



PROPOSED DEVELOPMENT

LAND AT 14 GELLIGAER ROAD, MERTHYR TYDFIL

PRELIMINARY ECOLOGICAL APPRAISAL

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Patrick Kelleher

BE Ecological Ltd
2 Park View House
Heolgerrig
Merthyr Tydfil
CF48 1SY
info@beecological.co.uk
www.beecological.co.uk

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MR PATRICK KELLEHER

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Preliminary Ecological Appraisal

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NON-TECHNICAL SUMMARY

BE Ecological Ltd. was commissioned to undertake a Preliminary Ecological Appraisal (PEA) to identify ecological constraints of a proposed development planning application to erect a detached dwelling at 14 Gellgaer Road, Merthyr Tydfil.

Therefore, a Phase 1 habitat survey was undertaken, extended by the inclusion of a biological records data search and an assessment of the potential for protected species to be present on and adjacent to the site.

A number of habitats were recorded across the application boundary, including:

- Amenity grassland
- Hedgerow
- Scattered trees
- Scrub/tall ruderal
- Stream

No evidence of botanical species of conservation concern was recorded during the survey.

No evidence of non-native invasive botanical species was observed on the application site.

There is a potential for the following protected species to be present on or adjacent to the site:

- Reptiles;
- Amphibians; and
- Breeding birds

It is considered that the site has a generally low ecological value at a local level and that further ecological surveys are unnecessary.

It is recommended that:

- The site / development areas within the application boundary be cleared in accordance with a method statement to prevent causing harm to reptiles and amphibians;

1 INTRODUCTION

1.1 BACKGROUND

It is proposed to erect a detached dwelling at 14 Gelligaer Road, Merthyr Tydfil. This PEA has been prepared to:

- collate and analyse existing ecological information relating to the site;
- identify the habitats present on site;
- identify the potential for protected species to be present on site;
- using the information gathered to determine whether there will be any impacts (both positive and negative) on the species and habitats present;
- provide recommendations for further survey as necessary; and
- suggest mitigation and enhancement ideas and principles

1.2 SITE DESCRIPTION

The site is located at 14 Gelligaer Road in Trelewis in Merthyr Tydfil, South Wales (Figures 1 and 2). It is comprised entirely of the former garden of 14 Gelligaer Road, a bungalow on the development sites north eastern boundary.

The habitats present include amenity grassland, scrub/tall ruderal, hedgerow, fences and scattered trees. The site is bounded on both sides by domestic properties and gardens. The land to the rear of the property is currently the garden of a property to the south west. The northern boundary is a leylandii hedge, the south western boundary is a hedge and fence. The south eastern boundary is a stream lined with scattered mature pedunculate oak trees and the north eastern boundary is currently not defined.

The land to the north is dominated by housing and associated infrastructure while the land to the south is improved agricultural grassland.

Figure 1 - aerial overview of the proposed application site (outlined yellow)



(Image courtesy of Google Earth)

Figure 2 – Proposed development area (approximate red line boundary outlined red)



(Image courtesy of Google Earth)

2 HABITATS SURVEY

2.1 BACKGROUND

A Phase 1 habitat survey was carried out to assess the existing habitats, identify any protected habitats that may be present, determine the impact of the proposed works on them, and identify any mitigation measures that may be necessary. This was done by undertaking both a biological records data search and a field survey.

The survey was undertaken on the 4th November 2020.

Phase 1 habitat survey is a way of recording the basic habitat data to form a baseline level of knowledge of the ecology of a site and provide recommendations for future surveys if considered necessary.

2.2 METHODOLOGY

2.2.1 Desk study:

A biological data search was undertaken (0201-527). Data was requested from the South East Wales Biodiversity Records Centre (SEWBReC) relating to protected and priority species, species of local conservation concern and other species of conservation concern within a search area extending to a 1km radius from the centre of the application site. 1km was chosen due to the fact that the application site is domestic garden only

Refer to **section 4** for results.

2.2.2 Field survey:

Experienced surveyors from BE Ecological Ltd carried out a habitat assessment and mapping exercise in March 2020 using the Phase 1 habitat survey technique. Nomenclature follows Stace (1997)¹.

Features of note are assigned Target Notes (TN) and referenced accordingly and described at **Table 7** in section 3.1.2 below and shown at **Figure 3**.

2.3 CONSTRAINTS

The field survey was undertaken at a time of year when the full botanical diversity may not have been apparent; however, this is thought not to pose a constraint due to the number of species that were seen and due to the fact the site is domestic garden only.

There were no other constraints to the surveys and assessments undertaken.

¹ Stace, C (1997). *New Flora of the British Isles* (2nd Ed.). Cambridge University Press

3 RESULTS

3.1 BIOLOGICAL DATA SEARCH

3.1.1 Species

There were no biological records identified by the data provider for the application site. The closest record to the development site was from approximately 41m from the site and refers to a common frog, a hedgehog at 75m and a common pipistrelle and an otter within 300m.

The remaining records included plants, mammals, birds, invertebrates and birds.

3.1.2 Sites

There is one SSSI (Nelson Bog, 665m) within 1km of the development site. There are nine SINC's within 1km of the development site

Wern Woodland, Nelson (589m)
Brooklands Marsh, North of Nelson (242m)
Llancaiach-Fawr Meadows, Llancaiach (228m)
Coed Gelliau'r-Gwellt, East of Llancaiach (753m)
Nant Caeach, North of Llancaiach (894m)
Afon Bargod Taf (855m)
Trelewis Wood (774m)
Nant Caeach (203m)
Berthlwyd (880m)

All of the protected sites are at a distance from the development site whereby they will not be affected by the development in any way.

The sites are notified for features which are not found on the development site and will not be influenced by the development in any way directly or indirectly. Therefore they will not be considered further in this report.

3.1 FIELD SURVEY

3.1.1 Habitat description

Please refer to **section 1.2** above.

3.1.2 Target notes

Table 7 - target notes:

Target note (TN#)	Description
TN1	Stream
TN2	Veg patch
TN3	Bonfire.

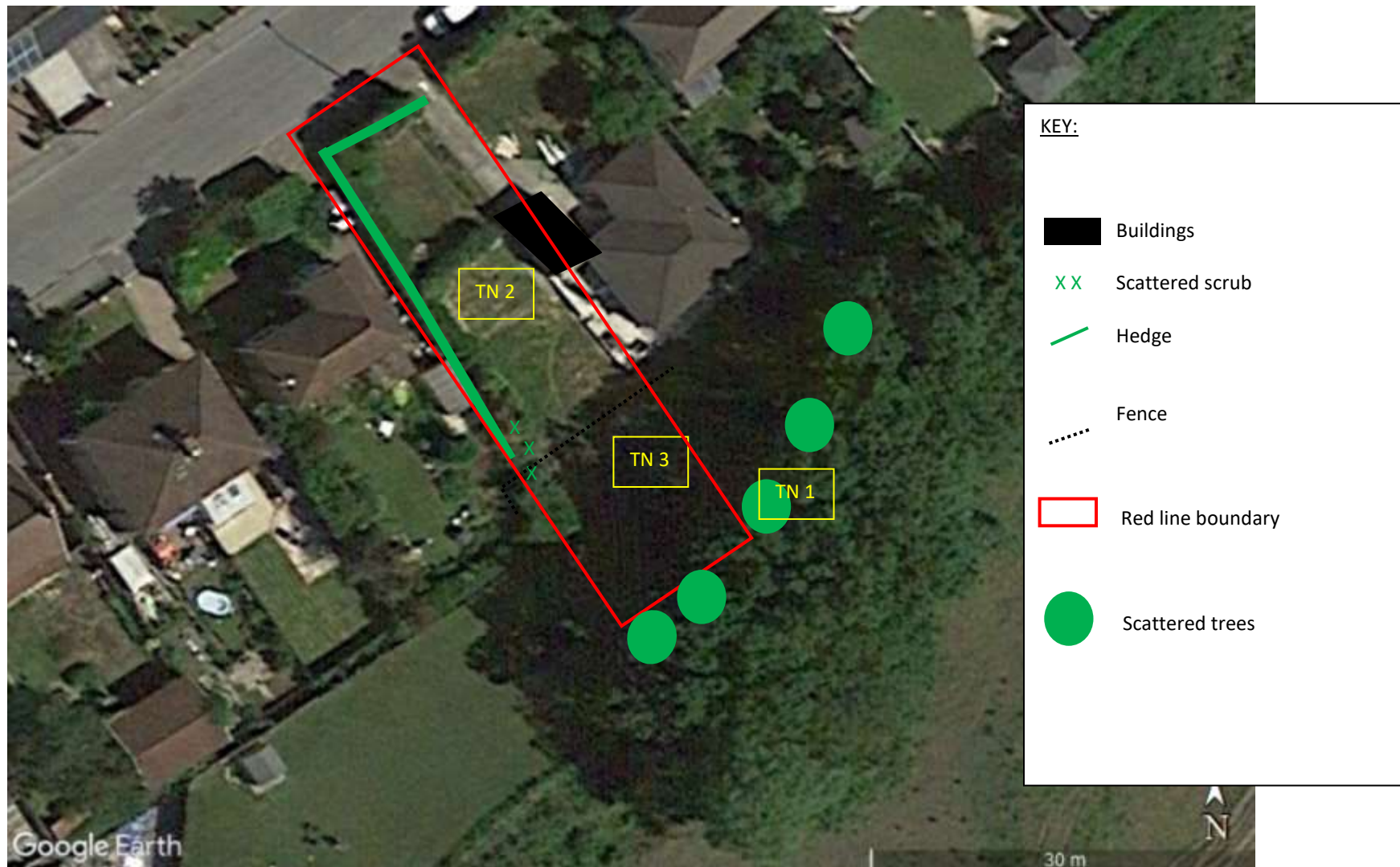
3.1.3 Habitats

A number of habitats were recorded across, and adjacent to, the survey area. These included:

- Amenity grassland
- Hedgerow
- Scattered trees
- Scrub/tall ruderal
- Stream

Please refer to **Figure 3**.

Figure 3 – Habitat survey results



4 HABITATS - EVALUATION, IMPACT CHARACTERISATION & ASSESSMENT

4.1 SCATTERED TREES

4.1.1 Scattered trees – evaluation

There are five pedunculate oaks along the south eastern boundary of the site. This species is native, common and widespread in the wider area. The trees are mature and provide some features that may be suitable for roosting bats. The northernmost oak has thick stemmed ivy that could potentially be used by bats. The other trees have thin stemmed ivy but with dense leaves. The middle tree has a snapped limb high in the canopy.

The trees are therefore considered to be of a **low to moderate local (site)** ecological importance.

4.1.2 Scattered trees - impact characterisation

It is anticipated that the trees will be retained.

4.1.3 Scattered trees - impact assessment without mitigation

N/A the trees will be retained.

4.1.4 Scattered trees – potential mitigation measures

- The trees will not be the subject of any lighting
- There will be no work within the root protection areas of the trees
- The trees will be fenced off with close board fencing as a continuation in line with the existing fence

4.1.5 Scattered trees - impact assessment with mitigation

It is considered that there will be no impact.

4.1.6 Scattered trees – significance of the impact

Without mitigation:

It is anticipated that the significance of the impacts due to the development will be **neutral**.

With mitigation:

It is anticipated that the significance of the impacts due to the development will be **neutral**.

4.2 SCRUB/TALL RUDERAL

4.2.1 Scrub - evaluation

This habitat type was found along the hedge and fence present on the site. The habitat is extremely low lying and comprises of bramble, ivy, cotoneaster, rosebay willowherb, wood avens, butterfly bush, laurel, honeysuckle, roses, provet and other ornamental species.

This habitat is mostly comprised of ornamental species and is of a size and density that is not useable for nesting purposes by breeding birds and so is therefore considered to be of a **low (site)** ecological importance.

4.2.2 Scrub - impact characterisation

It is considered that the majority of this habitat within the red line boundary will be removed and lost to the development.

4.2.3 Scrub - impact assessment without mitigation

It is considered that without mitigation there would be a **certain minor permanent adverse impact** on this habitat as a result of the development.

4.2.4 Scrub – potential mitigation measures

Specific mitigation will not be required as the habitat is ornamental and of a low ecological importance only.

4.2.5 Scrub - impact assessment with mitigation

It is considered that with mitigation there will be a **certain minor short term adverse impact** on this habitat as a result of the development.

4.2.6 Scrub - significance of the impact

Without mitigation:

It is considered that the impacts of the development would be of a **slight** significance.

With mitigation:

It is considered that the impacts of the development would be of a **neutral** significance.

4.3 SEMI-IMPROVED GRASSLAND

4.3.1 Amenity - evaluation

This habitat fills the majority of the application site. Species include ryegrass, fescues, timothy, dandelion, creeping and common bent, dandelion, ragwort, ribwort plantain, clover, daisy, buttercup and male fern. The grass is well managed and has a short sward.

Therefore, in the context of the development it is considered to be of a **low** ecological importance at a **local (site)** level.

4.3.2 Amenity grassland - impact characterisation

It is considered that the majority of area of this habitat would be lost to the development other than the garden of the new dwelling.

4.3.3 Amenity grassland - impact assessment without mitigation

It is considered that without mitigation there would be a **certain significant permanent adverse impact** on this habitat as a result of the development.

4.3.4 Amenity grassland – potential mitigation measures

Specific mitigation will not be required due to low species diversity and intensive management of the area.

4.3.5 Amenity grassland - impact assessment with mitigation

It is considered that with mitigation there will be a **certain minor short term adverse impact** on this habitat as a result of the development.

4.3.6 Amenity grassland - significance of the impact

Without mitigation:

It is considered that the impacts of the development would be of a **neutral** significance.

With mitigation:

It is considered that the impacts of the development would be of a **neutral** significance.

4.4 OPEN WATER (RUNNING) – STREAMS AND DITCHES

4.4.1 Streams and ditches - evaluation

This habitat is a UK priority habitat found widely across south Wales with a number of sub-categories. It is included within the Newport Local Biodiversity Action Plan. Threats to it include pollution, eutrophication, bankside vegetation structural changes, anthropogenic physical changes to channels (e.g. culverting, bank reinforcement etc.). It is therefore considered that this habitat is of a generally **high national** ecological importance.

The stream to the south east is small, narrow and overgrown with scrub with very little visible open water.

It is considered that, the stream is of a **low local (site)** ecological importance.

4.4.2 Streams and ditches - impact characterisation

It is considered that there will be no direct impacts on this habitat as a result of the development as there will be no construction within 5m and the boundary vegetation will be retained. The stream will be fenced off with close board fencing as a continuation of the existing fence.

There is a possibility that there could be indirect impacts as a result of pollution incidents during the construction phase of the development.

The surface water and foul sewerage schemes to be put in place as part of the development will prevent the chances of both direct or indirect impacts on the stream during the operational phase of the development.

4.4.3 Streams and ditches- impact assessment without mitigation

It is considered that without mitigation there may be an **unlikely minor short term adverse impact** on this habitat as a result of the development.

4.4.4 Streams and ditches– potential mitigation measures

Specific mitigation will not be required; however, measures will be required to ensure that the water quality of the stream and its tributaries is maintained. These will include (but not be limited to) the following:

- Implementation of a buffer of at least 5m between the top of the river bank and any construction areas;
- Essential working (only) within the buffer zone will be controlled by permit;
- Working in accordance with all legislation, guidelines and best practice relating to working in proximity to watercourses;
- Implementation of watercourse monitoring to identify pollution incidents as soon as possible in the unlikely event that they do occur.

4.4.5 Streams and ditches- impact assessment with mitigation

It is considered that with mitigation there will be an **probable neutral impact** on this habitat as a result of the development.

4.4.6 Streams and ditches- significance of the impact

Without mitigation:

It is considered that the impacts of the development would be of a **slight** significance.

With mitigation:

It is considered that the impacts of the development would be of a **slight** significance.

4.5 HEDGES

4.5.1 Hedges - evaluation

Native mixed species hedgerows are an intrinsic part of the countryside and provide shelter and foraging habitat for a range of flora and fauna as well as providing connectivity between other habitats. Because of the range of ecological receptors they benefit, they are regarded as priority habitats and should be considered as being of a **high** ecological value.

The hedges on the site comprise of leylandii, privet, cotoneaster and roses.

Within the context of the proposed development and the application site, it is therefore considered that the hedges within the survey area are of a **low** ecological value at a **local (site)** level.

4.5.2 Hedges - impact characterisation

All the hedgerows on the site will be retained there will therefore be no impact.

4.5.3 Hedges - impact without mitigation

It is considered that without mitigation there would be a **certain minor permanent adverse** impact at a **local (site)** level if the hedges were to be removed.

4.5.4 Hedges - potential mitigation measures

- There will be no lighting of the hedgerows

4.5.5 Hedges - impact with mitigation

It is considered that with mitigation there would be an **certain minor short term adverse** impact at a **local (site)** level.

4.5.6 Hedges - significance of the impact

Without mitigation

It is considered that the significance of the impact is **slight**.

With mitigation

It is considered that with appropriate mitigation, the significance of the impact is **slight**.

4.6 BUILDINGS

4.6.1 Buildings - evaluation

Buildings are generally in themselves of low ecological value. However, their value goes up should they be used by bats or offer bats roosting potential roosting habitat or if birds use them for nesting purposes.

There is a garage to the north eastern boundary of the site. This is attached to the neighbouring property before roof level. The garage is a block rendered structure with a flat roof and uPVC fascias. There is a dog flap to the rear of the garage and shutter doors to the front.

Birds do not appear to be using the garage.

None of the buildings due to their method of construction do not provide roosting opportunities for bats. The only obvious access into the building is via the dog flap to the rear.

It is considered that the garage on the site is of **negligible** ecological value.

4.6.2 Buildings - impact characterisation

It is anticipated that part of the garage will be lost to facilitate the development.

4.6.3 Buildings - impact assessment without mitigation

It is considered that (in the absence of any protected species) there will be **no adverse** ecological impacts as a result of the loss of the buildings.

4.6.4 Buildings - mitigation measures

It is considered that mitigation is not required unless a protected species is found to be present in which case mitigation specific to the species concerned would be required.

4.6.5 Buildings - impact assessment with mitigation

It is considered that with mitigation there would be **no adverse** ecological impacts. It should be noted this assessment assumes that protected species are not using the building.

4.6.6 Buildings – significance of the impact

Without mitigation:

It is anticipated that the significance of the impacts due to the development will be **neutral**.

With mitigation:

It is anticipated that the significance of the impacts due to the development will be **neutral**.

5 SPECIES - EVALUATION, IMPACT CHARACTERISATION & ASSESSMENT

5.1 BATS

5.1.1 Bats – evaluation

Bats are protected by international and domestic legislation, a reflection of their increasingly threatened status; bats are therefore of **high** international value.

There are buildings on the development site; however, they do not offer bats any potential roosting habitat and are classified as being of a negligible potential for them.

There are trees to the rear of the site that may offer bats with roosting potential, however, these will be retained and protected from the development.

Overall, within the context of the surrounding land use, it is considered that the development site is of negligible value to and for roosting bats. The site provides foraging habitat for bats.

5.1.2 Bats – Impact characterisation

It is considered that there will be no adverse impacts on roosting bats.

Bats will be able to continue using the boundaries of the site for foraging purposes and the gardens of the new houses during the operational phase of the development.

5.1.3 Bats - impact assessment without mitigation

It is considered that there will be a **certain minor medium term adverse impact** on bat foraging activity at a **local (site)** level.

5.1.4 Bats - potential mitigation measures

Although it is unlikely that bat roosts will be affected by the proposed development and bat foraging habitat is not protected *per se* it is proposed to undertake the following actions:

- All lighting requirements will be minimised and be of a type which causes least impact on bats; all lighting will conform to the following guidance <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>
- All vegetation and tree clearance will be minimised to retain as much of the existing boundary habitat as possible;
- All lighting will be directed away from retained vegetation and boundary features;
- A licensed bat ecologist will be “on call” for the duration of the project in the unlikely event that bats are discovered, in which case the work will cease immediately, Natural Resources Wales (NRW) will be contacted. A development licence may be required prior to any further work being carried out. No further work will be undertaken without the approval of NRW.
- A licensed bat ecologist will be on site to supervise the demolition of the garage building in conjunction with a method statement.
- Two bat blocks will be added to the southern elevation of the new build. https://www.nhbs.com/bat-block?bkfno=246596&ca_id=1495&gclid=EAlaIQobChMlx_jiwOGV7AIVd4BQBh1u2AOvEAYASABEgLF2PD_BwE (or similar).

5.1.5 Bats - impact without mitigation

It is considered that without mitigation there would be an **unlikely minor short term adverse** impact at a **local (site)** level.

5.1.6 Bats - significance of the impact

Without mitigation

It is considered that the significance of the impact is **slight**.

With mitigation

It is considered that with appropriate mitigation, the significance of the impact is **neutral**.

5.2 BREEDING BIRDS

5.2.1 Summary

Breeding birds are likely to utilise the taller vegetation of the site's boundaries (hedgerows and scattered trees)

5.2.2 Breeding birds - evaluation

Due to the legislative protection afforded to them, breeding birds are considered be of **medium – high national** importance.

There is suitable habitat for birds to utilise for breeding, in the site boundaries; these areas also provide foraging opportunities for birds.

Within the context of the site and the proposed development, it is considered that breeding birds are of **low local** importance.

5.2.3 Birds - impact characterisation

The hedges and trees will be retained excluding the widening of the access to the property. It is possible that birds will nest in the hedge that fronts the road.

5.2.4 Birds - impact without mitigation

It is considered that without mitigation, there would be an **probable minor short term adverse** impact at a **local (site)** level.

5.2.5 Birds - potential mitigation measures

Mitigation will be required and should include (but not be limited to) the following measures:

- All vegetation and brash removal should be undertaken outwith the breeding season i.e. between mid-August / September and April inclusive;

- Any clearance close to the start and end of this period should only be undertaken following an assessment by a suitably experienced ecologist as the breeding season is not fixed and is subject to annual variation;
- Where clearance is required during the breeding season, all areas should be subject to an assessment no more than 48 hours in advance to check for the presence of breeding birds;
- Should evidence of breeding birds, in particularly nests, be recorded, no clearance may be undertaken within 15m of any nest site until such time as the nest is vacated naturally; and
- Any post-development landscaping plan should include the provision of scrub &/or shrub habitats that can be utilised by breeding birds.

Sparrows were recorded on the site during the survey. A Schwegler 1SP Sparrow Terrace or the following <https://www.nhbs.com/sparrow-terrace-nest-box> will be attached to the south western elevation of the new build.

It is considered likely that the garden of the new property will eventually provide suitable habitat both for breeding and foraging opportunities; however, it is not possible to include this as mitigation or accurately assess the potential value at this stage.

5.2.6 Birds - impact with mitigation

It is considered that with mitigation, there would be a **very unlikely minor short term adverse** impact at a **local** level.

5.2.7 Birds - significance of the impact

Without mitigation

It is considered that the significance of the impact is **neutral**.

With mitigation

It is considered that with appropriate mitigation, the significance of the impact is **neutral**.

5.3 AMPHIBIANS

5.3.1 Summary

There are no records of great crested newt within the data search.

There are no waterbodies on the site which would provide great crested newts or other amphibians with breeding habitat.

There is suitable terrestrial habitat around the boundaries of the site which amphibians could potentially use.

Given the lack of suitable waterbodies on the development site and the intense management within the site, it is considered unlikely that great crested newts will be present on the site.

5.3.2 Amphibians - evaluation

Amphibians are protected by UK legislation and therefore they are of **medium to high national** ecological importance. Great crested newts are protected by international legislation incorporated into UK legislation by the Habitat Regulations (as amended).

Overall the site appears to be of a generally **low** value to this group as the dominant habitat type (amenity grassland) having such a short sward and being so intensely managed.

5.3.3 Amphibians - impact characterisation

It is possible that animals may be killed or injured during works in longer areas scrub/veg patch/site boundaries.

There is no suitable hibernation habitat present on the site.

5.3.4 Amphibians - impact characterisation without mitigation

It is considered that in the absence of mitigation there would be a **probable minor short term adverse** impact at a **local (site)** level.

5.3.5 Amphibians - mitigation measures

As long as amphibian presence is assumed and site clearance is undertaken in accordance with an appropriate method statement, it is considered that a full trapping and translocation exercise is not required, and that habitat manipulation and denial is an appropriate method of ensuring that amphibians are not harmed during the site clearance.

Therefore, the following measures will be adopted:

- Clearance will be conducted in accordance with a Method Statement to ensure that should amphibians be found in the course of site clearance or any other development activity, they will not be harmed and can be adequately cared for
- Clearance will only be undertaken during the active season (March-October, inclusive);
- Clearance outwith this period is possible, but depends on weather and temperatures being suitable to ensure that animals are likely to be active;
- There will be no clearance of hibernation features outwith the active season; and
- Animals will be excluded from entering or re-entering the site during clearance/operational phase of works by ensuring that the site is kept as bare ground i.e. clear of any vegetation or other shelter.

5.3.6 Amphibians - impact characterisation with mitigation

It is considered that there will be an **unlikely minor short term adverse impact** at a **local (site)** level as a result of the proposed development.

5.3.7 Amphibians - significance of the impact

Without mitigation

It is considered that the significance of the impact is **slight**.

With mitigation

It is considered that the significance of the impact is **neutral**.

5.4 REPTILES

5.4.1 Summary

No reptile survey was undertaken at this time due to the time of year the visit was carried out; however a brief habitat assessment indicated that only limited areas of the site provide favourable habitat for reptiles, specifically the vegetated boundaries and their interface with the grassland areas.

The habitat assessment looked for features which would be attractive to reptiles such as:

- south facing banks;
- varied profile ground form;
- basking areas;
- vegetation cover;
- structurally diverse vegetation;
- potential hibernation sites; and
- evidence of suitable prey sources.

5.4.2 Reptiles - evaluation

Reptiles are protected by UK legislation and therefore they are of **medium to high national** ecological importance.

Overall the site appears to be of a generally **low** value to reptiles due to the short sward amenity grassland. There are some longer areas of vegetation that are possibly suitable.

5.4.3 Reptiles - impact characterisation

It is possible that reptiles may be killed or injured during works in proximity to the wet ditch and site boundaries as part of the site clearance phase of the development.

There is no suitable hibernation habitat present on the site.

5.4.4 Reptiles - impact characterisation without mitigation

It is considered that in the absence of mitigation there would be a **probable minor short term adverse** impact at a **local (site)** level.

5.4.5 Reptiles - mitigation measures

As long as reptile presence is assumed and site clearance is undertaken in accordance with an appropriate method statement, it is considered that a full trapping and translocation exercise is not required, and that habitat manipulation and denial is an appropriate method of ensuring that reptiles are not harmed during the site clearance.

Therefore, the following measures will be adopted:

- Clearance will be conducted in accordance with a Method Statement to ensure that should reptiles be found in the course of site clearance or any other development activity, they will not be harmed and can be adequately cared for
- Clearance will only be undertaken during the reptile active season (April-October, inclusive);
- Clearance outwith this period is possible, but depends on weather and temperatures being suitable to ensure that reptiles are likely to be active;
- There will be no clearance of hibernation habitat outwith the active season;
- Reptiles will be excluded from entering or re-entering the site during clearance/operational phase of works by ensuring that the site is kept as bare ground i.e. clear of any vegetation or other shelter; and

5.4.6 Reptiles - impact characterisation with mitigation

It is considered that there will be an **unlikely minor short term adverse impact** at a **local (site)** level as a result of the proposed development.

5.4.7 Reptiles - significance of the impact

Without mitigation

It is considered that the significance of the impact is **slight**.

With mitigation

It is considered that the significance of the impact is **neutral**.

5.5 INVERTEBRATES

5.5.1 Summary

No invertebrate survey was undertaken at this time due to the time of year the visit was carried out; however a brief habitat assessment indicated that the site can provide favourable habitat for this varied group, with the taller vegetation closer to the site boundaries being the more diverse areas and most likely to provide suitable habitat.

5.5.2 Invertebrates - evaluation

No invertebrates are protected by legislation with the exception of the large blue butterfly (*Phengaris arion*); this species is not found in this region and will therefore not be considered further. Other species of invertebrate are listed on Schedule 7 of the Environment (Wales) Act 2016 and are therefore of a **high national (Welsh)** ecological importance. Of these, the marsh fritillary butterfly (*Euphydryas aurinia*) is present in good numbers in the area surrounding the development site with the Blaen Cynon SAC being designated for its presence.

Overall the site appears to be of a generally **low** value to invertebrates as the dominant habitat type being amenity grassland with a short sward. Insects will use the areas of vegetation that are to be retained (trees, hedgerows).

5.5.3 Invertebrates - impact characterisation

It is probable that the site clearance will result in the loss of habitats suitable for this group and that slow moving species may be killed or injured during the clearance.

5.5.4 Invertebrates - impact characterisation without mitigation

It is considered that in the absence of mitigation there would be a **probable moderate short term adverse** impact at a **local (site)** level.

5.5.5 Invertebrates - mitigation measures

The following measures will be adopted:

- Minimisation of vegetation removal through design;
- A phased site clearance to ensure that not all the habitat is cleared at once;

5.5.6 Invertebrates - impact characterisation with mitigation

It is considered that there will be an **unlikely minor short term adverse impact** at a **local (site)** level as a result of the proposed development.

5.5.7 Invertebrates - significance of the impact

Without mitigation

It is considered that the significance of the impact is **slight**.

With mitigation

It is considered that the significance of the impact is **neutral**.

6 CONCLUSION

A number of habitats were identified at the proposed development site adjacent to 14, Gelligaer Road, Merthyr Tydfil. Of the habitats identified, it was determined that the majority were of a low - moderate ecological value.

Overall, it is concluded that the site is of a low - moderate ecological value at a local site level.

The presence of low numbers of reptiles and amphibians should be assumed and the site will be cleared in accordance with a method statement.

The presence of breeding birds should be assumed between March and August.

Mitigation will be required as described in the individual sections above.

The garage will be removed under supervision in line with a method statement.

7 REFERENCES

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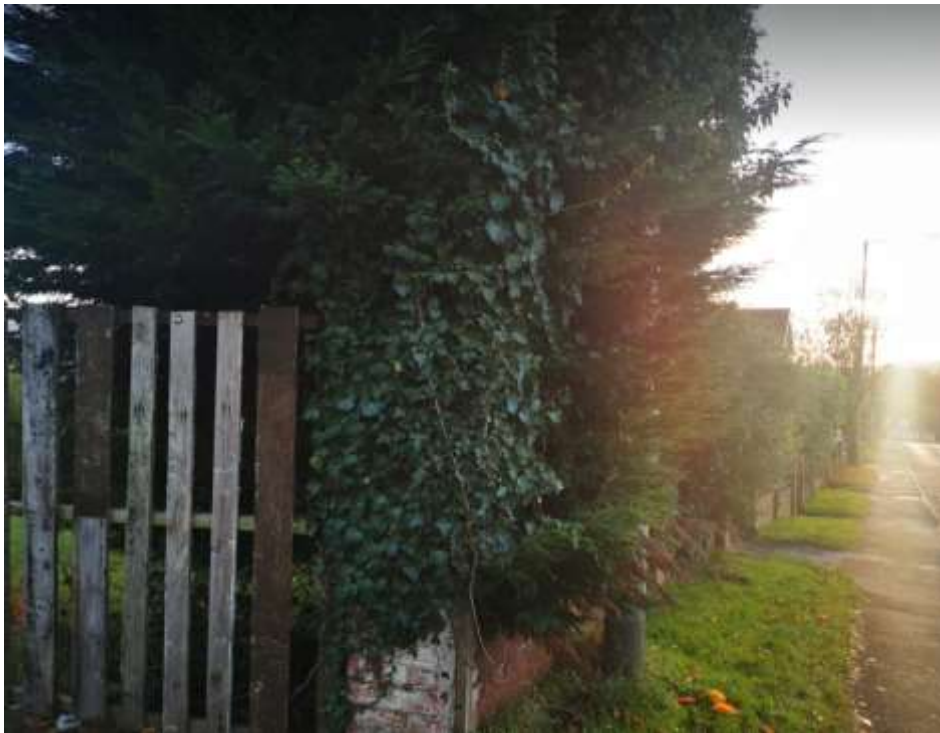
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APPENDIX A – PHOTOS



















APPENDIX B- BAT METHOD STATEMENT

1. A suitably licenced and experienced ecologist will be on site/call for the duration of the works.
2. Before any work begins on site, a briefing for contractors and other site-staff 'toolbox talk' will be given by an ecologist. The briefing will cover the issues in respect of protected species they may encounter on site, where they might find them, methods of working, and what they need to know to avoid committing an offence. Every briefing attendee will be provided with a copy of a Method Statement and the contact details of an ecologist and Natural Resources Wales.
3. All suitable bat roosting features will need to be removed by hand (and inspected by the onsite bat ecologist). Holes in brickwork will be checked with an endoscope where possible.
4. Slates will be removed by hand and the underside and bed inspected for the presence of bats. The tying in of the extension will be supervised.
5. Only when the onsite bat ecologist is happy that there is no further potential for bats, may he/she leave and the works continue with no supervision. A licensed bat ecologist will be on call for the remainder of the works. In the unlikely event that bats are found during a period that the licensed bat ecologist is not present on site, all works must cease and the licenced bat ecologist engaged.
6. If bats or their signs are found, a EPS licence may be required before works can legally resume.

APPENDIX C- REPTILE METHOD STATEMENT

Background:

1. It was considered that the site has the potential to support a very small population of slow worm (*Anguis fragilis*), common lizard (*Lacerta vivipara*) and possibly grass snake (*Natrix natrix*). It is less likely that adder (*Vipera berus*) is present but possible. The presence of reptiles should therefore be assumed, hence the need for a Method Statement to ensure that works are carried out in such a way as to avoid harm to reptiles and breeding birds.
2. Once the areas for clearance have been identified, implementation of this method statement will avoid having to undertake a full reptile translocation exercise as animals can be pushed into safe areas using habitat denial and manipulation techniques.

General comments:

3. Vegetation will be cleared from directly affected areas only e.g. areas that the footpath is to be built on.
4. Once cleared, the vegetation will be maintained as close to bare ground as possible by ongoing repeated cutting using brush cutters with knife blades to ensure that there is no potential for reptiles to utilise the site after the initial clearance.
5. Reptile fencing will not be required as long as the bare ground / short vegetation habitat is maintained.
7. The grassland on the site may be cut at any time of year. Any scrub and longer vegetation should only be cut during the autumn and winter months to avoid breeding birds unless otherwise permitted following a check by a suitably experienced ecologist. Should nests be identified as present, the works will not proceed until the young have left the nest of their own accord.

Method statement:

8. Vegetation will only be cut using brushcutters fitted with knife blades: the use of strimming cord will not be permitted.
9. Vegetation will be cut in three phases. The first phase will reduce the vegetation height to 150mm; the second will reduce it to ≈75mm; the third phase will reduce the height to as close to ground level as possible.
10. There will be a time delay of 24 hours between the first and second cuts.
11. Vegetation to be cut will be inspected for the presence of reptiles immediately prior to every phase of cutting unless the supervising ecologist states otherwise.
- 12.
11. The orientation of cutting will be designed to push animals into unaffected and retained land (figure 1



Figure 1: Direction of cutting (arrowed red) (image courtesy of Google Earth)

13. All arisings will be raked off and removed from site for disposal.
 14. After clearance, should the vegetation be allowed to regrow above 150mm high, it will be cut again as described in this method statement.
 15. Clearance may only take place during the reptile active season unless temperatures allow an extension or there is no potential for hibernating reptiles.
 16. Potential hibernacula will only be cleared while daytime temperatures are consistently over 12°C for a period of at least seven days prior as otherwise reptiles may be killed or injured as a result of inconsistent (low) temperatures (during the day and night) and/or low prey availability. Potential hibernacula will only be dismantled by hand unless the supervising ecologist gives the approval for machine dismantling.
16. If reptiles are observed within the clearance area during the works, a decision on how to deal with them will be made on site in light of the conditions on site at the time and the state of the animals themselves. There are three options for dealing with them:
- It may be possible to leave the animals alone to find their own way into cover, depending on where they are seen, what they are doing and their apparent activity levels; or
 - Capture, remove from site and take into temporary captivity until such time as they can be released adjacent to the cleared area (a vivarium has been prepared in case it is required); or
 - Should conditions allow, capture and translocate the animals to a safe area immediately adjacent to the site.

18. Habitat (e.g. hibernation sites for other species especially amphibians) can be identified and avoided by following this method statement.
19. All vegetation and site clearance will be supervised by a suitably experienced ecologist.

SURVEY PLAN WITH ENHANCEMENT

