

# Preliminary Ecological Assessment



Project: Maesynant, Grove Park, Merthyr Tydfil

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## **1. Introduction**

The applicant is seeking outline planning permission to develop a parcel of land adjacent to Maesynant, Grove Park, Merthyr Tydfil. The parcel of land already has outline planning permission however the start date for development is due to expire. The new outline planning reference is P/22/0038.

Proposals include the construction of three detached residential dwellings, with three garages, one detached garage and a pair of semi-detached garages. The site will also include a private drive and two areas of private open space. The private drive has already been put in place. The proposed site layout can be found in Drawing 03, dated December 2015, produced by Stephen George Architects.

This report will assess the potential of the land within the site boundary to support habitats and species and the implications that any future development proposals could have on them.

Ecological Services Ltd were originally instructed to undertake a Preliminary Ecological Assessment of a plot of land to the south of the site where 3 new dwellings were proposed. Since the March 2022 site visit Ecological Services have been asked to consider the single plot proposed within the portion of the site to the north east.

This parcel of land proposed for a single dwelling also has outline planning permission with the start date for development due to expire. The new outline planning reference is P/22/0297. The site location can be found within the red line boundary of drawing 04, Rev C, Proposed Site Layout, dated May 2016, produced by Stephen George Architects. Details of this parcel of land and the potential habitats and species it supports and the implications that any future development proposals could have on them can be found in the Addendum at the end of this report.

### **1.1 Site Description**

The proposed development site comprises a parcel of land adjacent to the dwelling Maesynant. Aerial images, accessed via Google Earth, suggest that the site was formerly part of the garden belonging to Maesynant but is now a separate parcel of land. The aerial images also show the site as being cleared in 2019 and a private drive constructed. The site is roughly triangular in shape, measures approximately 0.13ha and is centred at NGR SO 04877 06942. The site slopes gently downwards from north to south. The north west boundary lies adjacent to the garden of Maesynant, marked by a wooden fence, the north

east boundary lies adjacent to a small open piece of land and is undefined. The eastern boundary, a concrete panel fence, lies adjacent to a public footpath. The south west boundary, a wooden fence, lies adjacent to King Edward Street and the small western boundary, also a wooden fence lies adjacent to Grove Park.

The OS map supplied with the data search shows a stream which previously ran through the site from the north east of the site to the south west and has now been culverted and is no longer visible (this is shown on the proposed site plan). The site is located in an urban environment in Merthyr Tydfil and lies approximately 650m to the north of Merthyr town and is surrounded by residential dwellings and its associated infrastructure.

The wider landscape comprises small pockets of woodland and open countryside. The nearest major watercourse, the River Taff, lies approximately 446m away to the south west of the site at its nearest point. The site contains habitats including species poor semi-improved grassland, scattered scrub, bare ground, tarmac

### 1.2 [Survey Constraints](#)

The site visit was undertaken in March 2022 which is outside of the optimum time to undertake phase 1 habitat surveys, however it was possible to identify broad habitat types. All areas of the site were accessible.

### 1.3 [Surveyor Experience](#)

Vicky Hannaford completed the phase 1 survey of the site. Vicky is an ecologist with at least eight years' experience. She has worked in larger consultancies previously completing a wide range of flora and fauna surveys, completed professional training courses and attended informal botanical meetings to gain valuable knowledge. This experience allows Vicky to assess and identify common habitats as per the JNCC Phase 1 Survey Guidelines. Vicky is also a licenced dormouse and great crested newt worker and holds licences from Natural Resources Wales for both species.

## **2. Desktop Study**

A data search was undertaken via Aderyn (Reference 0212-894) for the proposed development site and surrounding area. A 2km buffer zone was searched and records returned within 500m of site are noted below:

- Bat roost - Pipistrelle bat roost approximately 28m away in a house on King Edward Street, dated 2003
- Bat - unidentified bat found in a house approximately 110m away to the north
- Bat - pipistrelle species approximately 164m away to the south in Park Baptist Church, record gives location, no further details, dated 2004
- Several records of birds, including: - house sparrow, European herring gull, dunnoek, kestrel and Schedule 1 species, peregrine
- Bats, commuting and foraging – soprano pipistrelle, common pipistrelle, noctule
- Bat roost – common pipistrelle, lesser horseshoe and brown long eared, approximately 376m away to the south east, dated 2019
- Otter – field signs, approximately 453m away to the south west, 3 records dated 1992-2001
- Bat roost – common pipistrelle, approximately 453m away to the south, dated 2020
- Bat – unidentified bat, found in a hospital, approximately 478m way to the south east, dated 2005
- Hedgehog, approximately 487m away to the west

Records of note returned for the rest of the buffer zone are detailed below:

- Numerous records of Invertebrates including - shimmering ruby-tail, cinnabar moth, small phoenix, sallow, dusky thorn, blood vein, dark-barred twin-spot carpet, violet oil-beetle, ghost moth, buff ermine,
- Brown/sea trout, Atlantic salmon
- Numerous records of birds, including: -starling, song thrush, Black-headed gull, bullfinch, cuckoo linnet.... Also recorded are Schedule 1 species including hobby, redwing, red kite, kingfisher, goshawk
- Common frog

- Great crested newt
- Common toad
- Slow worm
- Palmate newt
- Badger
- Common lizard
- Grass snake

## 2.1 Protected Sites

A data search for species records was undertaken for the proposed development site and surrounding area. The search also considered statutory and non-statutory protected sites.

### Statutory Protected Sites

There are two national statutory protected site within 2km of the site, both are Sites of Special Scientific Interest (SSSI):-

- Cwm Glo A Glyndyrys, approximately 1279m away to the south west of the site. *The site is of special interest for its extensive areas of marshy grassland, species-rich neutral grassland and acid grassland, and for the association of these habitats with others including woodland and heath. It is also of special interest for its outstandingly diverse assemblage of grassland fungi, including 32 species of waxcap Hygrocybe spp, making it one of the best sites in Britain.*
- Cwm Taf fechan Woodlands, approximately 1331m away to the north of the site. The site is of interest *where the partially wooded valley of the Taf Fechan crosses the north crop Carboniferous Limestone. Mixed deciduous woodlands cover steep slopes and spoil from quarries with one of the few Glamorgan stations for Gymnocarpium robertianum. There are interesting plant communities in flushes around tufa springs and luxuriant growths of bryophytes in the splash zone of the river*

Cwm Taf Fechan Woodland is also designated as a Local Nature Reserve and is classed as a local statutory protected site.

### Non-Statutory Protected Sites

There are 13 local non-statutory protected sites within 2km of the site. 12 are Sites of Importance for Nature Conservation (SINC), the nearest being Cyfarthfa Park which is located approximately 426m away to the north west of the site. Details of other SINC sites within the 2km buffer zone are detailed below: -

- Afon Taf (445m)
- Cwm Taf Fechan (693m)
- Cwm Taf Fields & Cefn Coed Tip (1029m)
- Cwm Glo (1175m)
- Cwm Taf Fawr (1210m)
- Y Graig (1418m)
- Bryniau (1633m)
- Rhydycar West (1666m)
- Gellideg North Fields (1685m)
- Gyrnos Wood (1734m)
- Cwm Ffrwd (1986m)

The other local non statutory protected site is a Wildlife Trust Reserve – Taf Fechan, located 1821m away.

In addition, approximately 72.19% of the land within the 2km buffer zone is defined as a B-Line, including the proposed development site. B-Lines are non-statutory protected sites which aim to restore and create wildflower habitats forming stepping stones that link existing wildlife areas together creating a network of habitats across the landscape benefiting not only pollinators but a host of other wildlife.

There are several areas of Ancient Semi Natural Woodland within 2km of the site. These woodlands have been identified as Priority Areas by Natural Resources Wales (NRW) as they comprise mostly broadleaved native trees and shrubs believed to have been in existence for over 400 years. The nearest Ancient Semi Natural Woodland lies approximately 807m away to the north west of the site.

NRW have also highlighted a number of other Priority Areas within 2km of the site and include:

- Restored Ancient woodland – approximately 454m away to the north west
- Ancient woodland site of unknown category – approximately 1900m away to the north west
- NRW Priority Area (Heathland and Grassland) – approximately 1250m away to the south west

## 2.2 Potential Impacts to Protected Sites

Due to the small scale and localised nature of the proposed development, it is considered that there will be no negative impacts to any protected sites within the 2km buffer zone.

### 3. Phase 1 Survey

#### 3.1 Habitats

A walkover survey of the site was completed on **15<sup>th</sup> March 2022**. All areas of the site were accessible.

A species list can be found in Appendix 1, photographs of the site can be found in Appendix 2 and a map of the habitats found within the site is provided in Appendix 3.

#### Notable Plant Species

There are numerous records of bluebell (*Hyacinthoides non-scripta*), within 2km of the site, the nearest approximately 666m away recorded within Cyfarthfa Park SINC. Bluebell is a Schedule 8 species under the amended Wildlife & Countryside Act 1981 and is protected from picking, uprooting or destruction and selling. Bluebell is not present within the site.

Records of other notable plant species include lesser butterfly-orchid (*Platanthera bifolia*), a species of eyebright (*Euphrasia officinalis subsp. pratensis*) and small-white orchid (*Pseudorchis albida*) all are Section 7 species of the Environment (Wales) Act 2016 as a living organism of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. All three species have been recorded more than 500m away from the site.

Aerial imagery, accessed via Google Earth shows the site having been cleared of vegetation in 2019 and a **tarmac drive** constructed. The tarmac drive is located in the east of the site leading off King Edward Street in the south ending at the north eastern boundary of the site. A turning head off the drive is located adjacent to the northern end of the eastern boundary.

Vegetation to the west of the private drive comprises an area of **species poor semi-improved grassland**. Soft rush is the dominant species, with grasses such as Yorkshire fog, red fescue, perennial rye grass and a species of meadow grass. Floral species present include frequent creeping buttercup and broad-leaved dock, with occasional wavy bittercress, pendulous sedge, hairy tare, herb Robert, germander speedwell, creeping cinquefoil, cleavers, dandelion, spear thistle, a species of willowherb, and ribwort plantain. Adjacent to the northern boundary there is an area of **bare earth** with a small rubbish pile near the north west corner.

To the east of the private drive the habitat is a mosaic of habitats including grassland similar to that on the west of the site, **bare earth/gravel**. Moss is present on the bare ground/gravel with ephemeral/short perennial species also present including coltsfoot, a species of clover and small rosettes thought to be that of ox eye daisy.

Along the eastern and southern boundaries there is **scattered bramble scrub** with the occasional buddleia and tutsan. Ivy is present as ground cover amongst the scrub.

Materials left over from the construction of the private drive have been left scattered across the site, including plastic piping, a small pile of stones and general rubbish, wooden fence panels, pieces of wood and a builder's bag of chippings.

Approximately mid-way along the south boundary there are three manhole/inspection covers, thought possibly to be linked to the culverted stream.

The site boundaries are a mixture of a **wooden fencing** and **concrete panels**. The north boundary is wooden fencing and marks the boundary between the site and the adjacent dwelling, Maesynant. Due to the topography of the site the ground is slightly lower in the site than the adjoining garden. As such there is a small gap under the fencing which has been filled with rubble. The fencing runs for the majority of the north boundary but in the north east there is no physical boundary to the site. The wooden fencing continues along the west and south boundaries. Along the south boundary there is a gap in the fencing where the private drive meets King Edward Street, and a gap in the south east corner. The gaps are currently closed by heras fencing. The east boundary of the site comprises concrete panels which lies adjacent to a public footpath.

### 3.2 Great Crested Newts

Great crested newts (*Triturus cristatus*) are a European protected species and are protected under the Conservation of Habitats and Species Regulations 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Deliberate taking or destroying of eggs,
- Damage or destruction of a breeding site or resting place.

Great crested newts (GCN) are listed on schedule 5 of The Wildlife & Countryside Act 1981 which protects them from intentional or reckless disturbance or obstruction when using a structure or place for shelter and / or protection. It is also an offence to sell, offer or expose for sale a great crested newt. Great crested newt and common toad are listed in section 7 of the Environment (Wales) Act 2016 which makes them key species to sustain and improve biodiversity.

There are several records of Great Crested Newt (GCN) within 2km of the site, the nearest approximately 583m away, this record has given a four-figure grid reference and could be up to 1km away from the site, the record is dated 1966. The next nearest record for GCN is approximately 1375m away and dates from 1985.

No ponds are present within the proposed development site; the nearest waterbody lies approximately 898m away to the north west of the site within Cyfarthfa Park SINC. However, the site is surrounded by housing with gardens where ponds may be present, but not visible on aerial photographs. Habitats within the site have potential to be used by GCN during the terrestrial stage of their lifecycle. As such the presence of GCN cannot be ruled out entirely. Precautionary measures in respect of this species are recommended in Section 4 of this report.

### 3.3 Dormouse

The dormouse (*Muscardinus avellanarius*) is a European protected species and is protected under the Conservation of Habitats and Species Regulations 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

Dormouse is listed on schedule 5 of The Wildlife & Countryside Act 1981 which protects them from intentional or reckless disturbance or obstruction when using a structure or place for shelter and / or protection. It is also an offence to sell, offer or expose for sale a native dormouse. Dormouse is listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

There are no records for dormouse within 2km of the site.

Habitats within the site are considered unsuitable for dormouse, there are no trees or hedgerows which could provide suitable foodstuffs and nesting opportunities for such species. While there is some scattered bramble scrub it would be insufficient to support a population of dormouse.

Due to the lack of records and suitable habitat It is considered unlikely dormouse is present within the site. No further recommendations will be made for this species.

### 3.4 Bats

All British bats are a European protected species and are protected under the Conservation of Habitats and Species Regulations 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

Schedule 5 of The Wildlife and Countryside Act (1981) also protects all species of British bat and their roosting locations. British bats are protected from intentional or reckless disturbance and or obstruction of their roosting places. Barbastelle, Bechstein, noctule, brown long eared, common pipistrelle, soprano pipistrelle, greater horseshoe and lesser horseshoe bats are also listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

The data search returned records of bat roosts within 500m of the site, the nearest approximately 24m away in a house in King Edward Street, which lies adjacent to the southern boundary of the site.

There are no buildings or trees within the site therefore there are no opportunities for bats to roost to be present within the site. However, due to the close proximity of recorded bat roosts it is likely the site is used for foraging purposes by bats. Tree lines located to the north of the site could also be used for commuting to the wider landscape.

Consideration must be given to bats during proposed development works and post development within the site. Recommendations with regard to lighting are included in Section 4 of this report.

### 3.5 Otters

The common otter (*Lutra lutra*) is a European protected species and is protected under the Conservation of Habitats and Species Regulations 2017. In summary, they are protected from:

- Deliberate capture, killing and injuring,
- Deliberate disturbance of a breeding site or resting place,
- Damage or destruction of a breeding site or resting place.

Otter is listed on schedule 5 of The Wildlife & Countryside Act 1981 which protects them from intentional or reckless disturbance or obstruction when using a structure or place for shelter and / or protection. It is also an offence to sell, offer or expose for sale an otter. Otter is listed in section 7 of the Environment (Wales) Act 2016 which makes them a key species to sustain and improve biodiversity.

There are numerous records for otter within 2km of the site, the nearest approximately 453m away to the south west of the site and is of field signs around the River Taff, dating from 1992-2001. Otter records are associated with the River Taff, Cyfarthfa Leat, Taf Fechan River. The majority of the records are of field signs, with a few of road mortalities. The records date from between 1992 and 2021

Otters tend to prefer secluded locations for their holts to help prevent them being disturbed by other animals. It is accepted that otters can travel long distances from river corridors to find acceptable holt sites. It is considered the areas of scattered scrub habitat within the site are not large enough to provide adequate cover for a holt and/or resting place. While the site is approximately 450m away from the River Taff there are a number of physical barriers between the river and the site which would deter otter from using the site. As such it is considered unlikely otter are present within the site. No further recommendations will be made for this species.

### 3.6 Badger

Badgers are protected under the Protection of Badgers Act 1992. In summary they are protected from:

- Taking, killing or injuring;
- Cruelty;
- Interfering with a badger sett;
- The selling and possession of badgers;
- Marking or ringing.

Badgers are also listed on schedule 6 of the Wildlife and Countryside Act 1981 as amended.

Badgers tend to have a variety of setts with different uses and functions within the territory for the family unit. In general, there is usually a main sett which the family will use the most. There are then annex, subsidiary and or outlier setts which depending on family structures and environmental pressures may be used at different times of the year. As female badgers tend to have their cubs over winter the disturbance and damage of badger setts is prohibited between December and June inclusive. NRW are the licensing body for any actions which may contravene the above legislation.

There are six records for the presence of badger within 2km of the proposed development site, the nearest approximately 1531m away to the east of the site along the A4060. Badgers favour a dry sloping site for digging their setts preferably within woodland or even under a

large hedgerow bank. Badgers are creatures of habit and tend to follow regular pathways between their setts and foraging grounds,

The site slopes gently downwards from north to south. Due to the timing of the survey visibility across the site was good, with no evidence of the presence of badger, latrine or digging, or evidence of regular pathways, found within the proposed development site. The site is largely surrounded by residential development, along with the lack of nearby records it is considered unlikely badger are present within the site.

No further surveys or recommendations are made for badger.

### 3.7 Birds

All breeding birds are protected under schedule 1 of the Wildlife and Countryside Act (1981) as amended. Under this Act it is an offence to:

- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
- Intentionally take or destroy the egg of any wild bird.

Enhanced protection is afforded to species listed on Schedule 1 of the Act; this additional protection makes it an offence to:

- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

Nesting opportunities occur in the scattered scrub within the site. Precautionary measures for nesting birds will need to be put in place before any vegetation clearance takes place and are included in the recommendation section of the report.

### 3.8 Reptiles and Amphibians

Reptile such as the slow worm, common lizard, adder and grass snake are protected under the Wildlife and Countryside Act 1981(as amended). They are protected from killing, injuring and sale. They are also listed in section 7 of the Environment (Wales) Act 2016.

The four widespread species of amphibian i.e. the smooth and palmate newts, common frog and common toad, are protected under the Wildlife and Countryside Act 1981(as amended) by Section 9(5) of the Wildlife and Countryside Act 1981. This section prohibits sale of these species. Our common native amphibians are only protected from sale.

There are two records for common lizard, one record 1487m away, the other 1537 m away dated 1990 and 1999 respectively. There is a record for grass snake 1572m away dated 1999.

There are no records of any other reptiles within 2km of the site. The lack of records is likely due to under recording rather than lack of presence.

Reptiles prefer a mosaic of habitats with diverse vegetation structure creating open areas and nearby cover to provide protection from predators and the elements. The grassland, scattered scrub and ephemeral habitats within the site are diverse in structure providing cover and foraging habitat while the bare earth provides basking opportunities. The gap under the fence along the northern boundary has potential to be used for hibernation purposes, as do the discarded materials scattered across the site. While the site is in an urban environment, reptiles, particularly slow worm, are known to make use of garden environments. As such the presence of reptiles within the site cannot be ruled out entirely.

It is recommended that the presence of a low number of common reptile species is assumed within the site boundary. Reptile surveys are not recommended in this instance as the site is considered to have low potential for use by reptiles. Instead, a series of species deterrence measures will be adequate in respect of reptiles as part of any future development works. The provision of enhancement measures suitable for reptiles within any future development designs will also be required. Further details can be found in Section 4 of this report.

### 3.9 Other Mammals

There are numerous records of hedgehog within 2km of the site, the nearest approximately 487m away dated 2017. The presence of hedgehog within the site cannot be ruled out at least on occasion. Hedgehog is listed in Section 7 of the Environment (Wales) Act 2016 as a living organism of principal importance for the purpose of maintaining and enhancing biodiversity in relation to Wales. As such consideration must be given to this species in any plans proposed for the site.

### 3.10 Invertebrates

There are numerous records of invertebrates within 2km of the site, the nearest between 502 and 521m away in a garden in Gurnos and are dated between 2019 and 2021. Species recorded include shimmering ruby-tail a species of wasp, the rest are species of moth and include cinnabar, small phoenix, sawfly, dusky thorn, blood vein and dark-barred twin-spot carpet.

The site was assessed for invertebrates using the Invertebrate Habitat Potential Assessment (IHPA) as found in CIEEM in practice Issue 112, June 2021. The IHPA protocol has been produced to allow ecologists without entomological expertise to identify key habitats and features likely to support important invertebrate assemblages. Full details of habitat elements and grades can be found in Appendix 7.

| Habitat Element            | Grade                 |
|----------------------------|-----------------------|
| Decaying Wood – HE1        | E – Negligible/Absent |
| Rotational Management – H2 | E – Negligible/Absent |
| Nectar Resources – H3      | D - Minor             |
| Wet Substrates – H4        | E – Negligible/Absent |
| Other Water Habitats – H5  | E – Negligible/Absent |
| Structural Patchwork – H6  | E – Negligible/Absent |
| Still Air (S) – H7         | D - Minor             |
| Still Air (H) – H8         | E – Negligible/Absent |
| Connectivity – H9          | E – Negligible/Absent |
| Ecoclines – H10            | E – Negligible/Absent |
| Bare Earth – H11           | D - minor             |

Based on the Invertebrate Habitat Potential Assessment (IHPA) the site, in its current state, is considered to have potential to support common and widespread generalist species of invertebrate.

The site lies within a B-Line, a non-statutory protected sites which aims to restore and create wildflower habitats forming stepping stones that link existing wildlife areas together creating a network of habitats across the landscape benefiting not only pollinators but a host of other wildlife. The areas of private open space within the proposed development site are relatively small. However, recommendations will be made for these areas to be enhanced, particularly for species of invertebrate.

#### 4. Recommendations and Mitigation

It is proposed to develop the site with the construction of three detached residential dwellings, a single detached garage and a pair of semi-detached garages and two small areas of private open space. A private drive with a turning head has already been put in place. Details of the plans for the site can be found in Drawing 03, dated December 2015, produced by Stephen George Architects.

It is anticipated that all the habitats within the site will be lost. Recommendations for the site aim to ensure the proposed development does not have a negative impact on biodiversity. See details below: -

- The site is considered suitable for a small number of common reptile species to be present throughout the year. A reptile mitigation strategy, which is agreed with the LPA ecologist, will be required to support the proposed development. Measures suitable for reptiles should be included within the design to allow movement across the site post development. A reptile mitigation strategy should include, but not be limited to:
  - Habitat clearance measures such as sensitive timings of works and a two stage vegetation cut and destructive searching of roots if required.
  - Habitat clearance will aim to push any reptiles which may be present into the east of the site into the areas proposed for the open space and garage 3, which will be developed as phase 2 of the development.
  - Timings of works to avoid reptile hibernation period, November to March inclusive.
- The presence of great crested newt within the proposed development site cannot be ruled out. Precautionary measures during vegetation clearance are recommended for this species, i.e., a two stage cut of the vegetation as indicated for reptiles above. GCN can be included in the reptile mitigation strategy above.
- The scattered scrub has potential for use by nesting birds as does the grassland area. Any vegetation removal must be completed outside of the bird nesting season of March to August inclusive. If this is not achievable an ecologist must inspect any scrub or ground vegetation with the potential for birds to be present for active birds' nests prior to removal works beginning. If an active nest is identified a buffer zone of 5m around the nest must be observed until the chicks have fledged. Only then can the vegetation be removed. Greater buffer zones around nests may be required depending on the species and habitat the nest is within.

- Careful consideration must be given to the use of lighting within the developed site, as this can adversely affect activity by a variety of fauna, particularly foraging bats, nesting birds and invertebrates. Light spillage into the tree line adjacent to the north east of the site must be avoided and brightness kept to the lowest permissible level in the areas adjacent to such habitats.
- All lighting must meet recommendations in the BCT Guidance Note 08/18 Bats and artificial lighting in the UK document <https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>
- Soft landscaping within the areas of private open space will include the use of native species of plant, of local provenance (at least UK), particularly those plants suitable for pollinators.
- No night time working will be permitted to prevent incidental light spillage onto retained vegetation and habitats where nocturnal species may use at night. No work between the hours of 7pm and 7am which requires the use of artificial lighting will be allowed.
- All machinery and construction materials will be kept within a securely fenced and locked construction compound overnight. This will reduce the potential for mammals to shelter in any materials or machinery that could harm them.
- Ideally all excavations within the site will be securely covered over if left unattended. Any excavations that have a depth in excess of 0.5m and that are left open overnight will have a means of escape left for any mammals (e.g. badger, hedgehog) that may fall into them. A wooden board or equivalent will be left from the bottom to the top of the hole at an angle no steeper than 45°. This will allow any mammal to escape and avoid increased stress from being trapped.

The Environment Act (Wales) 2016 places a duty on competent authorities such as Merthyr Tydfil County Borough Council to conserve and enhance biodiversity. The below bullet points are some simple measures that could be achieved to enhance the biodiversity of the site:

- The provision of three integrated bird boxes of varying design to be incorporated into the newly constructed dwellings within the development site. Boxes should be located as high as possible, i.e., as close to the eaves as possible.
- 2 x Vivara Pro WoodStone House Sparrow Nest Box (single chamber) and 1 x Ibstock Eco-habitat for Swifts are recommended, the locations are detailed below: -

- 1 x Vivara Pro WoodStone House Sparrow Nest Box (single chamber) on the north end of the north east elevation (rear) of dwelling 1
- 1 x Vivara Pro WoodStone House Sparrow Nest Box (single chamber) on the north east elevation (rear) of building 2
- 1x Ibstock Eco-habitat for Swifts on the north east elevation of building 3
- The provision of three bat boxes, integrated into the newly constructed dwellings within the development site. Boxes should be located as high as possible i.e., as close to the eaves as possible. Ibstock Enclosed Bat Box 'C' (or similar design) are recommended, one box to be integrated into each of the new residential dwellings, located as follows: -
  - 1 x Ibstock Enclosed Bat Box 'C' on the south end of the north east elevation (rear) of dwelling 1
  - 1 x Ibstock Enclosed Bat Box 'C' on the south west elevation (front) of dwelling 2
  - 1 x Ibstock Enclosed Bat Box 'C' on the south east elevation (side) of dwelling 3

Examples of bat and bird boxes can be found in Appendix 5, proposed locations of bat and bird boxes can be found in Appendix 6.

- The use of native species within the soft landscaping works on the site. Suitable long-term management of soft landscaping also helps ensure spaces are useful to wildlife.
- All fencing within the site will be hedgehog friendly in design. A friendly design is considered to allow passage of small animals across the site. It should provide either a continuous gap between the bottom of the fence and ground of approximately 5cm or gaps cut a set distance along fencing.

## **Appendix 1 – Plant Species Recorded**

| Species                          | Common Name         |
|----------------------------------|---------------------|
|                                  |                     |
| <b>Trees &amp; Scrub</b>         |                     |
| <i>Buddleja davidii</i>          | buddleia            |
| <i>Rubus fruticosus</i> agg      | bramble             |
|                                  |                     |
| <b>Herbaceous Plants</b>         |                     |
| <i>Bellis perennis</i>           | daisy               |
| <i>Cardamine flexuosa</i>        | wavy bitter-cress   |
| <i>Carex pendula</i>             | pendulous sedge     |
| <i>Cirsium vulgare</i>           | spear thistle       |
| <i>Dactylis glomerata</i>        | cock's-foot         |
| <i>Epilobium</i> sp              | willowherb          |
| <i>Festuca rubra</i>             | red fescue          |
| <i>Galium aparine</i>            | cleavers            |
| <i>Geranium robertianum</i>      | herb Robert         |
| <i>Hedera helix</i>              | ivy                 |
| <i>Holcus lanatus</i>            | yorkshire fog       |
| <i>Hypericum androsaemum</i>     | tutsan              |
| <i>Juncus effusus</i>            | soft rush           |
| <i>Leucanthemum vulgare</i>      | oxeye daisy         |
| <i>Lolium perenne</i>            | perennial rye-grass |
| <i>Plantago lanceolata</i>       | ribwort plantain    |
| <i>Poa</i> sp                    | meadow grass        |
| <i>Potentilla reptans</i>        | creeping cinquefoil |
| <i>Ranunculus repens</i>         | creeping buttercup  |
| <i>Rumex obtusifolius</i>        | broad-leaved dock   |
| <i>Tanacetum parthenium</i>      | feverfew            |
| <i>Taraxacum officinalis</i> agg | dandelion           |
| <i>Trifolium</i> sp              | clover              |
| <i>Tussilago farfara</i>         | colt's-foot         |
| <i>Veronica chamaedrys</i>       | germander speedwell |
| <i>Vicia hirsuta</i>             | hairy tare          |

## **Appendix 2 – Site Photographs**

### **Habitats and Features in East of Site**



Private drive in east of site, looking north



Turning head in north east of site



Land to east of private drive, looking north and east



Scrub and rubbish in south east corner



Private drive looking south



Colt's-foot adjacent to turning head



Inspection covers



Inspection cover

**Habitats and Features in West of Site**



Site looking west along north west boundary



Gap under north west boundary fence



Earth bank and rubbish near north west corner



Site looking north towards Maesynant



Site looking east across grassland



Site looking west



Discarded fence panel near south boundary

**MALSYNANI, GROVL PARK, MURTIYAR TYDIL**

Habitat Map

March 2022

SI

Bare Earth

Gravel with Scattered Lphemeral Species

Tarmac

Manhole Cover

Discarded Materials / Rubbish

Scattered Scrub

Concrete Panel Fence Line

Wooden Fence Line

Site Boundary

#### **Appendix 4 - Aerial View of Site Location**



## **Appendix 5 – Examples of bat and bird boxes**



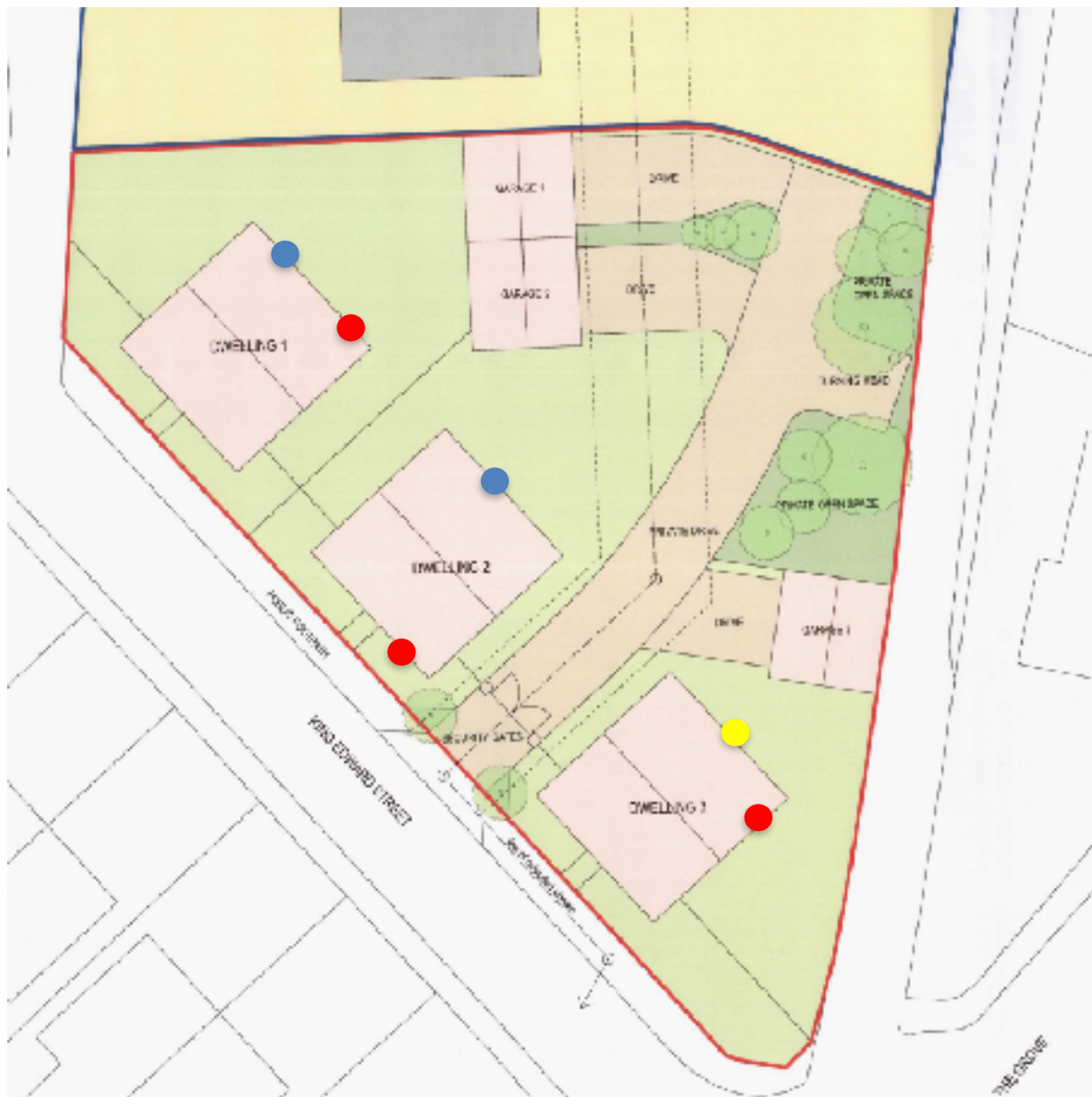
Ibstock Eco-habitat for Swifts

Vivara Pro WoodStone House Sparrow Nest Box –  
single chamber



Ibstock Enclosed Bat Box 'C'

## **Appendix 6 – Proposed Location of Bat and Bird Boxes**



Proposed Location of Istock Enclosed Bat Box 'C' ●

Proposed Location of Vivara Pro WoodStone House Sparrow Nest Box – single chamber ●

Proposed Location of Istock Eco-habitat for Swifts ●

## **Appendix 7 – Invertebrate Habitat Potential Assessment**

Table 1. Summary of the 11 habitat elements assessed by IHP survey.

| Habitat element       | No.  | Comments                                                                                                                                                                                        |
|-----------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Decaying Wood         | HE1  | In all its forms; from decaying wood on/in large trees to woodland floor debris                                                                                                                 |
| Rotational Management | HE2  | Planned or serendipitous; and whether for nature conservation or other purposes                                                                                                                 |
| Nectar Resources      | HE3  | As a proxy for nectar- and pollen resources, as assessment of pollen resources is impracticable on a walk-through survey                                                                        |
| Wet Substrates        | HE4  | Including marginal, marshy, muddy and seasonally inundated habitats, as well as flushes                                                                                                         |
| Open Water Habitats   | HE5  | The open water element of rivers, lakes, ponds, streams, ditches, etc.                                                                                                                          |
| Structural Patchwork  | HE6  | Habitat mosaics, including, but by no means restricted to open mosaic habitats on previously developed land                                                                                     |
| Still Air (S)         | HE7  | Suntraps and still-air microclimates in open situations; the term 'still air' is used in preference to 'wind breaks' as many rigid wind breaks are likely to produce turbulent air in their lee |
| Still Air (H)         | HE8  | Humid still-air microclimates in sheltered and shaded situations                                                                                                                                |
| Connectivity          | HE9  | Landscape-scale connectivity between the site and external habitats                                                                                                                             |
| Ecoclines             | HE10 | A graded transition between two or more broad habitats                                                                                                                                          |
| Bare Earth            | HE11 | Unshaded bare or sparsely vegetated well-drained substrate, regardless of soil type                                                                                                             |

Table 2: Grading system applied to habitat elements.

| Grade                 | Description                                                                                                                                                                                                                                                                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Negligible/Absent (E) | Habitat element is absent or of insignificant (barely perceptible) quantity                                                                                                                                                                                                                                    |
| Minor (D)             | Habitat element is present but is insufficient quality to qualify as Moderate or above. For example, it may be of extremely limited extent, or very sparsely dispersed. Likely to support common and widespread, generalist species.                                                                           |
| Moderate (C)          | A clear example of the habitat element is present, but which does not qualify as Major. Likely to be of sufficient quality to support a characteristic invertebrate fauna.                                                                                                                                     |
| Major (B)             | Good quality examples of each habitat element which do not meet the criteria for Exceptional. Likely to be a predominant factor in supporting characteristic and specialised invertebrate assemblages. Considerations might include the extent, maturity and historic and current connectivity of the element. |
| Exceptional (A)       | Very high-quality examples of the habitat element, including but not restricted to those of potential regional significance. This may be for reasons of intrinsic quality, rarity, vulnerability or the perceived importance of its position in the wider landscape.                                           |

## **ADDENDUM**

This Addendum covers land to the north of the original site boundary outlined in the report above. Whilst the original instruction did not cover this area of the site, habitats and species were recorded and photographs at the time of the original survey for completeness.

## Preliminary Ecological Assessment

**PROJECT TITLE:** Maesynant Plot 1

**PLANNING REF:** P/22/0297

**SITE ADDRESS:** Grove Park, Merthyr Tydfil, CF47 8HX

**DATE:** 16<sup>th</sup> January 2023

It is proposed to construct a single detached residential dwelling on land adjacent to Maesynant, Grove Park, Merthyr Tydfil, Cf47 8HX (SO 04900 06996). Outline planning permission has already been granted for the site, however the start date for the development is due to expire, and the applicant wishes to extend the period for the submission of the reserved matters details. **The new planning application reference is P/22/0297**

The proposed development site lies to the east of the dwelling Maesynant and to the north of a parcel of land also proposed for development under a separate planning application. The site was formerly part of the garden belonging to Maesynant, is roughly square in shape and measures approximately 0.04ha. The site slopes gently downwards from north to south. The north boundary is a low, concrete block wall on top of which sits a wooden fence, the eastern boundary, a concrete panel fence, the west boundary a wooden fence and the south boundary is undefined. Access to the proposed development site will be via a shared private driveway, already installed adjacent to the southern boundary.

The Proposed Site Layout Plan, drawing number 7862 04, Rev C, dated May 2016 shows a culverted stream running across the site from east to west, near the north boundary and then along the west boundary and carries on southwards.

The site is located in an urban environment in Merthyr Tydfil and lies approximately 850m to the north of Merthyr Town. The wider landscape comprises small pockets of woodland and open countryside. The nearest major watercourse, the River Taff, lies approximately 475m away to the south west of the site at its nearest point.

### **Desktop Study**

A data search was undertaken via Aderyn (LERC Reference: 0212-894) for the above proposed development site, see Section 2 of the report above. Due to the close proximity of

the proposed development site in the report above and the proposed development site in this addendum a new data search was not undertaken. A summary of the findings of the data search can be found below:

- There are two national statutory designated sites within 2km of the site, the nearest Cwm Taf Fechan Woodlands SSSI lies approximately 1.27m away at its nearest point. The site is also designated as a Local Nature Reserve.
- There are 13 local non-statutory sites within 2km of the site, 12 are Sites of Importance for Nature Conservation (SINC), the nearest, Cyfarthfa Park SINC Field, lies approximately 440m away to the north west of the site. The other site is a Wildlife Trust Reserve, Taf Fechan, which lies approximately 1.9km away to the north west.
- The site lies within a B-Line, a non-statutory protected site which aims to restore and create wildflower habitats forming stepping stones that link existing wildlife areas together creating a network of habitats across the landscape benefiting not only pollinators but a host of other wildlife. The area of private open space within the proposed development site is relatively small. However, recommendations will be made for these areas to be enhanced, particularly for species of invertebrate.

Due to the small scale of the proposed development, there will be no adverse impact to any of the protected sites. Any new planting within the site will be of native species suitable for a range of invertebrates.

- No species records are present within the proposed development site. The closest record is for a pipistrelle bat roost, approximately 60m away to the west of the site. An unidentified bat roost has also been recorded approximately 80m to the north west of the site.
- The nearest record for great crested newt is approximately 580m away and dates from 1966. No ponds are present within the proposed development site; the nearest waterbody lies approximately 440m away to the north west of the site within Cyfarthfa Park SINC. However, the site is surrounded by housing with gardens where ponds may be present, but not visible on aerial photographs. Habitats within the site have potential to be used by GCN during the terrestrial stage of their lifecycle. As such the presence of GCN cannot be ruled out entirely. Precautionary measures in respect of this species will be recommended.
- The nearest reptile record is approximately 1.27m away for slow worm at Taf Fechan Woodlands Local Nature Reserve. Habitats within the site, the scattered scrub, bare earth and grassland are diverse in structure providing potential for the presence of reptiles. Gaps under the fence on the western boundary also have potential to

provide suitable habitat for hibernation purposes. The boundaries to the east, north and west of the site while not conducive for movement of reptiles to and from adjoining habitats, the presence of reptiles within the site cannot be ruled out entirely. Due to the small scale of the site a series of species deterrence measures will be adequate in respect of reptiles as part of any future development works.

Details of other species recorded within 2km of the site can be found Section 2 of the above report, none of which will be impacted upon by the development proposals.

### Site Visit

Vicky Hannaford from Ecological Services attended the site on 15<sup>th</sup> March 2022 to assess the potential ecological impacts of the proposed works. March is outside the optimum time for Phase 1 habitat surveys; however, broad habitats were identifiable. Photographs of the site can be found in Appendix 1. A boundary of the survey area can be found in Appendix 2 of this addendum. The red line boundary indicates the proposed development site associated with this addendum. The blue line boundary indicates the land adjacent to the site, also proposed for development under a different planning reference.

The proposed development area comprises **species poor semi-improved grassland**, dominated with soft rush, with grass species such as Yorkshire fog and perennial rye grass, dandelion, creeping cinquefoil and dock. Other floral species present occasionally in the north include pendulous sedge, primrose, a species of iris, celandine and geranium.

In the west of the site, adjacent to the boundary fence, there is an area of **bare earth**. The wooden boundary fence has gaps underneath, where stones and pieces of wood were visible. Along the east boundary there is a narrow band of **scattered scrub**, comprising buddleia and bramble. There is some evidence of a small amount of discarded building materials/rubbish left within the site.

A shared **tarmac** driveway has already been put in place, this gives access through the adjacent proposed development onto King Edward Street. Adjacent to the east of the driveway is a small area of **gravel** with some moss and **short ephemeral species** such as coltsfoot and clover.

### Potential Development Impacts

- The proposed development will result in the loss of an area of species poor semi improved grassland.
- The scattered scrub, bare earth and grassland are diversity in structure providing potential for the presence of a small number of reptiles. Gaps under the fence on the western boundary also have potential to provide suitable habitat for hibernation purposes. The boundaries to the east, north and west of the site while not conducive

for movement of reptiles to and from adjoining habitats, the presence of reptiles within the site cannot be ruled out entirely. Due to the small size of the site a series of species deterrence measures for reptiles are recommended as part of future development works to prevent harm to any reptiles present within the site.

- The diversity in structure of the habitats across the site has potential to support Great Crested Newt during their terrestrial phase. While the presence of Great Crested Newt within the site is considered to be highly unlikely, it cannot be entirely ruled out. The clearance of vegetation to facilitate the proposed development has the potential to impact on Great Crested Newt.
- Any additional external lighting, may impact on nocturnal species, such as bats using the site boundary, particularly along the east of the site for commuting.

### **Conclusions and Recommendations**

Based on the habitats present within the site boundary and the development proposals, possible impacts to reptiles, great crested newts and the loss of a small amount of natural habitat is considered likely. Given the potential impacts of the proposed development the below mitigation measures are proposed:

- **A reptile mitigation strategy, which is agreed with the LPA ecologist, will be required to support the proposed development.** Measures suitable for reptiles should be included within the design to allow movement across the site post development. A reptile mitigation strategy should include, but not be limited to:
  - Habitat clearance measures such as sensitive timings of works and a two stage vegetation cut and destructive searching of roots if required.
  - Habitat clearance will aim to push any reptiles which may be present into a protected zone along the east boundary of the site.
  - Timings of works to avoid reptile hibernation period, November to March inclusive.
- Whilst thought highly unlikely, the presence of great crested newt within the proposed development site cannot be ruled out. Precautionary measures during vegetation clearance are recommended for this species, i.e., a two stage cut of the vegetation as indicated for reptiles above. Mitigation measures suitable for Great Crested Newt will be included in the reptile mitigation strategy above.
- If the presence of Great Crested Newt is found within the proposed development site at any point during works, all work will stop. Advice will be sought from a suitably licenced ecologist and Natural resources Wales (NRW) on how to proceed. This may

include that a development licence is sought from NRW prior to any works recommencing.

- All excavations within the site will be securely covered over if left unattended. Any excavations that have a depth in excess of 0.5m and that are left open overnight will have a means of escape left for any mammals (e.g. hedgehog) that may fall into them. A wooden board or equivalent will be left from the bottom to the top of the hole at an angle no steeper than 45°. This will allow any mammal to escape and avoid increased stress from being trapped.
- Any external lighting required as part of the development proposals will be focused / directional lighting which is hooded or cowled to prevent light spill. The external lighting will be placed on a timer and motion activated. Sensitive lighting will reduce any negative impacts to nocturnal wildlife which use the area. This is particularly important for foraging bats that are likely to use the site.
- No night time working will be permitted to prevent incidental light spillage onto retained vegetation and habitats where nocturnal species may use at night. No work between the hours of 7pm and 7am which requires the use of artificial lighting will be allowed.
- Ideally all excavations within the site will be securely covered over if left unattended. Any excavations that have a depth in excess of 0.5m and that are left open overnight will have a means of escape left for any mammals (e.g. hedgehog) that may fall into them. A wooden board or equivalent will be left from the bottom to the top of the hole at an angle no steeper than 45°. This will allow any mammal to escape and avoid increased stress from being trapped.
- Any external lighting required as part of the development proposals will be focused / directional lighting which is hooded or cowled to prevent light spill. The external lighting will be placed on a timer and motion activated. Sensitive lighting will reduce any negative impacts to nocturnal wildlife which use the area. This is particularly important for foraging bats that are likely to use the site.

Measures that could be achieved to enhance the biodiversity of the site are detailed below:

- The provision of 1 bird box, an Ibstock Eco-habitat for Swifts (or similar design) will be integrated into the north (rear) elevation of the proposed new building, at the apex of the gable.

- The provision of one bat box, an Enclosed Ibstock Bat Box 'C' (or similar design), to be integrated into the east (side) elevation of the proposed new building, at the apex of the gable

Examples and proposed locations of bird and bat boxes can be found in Appendix 3.

- Any new planting within the site will use native species suitable for a variety of invertebrates.
- All fencing within the site will be hedgehog friendly in design. A friendly design is considered to allow passage of small animals across the site. It should provide either a continuous gap between the bottom of the fence and ground of at least 13cm or 13cm x 13cm gaps cut every 3m at the base of fencing.

### **Best Wishes**

**Vicky Hannaford**  
**Senior Ecologist**  
**Ecological Services Ltd**

*Signed: Vicky Hannaford Date: January 2023*

## **Appendix 1 Site Photographs**



Proposed development site



Eastern boundary of site



Western boundary of site with gaps under the fence and bare earth



Northern boundary of site



North west corner of site with rubbish



View of site looking east

**Location of retained strip for reptiles**

The site plan shows several buildings labeled DWELLING 1, DWELLING 2, DWELLING 3, DWELLING 4, DWELLING 5, DWELLING 6, DWELLING 7, DWELLING 8, DWELLING 9, DWELLING 10, DWELLING 11, DWELLING 12, DWELLING 13, DWELLING 14, DWELLING 15, DWELLING 16, DWELLING 17, DWELLING 18, DWELLING 19, DWELLING 20, DWELLING 21, DWELLING 22, DWELLING 23, DWELLING 24, DWELLING 25, DWELLING 26, DWELLING 27, DWELLING 28, DWELLING 29, DWELLING 30, DWELLING 31, DWELLING 32, DWELLING 33, DWELLING 34, DWELLING 35, DWELLING 36, DWELLING 37, DWELLING 38, DWELLING 39, DWELLING 40, DWELLING 41, DWELLING 42, DWELLING 43, DWELLING 44, DWELLING 45, DWELLING 46, DWELLING 47, DWELLING 48, DWELLING 49, DWELLING 50, DWELLING 51, DWELLING 52, DWELLING 53, DWELLING 54, DWELLING 55, DWELLING 56, DWELLING 57, DWELLING 58, DWELLING 59, DWELLING 60, DWELLING 61, DWELLING 62, DWELLING 63, DWELLING 64, DWELLING 65, DWELLING 66, DWELLING 67, DWELLING 68, DWELLING 69, DWELLING 70, DWELLING 71, DWELLING 72, DWELLING 73, DWELLING 74, DWELLING 75, DWELLING 76, DWELLING 77, DWELLING 78, DWELLING 79, DWELLING 80, DWELLING 81, DWELLING 82, DWELLING 83, DWELLING 84, DWELLING 85, DWELLING 86, DWELLING 87, DWELLING 88, DWELLING 89, DWELLING 90, DWELLING 91, DWELLING 92, DWELLING 93, DWELLING 94, DWELLING 95, DWELLING 96, DWELLING 97, DWELLING 98, DWELLING 99, DWELLING 100.

### **Appendix 3 - Proposed Location of Bat and Bird Box**

