

Biodiversity Strategy

PROJECT TITLE: Proposed School Development

SITE ADDRESS : Land off Goitre Lane, Gurnos, Merthyr Tydfil CF47 9SA

DATE: 16th February 2024

1.1) Planning Consent is being sought for the development of a parcel of land off Goetre Lane, Gurnos, Merthyr Tydfil CF47 9SA. The development proposals seek to create a school within a parcel of land centred at SO 04968 08262. The boundary of the development site is not defined when on site but a site boundary map is provided within Appendix 1 of this report.

1.2) Habitats within the site boundary include worn footpaths, neutral semi improved grassland, scattered trees, stand of Japanese Knotweed and marshy grassland.

1.3) A Preliminary Ecological Assessment of the development site was completed by Ecological Services Ltd in September 2021, July 2022 and July 2023. Data searches, via Aderyn, were undertaken in 2021 and 2022. The site does not lie within or adjacent to any statutory protected sites. The whole of the proposed development site lies within a B-Line, a local non-statutory protected site.

1.4) Reptile surveys were undertaken by Ecological Services Ltd during August/September 2022 and August/September 2023, No reptiles were found to be present within the site during either survey period. A negative survey result does not guarantee absence of reptile species, therefore a precautionary approach in respect of reptiles must be undertaken.

1.5) An Arboricultural Report was completed by ArbTS in November 2023. Trees/tree groups earmarked for removal to facilitate development proposals include T1 (hawthorn), T2 (hawthorn), T4 (ash), T5 (ash), G1 (lime) and a small section of G6 (Hawthorn, scrub)

1.4.) An Invertebrate survey was also undertaken by Christian Owen Bio-Surveys in August 2022. The results of the invertebrate surveys indicate that the development site and surrounding land are important for a number of scarce and local invertebrate species and clearly provides suitable habitats for a wide range of invertebrates. The survey found that the conservation value to invertebrates is not evenly distributed across the site, with the areas considered to be of greatest conservation value to invertebrates identified in the map below, taken from Invertebrate Survey Report, dated October 2022, v1, prepared by Christian Owen Bio-Surveys.



Map 4: An aerial view showing key habitats and areas considered to be of greatest conservation value to invertebrates at Goitre Field (outlined in black). Image © Google 2022.

1.5) The development proposals will result in the temporary loss of all habitat within the site boundary while construction works are undertaken. The works will affect 4 trees and 1 tree group. The development and engineering required to undertake the development proposals will result in the loss of a small portion of high quality invertebrate habitat.

2. Biodiversity Strategy

2.1) The proposed development area is understood to be a **total of 33,184m² in area**. The development proposals seek to create a new school building, car parking, access roads, a MUGA, sports pitches and hard and soft landscape areas. It is understood that the below areas will be created:

- Buildings - 3,525m²
- Hard Landscaping (includes paths, MUGa, playground, car parking) - 10,512m²
- Native Woodland - 859m²
- Native Hedgerow (assuming 1m width) - 434m²
- Readyhedge (single native species) (assuming 1m width) - 115m²
- Amenity Grassland - 4,091m²
- Wildflower Grassland - 10,431m²
- SuDs Wildflower Grassland - 1,994m²
- Shrub / Perennial Planting - 1,194m²
- Rain Garden - 29m²

2.2) When considering habitat impacts within the site there will be a **permanent loss of 14,037m²** to buildings and hard landscape areas.

2.3) A total area of 19,147m² of soft landscaping will be created as part of the development. A mixture of ornamental and native species will be used in the shrub / perennial planting and rain garden areas. Amenity grassland areas will require a high intensity mowing regime due to the high levels of use and visual impacts.

2.4) Four trees and two tree grips are proposed for removal due to development plans. The landscape proposals detail the planting of 28 trees as compensation for tree loss. Tree planting will be a mixture of native and non native species to help address biodiversity and landscape considerations.

2.5) Higher quality native habitat to be created will include woodland, native hedgerow, Readyhedge, wildflower grassland and SuDs wildflower grassland. These areas equate to 13,833m². The ongoing management of these habitat areas will be a key factor in the biodiversity value of the site post development work.

2.6) Consideration has been given to the use of Grasscrete to help reduce the level of hard landscaping within the site boundary. The car parking areas would be heavily utilised and axial manoeuvres of motorised vehicles would be likely to disrupt the grasscrete. Furthermore, the site investigation survey returned failed BRE365 soakaway tests and infiltration to the ground, which GrassCrete systems require for operation. Thus GrassCrete is not proposed for use within the site.

2.7) Consideration has been given to the use of Green Roofs within the site to provide additional habitat creation. To propose green roofs for the development, a structural assessment would be required. This would likely result in an increased applied load from the green roof, increased steel volume and overall cost to the scheme. This would require additional work and cost which are not budgeted for and would result in delays to the project timetable.

2.8) A swale will be created as part of the development proposals to help deal with drainage issues being experienced within the development and wider site boundary. The swale will be designed to include intermittent check dams to slow water flow and create ephemeral pools during periods of high rainfall. The swale sides will have a 1:3 slope to allow maintenance access.

2.9) Maintenance of the swale will be required to prevent vegetation affecting the drainage capacity of the channel. The cut and collection of material will be important to ensure vegetation does not fall into the channel and cause issues with the check dams. The swale will be sown with Emorsgate EC1 Standard Cornfield Mixture and EM8 Meadow Mixture for Wetlands. The swale sides will be cut alternately and each year. One bank will be cut during April and the opposite bank cut in October, the bank cut in April will be cut in October of the next year and so on. By cutting alternate banks each year longer vegetation will be retained for cover and a habitat mosaic will be created to benefit wildlife. The wetter conditions of the swale and ongoing management will help create marshy grassland habitat.

3. Biodiversity Enhancements

3.1) A scheme of bat and bird boxes will be proposed for inclusion within the new building. The exact location and specification of each box will be agreed and added to architectural drawings.

3.2) All fencing on site will provide mammal gaps. Close board, post and wire and metal mesh fencing will either provide a continuous gap of 20cm between the ground and base of fencing or will cut 20cm x 20cm gaps every 3m along the fencing.

Best Wishes

Ash Harris
Director
Ecological Services Ltd

Signed: *Ash Harris* **Date: 15th February 2024**

Reference List

- Ecological Services Ltd (dated 10th February 2022) '*Preliminary Ecological Assessment: Land adjacent to Goetre Lane, Merthyr Tydfil*) V1.0
- Ecological Services Ltd (dated 4th July 2022) '*Ecological Appraisal: Proposed Solar Panel Development*)
- Ecological Services Ltd (dated 13th December 2023) '*Reptile Survey Report; Goitre Field School, Merthyr Tydfil*) V3.0
- Ecological Services Ltd (dated 10th October 2022) '*Reptile Survey Report; Proposed PV Array at Land of Goetre Lane, Merthyr Tydfil*) V1.0
- Christian Owen Bio-Surveys (dated October 2022) '*Invertebrate Survey Report; Goitre Field - Merthyr*)
- ArbTS (dated 6th November 2023) '*Arboricultural Report; Goitre Primary School, Merthyr*'

Appendix 1 - Development Site Boundary

