessment and site survey results into account, the following value for roosting bats has been placed on each site survey feature.

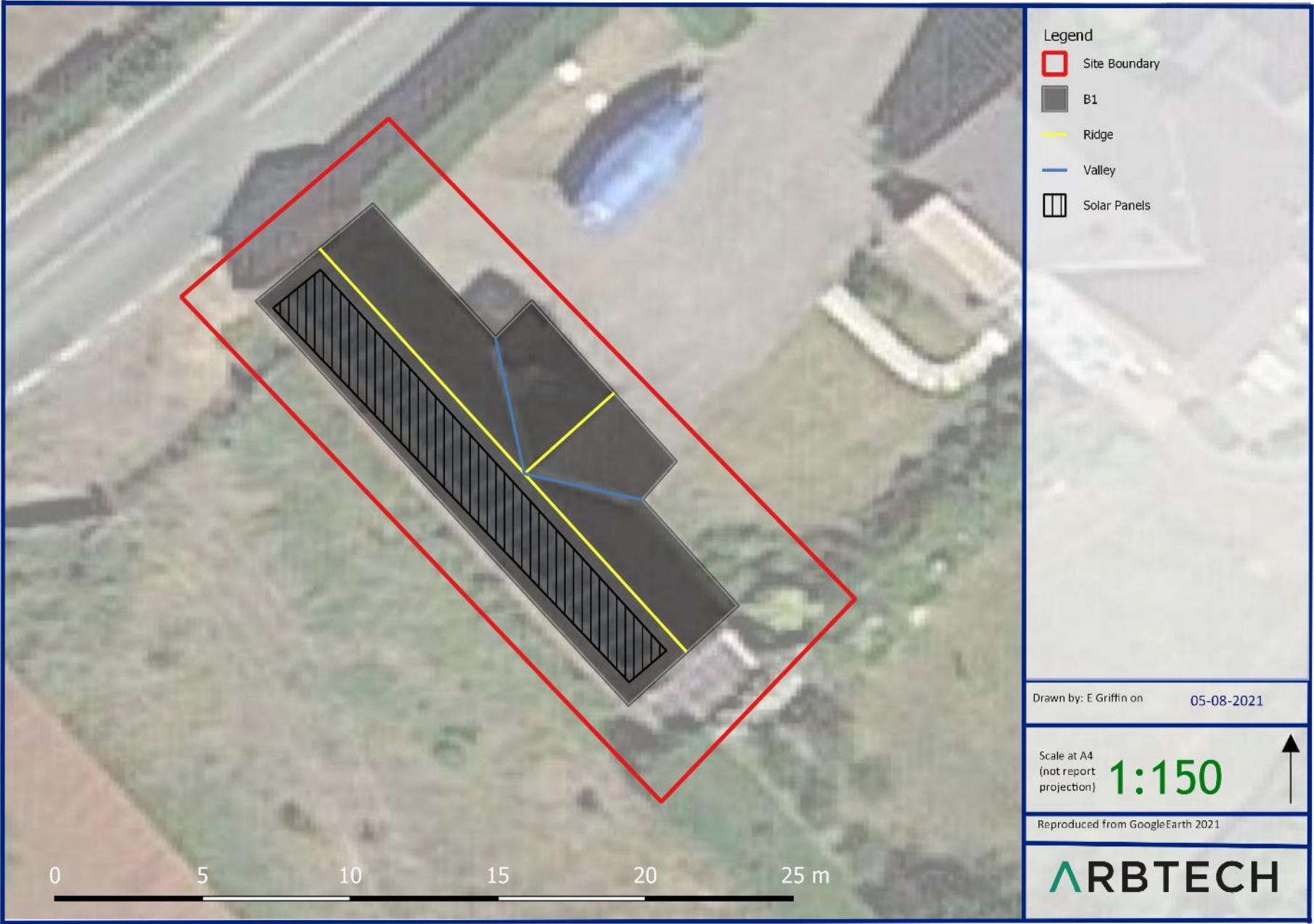
Table 7: Evaluation of buildings on site

Ref	Survey assessment conclusions (with justification)	Foreseen impacts	Recommendations	Enhancements The Local Planning Authority has a duty to ask for enhancements under the NPPF (July 2018)
B1 - Bats	The building has a negligible likelihood of supporting roosting bats. No potential roosting features were noted along all elevations of B1. The roof tiles were extremely well fitted. Some damage was identified along the fascia and barge boards however upon closer inspection the damage was identified as cosmetic only and provided no roosting features for bats.	Bats are very unlikely to be roosting within this building and as such, there are not anticipated to be any impacts on bats as a result of the proposed works.	No further surveys required. In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licenced ecologist contacted for further advice.	The installation of a minimum of two Schwegler or similar bat boxes on the existing building on site will provide additional roosting habitat for bats e.g. • 2F Schwegler Bat Box • 1FF Schwegler Bat Box • 2FN Schwegler Bat Box. Bat boxes should be positioned 3-5m above ground level facing in a south/south-westerly direction with a clear flight path to and from the entrance.
B1 - Birds	No evidence of nesting birds was found during the survey.	None.	None.	Install two Schwegler or similar bird boxes on the retained building on site will provide additional nesting habitat for birds e.g. • Schwegler 1SP Sparrow Terrace • Schwegler 1B nest boxes • Schwegler 2H Robin Boxes Schwegler 1B and Schwegler 2H nest boxes should be positioned approximately 3m above ground level where they will be sheltered from prevailing wind, rain and strong sunlight. Small-hole boxes are best placed approximately 1-3m above ground on an area of a tree trunk where foliage will not obscure the entrance hole.

5.0 Bibliography

- British Trust for Ornithology (2016) www.bto.org/about-birds/nnbw/putting-up-a-nest-box
- Collins, J. (ed.) (2016). Bat Surveys for Professional Ecologists —Good Practice Guidelines, 3rd edition, Bat Conservation Trust, London.
- Cyfnod (2021). https://www.cofnod.org.uk/resources/sssi/2554/SSSI_2554_Citation_EN001.pdf accessed on 05/08/2021.
- Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected?
- Google Earth (2021) accessed on 05/08/2021.
- Magic database (2020) <http://www.magic.gov.uk/MagicMap.aspx> accessed on 05/08/2021
- Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.
- Natural Resources Wales (2020) <https://naturalresourceswales.gov.uk/about-us/our-projects/nature-projects/life-dee-river-project/?lang=en> accessed on 05/08/2021.

Appendix 1: Survey Plan



Appendix 2: Proposed Site Plan

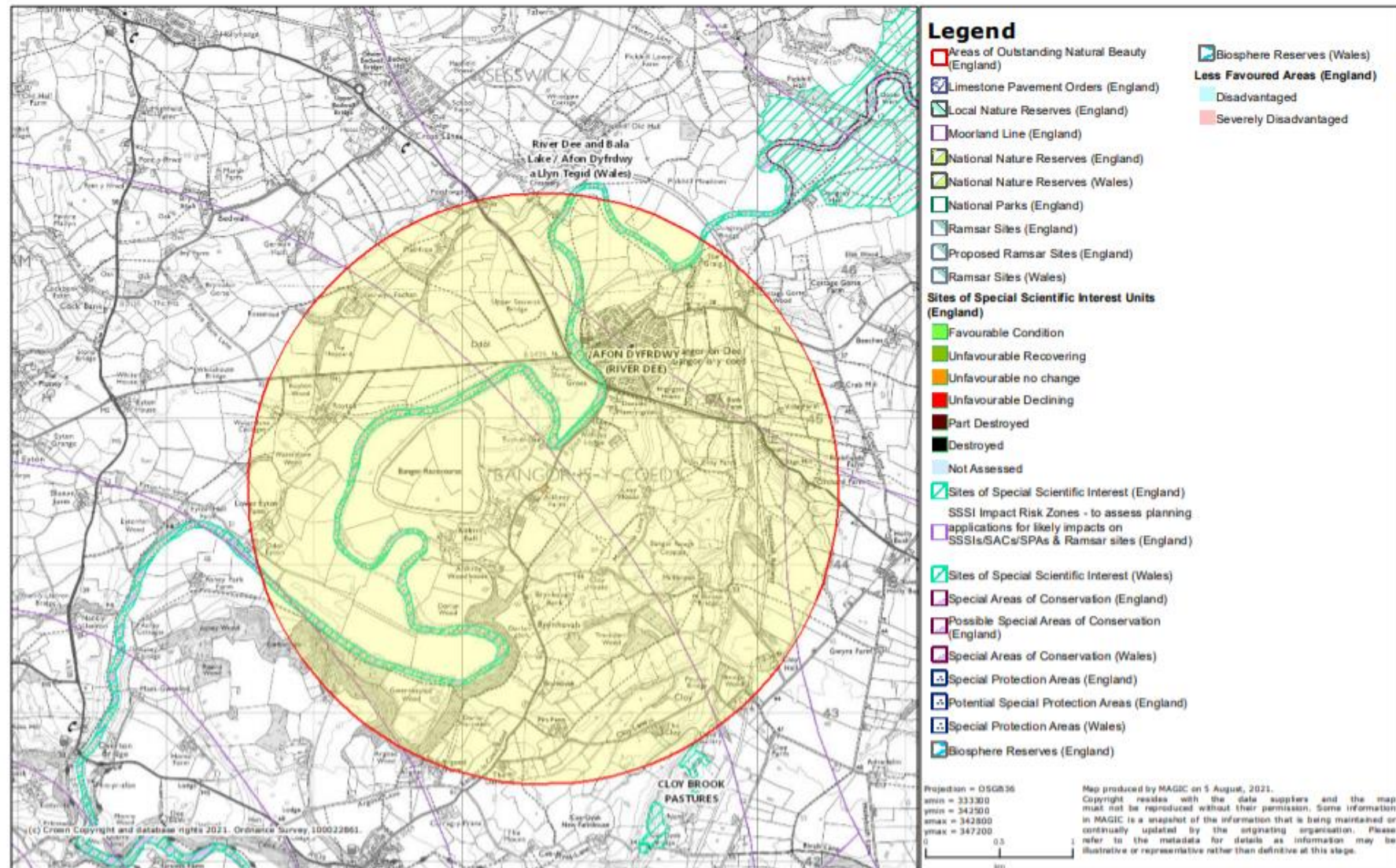
None provided.

Appendix 3: Desk Study Information

Full historical records can be provided on request.

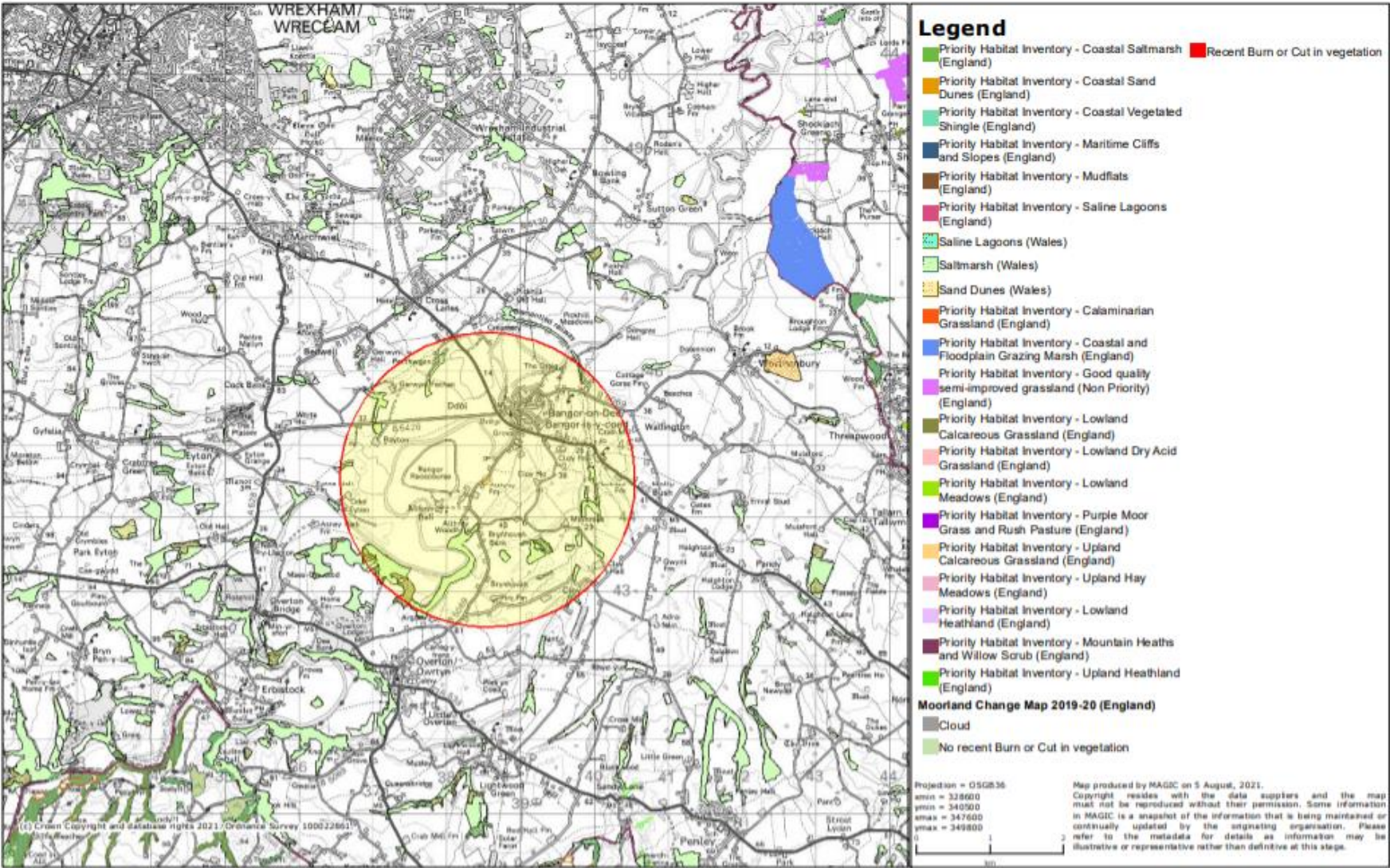
MAGiC

Statutory Designated Sites





Habitats



Appendix 4: Legislation and Planning Policy related to bats

LEGAL PROTECTION

New legislation (2020)

The ***Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*** came into force when Britain left the European Union on 31st January 2020. It covered amendments relevant to this survey to:

Wildlife and Countryside Act 1981: England and Wales (x1 amendment)

Conservation of Habitats and Species Regulations 2017 (x29 amendments)

All species of bat are fully protected under ***The Conservation of Habitats and Species Regulations 2017 2017*** (amended by the ***Conservation of Habitats and Species Regulations (amendment) (EU Exit) Regulations 2019*** which continue the same provision for European protected species, licensing requirements and protected sites after the UK leaves the EU) through their inclusion on Schedule 2.

Regulation 43: Protection of certain wild animals - offences

(1) A person is guilty of an offence if they:

- (a) Deliberately captures, injures or kills any wild animal of a European protected species,
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal,

(2) For the purposes of paragraph (1) (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) To impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

All species of bats are also protected under the ***Wildlife and Countryside Act 1981 (as amended)*** through their inclusion on ***Schedule 5*** (which applies to England and Wales). Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 42 of the Act requires The National Assembly for Wales must, as respects Wales, publish a list of the living organisms and types of habitat which in the Assembly's opinion are of principal importance for the purpose of conserving biodiversity. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

Environment (Wales) Act 2016 and the Biodiversity Duty

The Environment (Wales) Act introduces a new biodiversity duty, which highlights biodiversity as an essential component of ecosystem resilience. This new duty replaces the biodiversity duty in the Natural Environment and Rural Communities Act 2006 (referred to as the NERC Act). Part 1 of the Act deals with Sustainable management of natural resources including Biodiversity and Resilience of Ecosystems Duty. The Environment Act enhances the current NERC Act 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". As under the NERC Act the new duty will apply to a range of public authorities such as the Welsh Ministers, local authorities, public bodies and statutory undertakers. This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act.

Planning Policy Wales (February 2021)

Paragraph 6.4.3 of the document refers to Biodiversity and Ecological Networks and states:

The planning system has a key role to play in helping to reverse the decline in biodiversity and increasing the resilience of ecosystems, at various scales, by ensuring appropriate mechanisms are in place to both protect against loss and to secure enhancement. Addressing the consequences of climate change should be a central part of any measures to conserve biodiversity and the resilience of ecosystems. Information contained in SoNaRR, Area Statements and species records from Local Environmental Record Centres should be taken into account. Development plan strategies, policies and development proposals must consider the need to:

- support the conservation of biodiversity, in particular the conservation of wildlife and habitats;
- ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;
- ensure statutorily and non-statutorily designated sites are properly protected and managed;
- safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and
- secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.

Environment (Wales) Act 2016 and the Biodiversity Duty

The Environment (Wales) Act introduces a new biodiversity duty, which highlights biodiversity as an essential component of ecosystem resilience. This new duty replaces the biodiversity duty in the Natural Environment and Rural Communities Act 2006 (referred to as the NERC Act). Part 1 of the Act deals with Sustainable management of natural resources including Biodiversity and Resilience of Ecosystems Duty. The Environment Act enhances the current NERC Act 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”. As under the NERC Act the new duty will apply to a range of public authorities such as the Welsh Ministers, local authorities, public bodies and statutory undertakers. This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act.

Biodiversity and Resilience of Ecosystems Duty (Section 6 Duty)

6.4.5 Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity. In doing so planning authorities must also take account of and promote the resilience of ecosystems, in particular the following aspects:

- diversity between and within ecosystems;
- the connections between and within ecosystems;
- the scale of ecosystems;
- the condition of ecosystems including their structure and functioning; and
- the adaptability of ecosystems.

6.4.6 In fulfilling this duty, planning authorities must have regard to:

- the list of habitats and species of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016;
- the SoNaRR, published by NRW; and
- any Area Statement that covers all or part of the area in which the authority exercises its functions.

6.4.7 Planning Authorities should also refer to up to date ecological survey information (where appropriate).

6.4.8 A proactive approach towards facilitating the delivery of biodiversity and resilience outcomes should be taken by all those participating in the planning process. In particular, planning authorities must demonstrate that they have sought to fulfil the duties and requirements of Section 6 of the Environment Act by taking all reasonable steps to maintain and enhance biodiversity in the exercise of their functions.

6.4.9 The broad framework for implementing the Section 6 Duty and building resilience through the planning system includes addressing:

- Diversity: to ensure mechanisms are in place to minimise further loss and where circumstances allow for species' populations to expand and recolonise their natural range (former range) or adapt to future change. More diverse ecosystems are more resilient to external influences (this includes biological, geological and physical diversity on a site). This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity;
- Extent: to ensure mechanisms allow for the identification of potential habitat, the maintenance of existing assets and networks and promote the restoration of damaged, modified or potential habitat and the creation of new habitat. This means that planning decisions should incorporate measures which seek the creation, restoration and appropriate management of green networks and linkages between habitats and maintaining and enhancing other green infrastructure features and networks;
- Condition: Ecosystems need to be in a healthy condition to function effectively, to deliver a range of important ecosystem services. Planning decisions should not compromise the condition of ecosystems. By taking an integrated approach to development, for example, which considers both direct and wider impacts and benefits it should be possible to make a positive contribution. Planning for the long term management of retained habitats is key to maintaining condition through for example, the use of planning obligations;
- Connectivity: to take opportunities to develop functional habitat and ecological networks within and between ecosystems and across landscapes, building on existing connectivity and quality and encouraging habitat creation, restoration and appropriate management. The opportunities could include enlarging habitat areas, developing buffers around designated sites or other biodiversity assets or corridors, including transport and river corridors, and the creation of 'stepping stones' which will strengthen the ability of habitats and ecological networks to adapt to change, including climate change; and
- Adaptability to change: primarily in the form of climate change, for both species (diversity) and ecosystems requires action to protect the extent, condition and connectivity of habitats, features and ecological networks. Development plans, planning proposals and applications which build on protecting designated sites and securing and enhancing green infrastructure will be key ways of addressing the attributes of ecosystems resilience identified in the Environment Act as well as facilitating social and economic resilience aspirations of the Well-being of Future Generations Act.