



PRELIMINARY ECOLOGICAL APPRAISAL

LAND ADJACENT TO
SUNNYBANK

For:

PHILIP GRIFFITHS

Project: Sunnybank		
Project Number	L009	
Title	Preliminary Ecological Appraisal	
Document Number	L009- Eco Report-V2.2	
Client	Philip Griffiths	
Issue Date	21/12/2020	
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Contents

1	INTRODUCTION	2
2	METHODOLOGY	3
3	RESULTS	5
4	SITE EVALUATION	11
5	LEGAL AND PLANNING POLICY CONSTRAINTS	13
6	RECOMMENDATIONS	16
7	ECOLOGICAL CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES	18
8	CONCLUSION	19



EXECUTIVE SUMMARY

ECOLOGICAL LAND DESIGNATION	
There are no statutory designated sites within 2km of the site that will be directly or indirectly impact by the development.	
HABITATS	
The site is considered to be, of low ecological value. The habitat on site with the highest ecological values is the scrub.	
PROTECTED SPECIES	
ARBORICULTURE	No mature trees on site – Negligible Impact
BATS	Low potential for bat foraging and moderate potential for bats to be roosting within one of the buildings on site – impacts negated through mitigation and possible addition surveys - Potential low impact
BADGERS	No badgers on site – No Impact
HERPS	Low potential for Herps – impacts negated through mitigation - Potential low Impact
BIRDS	The area may be used by a small number of commoner birds - impacts negated through mitigation - Potential low Impact
CONCLUSION	
Providing the recommended mitigation measures are adopted, relevant legislation will not be contravened and ecological issues will not preclude the development.	



1 INTRODUCTION

Background

- 1.1 Sylvan Ecology were commissioned to carry out a PEA, at land adjacent to Sunnybank. The proposed development site comprises of approximately 0.4 acres of dense scrub, amenity grassland, hard standing and introduced shrubs. The site is bordered by residential properties.

Ecological Context

- 1.2 The site is located in Heolgerrig, a small village in Merthyr Tydfil County Borough. All associated land for the development (herein referred to as the site) is located at:
- Central OS grid reference: SO 03410 06270
 - Postcode: CF48 1RY

- 1.3 The surrounding landscape is predominantly residential properties, the greater surrounding landscape consists of residential properties, industrial units, agricultural with pastoral and arable fields, there are also large sections of woodland (some of which could be ancient) and a relatively intact network of hedgerows.

Aims of Study

- 1.4 The aims of the study are to:
- determine the types of habitat that are present within the site;
 - assess the likely presence of protected species and species of principal importance for nature conservation within the site;
 - identify any potential ecological constraints to development within the site;
 - identify requirements for any additional ecological surveys needed to determine potential ecological impacts; and
 - describe measures to mitigate or compensate for any impacts on the ecological interest of the site.



2 METHODOLOGY

Desk Study

2.1 Existing ecological and nature conservation data relevant to the site were collated from various sources:

- Information relating to protected and notable species within 2km of the site was provided by South East Wales Biodiversity Records Centre (SEWBRc) who also provided information relating to statutory designated sites;
- The Magic website (<http://www.magic.gov.uk/>) was reviewed to determine whether there are any internationally important statutory designated sites for nature conservation, and for other statutory designated sites for nature conservation, within 5km from site; and
- Google Earth was used to review aerial photographs of the site and surrounding area in order to better understand the setting and ecological context of the site.

Field Survey

2.2 An ecology walkover was undertaken in accordance with the methodology set out in JNCC, 2010¹ by David Price MCIEEM in December 2020. The survey was carried out under optimal weather conditions, so the ground was soft enough to identify species specific prints.

2.3 The survey involved a site walkover of the area falling within site boundary shown on the map in Appendix A, in order to map the main habitat types present. Detailed target notes were made in relation to any notable features considered important to the ecology of the site: these are referred to by the prefix TN in order to assist cross-reference to the habitat map provided in Appendix A.

2.4 The survey was extended to include assessment of the potential of the site to support protected or notable species. Although this approach supports an initial analysis of the likely presence of protected or notable species, a comprehensive assessment may require specialist expertise and/or season-critical survey techniques, which fall beyond the scope of

¹ JNCC (2010) *Handbook for Phase 1 habitat survey - a technique for environmental audit*, Revised reprint 2010, JNCC. Peterborough



this study. The presence of protected species was noted where possible, but walkthrough surveys cannot usually confirm species presence or absence; only the likelihood of presence can be assessed.

2.5 This is a standard technique for obtaining baseline ecological information for areas of land, including proposed development sites.

2.6 The dominant and readily identifiable higher plant species identified in each of the various habitat parcels were recorded and their abundance was assessed on the DAFOR scale:

- D: Dominant
- A: Abundant
- F: Frequent
- O: Occasional
- R: Rare
- L: Locally, appended to any of the above five categories to reflect local distribution within the site.

2.7 (These scores represent the abundance within the defined area only and do not reflect national or regional abundances).

2.8 Additionally, incidental records of fauna were also made during the survey and the habitats identified were evaluated for their potential to support legally protected species and other species of conservation concern, including Biodiversity Action Plan Priority species.

Limitations

2.9 The field survey was conducted at a suboptimal time of year for botanical recording. It cannot be discounted that further species may be present later in the year, that were not apparent at the time of survey. Nonetheless, the purpose of this report is not to compile a comprehensive species list but to establish habitat type and potential ecological constraints. Due to the nature of the site, it is considered that sufficient information was gathered for the purposes of this assessment.



3 RESULTS

Desk Study - Habitats

Statutory Designated Sites for Nature Conservation.

- 3.1 There are two statutory designated sites within 2km of the site. The sites are both Sites of Special Scientific Interest (SSSIs) Cwm Glo A Glyndyrys (265m from site), and Cwm Taf Fechan Woodlands (1384m from site). Neither of the sites have been designated for bats.

Desk Study - Species

Bats

- 3.2 SEWBrEC provided 172 records for at least seven species of bat within 2km of the site. These are common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), Natterer's bat (*Myotis nattereri*), noctule (*Nyctalus noctule*), Daubenton's Bat (*Myotis daubentonii*), Lesser Horseshoe Bat (*Rhinolophus hipposideros*) and brown long-eared bat (*Plecotus auratus*). In addition, SEWBrEC hold records for unidentified pipistrelle bats *Pipistrellus* spp, and unidentified bats Chiroptera.
- 3.3 The nearest record provided by SEWBrEC falls 414m from site and is for a foraging pipistrellus spp (dated 2006).

Great Crested Newts

- 3.4 SEWBrEC provided 54 records for great crested newt (GCN) (*Triturus cristatus*) within 2km of the site; the closest record is 560m from site (dated 2011).

Otter

- 3.5 SEWBrEC provided 25 records for otter within 2km of site, the closest record is 775m from site (dated 1992).

Reptiles

- 3.6 SEWBrEC provided records for three of the common reptiles species. The nearest record provided by SEWBrEC is for a *Natrix helvetica* (Grass Snake) the closest record is 451m from site (dated 1993).

Badgers

- 3.7 SEWBrEC provided four badger records within 2km of the site; the nearest was located approximately 722m south of the site in 2007.



Extended Phase 1 Habitat Survey

3.8 A map showing the habitats present within the proposed development site is given in Appendix A. Photographs depicting the main ecological features may be found below.

3.9 Two habitat types were identified within, or on the boundary of the site, as follows:

- Introduced shrubs;
- Dense scrub;
- Amenity grassland;
- Scattered trees;
- Buildings; and
- Defunct hedge with trees

Habitats

Dense scrub

3.10 Dense, continues scrub extending from unmanaged hedgerow, species composition is dominated by bramble, with occasional willow, sycamore and ash young trees and saplings. There are also locally occasional Rosebay Willowherb (*Chamerion angustifolium*) and stinging nettle (*Urtica dioica*).

Photo 1: Image of dense scrub



Introduced shrubs

- IS-1: A section of the boundary habitat includes an unmanaged, cypress spp hedge. The hedge is less than 20m between nodes and therefore does not meet the UK Biodiversity Action Plan Priority Habitat Description of a hedgerow, so has been classified



as *Introduced shrubs*.

- IS-2: Flowerbed. Some rose plants and cotoneaster spp are present, most spp have died back due to the onset of winter, the flowerbed has been left unmanaged and brambles are starting to encroach.
- IS-3: Flowerbed. Some rose plants and cotoneaster spp are present, most spp have died back due to the onset of winter, the flowerbed has been left unmanaged and scrub spp such as brambles and willow herb are starting to encroach. Weeds including bramble and willowherb have started to encroach onto the nearby hardstanding.

Photo 2: Image of IS-1 - Continues scrub with hedgerow.



3.11

Amenity grassland

Small patch of grassland that was once likely part of a horse paddock. The patch of grass is too small to comfortably support a horse, and the presence of garden furniture indicates the space was last used as amenity grassland. The grassland is relatively well maintained and is clearly still cut regularly. Species composition is dominated by Yorkshire fog (*Holcus lanatus*), with frequent perennial rye grass (*Lolium perenne*) and occasional red fescue (*Festuca rubra*). The herb species within the sward included occasional creeping buttercup (*Ranunculus repens*) and daisy (*Bellis perennis*) with locally dominant *Plantago lanceolata*.



Photo 3: Image of Amenity grassland.



3.12

Scattered trees

There are three small trees within the site. The trees are young with low potential for nesting birds and negligible potential for roosting bats. Species include an immature ornamental acer, a semi mature holly and a semi mature Wayfaring tree.

Photo 4: Image of the immature ornamental acer and the semi mature holly within IS3.





Buildings

3.13

There are three buildings on site.

- B1 stables. The stable has a corrugated steel roof and brick (likely single skin) walls. There are wooden barge boards around the top of the building that have suffered minor damage and offer access into the structure for bats. The internal structure has been damaged by water ingress and is open to the elements, no evidence of bats was found within the building. Though the building offers access to bats, the damage has opened up the building allowing an inspection of all potential roosting spots. No evidence of bats was found, as a result the building is considered to have negligible bat potential.
- B2 house. The house has good potential for roosting bats, with suitable roosting features such as damage to the soffit boxes allowing likely access into a small ornate roof space. There are damaged hanging tiles and raised lead flashing.
- B3 shed. The shed has suffered significant water damage and the roof has collapsed inwards. The shed offers negligible suitability for roosting bats.

Photos 5-8: Images of some of the possible bat access points on B2.





- 3.14 *Defunct hedge with trees*
Defunct hedgerow outside the application site within neighbour's property, the hedge contains several semi mature trees. The trees are semi mature with low/moderate potential for nesting birds and negligible potential for roosting bats.

- 3.15 **Target note**
TN1: small pile of rubble with some potential for hibernating reptiles.

- 3.16 **Fauna**
The following species' evidence of their presence were incidentally recorded during the course of the survey:
- Blackbird



4 SITE EVALUATION

Baseline Evaluation Criteria

- 4.1 Based on the site survey results, an ecological evaluation of the site was undertaken using a combination of evaluation criteria for habitats and species, although the general framework follows that provided by CIEEM (IEEM, 2006) (see Table 1 below).
- 4.2 Where relevant the evaluation was made with reference to the statutory protection afforded to species and habitats.
- 4.3 Legal protection does not always correspond to conservation value. Some species (e.g. badgers) are protected for reasons of animal welfare rather than conservation. Others are of national conservation value but are not protected by law (e.g. some Red Data Book species and UK BAP species).

Table 1: Determination of ecological value.

Ecological Value	Description and examples
High	Habitats or features that have high importance for nature conservation, such as statutory designated nature conservation sites of international or national importance or sites maintaining viable populations of species of international or national importance
Medium	Sites designated at a county or district level, e.g. Local Wildlife Site (LWS), ancient woodland site, ecologically 'important' hedgerows or ecological features that are notable within the context of a region, county or district
Low	Sites of nature conservation value within the context of a parish or neighbourhood, low-grade common habitats, such as arable fields and improved grasslands and sites supporting common, widespread species

Table 2: Summary of Ecological Evaluation of the Habitats on the Site.

Habitat	Reason for Valuation
Low Value	
Dense scrub	Common habitat type, limited in extent and species-poor. Provides potential for nesting birds.
Introduced shrubs	Common habitat type, limited in extent and species-poor. Provides potential for nesting birds.
Amenity grassland	Common habitat type, limited in extent and species-poor.
Scattered trees	Common habitat type, limited in extent and species-poor. Provides potential for



	nesting birds.
Defunct hedge with trees	Common habitat type, limited in extent and species-poor. Provides potential for nesting birds.

4.4

Site evaluation

The site is considered to be, of low ecological value. The habitat on site with the highest ecological values is the scrub. This is considered to be of value at the zone-of-influence only, i.e. site level.



5 LEGAL AND PLANNING POLICY CONSTRAINTS

UK and Local BAP Habitats

- 5.1 One potential priority habitats occur within the search area of the site; hedgerows. However, the hedge is now essentially defunct, its less then 20m between nodes and therefore does not meet the UK Biodiversity Action Plan Priority Habitat Description of a hedgerow.

Bats

Building

- 5.2 As part of the habitat survey an external examination of the on-site buildings was undertaken with binoculars to assess likely suitability for roosting bats. Although no direct evidence was identified, the house (B2) was determined to possess some features (access points and potential roosting sites) which could be exploited by bats.

Trees

- 5.3 The trees on site have negligible potential for roosting bats.

Foraging and commuting habitats

- 5.4 Suitable bat foraging / commuting habitat (e.g. hedgerows, grassland / ruderal vegetation) occurs throughout the eastern site boundary. Streetlights are present along farm road along the eastern site boundary; and the potentially impacted habitat is directly lit. As a result, it's very unlikely any additional lighting from the works will have a negative impact on bats, and any present are likely to light tolerant spp such as pipistrelles. However mitigation will be put in place to reduce any additional impact from light.

Legislation

- 5.5 All bat species are fully protected under *Conservation of Habitats and Species Regulations 2017*. Taken together, this makes it an offence to intentionally or deliberately capture, kill or injure or disturb bats (whether in a roost or not), and intentionally or recklessly damage, destroy or obstruct access to their roosts

Birds

- 5.6 Although no nests were noted during the site visit, the site, offers nesting opportunities for birds on site. Birds, their eggs and active nests are protected under the *Wildlife and Countryside Act 1981*, as amended, with



the exception of a number of species considered as pests. This protection includes the birds themselves. Their nests are also protected from damage or destruction, both whilst the birds are constructing and using them. To reduce the likely impact on birds, mitigation measures will be introduced to ensure the conservation of nesting birds (see recommendations for mitigation).

- 5.7 Assuming that the recommended precautionary mitigation measures will be adopted (*See section 6: Recommendations*), it is not anticipated birds will preclude the sites development.

Wild mammals

- 5.8 No mammal signs were noted during the survey, however, the site may be used by other wild mammals such as hedgehogs, which, as of 2007, has been added to the UK BAP priority species list, on account of its rapid decline. Recommendations for mitigation are provided below.

- 5.9 Wild mammal species are currently given limited protection under the *Wild Mammals (Protection) Act 1996*. This makes it an offence to intentionally cause this species unnecessary suffering by certain methods, including crushing and asphyxiation.

Reptiles

- 5.10 Reptiles prefer to reside in areas with a network of longer vegetation (for cover) adjacent to suitable basking habitat such as shorter vegetation and hard standing. In addition, reptiles like to hibernate in complex structures such as hedge banks, which are sheltered from the elements and less susceptible to fluctuations in weather conditions. The amenity grassland on site has low potential for reptiles, while the scrub offers low potential for foraging and hibernation.

- 5.11 The background data check found records of slowworm 1.1km of site. Considering the distance of the records from site, the fact that the application site and the surrounding parcel of land is small, surrounded by tarmac and heavily developed it is very unlikely the site is being used by reptiles. However, the presence of reptiles cannot be discounted, it is therefore recommended that specific mitigation work for reptiles be undertaken (*See section 6: Recommendations*).

- 5.12 All British reptiles are protected under the *Wildlife & Countryside Act 1981*, as amended, from killing and injury. Following the revision of the UKBAP priority species list in 2007, all native reptile species are now listed as UK priority species.

**Great Crested Newts**

- 5.13 SEWBrEC provided records record for great crested newt (GCN) (*Triturus cristatus*) within 2km of the site; the nearest record is 560m from site (dated 2011). GCN are fully protected under The Conservation of Habitats, & Species Regulations 2017.
- 5.14 There are no waterbodies within or on the boundaries of the application site. The scrub could be used by GCN for commuting and potentially hibernating; however the distance of the hedgerows from an accessible waterbody makes that unlikely. Nevertheless, due to the proximity of the record, any hedgerows that will be impacted for access will be subject to mitigation measures. Providing the recommended mitigation measures are adopted, further GCN surveys are considered unnecessary (*See section 6: Recommendations*).



6 RECOMMENDATIONS

Breeding bird habitat

- 6.1 Although it is recommended that every effort be made to design existing habitats into the new development, wherever practicable, the loss of some nesting bird habitat may occur to accommodate the development. It is recommended that clearance of nesting bird habitat should be undertaken in the period August to February inclusive. Should it prove necessary to remove any breeding bird habitat during the breeding season, the area should be checked in advance for the presence of birds' nests. Once checked, if there is no evidence of breeding birds, clearance work should be completed within 48 hours of inspection. If any active nests are found in this area then vegetation clearance must cease and an appropriate buffer zone should be established. This buffer must be left intact until it has been confirmed that the young have fledged and the nest is no longer in use.

Reptiles

- 6.2 All non-grassy areas (i.e. scrub habitat and TN1), affected by the proposed works should be inspected by a suitably qualified ecologist prior to being stripped and clearance work should be undertaken under watching brief by a suitably qualified ecologist. If reptiles are found during works, then work will stop and an appropriate mitigation plan will be agreed with the local authority.

Wild Mammals

- 6.3 It is recommended that good building practices are adopted during the construction phase to safeguard any individual animals which venture onto the proposed development area. Such practices would include covering of all deep holes and trenches overnight and/or the provision of planked escape routes for any trapped wildlife.
- 6.4 As mentioned in section 6.2; non-grassy areas, affected by the proposed works (regardless of their location) should be inspected by a suitably qualified ecologist prior to being stripped and work should be observed and guided by a suitably qualified ecologist.

GCN

- 6.5 To ensure works will not impact GCN, all non-grassy areas affected by the proposed works should be inspected by a suitably qualified ecologist prior to being stripped and work will be undertaken under watching brief by a



suitably experienced ecologist. In the unlikely event that hibernating GCN were to be found, these would be retained in situ and an EPS licence sought.

Bats

External lighting

6.6 It is recommended that external lighting within the newly developed areas is minimised, especially in the vicinity of the retained habitats (particularly the mature hedgerows). The justification for minimisation of the external lighting is that these features may be used by roosting, foraging and/or commuting bats, which are believed to be dissuaded from using lit areas.

6.7 Several means by which external lighting can be minimised are suggested by the Bat Conservation Trust and the Institution of Lighting Engineers (ILE), tabulated as follows:

- The use of low or high pressure sodium lamps instead of metal halide or mercury lamps;
- The brightness should be as low as legally possible;
- The times during which the lighting can be used should be limited to provide some dark periods;
- The lighting should be directed to where it is needed to avoid light spillage;
- Any upward lighting should be avoided; and,
- Light can be restricted to selected areas by fitting hoods which direct the light below the horizontal plane, at preferably an angle less than 70 degrees.

Buildings

6.8 Should the proposed works impact building B2, it is recommended that further bat surveys are undertaken to establish if the building is being used as a roost.



7 ECOLOGICAL CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

7.1 Enhancements are required in accordance with the Environment (Wales) Act 2016.

Retention of existing habitats

7.2 It is recommended that effort be made to design existing habitats into the new development, most notably the boundary habitat.

Enhancement

7.3 It is recommended that the soft landscaping scheme for the new site be seen as an opportunity to design wildlife into the new scheme and so maximise the site's ecological value. The ecological value of the new development could be maximised by way of designing a planting schedule which is dominated by native tree and shrub species and non-native species of known benefit to wildlife and by maximising habitat connectivity.

7.4 Specifically, native trees species (including fruit trees), native species-rich hedgerows and native species shrub borders could be planted and in all instances species of local provenance should be obtained, if practicable.

7.5 Ornamental shrub borders are also expected to form part of the soft landscaping scheme. Such shrub planting should seek to include appropriate native species (e.g. Box and Holly), where possible, as well as non-native species which are of known benefit to wildlife. An exhaustive list is not provided here, but by way of example such species could include: Juneberry, Barberry, Californian Lilac and Viburnum.

7.6 Further measures to enhance the ecological value of the new development include the following:

- Creation of log piles and 'loggeries', using on-site wood (dead wood from the existing log pile would be preferred). These could be positioned in shady locations and would be used by invertebrates, potentially including stag beetle which is a UKBAP;
- Incorporation of bird and bat boxes into at least some of the new buildings and / or erection of such on suitably-sized retained trees; and,
- The provision of hedgehog boxes and incorporation of gaps into ridged boundaries (13cm x 13cm) to allow free passage of hedgehogs across the site.



8 CONCLUSION

- 8.1 Providing the recommended mitigation measures are adopted, relevant nature conservation legislation will not be contravened, ecological impacts of the development will be reduced to a minimum and ecological issues are not, based upon the available information, anticipated to preclude the sites development.

APPENDIX A: Habitat Map



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LEGEND

-  Amenity Grassland
-  Dense scrub
-  Introduced shrubs
-  Hedge with trees
-  Scattered trees
-  Buildings
-  Hard standing
-  Site boundary
-  Target note

PHASE 1 HABITAT MAP

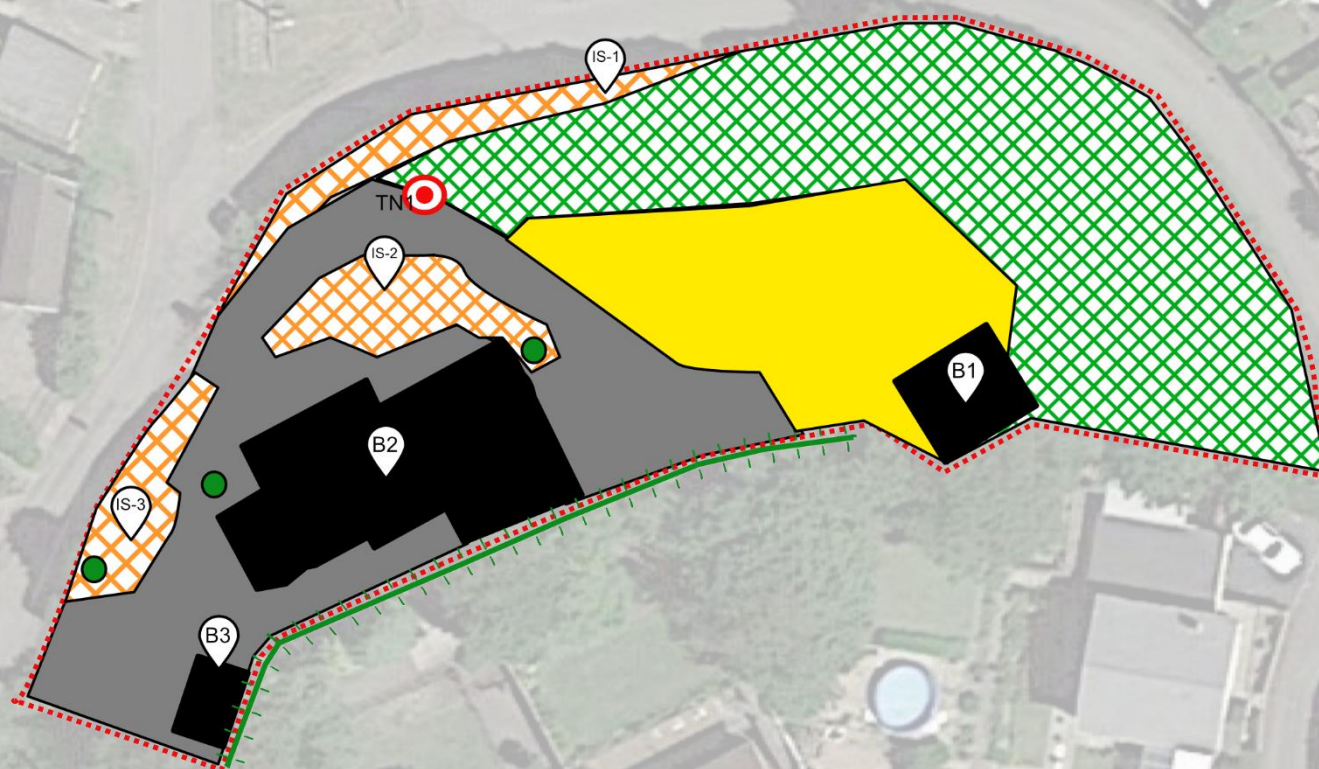
Sunnybank

Date: Dec 2020

Drawn by: D.P.
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Scale:

Drawing N°: v1.1





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