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Friday, 09 June 2023

Dear Paul,

RE: WWE20013 – Littlemoor Farm, Llysworney, Cowbridge (GRID REFERENCE: SS 96086 74169)

Wildwood Ecology were commissioned to undertake a site walkover of the above site, to update its current ecological status following a previous Preliminary Ecological Appraisal (PEA) undertaken by Wildwood Ecology in January 2020.

Introduction and purpose

The purpose of this letter-style report is to inform the planned removal of five trees in order to construct a first-floor garage in the garden of the above property. A previous planning application for the development was rejected, partially on the following ecological grounds:

“The proposals would result in the unnecessary loss of a significant number of trees which have biodiversity and habitat value, climate benefits, and contribute positively to local amenity and the character and verdant setting of the Llysworney Conservation Area.”

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This updated report aims to reassess the habitats present within the potential development area and provide further recommendations for enhancement measures which could mitigate the loss of the trees in question. This letter-style report should be read in conjunction with the previous report by Wildwood Ecology (report reference: WWE20013 PEA Rev C).

The update survey was undertaken by Jenny O'Neill (Consultant Ecologist) and Jack McCormack (Assistant Ecologist) on 15/03/23. The site and its surrounding landscape context are illustrated in the aerial image of the site (see **Figure 1** below). The weather conditions during the survey were good, with no rain and temperatures of 6°C.



Figure 1 – Aerial image of the site (red line shows the site boundary). Image used under licence (©2019 Google). Imagery date 20/07/2021.

Limitations and Assumptions

The field survey will not produce a comprehensive list of plants and animals as this will be limited by factors that influence their presence (e.g. activity and dormancy periods). An assessment can however be made of the habitats within the survey area, their nature conservation value and potential to support protected or priority species.

No other limitations were encountered, or assumptions made during the field survey, and it is considered that with the access gained and recording undertaken an accurate assessment of the site's ecological value has been made.

Summary of Results from January 2020

The summary of the PEA undertaken in 2020 is detailed below:

- The site does not fall within any designated areas, however a priority habitat (hedgerow) was found on site. The hedgerow is of potential importance to several species including hazel dormouse, great crested newt (GCN), bat species, nesting birds, reptile species (such as common lizard and slow worm) and hedgehog.
- No potential roost features (PRFs) for bats were identified on site, however scattered trees and hedgerow were identified as important commuting and foraging habitat for bat species. The site is linked to the wider landscape via networks of hedgerow and blocks of woodland to the north, east, south and west. Furthermore, despite no PRFs being identified, the tree line is thought to be of value due to the fact it creates a dark corridor for bat species to commute. Although many local records are of more light tolerant species (such as pipistrelle species), there is a record of lesser horseshoe bats to the south of site, indicating that the wider landscape is traversed by light intolerant species.
- Neither the hedgerow nor the trees which provide a dark corridor for bats are listed amongst those intended for removal (this is also reflected in current plans). Additional lighting during and after the construction of the proposed development may, however, cause disturbance to bat species.
- Trees onsite intended for removal provide nesting opportunities for garden bird species, meaning the development is likely to negatively impact nesting birds. No Schedule 1 species (such as barn owl or red kite) will be affected.
- Areas of tall ruderal and compost/old vegetation may support GCN during their terrestrial phase and common species of reptile (common lizard and slow worm).
- The site is within close proximity to known European badger habitat. Although the site is not suitable for badger, misadventure (e.g. individuals entering the site whilst foraging on the edge of their territory) may lead to presence on site. Therefore, works may result in negative impacts without appropriate mitigation.
- Cotoneaster, an invasive plant species, was identified in two areas of the site. Therefore, if removal is to take place, sufficient precautionary measures should be put in place beforehand.

Summary of Results from March 2023

A summary of the results of the walkover survey undertaken in 2023 are outlined below along with a PEA plan (Figure 2) of the site as it currently stands today:

Walkover survey

- The site is comprised primarily of amenity grassland. The grassland looks to have undergone regular management with an average sward height of >5cm, with sward reaching 10cm at the habitat boundary. Species present include annual meadow grass, cock's foot, fescue species, lesser celandine, dandelion, Yorkshire fog, geranium species, and white clover. A pile of stones was found within the area of amenity grassland. This feature (Target Note 7) has potential to be of value for hibernating reptiles during colder months, and for basking during summer months.
- Areas of tall ruderal vegetation were short at the time of survey, however the species composition was concurrent with the previous site visit. Sward height varies, with some plants reaching up to 1m as well as some areas of bare ground. Species include rosebay willowherb, common nettle, hogweed, cock's foot and cleavers. Areas of old vegetation cutting and habitat piles (compost areas) were identified within this area. These can support reptiles, amphibians during their terrestrial phase, and hedgehogs (Target Note 1).
- A species-poor hedge lined the western and northern boundary of the site, varying between 1.5-2m in height. Target Note 8 marks where two gaps were found, reducing the capacity for the hedgerow to provide connectivity to surrounding habitats. Species present include hawthorn, blackthorn, bramble, ivy, harts-tongue-fern, cow parsley, cleavers, common nettle, lords and ladies and lesser celandine. This habitat is listed as a priority habitat in Section 7 of the Environment (Wales) Act 2016 and is suitable to support nesting birds and hazel dormouse. Another habitat pile was found within one of the gaps in the hedge (Target Note 1) and represents habitat for reptiles, amphibians during their terrestrial phase, and hedgehogs.
- A species-poor non-native hedge comprised of cherry laurel was identified in the south-eastern corner of the site. The hedge, which has been planted recently, is approximately 1m tall and sits above a wall.
- Areas of scrub were scattered around the area of amenity grassland, with height ranging from 0.5-1.5m. Scrub was comprised of hawthorn and bramble. A septic tank was located within an area of scrub on the eastern boundary of the site (Target Note 6).
- Twelve trees were scattered around site, with species including sycamore, silver birch, pedunculate oak, holly and willow. No potential roosting features were identified for bats in any of the trees, however they are suitable for nesting birds. Most trees fall within a tree line along the eastern boundary of the site.

- An area of hard standing (wooden decking) is present in the north-eastern corner of the site.
- Animal species identified during the site species are as follows: wood pigeon, chaffinch, robin and house sparrow. No nesting behaviour was observed on trees scheduled for removal.

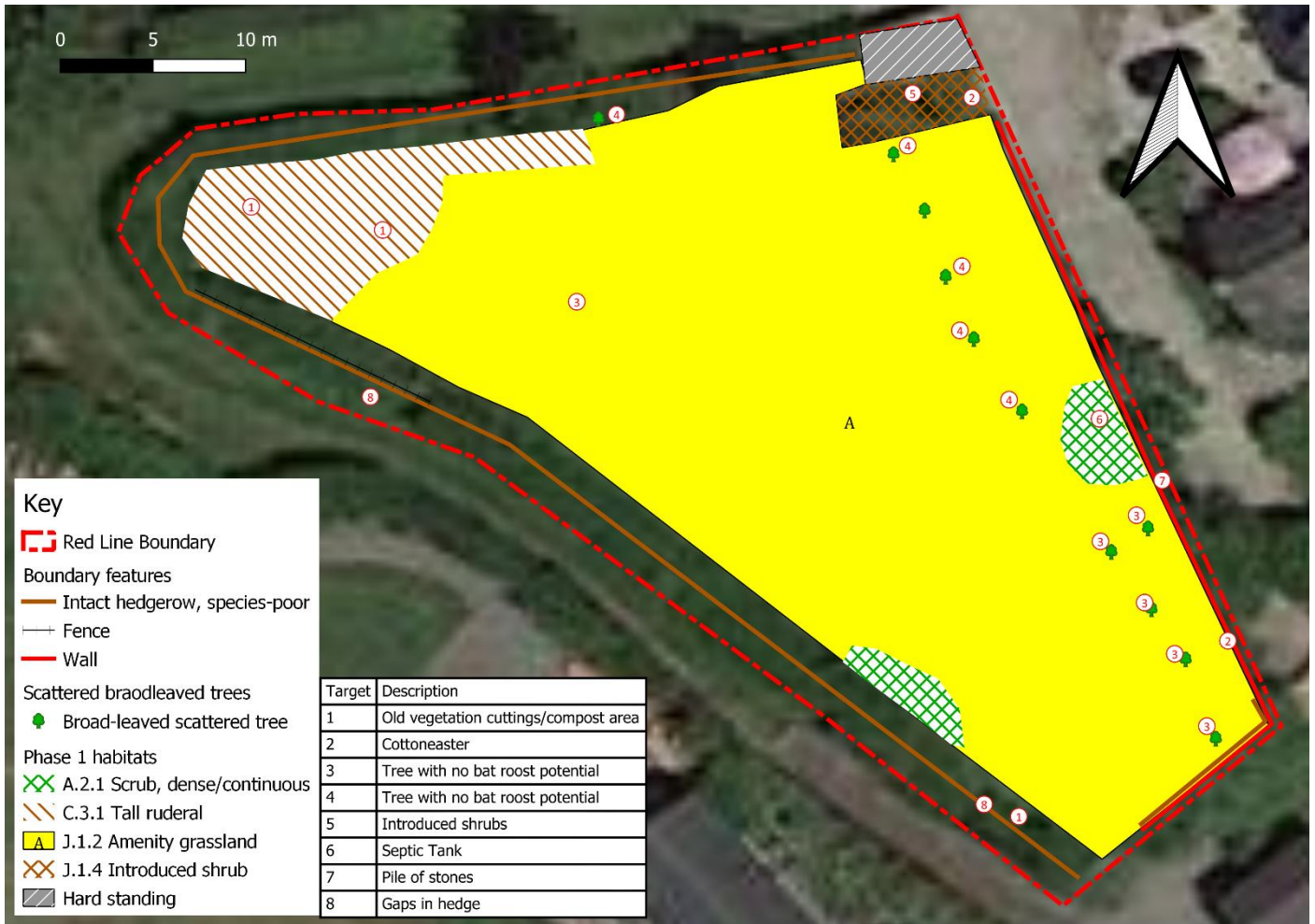


Figure 2 – PEA plan from the walkover survey in March 2023.

Conclusions and Recommendations

Priority habitat – hedgerow

Our conclusions and recommendations relating to onsite hedgerow are as follows:

- The hedgerow along the western and northern boundaries of the site will be retained and improved with native species planting (see biodiversity enhancements).
- All maintenance to the hedgerow should be undertaken outside of nesting bird season which is generally from 1st March – 31st August.

Bats

Our conclusions and recommendations relating to adverse effects on bats are as follows:

- Neither the trees providing dark corridors nor hedgerow are likely to be removed during the works, enabling commuting habitats should remain intact and functional.
- Trees scheduled to be removed are of minimal use for commuting and foraging bats, however connectivity to the surrounding habitat is to be largely maintained.
- Additional lighting both during and after the development is likely to disturb commuting and foraging bats. Therefore, no night-time working should take place during construction, and no artificial lighting should spill onto remaining hedgerows and trees on site in order to maintain a dark corridor for light-averse species of bat (see mitigation plan in Figure 3).
- Lighting installation will take into consideration the guidance as provided by the ILP/BCT 2018 note which includes:
 - All luminaires should lack UV elements when manufactured. Metal halide, fluorescent sources should not be used;
 - LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability;
 - A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component;
 - Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012);
 - Internal luminaires can be recessed (rather than choosing a pendant fitting) where installed in proximity to windows to reduce glare and light spill;
 - The use of specialist bollard or low-level downward directional luminaires to retain darkness above can be considered. However, this often comes at a cost of unacceptable glare, poor illumination efficiency, a high upward light component

and poor facial recognition, and their use should only be as directed by a lighting professional;

- Column heights should be carefully considered to minimise light spill;
- Only luminaires with an upward light ratio of 0% and with good optical control should be used – See ILP Guidance for the Reduction of Obtrusive Light;
- Luminaires should always be mounted on the horizontal, i.e., no upward tilt;
- Any external security lighting should be set on motion-sensors and short (1min) timers; and
- As a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed.

Nesting birds

Our conclusions and recommendations relating to adverse effects on nesting birds are as follows:

- The trees intended for removal (see Figure 3) are suitable for nesting garden birds, and therefore the works may have negative impacts.
- These trees should be removed outside of the bird nesting season. In the event that clearance work has to be undertaken during the nesting season (generally from 1st March until 31st August, although birds are known to nest outside of these dates in suitable conditions), a pre-works check for breeding birds will be required and must be carried out by a suitably qualified person. Any active nests identified should be protected until the young have fledged.
- Should construction commence during bird nesting season, temporary screening/hoarding should be installed between the development and the hedgerow to minimise disturbance to nesting birds.

Hazel Dormouse

Our conclusions and recommendations relating to adverse effects on hazel dormouse are as follows:

- No further surveys required as onsite habitat to be affected by the works are not suitable to support dormice.

GCN, other amphibians and reptiles

Our conclusions and recommendations relating to adverse effects on amphibians and reptiles are as follows:

- No further surveys for amphibians or reptiles are required given the scale of the proposals and retained habitat.
- A GCN/reptile mitigation strategy comprising of the following elements will be undertaken:
 1. Any vegetation removal (tall ruderal/compost/hedgerow) will be carried out using hand tools only and in a two stage directional manner, pushing newts and reptiles into adjacent habitat (hedgerow) suitable to support them, cutting will go from the edge of the tall ruderal habitat towards the hedgerow.
 2. If compost (habitat piles) and stones are to be cleared, they will be cleared by hand.
 3. The tall ruderal habitat will be cut to approximately 30cm during the first cut and 24 hours later cut to ground level.
 4. Grassland on site will be maintained at a short sward height until construction is completed.
 5. In the unlikely even that GCN/reptiles are encountered during the course of the works, works will cease immediately. Further advice from a suitably experienced ecologist will be sought and acted upon.
- Note that GCN are a European Protected Species (EPS) and therefore if found an EPS licence would be required.

Hedgehog

Our conclusions and recommendations relating to adverse effects on hedgehogs are as follows:

- No further surveys required.
- Cautious working is advised when undertaken vegetation clearance to prevent killing or injury to this species (see reptiles and GCN recommendations for precautionary working methods required in order to avoid killing/injuring protected species).

European Badger

Our conclusions and recommendations relating to adverse effects on European badger are as follows:

- No further surveys required.
- Any trenching or excavation left uncovered overnight will include a means of escape for trapped animals i.e. plank set at 30°.
- All chemicals, fuel and materials to be stored safely in locked units away from animal access.

Biodiversity Enhancement

See below details of biodiversity enhancements relating to this site:

- Local Authorities have a duty (known as the 'Biodiversity and resilience of ecosystems duty') under the Environment (Wales) Act 2016 to seek to maintain and enhance biodiversity in the exercise of their functions.
- Where possible, the existing onsite habitat will be retained to ensure that species are not adversely affected by the development. Native species of local provenance will be used for any new planting on the site to support The Action Plan for Pollinators in Wales, 2013 (<http://gov.wales/docs/desh/publications/130723pollinator-action-plan-en.pdf>).
- In relation to the rejected planning application, enhancement should mitigate against the *"unnecessary loss of a significant number of trees which have biodiversity and habitat value, climate benefits, and contribute positively to local amenity and the character and verdant setting of the Llysworney Conservation Area."*
- In order to mitigate against the loss of trees, and their contribution to climate and biodiversity, the current plans aim to plant a further 14 trees on site. In order to properly mitigate against the loss of these trees, and to gain more immediate biodiversity, climate and amenity benefits, the appropriate standard of tree should be planted.
- Out of the 14 new trees, at least two should be extra heavy standard in order to mitigate against the loss of the category B trees on site. The remaining trees to be planted should be of select standard. Higher standard trees will take less time to establish and will therefore be of greater ecological value.
- Existing hedgerows onsite could be enhanced to mitigate the loss of habitat resulting from this development. In order of sufficient ecological value, hedge must consist of a least five native tree species or species with known benefits to biodiversity (such as flowering or fruiting species which provide a food source for animal species), with at least two native climbers. An undeveloped buffer of 2m must be left in order to allow hedgerow trees to mature and associated ground flora to develop. Planting and enhancement of hedgerow will both enhance onsite biodiversity and connectivity with the wider landscape.
- Bird nesting boxes and bat roosting boxes will be incorporated within the proposed building and boundary features. A range of types should be used in order to cover a variety of species. Many designs are available, and we would initially recommend the following for this site:
 - Bats
https://www.nhbs.com/search?q=integrated%20bat%20tube&hPP=60&idx=titles&p=0&fR%5Bdoc_s%5D%5B0%5D=false&fR%5Bhide%5D%5B0%5D=false&fR%5Blive%5D%5B0%5D=true&qtview=161276
 - House Sparrow -
http://www.nhbs.com/1sp_schwegler_sparrow_terrace_tefno_174850.html
 - Starling -
http://www.nhbs.com/3s_schwegler_starling_nest_box_tefno_177925.html

- General open fronted - http://www.nhbs.com/2hw_schwegler_nest_box_tefno_177926.html (suitable for redstart, thrushes, flycatchers).

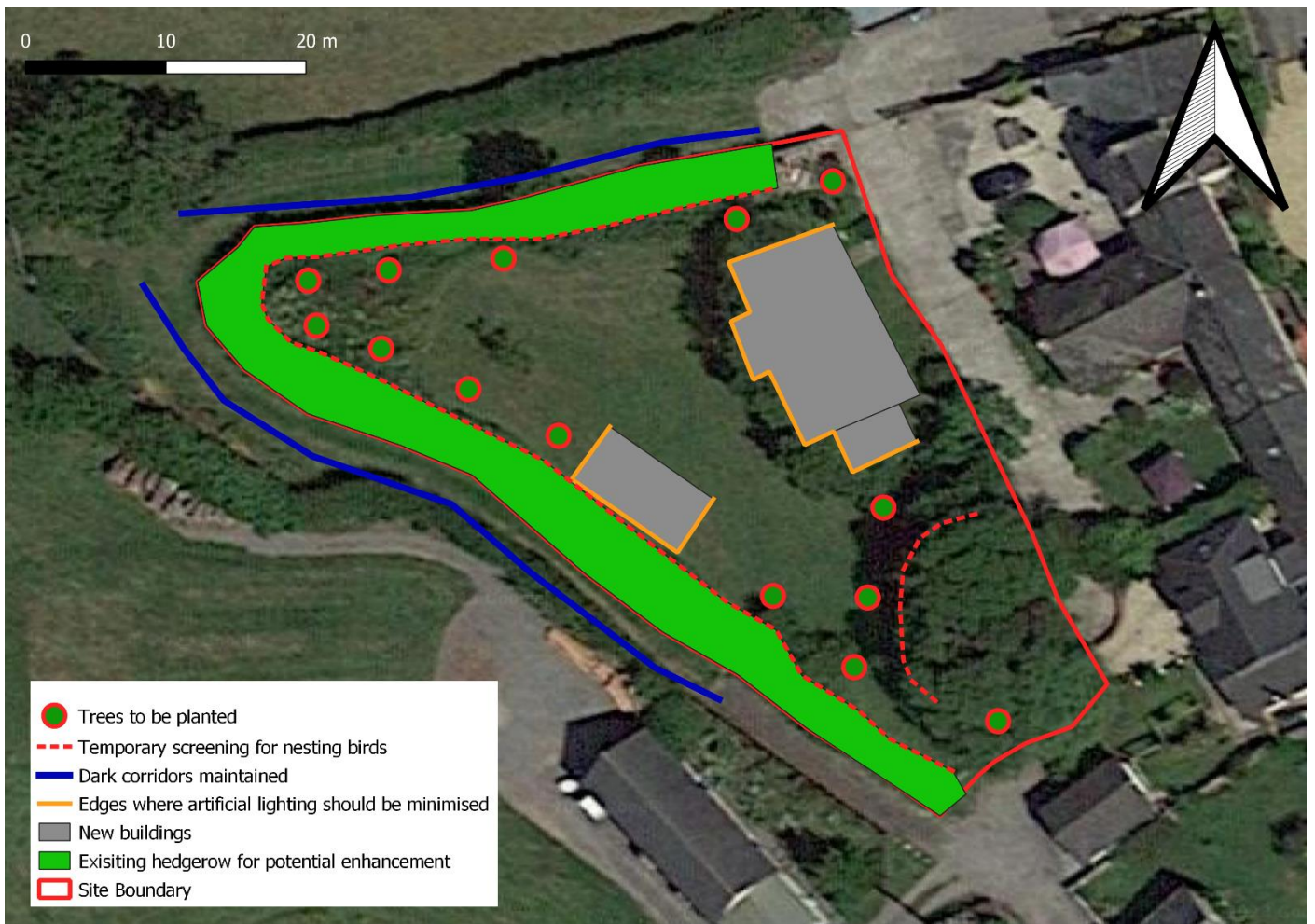


Figure 3 – Updated mitigation plan

Survey Images (15/03/23)



Figure 4 – Area of tall ruderal in north-west corner of the site. Habitat piles (Target Note 1) are suitable for reptiles, GCN and hedgehogs.



Figure 5 – Pile of stones on the eastern boundary of the site (Target Note 7) is suitable for reptile use.



Figure 6 – Trees to be removed under current plans.



Figure 7 – Mature trees to remain block light from dwellings, maintaining dark corridor for bat species.



Figure 8 - Gap in the hedge (Target Note 8) with a compost pile (Target Note 1).



Figure 9 - Trees to be removed (right) could be compensated for with biodiversity enhancement in the area of tall ruderal (far left). The hedgerows to the left and back of the picture comprise the dark corridor which is to be maintained during development.