

Precautionary Working Method Statement

PROJECT TITLE: Solar Farm and associated equipment and cabling

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

PLANNING REF : P/25/0044

DATE: 3rd June 2025

1.1) Planning Consent is been granted for the creation of a solar array within a parcel of land off Goitre Lane, Gurnos, Merthyr Tydfil CF47 9SA. The solar array will help deliver renewable energy to Pen Y Dre Comprehensive School, a newly created Goetre Primary School and Prince Charles Hospital. The proposed development site is centred at NGR SO0515708293. The site is sloping from north east to south west and lies adjacent to Pen Y Dre School in the north and First Avenue to the east.

1.2) The site lies adjacent to Pen Y Dre School in the north and Goitre Lane in the south and west, beyond which lies the Gurnos Housing Estate. To the east lies Galon Uchaf Housing Estate. There are pathways within the site used by the general public, with evidence of fly-tipping in the east of the site. The approximate location of the retained area, outlined in blue can be found in Appendix 2.

1.3) A Preliminary Ecological Assessment of the development site was completed by Ecological Services Ltd in September 2021, July 2022 and July 2023. Habitats within the development site include semi improved grassland, bramble scrub, woody scrub (sprawling areas of mainly blackthorn and goat willow) and scattered trees. 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 also 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 2024. Three trees and six tree groups are present within or adjacent to the PV array site. These trees are T6, T7, T8, G6, G7, G8, G9, G10, G11. An additional tree, referred to as Tree A was also noted during the bat tree survey work as being potentially affected. Additional Tree A has an approximate grid reference of SO 05141 08193 and is located on the eastern boundary of the site, further east than the G6 scrub line

1.6) Each tree within the development site and wider boundary was subject to a Ground Level Tree Assessment (GLTA) for their potential to be used by roosting bats. Trees T6, T7, T8 and tree groups G6, G7, G9, G10 and G11 were classified as having **NONE** bat roost suitability. Additional tree A and a tree within G8 were assessed as having PRF-i bat roost suitability. Both trees will be retained during the proposed development works and therefore no further work has been recommended.

1.7) An Invertebrate survey was also undertaken by Christian Owen Bio-Surveys in August 2022. The results of the invertebrate surveys indicate that the site as a whole is an important site 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 to be highest within the development site as identified in the map below, taken from Invertebrate Survey Report, dated October 2022, v1, prepared by Christian Owen Bio-Surveys.

2. Potential Ecological Impacts

2.1) Vegetation clearance works within the development site are required. The clearance works will affect the majority of habitat within the site boundary. A small parcel of land to the north west, directly adjacent to Pen Y Dre School will not be affected.



Fig.1 - Proposed Work Area & Retained Vegetation

2.2) The clearance work will affect the majority of habitats including semi improved grassland, bramble and woody scrub and trees.

- Bramble and woody scrub habitat and trees have the potential to be used by nesting birds and reptiles for commuting, foraging and hibernation purposes and commuting / foraging bat species.

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- The longer areas of grassland have potential to be used by commuting and foraging reptiles.

2.3) It is proposed to implement species deterrent measures to 'push' any reptiles present within the site boundary into habitat in the west of the site which is being retained unaffected by the work. Species deterrent measures will be used to naturally encourage reptiles from within the work area into adjacent suitable habitat. Once the vegetation clearance work is completed, reptiles will be able to recolonise all areas of soft landscaping within the site.

2.3) It is considered highly unlikely that reptiles will be encountered during the first stage vegetation clearance work. If reptiles are encountered during any stage of on site work, the animal will be captured and moved to the retained vegetation to the north west of the site. The animal will be captured by either the Ecological Clerk of Works (ECoW) or site contractor depending on the immediate safety of the animal.

3. Construction Mitigation Measures

Nesting Birds

3.1) All trees and scrub have the potential to be used by nesting birds between the months of March to August inclusive.

3.2) Any tree and scrub 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 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 at least 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.

Reptiles

3.3) The grassland within the site boundary has the potential to be used by common reptile species during the summer months. The roots of the trees and dense thatch beneath scrub have the potential to be used by reptiles during the hibernation season of November to March inclusive, dependent on seasonal temperatures.

3.4) Temporary heras fencing will be installed around the retained habitat to the west of the site. Temporary fencing will prevent materials or machinery being stored in the area and prevent incidental access into the area which could damage the vegetation. The EcOW will inspect the fencing once its installed to ensure it is correct.

3.5) All trees and scrub must be removed in 2 stages to avoid nesting bird and reptile impacts.

3.6) The below mitigation measures will be implemented during construction and to ensure reptiles and nesting birds are protected:

3.6.1) Tree / Scrub Clearance

- Any tree / scrub removal will be completed in two stages.

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- **First stage**, the woody vegetation (trees / scrub) will be cut down to a height of 50cm above ground level. The brash will be removed from the site within 24hrs of being cut. This stage will be completed between the months of **September to February** inclusive to avoid impacts to nesting birds.
 - **Second stage**, tree roots will be grubbed up using a toothed bucket of a JCB or an appropriate sized digger. This stage will be completed during the months of **March to October** inclusive when reptiles are not hibernating. The roots systems will be removed slowly and gently to allow any reptiles present to escape. All roots will then be removed from the proposed development site.

3.6.2) Grassland Clearance

- Grassland clearance must be undertaken in two stages as below and during the summer months of April to September inclusive to ensure reptiles are active. The vegetation cut will aim to push any reptiles on site into adjacent retained vegetation to the north west. Cutting to start to the south of the works area and progress north westerly towards the area of retained habitat.
- The machinery to be used for cutting vegetation depends on the ground conditions and contractors. Owing to the small scale of the site ideally hand held trimmers and or brush cutters may be suitable and the tailings hand raked and removed from site.
- **First Stage Cut** - All vegetation including grasses and flowers are to be cut no shorter than 150mm. Strimming will start at the south boundary of the site and will proceed north westwards towards the retained habitat areas. The cut material will be raked, collected and removed from the site. Once the cuttings have been collected and removed from site, the site must then be left for 24hrs.
- Any reptiles present should naturally move away of their own accord due to the disturbance from cutting. However if any reptiles or other fauna are encountered during this operation they will either be carefully collected and moved to the retained habitat to the north west of site or allowed to do so of its own accord.

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- **Second Stage Cut** - After 24 hours the grass should be cut to ground level to a maximum height of 50mm. Cutting will look to push any resident reptiles into retained habitats in the north west of the site and the arisings raked and removed to the retained habitat to the north west of the site. Any reptiles or other fauna found will be treated as above.
 - Any suitable refugia such as large fallen branches, large stones, large items of fly tipping will be carefully lifted, inspected and removed under ecological supervision, for the presence of reptiles on or around this feature. Any which are found should be allowed to exit and disperse away from the site voluntarily, or should be carefully gathered up using gloved hands and taken for release in suitable habitat off the site.
 - Once all vegetation has been cleared from within the site boundary, the work area must remain in a vegetation free state. This will help to reduce the likelihood of reptiles using the site while construction works are underway.

3.7) Once the measures in 3.6.1 and 3.6.2 are undertaken, excavation work where required can commence. It is anticipated that permanent grassland loss will only be for the location of the new building, car park and access road within the site.

3.8) There will be some excavation work required to install cabling from the PV panels. The exact route of cables and the required trenches are not yet known however the trenches required to run the cables will be excavated, laid and then the soil and turf laid back over the route. There will be some excavation to also install the attenuation basin on site as well. This will also be temporary habitat disturbance as basin will be landscaped and managed as grassland once constructed.

3.9) Works on site are anticipated to commence as soon as possible. Therefore an anticipated start of late summer 2025 is given. A brief summary of ecological considerations are given below:

- First stage cut of trees and scrub to be undertaken prior to 1st March 2024
- All brush must be removed from the work area within 24hrs of the first stage cut

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- If this is not achievable nesting bird surveys of dense vegetation will be required. Alternatively, waiting until 1st September 2024 to 1st March 2025.
 - First stage grassland cut to be undertaken from 1st April 2024 - 1st October 2024
 - Second stage vegetation cut of scrub to be undertaken from 1st April 2024
 - Second stage grassland cut of grassland to be undertaken at least 24hrs after first stage cut and all cuttings being removed from site.

4. Enhancement Measures

4.1) A suite of biodiversity compensation and enhancement measures are to be created within the development site.

Reptile Hibernacula

4.2) Three reptile hibernacula will be created, as per the diagram in Appendix 2. Each hibernaculum will be created once building construction works have been completed and soft landscape works on the site are in progress. The exact location of the reptile hibernacula will be agreed with the appointed Project Ecologist but is indicated on the *Detailed Planting Plan (dwg no. 2488501-SBC-00-XX-XX-DR-L-402)*.

4.3) The reptile hibernacula will measure at least 0.5m in depth, 2m in width and 2m in length. Each hibernaculum will be created using alternative layers of rubble, brash and soil all to be derived from the site works. The top of the structure can then be covered with soil and sown with the same seed mix the wider site will use. Natural gaps into the hibernacula must be provided and retained. This is best achieved by not completely covering the bases of the hibernacula in soil, allowing the rubble and brash to be visible for at least 100mm above adjacent ground level.

Soft Landscaping

4.4) 711m of native hedgerow will be planted within the site boundary and 142m of native hedgerow will be planted outside the site boundary. Once established hedgerow will be managed to benefit wildlife. Hedgerow will be cut between the months of November - February inclusive every 2 years. The aim will be to create an 'A' shaped densely vegetated structure.

4.5) All grassland areas within the site boundary will be managed to benefit biodiversity. General purpose meadow grassland areas will be mown in March, late August /early September and October each year. Each cutting period will take the grassland down to 50mm in height with all cuttings collected and removed from site.

4.6) All wetland meadow areas will be mown in March and late August each year. Each cutting period will take the grassland down to 50mm in height with all cuttings collected and removed from site.

Bat Boxes

4.7) The new building proposed for creation within the site boundary will not be suitable for the provision of bat boxes. There are no mature trees within the site boundary that are suitable for bat boxes to be fitted. Consideration has been given the provision of bat boxes on the security fencing around the site but they are likely to attract vandalism and therefore are not suggested in this instance.

Bird Boxes

4.8) The new building proposed for creation within the site boundary will not be suitable for the provision of bird boxes. There are no mature trees within the site boundary that are suitable for bird boxes to be fitted. Consideration has been given the provision of bird boxes on the security fencing around the site but they are likely to attract vandalism and therefore are not suggested in this instance.

Butterfly Bank

4.9) A butterfly bank will be created in the north west corner of the site in a rough 'C' shape around the PV panels. The butterfly bank footprint will need to measure 30m long x 10m wide

4.10) First of all the vegetation needs to be cleared in the proposed location of the butterfly bank. If the vegetation is long, a two stage cut will be required as per section 3.6.2. Once all vegetation has been removed the route of the butterfly bank will be agreed with the EcOW

4.11) The butterfly bank footprint will need the top soil removed and retained for later use. Within the cleared area the contractor will dig a linear trench measuring 30m in length, 2m wide and 1m deep. The sub soil will be stored in an agreed location completely separate from the top soil.

4.12) The stored top soil will then be placed within the excavated trench. Then the sub soil can placed on top of the top soil to create a raised bank approximately 60cm high. The soil bank can then be compacted to prevent subsidence.

4.13) The remaining scraped areas within the 300m² butterfly bank footprint will be covered with a calcareous aggregate. Building rubble or gravel would be a suitable substrate for use.

4.14) The entire area can then be seeded using Emorsgate EM1 Basic General Purpose Meadow Mixture and managed as grassland habitat in perpetuity.

5. Roles and Responsibilities

5.1) The Ecological Clerk of Works (ECoW) during construction works:

Project Ecologist - Ecological Services Ltd; info@ecologicalservices.wales ;
07305143857

5.2) The ECoW will remain on call, should any queries arrive they will be contacted directly for advice how to proceed. The EcOW will provide a toolbox talk at the start of on site clearance works. The EcOW will inspect the first stage and second vegetation cut work and provide written confirmation to the Project Manager and Site Contractor it has been completed correctly. Photographic evidence of site visits will be collected.

5.3) A contractor has not yet been appointed for vegetation clearance works. When they are appointed this document will be updated to include the company details.

5.4) Morgan Sindall are the Project Manager for the construction phase of works. **Project Manager** - Alex Smith; alex.Smith@morgansindall.com ; 07866 146782

Best Wishes

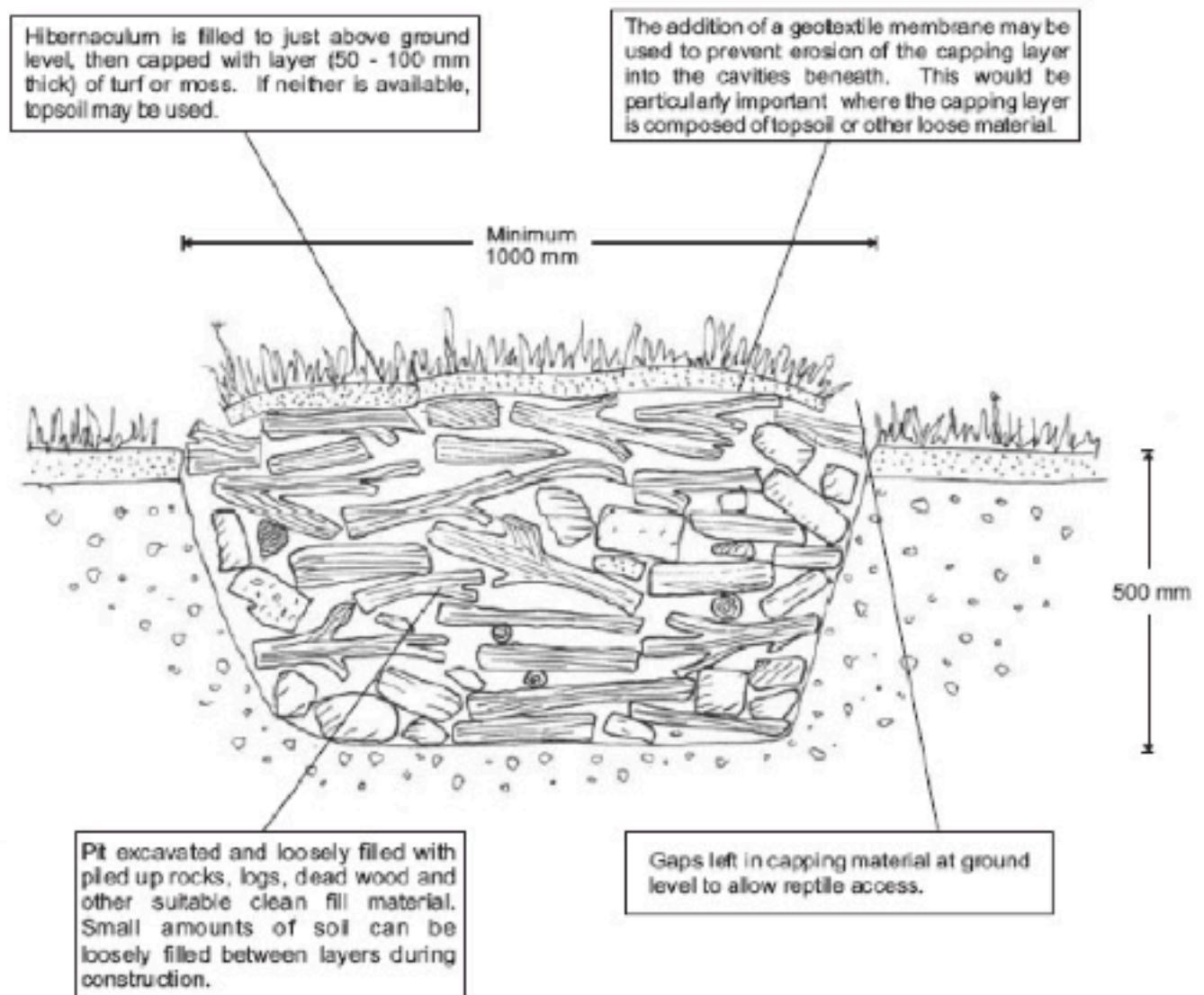
Ash Harris
Director
Ecological Services Ltd

Signed: *Ash Harris* Date: 3rd June 2025

Appendix 1 - Aerial Image of Development Site



Appendix 2 - Reptile Hibernacula



Source: Highways Agency (2005) *Design Manual for Roads and Bridges: Volume 10 Section 4 Part 7 – Nature Conservation Advice in Relation to Roads and Reptiles*