2 Ash Close, Summerhill, Wrexham

Ecological Appraisal

2024

RACHEL
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ECOLOGY

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Project Title	2 Ash Close, Summerhill, Wrexham
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Executive Summary

Development Details

The client is proposing a residential development at vacant land to the rear of 2 Ash Close, Summerhill, Wrexham, LL11 4HRS, hereafter referred to as the 'site'.

This report describes the ecological features of the site and its surroundings and assesses the potential impacts of the development on the ecological interest. Recommendations are provided so that the development is compliant with biodiversity policy and legislation.

Ecological Interest

The site has a low level of ecological interest. The site is near to a wildlife corridor located 15m east and therefore, species such as birds, hedgehog, badger and bats may use the site opportunistically for foraging and/or commuting.

Outcomes

Further survey work is not considered necessary at this time.

Habitats on site are common and widespread and generally in poor condition due to the lack of management. According to the DECCA framework the site is assessed as showing low ecosystem resilience. Recommendations are provided to enhance habitats and increase opportunities for animal species to benefit from the site. This will enhance diversity levels, condition and connectivity of the site which will result in an improved resilience of the ecosystem present.

1. Introduction

1.1 Project Brief

1.1.1 Rachel Hacking Ecology Limited was commissioned in 2024 by SJH Living Ltd. to carry out an ecological appraisal of land to the rear of 2 Ash Close, Summerhill, Wrexham LL11 4HRS. Hereafter known as the 'site'. The site is located at O.S. grid reference: SJ 31370 53902 (see Figure 1).



Figure 1. Map showing the location of the site. Modified from Bing Maps

1.1.2 The proposed development site is located in Summerhill, a semi-urban village in the suburbs of the Wrexham, which lays approximately 1.5km south of the site. The site is surrounded by residential land to the east and south, a sports field to the west and an undeveloped natural area used as open public space immediately north, which include a wildlife corridor on its eastern boundary adjacent to the sports field. The wider landscape is mostly comprised by developed land and farming fields, with some woodland extensions, namely Hall Wood 435m east and Moss wood 490m west,

Description of Development

1.1.3 The site will be the subject of a planning application for a residential development comprising the construction of two dwellings and associated soft and hard landscaping.

Relevant Planning History

1.1.4 The site was subject of a planning application ref. VAL/2024/0049. No further details have been retrieved.

1.2 Scope of Work

1.2.1 The Client commissioned Rachel Hacking Ecology to carry out the following works:

- Phase 1 Habitat Survey of the land to be affected to JNCC and UKHabs standards, mapping the habitats.
- Assessing the habitats on site and immediately adjacent for their potential to support protected species.
- Survey for invasive non-native species on the site
- Report detailing methods and findings, including recommendations for further survey and mitigation, if necessary.
- Net Benefit Assessment and Net Benefit Plan

1.3 Site Visit Information

Surveyor Details

1.3.1 Lucia Ruiz Mut (Ecologist) visited the site on 29th April 2024. Lucia has 2 years' professional experiences carrying out similar surveys and is a Qualifying member of CIEEM.

Weather

1.3.2 The weather at the time of the survey was overcast but dry with an average temperature of 11˚C. The conditions were suitable for a full assessment to be undertaken.

2. Methods

2.1 Desk Study

2.1.1 The Magic website (Multi-Agency Geographical Information for the Countryside) was interrogated for the presence of Statutory Designated Sites (and European Protected Species licences) within a 2km radius of the site.

2.1.2 The site was checked to determine if it is located within an Impact Risk Zones for any Site of Special Scientific Interest (SSSI) and if so, whether the Local Planning Authority will need to consult Natural England.

2.2 Field Survey

Extended Phase 1 Habitat Survey

2.2.1 In accordance with JNCC guidelines[1] and UKHab guidelines[2] the site was walked over and the habitats and features of ecological interest were mapped and described. Habitats and features of particular interest were target noted.

2.2.2 During the walkover habitat and features were assessed for their suitability to support protected and notable species in accordance with CIEEM guidelines[3]. Field signs of protected, notable, and invasive non-native species, if encountered, were mapped, and described.

2.3 Biodiversity Net Benefits

2.3.1 Under the Environment (Wales) Act 2016[4], Natural Resources Wales (NRW) and other public bodies should seek to maintain and enhance biodiversity and the resilience of ecosystems and the benefits they provide.

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[1] JNCC (2010). *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Joint Nature Conservation Committee, Peterborough

[2] UKHab Ltd (2023). *UK Habitat Classification Version 2.0* (at https://ukhab.org)

[3] CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal*. Chartered Institute of Ecology and Environmental Management, Winchester.

[4] *Section 6 – Biodiversity and resilience of ecosystems duty Section 6 under Part 1 of the Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 duty) for public authorities in the exercise of functions in relation to Wales.*

6. Biodiversity and resilience of ecosystems duty (1)A public authority must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions.

2.3.2 The Terrestrial and freshwater Resilient Ecological Networks: a guide for practitioners in Wales[5] guidelines have been revised to provide a sound assessment of the current ecological value of the site in terms of biodiversity, ecosystem resilience and ecosystem services/benefits

2.3.3 A recommendation plan has been produced to evidence net benefits delivered by the current proposals.

2.4 Mitigation Hierarchy

2.4.1 Mitigation measures should be embedded within the masterplan design and planning application process. Measures during the construction phases should be included in a Construction Environmental Management Plan: Biodiversity (CEMP). This process from proposal to implementation needs to consider the 'mitigation hierarchy' of avoid, reduce, compensate, and enhance:

- Aim to avoid negative effects through the design process.
- Mitigate if negative effects cannot be avoided.
- Use compensation measures to offset residual impacts.
- Identify and implement opportunities to enhance biodiversity.

3. Results

3.1 Survey Constraints

3.1.1 Field survey results are valid for a limited duration and no investigation can provide a complete description and characterisation of a site. The composition of habitats and species can change depending on environmental variables and the mobility of species, so the results of a study become less reliable over time. In some cases, surveys that are 3 years old may be acceptable for a project assuming that habitats have not significantly changed in the intervening period, but for protected species it is likely that survey data will need to be no more than 18 months old.

3.1.2 The site was fully accessible and there were no constraints to the survey

3.2 Designated Sites

3.2.1 The desk study provided information on the designated sites listed below in Table 2.

[5] Garrett HM, and Ayling SC. (2021). *Terrestrial and freshwater Resilient Ecological Networks: a guide for practitioners in Wales*. 43 pp. NRW Report No. 483 Natural Resources Wales. Dolgellau.

Table 2. Designated Sites			
Name	**Status**	**Location/distance**	**Interest**
Llay Bog	Site of Special Scientific Interest (SSSI)	1.7km northeast	This site is designated for its botanical interest. It comprises a small peat bog featuring notable botanical species such as Marsh Cinquefoil *Potentilla palustris*, Marsh Pennywort *Hydrocotyle vulgaris,* Soft Rush *Juncus effusus.* Bog Moss *Sphagnum spp.* with *Eriophorum angustifolium* and Cotton Grasses *E. Vaginatum,* among others, and a woodland area *showing* Alder Buckthorn *Frangula alnus* with Purple Moor Grass *Molinia caerulea* and Broad Buckler Fern *Dryopteris dilatate.*

3.2.2 No non-statutory designated sites have been identified within the study area. The closest designated site is Marford Quarry Nature Reserve located 5km northeast of the site.

3.2.3 The desk study identified that the site was located within the Impact Risk Zone of 1 Sites of Special Scientific Interest, namely River Dee SSSI. The proposed development will not require the Local Planning Authority to consult with Natural England since the proposed development does not meet the criteria for this requirement.

3.3 Habitats

3.3.1 The Phase 1 Habitat map is contained in Appendix 2. A botanical species list is provided in Appendix 3.

Artificial Unvegetated, Unsealed Surface

3.3.2 Most of the site is comprised of an artificial, unvegetated surface which is not sealed but compacted and partially covered by pebbles (see Photograph 1).



Photograph 1 showing the artificial, compacted surface.

Ephemeral/Short Perennial

3.3.3 At the southwestern corner of the site there is a small area of bare ground that has been colonized by ephemeral and short perennial vegetation (see Photograph 2). Species list for this habitat is provided in Table A1, Appendix 3.



Photograph 2 showing the ephemeral/short perennial habitat

Tall Ruderal, Herb

Tall ruderal vegetation is found alongside the western and northern boundary of the site, adjacent to the rear gardens' walls of the properties west of the site, and the fence enclosing the site to the north.

Besides, either side of the artificial surface, there are two earth mounts densely covered in tall ruderal vegetation (see Photograph 3). Species list is provided in Table A1, Appendix 3.



Photograph 3 showing the tall ruderal vegetation over earth mount.

Modified Grassland

3.3.4 Modified grassland habitat is present at the northwestern and southeastern corners of the site and bounding the artificial surface in the middle of the site (see Photograph 4). This habitat is similar in composition to the amenity grassland extending southeast of the site, just outside the redline boundary, but appeared to have been left unmanaged for the last years showing a variable sward height with some patches up to 1m tall. Species list is provided in Table A1, Appendix 3



Photograph 4 showing the modified grassland.

Bramble Scrub

3.3.5 There are small patches over both earth mounds that are dominated by dense Bramble *Rubus fruticousus agg.* scrub over the tall ruderal vegetation. (see Photograph 5)



Photograph 5 showing dense Bramble scrub over the earth mound, surrounded by tall ruderal vegetation.

Hedgerow

3.3.6 Northeast of the site there is a small hedgerow section bounding one of the adjacent properties' back garden (see photograph 6). This is comprised solely of Privet *Ligustrum Vulgare.*



Photograph 6 showing the Privet boundary hedgerow.

Individual Tree

3.3.7 The is one mature Hawthorn tree *Prunus espinosa* adjacent to the northeastern boundary of the site (see Photograph 7). The tree falls outside the development redline but oversailing branches encroach within the site.



Photograph 7 showing the Hawthorn tree.

3.4 Notable Species

Invasive, Non-native Species

3.4.1 No invasive, non-native species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) are located on site.

Great Crested Newt & other amphibians

3.4.2 There is no suitable breeding habitat for Great Crested Newt (GCN) or other amphibians since no ponds exist on site. Additionally, no ponds were identified within 250m of the site. There is no suitable terrestrial habitat within the site and given the lack of breeding habitat in the locality, it is considered reasonably unlikely for GCN or other amphibians to be present on site and therefore these species are not considered further in this report

Reptiles

3.4.3 Suitable habitats for reptiles on site are limited to the tall ruderal vegetation. However, due to the location of the site, in an urban context, it is considered unlikely that they will be present on site. Reptiles are not considered further in this report.

Nesting Birds

3.4.4 There is no suitable habitat for nesting birds within the redline boundary. The Hawthorn tree adjacent to the northern boundary could provide nesting opportunities for birds.

Badger

3.4.5 No evidence of Badger was recorded during the survey. The site may be used opportunistically by Badger for foraging and/or commuting, as it is connected with some good quality habitat, namely the wildlife corridor/woodland area located 15m east of the site.

Hedgehog

3.4.6 No signs of Hedgehog were found during the survey. The tall ruderal vegetation on site may provide foraging and dispersal opportunities.

Bats

3.4.7 There is no potential roosting habitat for bats within the site. The wildlife corridor/woodland area east of the site provides good quality foraging and commuting habitat. Bats may use the site opportunistically when foraging/commuting from urban roosts to natural areas.

4. Assessment

4.1 Development Context

4.1.1 The following assessment assumes that the proposed development comprises the erection of 2 semi-detached dwelling houses, formation of new driveway access, and associated works.

4.2 Impacts on Designated Sites

4.2.1 No impacts on designated sites are anticipated due to the lack of impact pathways.

4.3 Impacts on Habitats

4.3.1 The habitats on site are common and widespread. No priority habitats are present. For the construction of the new houses, the tall ruderal vegetation and scrub will be loss which entails an adverse impact at the site level.

4.3.2 The modified grassland will be extended and restored; this will provide a positive impact to habitats.

4.4 Impacts on Species

Nesting Birds

4.4.1 No impacts are anticipated unless the Hawthorn tree oversailing the site would require pruning to facilitate the works. In this case, pruning works may pose a risk of disturbing/harming nesting birds, should this be present.

Badger & Hedgehog

4.4.2 Given that Badgers can be attracted to construction sites because of spoil heaps and exposed soils that offer foraging opportunities, there is a risk of harm through entrapment and contact with hazardous machinery and harmful substances. Hedgehogs can also be harmed if they access construction sites and there is potential for similar impacts to Badger.

Bats

4.4.3 There is a low risk of disturbance to bats, should they be present, due to increased levels of light and noise during the construction phase and post-development.

4.5 Biodiversity and Ecosystem Resilience Assessment

4.5.1 The following assessment aims at reflecting the current ecological value of the site in terms of biodiversity, ecosystem resilience and ecosystem services/benefits:

Biodiversity Value

Habitats:

4.5.2 Natural habitats on site, namely: Ephemeral/Short Perennial, Tall Ruderal Herb, Bramble scrub and Modified Grassland are of low biodiversity value. All habitats show a low level of species richness with less than 6 species per squared metre. These habitats show the characteristic species assemblage expected for each habitat type, featuring only common and widespread species, lacking notable or rare botanical specimens.

4.5.3 The habitats within the site are common and widespread within the wider landscape and therefore do not contribute to increase habitat biodiversity above the local level.

Species:

4.5.4 The site does not offer suitable breeding habitats for any of the animal species relevant to planning. Nesting bird opportunities are found adjacent to the site. Badger, Hedgehog and bats may use the site opportunistically for foraging and commuting purpose. Therefore, the animal species assemblage expected at the site is very limited.

Ecosystem Resilience

4.5.5 Ecosystem resilience has been assessed using the DECCA framework:

Diversity: This is directly linked to biodiversity value. As discussed above, diversity level at the site is very low.

Extent: The site size is small, covering approximately 0.06ha. This makes the site vulnerable to disturbance.

Condition: The site is assessed to be in poor condition. The overgrown vegetation, the extent of pernicious weeds such as Common Nettle shows the lack of effective management of the habitats present. Additionally, evidence of human disturbance was found in the form of litter scattered throughout the site. The site is also frequently used by dog walkers.

Connectivity: The site is adjacent to a public green space located north of it and connected to a woodland stripe/wildlife corridor located 15m east. The latter offer good quality habitat for a range of species and is further connected via hedgerows and lines of trees to the wider landscape. Therefore, the site is considered to show good connectivity with the wider green infrastructure network.

Aspects of ecosystem resilience: Ecosystem resilience is thought to be an emergent property of the above-mentioned four attributes. Given the current state of the site, this is considered to have very low ecosystem resilience and the present habitats may be loss if an effective management and monitoring strategy is not put in place.

Ecosystem Services/Benefits

4.5.6 Regarding ecosystem services and/or benefits provided by the habitats present on site the following have been identified:

Provisioning services: These relate to the ability of humans to obtain products from ecosystems, such as food, water and resources, including wood, oil and genetic resources and medicines. It is considered that the site's ecosystem as its current state does not provide provisioning services.

Regulating services: These include any benefit obtained from the natural processes and functioning of ecosystems. The ecosystem present at the site, which include some wildflower species and grasses provide pollination as a regulating service.

Cultural services: The site provide some open space for the public. However, its derelict condition undermines this service.

Supporting services: These relate to habitat functioning themselves, and therefore influence survival. Within the site, photosynthesis and some limited genetic biodiversity are identified as these types of services.

Summary

4.5.7 It is considered that the ecosystem present on site, at its current state, is of low biodiversity value, have low resilience and offer limited ecosystem services.

5. Recommendations

5.1 Further Surveys

5.1.1 No further survey is considered necessary.

5.2 Mitigation and Enhancement Measures

5.2.1 Protection of ecological features (habitats and species) during the construction phase will be described in a Construction Environmental Management Plan (CEMP). Mitigation measures to protect, maintain and enhance ecological features during the operational phase of development will be described in a Biodiversity Management Plan (BMP). Management Plans will contain Operational Aims and Objectives, Rationale for management, Prescriptions and schedules detailing the timing and responsibility for delivering the prescriptions. It is anticipated that the CEMP and BMP will be provided as a planning condition in advance of the commencement of the proposed development.

Habitats

5.2.2 It is recommended that retained and newly created grassland habitats are enhanced to wildflower grassland using a wildflower seed mix.

Nesting Birds

5.2.3 Impacts on nesting birds should be avoided by carrying out tree pruning works outside the bird breeding season (March- August). Construction activities that might directly impact upon breeding birds should hence be limited to the September-February period. If tree pruning must be carried out during the bird breeding season, checks immediately before works by a suitably qualified ecologist will be required. If nesting activity is detected work in that area will need to stop until the ecologist considers that nesting activity is finished.

5.2.4 Nesting Birds will benefit from the provision of further nesting opportunities in the form of nesting bird boxes to be included within the newly created houses.

Badgers & Hedgehog

5.2.5 To ensure that Badger and any other mammals are not trapped or harmed during the construction work, smaller excavations should be covered if left overnight. Larger excavations, if left overnight or for longer periods, should be ramped to enable animals to escape.

Bats

5.2.6 During the construction phase no works should be taken overnight and no light will be directed to the boundary habitats.

5.2.7 Post-development, a suitable lighting scheme that minimises lighting in the vicinity of the boundary habitats will minimise the potential for an adverse impact on bats. In addition, inclusion of further roosting opportunities in the form of built-in bat boxes within the newly created houses will have a significant positive impact for bats.

5.3 Net Benefits for Biodiversity Plan

5.3.1 Location of the following recommended ecological features are shown on Appendix 4. Bird and Bat boxes specifications are contained in Appendix 5.

5.3.2 Following the DECCA framework, the following recommendation should be followed for the proposed development to provide Net Benefits for Biodiversity:

Diversity: In order to increase the diversity of botanical an animal species and therefore, the biodiversity value of the site, it is recommended that

- Retained and newly created grassland habitats are enhanced to wildflower grassland using a wildflower seed mix. This will yield a species rich grassland featuring a range of wildflowers, increasing pollination and supporting a higher variety of invertebrates that will become food sources for other animals such as hedgehog, bats and birds.
- Tree planting is already included within the site proposals. It is recommended that native tree species are planted to increase biodiversity and provide nesting and foraging opportunities for birds as well as foraging habitats for bats.
- Nesting bird boxes are included within the new houses design to provide further nesting opportunities for birds, and therefore increase the number of birds species present on site.
- Bat boxes are also recommended to provide roosting opportunities for bats introducing these animal group to the site ecosystem.

Extent: Part of the natural habitats present on site will be reduced to provide space for the proposed buildings and parking area. However, most of this developed land will lay over the current artificial unsealed surface. In addition, part of the artificial surface will be converted into grassland. It is considered that effectively, the extend of natural habitats on site will be maintained.

Condition: Introduction of new plant species and provision of suitable habitats for animal species will contribute to a condition improvement.

Connectivity: To maximize connectivity to the woodland stripe/wildlife corridor located 15m east it is recommended that native hedgerow is introduced to the north and eastern boundaries of the site. This will increase the number of native species present on site and will provide natural corridors enabling dispersal opportunities for Hedgehog and foraging and commuting habitats for bats and birds.

Aspect of resilience: The recommendation listed above will result in an improvement on diversity, connection and connectivity attributes, which will increase the resilience of the ecosystem on site.

Appendix 1: Planning Policy & Legislation

National Policy

Biodiversity is a material consideration, and Planning Authorities (LPAs) have a requirement to consider biodiversity and protected species when determining planning applications. Planning Policy Wales ('PPW') (11th Edition, February 2021) is the national planning document for the Welsh Government. It is supplemented by Technical Advice Notes ('TANs') and Circulars. TAN 5 provides national policy guidance for nature conservation and planning.

The Welsh Government's objectives as stated within PPW (paragraph 6.4.3) include:

- 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.

  PPW also outlines the requirements of local planning authorities to assess the impact of any development proposals on nature conservation.

  TAN 5 Nature Conservation and Planning states how planning authorities should comply with their duty to "...have a regard, so far as is consistent with the proper exercise of [their] functions, to the purpose of conserving biodiversity", as required by the Environment Act, 2016.The key principles of positive planning for nature conservation in TAN 5 are:

- Work to achieve nature conservation objectives through a partnership between LPAs, Natural Resources Wales ('NRW'), voluntary organisations, developers, landowners, and other key stakeholders;
- Integrate nature conservation into all planning decisions looking for development to deliver social, economic, and environmental objectives together over time;
- Ensure that the United Kingdom's ('UK') international and national obligations for site, species and habitat protection are fully met in all planning decisions;

- Look for development to provide net benefit for biodiversity conservation with no significant loss of habitats or populations of species, locally or nationally;
- Help to ensure that development does not damage, or restrict access to, or the study of, geological sites and features or impede the evolution of natural processes and systems especially on rivers and the coast;
- Forge and strengthen links between the town and country planning system and biodiversity action planning particularly through policies in local development plans and the preparation of supplementary planning guidance that adds value to Local Biodiversity Action Plans ('LBAP') by highlighting the ways in which the planning system can help to deliver the objectives of LBAPs in practical ways;

Legislation

The Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) includes the notification and confirmation of Sites of Special Scientific Interest (SSSIs). SSSIs can be notified for their floral, faunal, geological, or physiographical features. Protection against damaging operations and management of SSSIs is also included within the Act. Impact Risk Zones (IRZs) are zones around an SSSI account for the particular sensitivities of the features for which it is notified and identify development proposal which could have adverse impacts.

The Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) protects native animals, plants, and habitats. Under the Act it is an offence to intentionally kill, injure or take any wild animal listed on Schedule 5 and it is an offence to interfere with places used for shelter or protection, or intentionally disturb animals occupying such places. The Act prohibits picking, uprooting or destroy any wild plant (or any attached seed or spore) listed in Schedule 8.

European Protected Species (EPS) including bats, Hazel Dormouse, Otter, Natterjack Toad, Smooth Snake, Sand Lizard and Great Crested Newt are protected by the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) and the Conservation of Habitats and Species Regulations 2017. The Acts make it an offence to:

a) Deliberately capture, injure, or kill an EPS;
b) Deliberately impair an EPS's ability to survive, breed, reproduce, rear or nurture young; to hibernate or migrate; or significantly affect the local distribution or abundance of the EPS.
c) Possess or control live or dead EPS or any part of, or anything derived from a EPS;
d) Damage or destroy a breeding site or resting place of an EPS;
e) Intentionally or recklessly obstruct access to any place that is used for shelter or protection by an EPS;

f) Intentionally or recklessly disturb a structure or place that it uses for shelter or protection that is occupied by an EPS.

All common herptiles are protected under the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000). Grass Snake, Slow Worm, Common Lizard, Adder are protected against intentional killing or injury. Common Frog, Common Toad, Smooth Newt, and Palmate Newt are protected against sale.

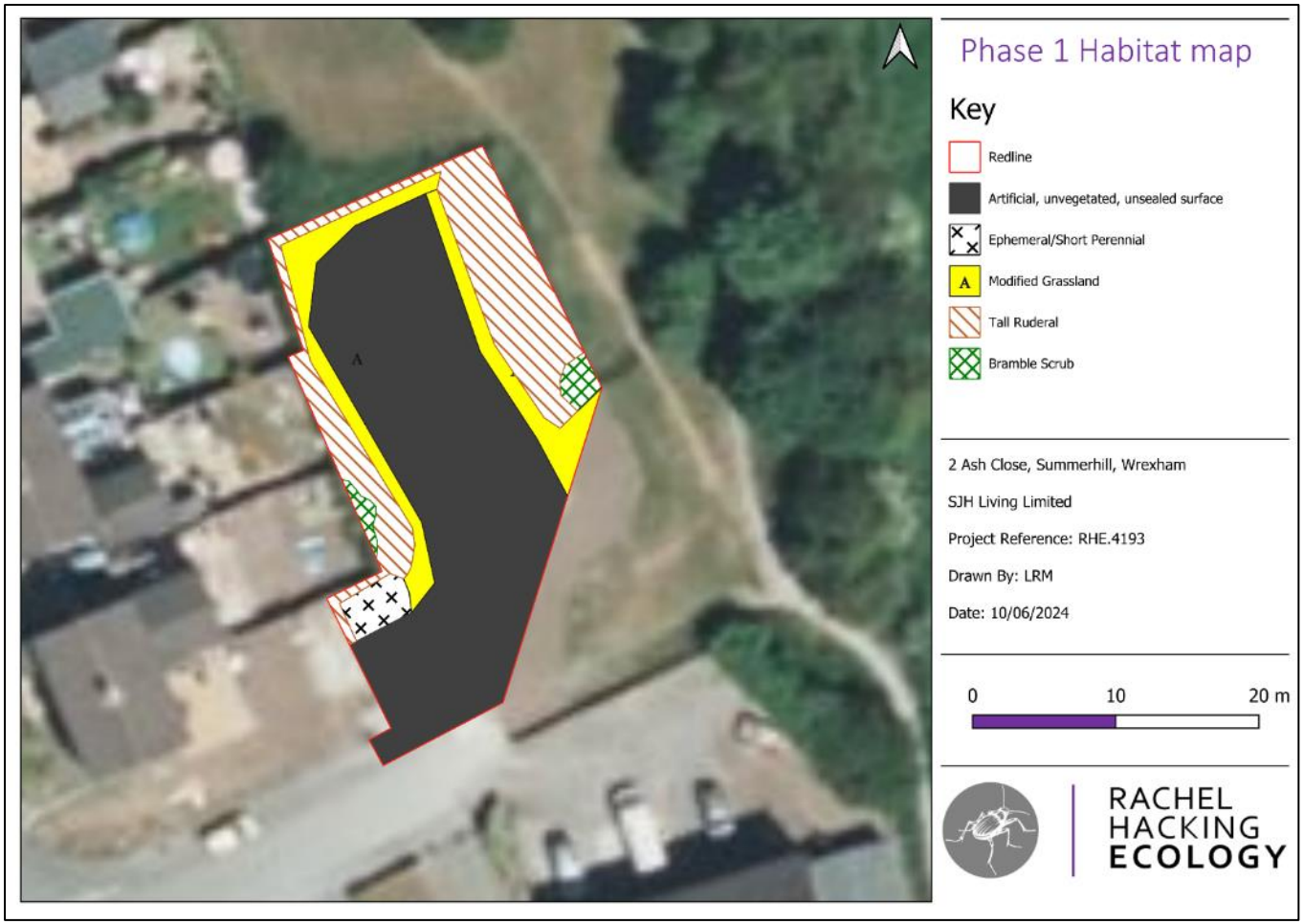
All birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure or take any wild bird or take, damage, or destroy its nest whilst in use or being built, or take or destroy its eggs. It is an offence to intentionally or recklessly disturb a species listed on Schedule 1 of the Act while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young.

The Protection of Badgers Act 1992 makes it an offence to wilfully, or to attempt to kill, injure, take, possess, or cruelly ill-treat a Badger, or intentionally or recklessly interfere with a sett. Interference of a sett includes disturbing badgers during occupation of a sett, or damaging or destroying a sett, or obstructing access to the sett.

Section 6 of the Environment (Wales) Act 2016 places a legal obligation on public bodies in Wales, whilst carrying out their functions, to 'maintain and enhance biodiversity'. Section 7 requires Welsh Ministers to publish and maintain lists of species and types of habitats in Wales that are of 'principal importance' for maintaining and enhancing biodiversity.

The Hedgerows Regulations 1997 protect ‘important’ hedgerows from destruction or damage. A hedgerow is ‘important’ if it (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy ‘important’ hedgerows unless permitted by the local planning authority.

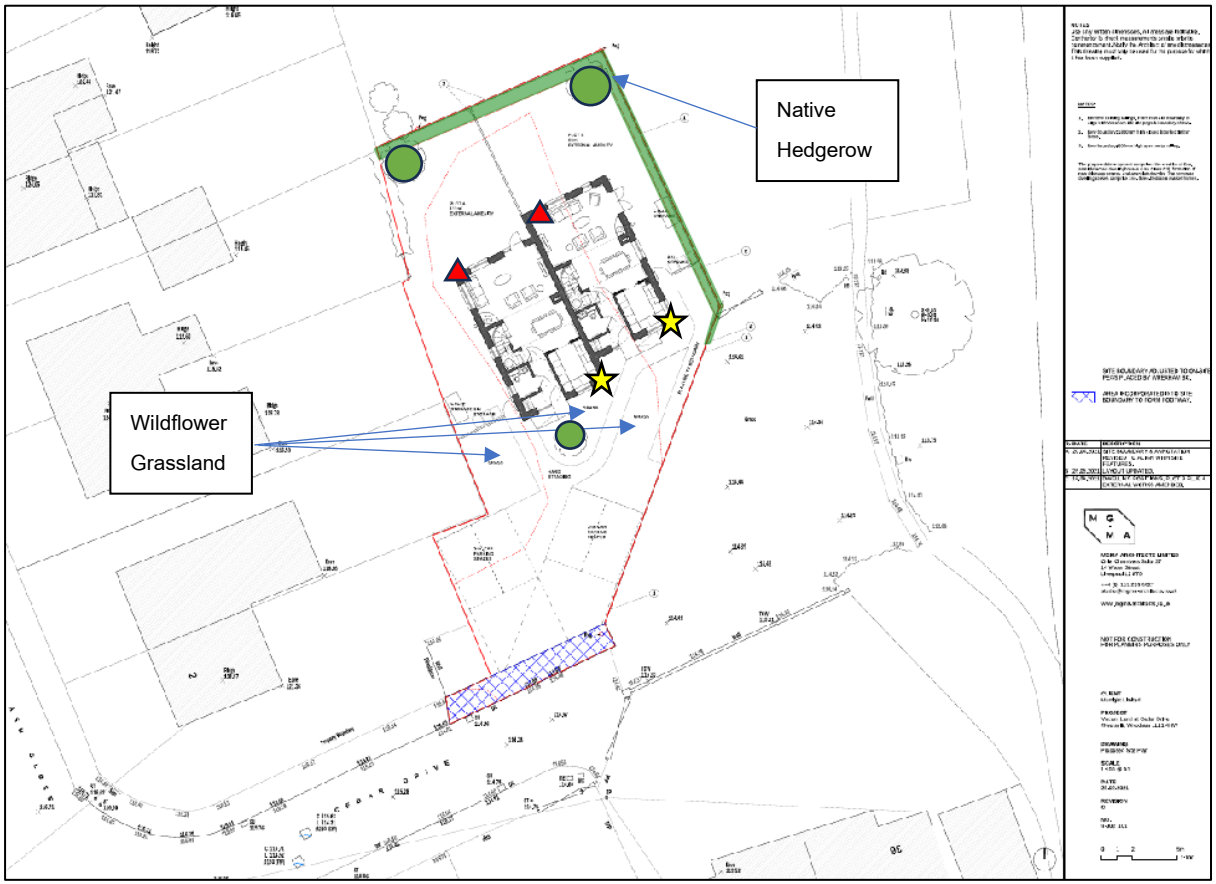
Appendix 2: Phase 1 Habitat map



Appendix 3: Species Lists

Table A1. Species List		
Habitat	**Species**	**Abundance (or Notes)**
Ephemeral/Short Perennial	Speedwell *Veronica officinalis* Dandelion *Taraxacum officinale agg.* Creeping Buttercup *Ranunculus repens* Herb Robert *Geranium robertianum* White Clover *Trifolium repens* Hedge Mustard *Sisymbrium officinale* Yorkshire Fog *Holcus Lanatus*	No clear dominant species.
Tall Ruderal	Common Nettle *Urtica dioica* Rosebay Willowherb *Chamaenerion angustifolium* Dock *Rumex spp.* Cleaver *Galium aparine* Thistle *Cirsium spp.*	Dominant Abundant Frequent Occasional
Modified Grassland	Perenial Rye-grass *Lolium perenne* Yorkshire Fog *Holcus lanatus* Fescue *Festuca spp.* White clover *Trifolium repens* Daisy *Bellis perenne* Dandelion *Taraxacus officinale agg.* Creeping Buttercup *Ranunculus repens* Ribwort plantain *Plantago lanceolata* Hybrid Bluebell *Hyacinthoides x massartiana*	Dominant Abundant Abundant Frequent Frequent Frequent Frequent Occasional Rare

Appendix 4: Net Benefit Recommendations Plan (Modified from Site Proposal)



KEY:

- Bat boxes, see specifications in Appendix 5
- Vivara Pro WoodStone House Sparrow Nest Box
- Trees

Appendix 5 Bird & Bat boxes

Specifications

Bird Boxes

The following bird boxes will be installed on site:

- 2 x Vivara Pro WoodStone House Sparrow Nest Box (or similar) suitable for House Sparrow Passer domesticus. The nest boxes will be erected onto the external, northern facade of the building.

The bird boxes will be positioned facing north at a minimum height of 3 metres. None of the boxes will be positioned facing south. Indicative locations are shown on Appendix 4.

For a period of five years the boxes will be annually monitored and checked for signs of breakage or weather deterioration and will be replaced if no longer useable.

Bat Boxes

The above condition states that a scheme to improve the habitat for roosting bats must be implemented on the site. The following bat boxes will be installed on site to provide roosting habitat for bats:

- 1x Greenwood's Ecohabitat 2 Crevice Bat Box (or equivalent).
- 1x Greenwood's Ecohabitat Small Hollow Bat Box (or equivalent).

The boxes are to be positioned facing south, at a minimum height of 4 metres on the buildings as shown in Appendix 4.

For a period of five years the boxes will be annually monitored and checked for signs of breakage or weather deterioration and will be replaced if in a state of disrepair.