

## Preliminary Ecological Appraisal

(Incorporating an Extended Phase 1 Survey, Preliminary Roost Assessment and Habitat Suitability Index)

Project: Brynllwarch Garden, Kerry, Powys SY16 4PD

Prepared by: D. Williams MArborA, MRSB, MSc, BSc, RFS Cert, AA PTI

On Behalf of: Emma Catton

## Foreword

Salopian Consultancy Ltd is an Arboricultural/Ecological consultancy which provides inputs to guide developers and architects during the planning process.

Core services include BS5837:2012 tree surveys, condition assessments, mortgage applications and woodland management. In addition, Salopian Consultancy Ltd have in house ecological expertise enabling them to perform a range of Phase 1 and Phase 2 ecological surveys.

## Report revision record

	Draft	Final version
Report reference	SC:693 PEA	
Project	Brynlwarch Garden	
Author	D. Williams	
Issue date	29/09/2022	10/10/2022

This report has been prepared for the sole use of the client. The content of this report remains the intellectual property of Salopian Consultancy Ltd, permission from the author must be obtained prior to reproduction of any material including plans and appendices, either wholly or in part.

## Contents

Executive Summary		1
Section 1	Introduction	2
	Site location and context of development	2
	Scope of study	3
	Limitations	4
Section 2	Planning policy & statutory controls	5
Section 3:	Survey findings	6
	Desk study	6
	Habitat suitability index	7
	Preliminary roost assessment	7
	Phase 1 survey	8
Section 4:	Evaluation of ecological constraints and opportunities	9
	Designated sites	9
	Habitats	9
	Protected species	9
	Artificial light	10
	Biodiversity enhancements	11
Section 5:	Conclusion	12
Appendices		
Appendix 1	Survey methodology	
Appendix 2	Target Notes	
Plans		
Plan 1	Proposed site layout	
Plan 2	Phase 1 habitat map	

## Executive summary

### Brief of the study and context of development

This report has been prepared to identify the key ecological constraints to inform the re-submission of planning application for the construction of two residential dwellings at Brynllwarch Gardens. The focus of the study has been to highlight those ecological constraints to ensure that they have been given due consideration during the design and planning process, whilst identifying opportunities for biodiversity enhancements.

### Survey methods

A desk study of historic ecological records and a Phase 1 habitat survey were performed to assess the site's potential to support protected species. This study was extended to include a Habitat Suitability Index (HSI) of ponds within 250m of the site and a Preliminary Roost Assessment (PRA) of those trees and structure on site by a licensed Ecologist.

### Findings and recommendations

The site remains in a similar context to the previous ecological assessment prepared in 2016 which accompanied the planning application [P2017/0383](#) which gained full planning consent in 2018 [18/0117/RES](#). The site largely comprising of hard standing and bare earth, occasional areas of ruderal vegetation were noted adjacent to the eastern and northern boundary attributable to the absence of recent formal management.

Since the previous survey a small ornamental duck pond has been created within the south eastern corner of the site which scores poorly in its suitability for breeding amphibians determined by scores derived from a HSI assessment. The PRA confirmed that those man made structure located within the site are not deemed suitable for roosting bats.

### Further surveys and ecological enhancements

Few ecological impacts were raised acknowledging that the foundations of the plots are already in place and that the remaining works involve construction activities above ground, with the exception of landscaping. Any vegetation removal or pruning of hedgerows must be timed to fall between September and February outside of the bird nesting season or immediately after a pre-commencement check by suitably qualified personnel. No evidence of protected species or notable habitats were identified on site, further Phase 2 surveys to inform licensing or mitigation measures are not deemed necessary.

The proposal has the opportunity to provide enhancements for protected species through the installation of both bird and bat boxes upon the built form in addition to new tree planting and hedgerow planting to increase and secure opportunities for pollinating insects, nesting birds and small mammals. Such provisions for ecological enhancements could be secured by a suitably worded planning condition.

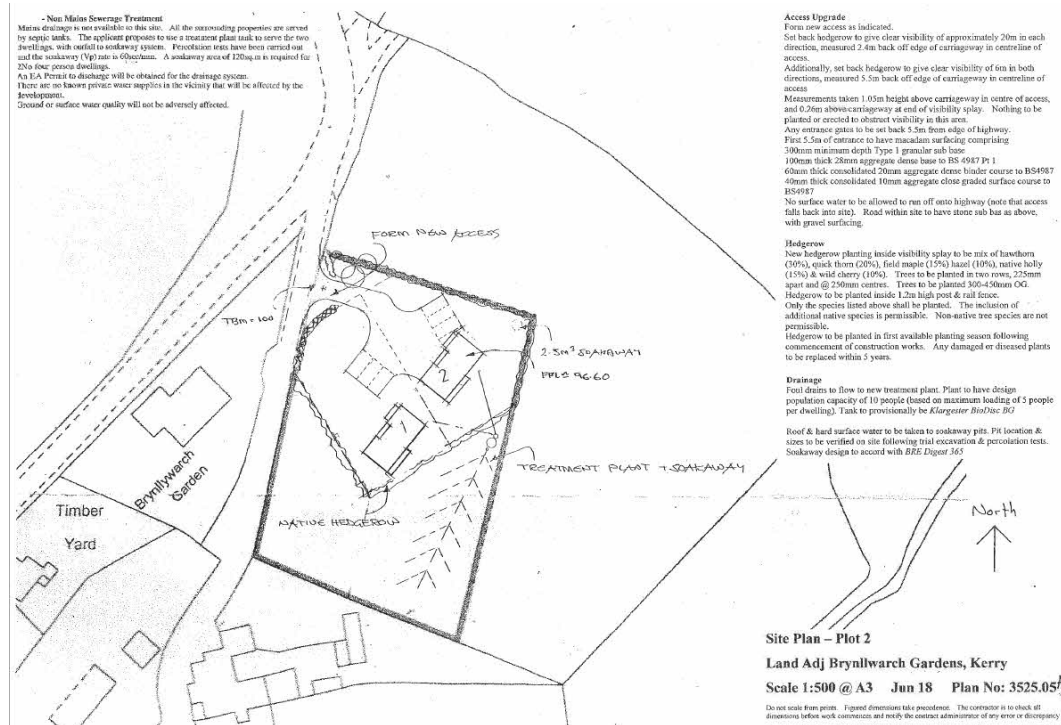
## Section 1 Introduction

- 1.1 This report, its plans and associated appendices have been prepared on behalf of E Catton to meet those requirements of an Extended Phase 1 Survey at `Brynllwarch Garden`, hereafter referred to as `The Site`. The Site is centred on approximate Ordnance Survey Grid Reference SO1537 8933 illustrated in [Plan 1](#).
- 1.2 The Phase 1 survey was extended to include an assessment of the sites suitability for protected species including a Preliminary Roost Assessment (PRA) of trees and structures on site and a Habitat Suitability Index (HSI) of those ponds within 250m of the site. The data obtained from this survey is presented in a Phase 1 habitat map ([Plan 2](#)) illustrating habitats recorded with target notes used to highlight features of interest. Further details on the methodology adopted during the Extended Phase 1 survey and desk study are included in [Appendix 1](#).
- 1.3 The survey was performed on the 21<sup>st</sup> September 2022 by Douglas Williams, Salopian Consultancy Ltd.'s Principal Ecologist. Doug is an experienced Ecologist/Arboriculturist who holds an MSc in Biological Recording, protected species licences for both bats and great crested newts, and memberships with the Royal Society of Biology, the Chartered Institute of Ecology and Environmental Management and the Arboricultural Association.

### Site location and context of development

- 1.4 The site is located within the northern fringes of the settlement of Pentre, situated approximately 0.9km south east of the town of Kerry. Positioned within a rural setting the site is bound to the north, east and south by shortly grazed pasture. To the west the site abuts an unclassified road which links Pentre to Kerry and provides means of access to the north western corner of the application area.
- 1.5 It is understood that both outline and full planning consent was secured for two residential dwellings in 2017 and 2018 respectively ([P2017/0383](#) & [18/0117/RES](#)) subject to a series of planning conditions of which Conditions 4 and 7 have not been fully discharged [22/1153/DIS](#) and [22/1150/DIS](#).
- 1.6 Part of the requirements of consent was to for fill all pre-commencement planning conditions with a material start within five years from outline planning consent. The local authority now considers that planning permission has expired as these condition were not for filled within the allocated time frame.

Figure 1: Site location plan



Scope of the study

1.7 The primary focus of the study is to;

- Meet the validation requirements of Powys County Council by presenting the findings of an Extended Phase 1 Survey in a clear and concise manner.
- Include the content set by the Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines<sup>1</sup>, for ecological appraisals.
- Classify and map those habitat types within and immediately adjacent to the application area.
- Identify both habitats and species constraints pertinent to the development proposal.
- Detail European Protected Species Mitigation licensing (EPSML) requirements, Reasonable Avoidance Measures (RAMS) and mitigation measures where required.
- Identify opportunities for the proposal to provide enhancements to the ecological resource on site.

<sup>1</sup> Chartered Institute of Ecology and Environmental Management., (2015). *Guidelines for Ecological Report Writing* Appendix A.

### Limitations

- 1.8 The survey was not considered to be limited by seasonal or climatic factors and was undertaken within a suitable time of the year given the habitats and species likely to be present.
  
- 1.9 The Extended Phase 1 survey provides a snap shot of the potential of habitats to support protected species. It should be noted that the absence of field signs does not necessarily confirm the absence of a species due to the dynamic and seasonal nature of many protected species. The suitability of a site may also increase with succession over time or with changes in land management practices. Further advice should be sought from Salopian Consultancy Ltd In the event that a protected species or field signs of such species are discovered during works.

## Section 2 Planning policy & statutory controls

### Statutory legislation

- 2.1 A range of EU and UK legislation offers statutory protection to species and habitats which Local Planning Authorities have a duty to consider whilst determining planning applications. The following EU directives are relevant to protected species, habitats, and designated sites;

The EC Habitats Directive (92/43/EEC)  
The Birds Directive (79/409/EEC) and  
EU Water Framework Directive (2000/60/EC)

- 2.2 Much of the EU legislation is transposed into domestic legislation with respect to protected species and habitats, including.

The Wildlife and Countryside Act (1981) (as amended)  
The Protection of Badgers Act (1992)  
The Natural Environment and Rural Communities Act (2006)  
The Countryside and Rights of Way Act (2000)

- 2.3 The Association of Local Government Ecologist (ALGE) provides a summary of the criteria and thresholds<sup>2</sup> to determine when an Ecological survey should be performed. Many Local Planning Authorities have adopted this guidance to ensure that the correct information is presented when considering the impacts upon biodiversity during the planning process.

- 2.4 The protection and provision for Biodiversity and protected species forms a key component of Powys Local Development Plan, detailed in Section 6 of the Biodiversity and Geodiversity Supplementary Planning guidance. This section recognises the importance of habitats of principal importance at a local and national level which discussed further within Policy DM2. Protected species and Species of Principal Importance also need to be given consideration during the planning process to comply with Welsh Government Technical Advice Note 5 (TAN5). A three stage process is required, screening, appropriate assessment, and exploration of alternative solutions before Licensing measures. The trigger points for Ecological surveys are detailed in section 7 of Biodiversity and Geodiversity Supplementary Planning guidance.

---

<sup>2</sup> Association of Local Government Ecologist., (2007). *Template for Biodiversity and Geological Conservation*. Table 1.



## Section 3: Survey findings

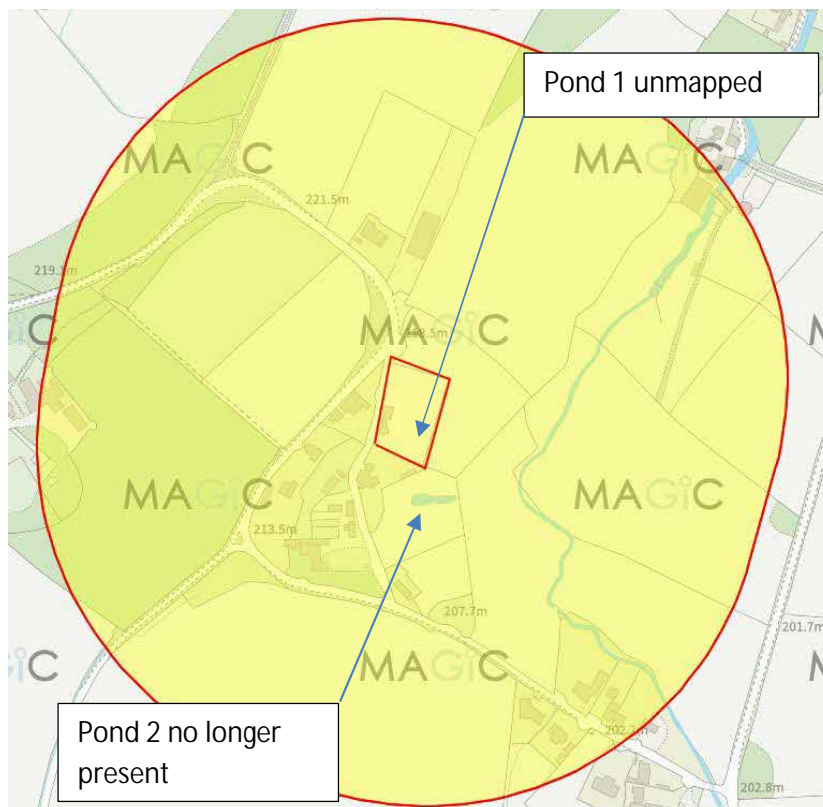
### Desk study

- 3.1 The desk study summarised in [Appendix 1](#) forms an important part of the ecological assessment. It provides contextual information, such as the site's proximity to local designated sites of conservation concern as well as consideration of historical protected species records. This information is used when determining the site's suitability for protected species.
- 3.2 A review of OS maps and online mapping resources was undertaken to identify designations of conservation concern within 1km of the site and waterbodies within 250m.

### Statutory/ non-Statutory Designation within 1km

- 3.3 No statutory designations of conservation concern were identified during the desk study within 1km of the site nor were any non statutory designations identified within or adjacent to the site.

Figure 2: Water bodies within 250m of the site



### Species records

- 3.4 A review of the information present on Powys & Brecon Beacons National Park (BSI) website through the “what’s in my area?” function revealed 234 records within 1km site. These records largely comprise of common vascular plants and bird records ubiquitous to the local area therefore a formal request for this information was not made.

### Habitat Suitability Index

- 3.5 A desk-based assessment identified two waterbodies within 250m from the site illustrated in Figure 2, Pond 2 appeared to be no longer present at the time of the survey. An assessment of Pond 1 was undertaken using a HSI was undertaken to determine its potential to support breeding populations of amphibians detailed in Table 2 below

Table 2 HSI scoring of suitable ponds within 250m of the application area

Indices	Pond 1	Pond 2
Location	0.5	No longer present
Pond area	0.1	
Pond drying	0.9	
Water quality	0.33	
Shade	1	
Fowl	0.01	
Fish	1	
Ponds	0.55	
Terrestrial habitat	0.33	
Macrophytes	0.3	
HSI score	0.31	
Suitability	Poor suitability	N/a

### Preliminary roost assessment – structures/trees

- 3.6 The site supports a static caravan, steel framed workshop/storage building and a wooden shed. The structures are generally in good condition with no obvious cracks/crevices deemed suitable for roosting bats. The materials of these structures have relatively poor thermodynamic properties compared to brick and stone structures therefore they are not deemed suitable of this species.

### Phase 1 survey

- 3.7 The application area largely comprises of bare earth and hard standing with occasional areas of ruderal vegetation, predominately associated with the eastern and northern boundaries due to the absence for recent formal management. These areas support common flowering species such as Nettle (*Urtica dioica*), Bramble (*Rubus fruticosus*), Chickweed (*Stellaria media*), Ragwort (*Jacobaea vulgaris*), Dead nettle (*Lamium purpureum*), Spear thistle (*Cirsium vulgare*), Sow thistle (*Sonchus sp*), Broadleaved dock (*Rumex obtusifolius*), Yarrow (*Achillea millefolium*), Broom (*Cytisus scoparius*).
- 3.8 A Lawson (*Chamaecyparis lawsoniana*) hedgerow denotes the western boundary of the site. Young specimens of Ash (*Fraxinus excelsior*), Horse chestnut (*Aesculus hippocastanum*), Beech (*Fagus sylvatica*), Silver birch (*Betula pendula*) and Cherry (*Prunus sp*) have been planted along the eastern boundary, few of which have become established, likely due to drought stress/absence of watering.

**Figure 3:** Main body of the site. Footing of both plots in situ



**Figure 4:** newly formed duck pond



## Section 4: Evaluation of ecological constraints and opportunities

### Designations

- 4.1 The site does not fall within or adjacent to any statutory or non-statutory sites of conservation concern. Given the context and scale of the proposal no impacts are envisaged upon the functionality of neighbouring sites/ecological resources or the species they support.
- 4.2 The proposal has the potential to improve the connectivity between adjacent land parcels through the planting of new boundary hedgerows along the eastern and northern boundaries.

### Habitats

- 4.3 Those habitats on site are restricted largely to bare earth, hard standing with restricted pockets of ruderal vegetation. The site is isolated within the local landscape from semi-natural habitats by virtue of the neighbouring shortly grazed pasture and hard standing which abut the sites boundaries. Both primary and secondary habitats are therefore considered to be of little ecological merit in their current context.
- 4.4 The addition of new planting has the potential to provide benefits for pollinators and foraging bats/birds through the diversification of nut and fruit bearing trees/hedgerow species which could be informed by a Tree Planting Scheme or a Landscaping Plan.

### Protected species

- 4.5 The western conifer hedgerow provides localised nesting opportunities for a range of common passerine. All wild birds, their nests and eggs are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), this makes it an offence to:
- Intentionally kill, injure or take any wild bird;
  - Take, damage or destroy the nest of any wild bird while it is in use or being built;
  - Take, damage or destroy the egg of any wild bird; or
  - To have in one's possession, or control, any wild bird (dead or alive) or egg or any part of a wild bird or egg.
- 4.6 Whilst the removal of this hedgerow is not anticipated, any pruning/management must be timed to fall between September and February outside of the bird nesting season to avoid contravening the legislation above or immediately after a pre-commencement check by suitably qualified personnel.
- 4.7 The PRA confirmed that the site does not contain suitable buildings or trees considered capable of supporting roosting bats.
- 4.8 A newly formed waterbody (Pond 1) was identified within the site. This pond scored poorly for its suitability for great crested newts derived from a HSI score. The low score was predominately influenced by the presence of water fowl which have inhabited the establishment of aquatic vegetation which is critical for breeding newts as an egg laying resource, in addition to reducing the water quality. Pond 2 is located 40m to the south west



of the site was not accessible during the time of the survey. It was apparent from a visual assessment from within the application area that this suspected waterbody does not currently hold water, and is merely a depression within an field of intensively grazed pasture.

- 4.9 No evidence or field signs of badger (such as setts or scraps) were identified within 30m of the site boundaries. Given the mobile and dynamic nature of badgers, if any excavation is discovered prior or during works an update survey should be completed by a competent ecologist to confirm the cause of the excavation before works continue.
- 4.10 No field signs or habitats considered suitable to support other protected species were noted during the study.

#### Artificial Lighting

- 4.11 All new Artificial lighting will need take into account those measures recommended in the 'Bat Conservation Trusts Guidance Note 08/18 Bats and artificial lighting in the UK to ensure dark corridors remain for nocturnal commuting/foraging wildlife.
- 4.12 Lighting should be directed to where it is needed to avoid unnecessary light spillage. All proposed new lighting should be directed away from any vegetated boundary features to retain dark corridors for commuting bats across the site.
- 4.13 Artificial lighting should lack UV element the use of LEDs is advised due to their sharp cut-off, lower intensity, good colour rendition and dimming capability. Metal halide, fluorescent sources should not be used.
- 4.14 Lighting should adopt a warm white spectrum, ideally below 2700 kelvin with a peak wavelength higher than 550nm, thus avoiding emitting those wavelengths of light most disturbing to bats<sup>3</sup> (Stone 2012). Security lighting should be activated by movement sensors to reduce the amount of time the lights are activated, set on a short timer (maximum of 1 minute), and orientated towards the ground. The use of accessories such as hoods/cowls or shields is advised to help direct light to the required area only.
- 4.15 New planting can be used to provide an effective barrier to light spillage off site, this would be well placed upon the eastern and northern boundaries of the site to block light spillage to the areas of pasture.

---

<sup>3</sup> Stone, E.L., Jones, G., Harris, S. (2012). Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats. *Glob. Change Biol.* 18, 2458–2465

### Biodiversity enhancements

- 4.16 It is recommended that enhancements to the site for bats are provided through the incorporation of a 2FR Schwegler bat tubes upon the south facing aspect of each of the dwellings at a minimum height of 3m.
- 4.17 Enhancement of the site for nesting birds could be provided through the erection of Schwegler 1B Nest Boxes with a 32mm entrance hole upon those newly planted trees on site. This bird box is designed to attract Great tit (*Parus major*), Blue tit (*Cyanistes caeruleus*), Marsh tit (*Poecile palustris*), Coal tit (*Periparus ater*), Crested Tit (*Lophophanes cristatus*), Redstart (*Phoenicurus phoenicurus*), Nuthatch (*Sitta europaea*), Collared flycatcher (*Ficedula albicollis*) Pied Flycatcher (*Ficedula hypoleuca*), Wryneck (*Jynx torquilla*), Tree Sparrow (*Passer montanus*) and House Sparrow (*Passer domesticus*).
- 4.18 In addition to roosting provisions for bat and birds there is the opportunity to incorporate new hedgerow and tree planting to increase the level of biodiversity across the site. New planting such should include a minimum 60% of native species with a focus of those known to be beneficial to pollinators as described in RHS plant for pollinators guidance.
- 4.19 All Tree and hedgerow planting should meet the requirements of [BS8545: 2014 Trees: from nursery to independence in the landscape. Recommendations](#) with specific reference to the procurement of new trees, species selection, aftercare and maintenance. This could be achieved via planning condition through a formal Tree Planting Scheme.

## Section 5 Conclusion

- 5.1 The application area comprises largely of hard standing and bare earth, which is considered to be of little ecological merit, localised areas of ruderal vegetation were noted along the boundaries of the site, and a Leyland cypress hedgerow adjacent to the western boundary.
- 5.2 A HSI assessment was undertaken of a newly formed pond which is the only known viable water body within 250m of the site. The HSI assessment indicates that this water body provides poor suitability for great crested newts mainly due presence of water foul, poor water quality and lack of macrophyte cover. The site itself supports limited opportunities for species of amphibians given the lack of refuge which is restricted to the hedgerow boundary.
- 5.3 The likelihood of encountering great crested newts on site is considered very low given poor suitability of terrestrial habitat and breeding resources coupled with the absence of known historic record of this species within 1km of the site. Furthermore, the works required to proceed with the project are solely above ground (with the exception of landscaping) therefore this species is not deemed a constraint to the proposal.
- 5.4 No evidence of other protected species were identified during the course of the study, therefore the proposal is not considered to be limited by any other ecological constraints.
- 5.5 The proposal has the potential to provide significant enhancements to the site as an ecological asset through the incorporation of both bird and bat boxes into the built form and new hedgerow planting.
- 5.6 The site should be maintained in its current context to ensure it's suitability for protected species does not inadvertently increase prior to development.
- 5.7 Subject to the implementation of those recommendations set out within [Section 2](#) and [Appendix 4](#) of this report, no significant impacts upon protected species are considered likely to arise. In the event of a protected species being encountered during works; all works will halt, and further advice shall be sought from Salopian Consultancy Ltd.
- 5.8 The findings of this report are valid for up to two years from its date. In the event the development proposals/application area significantly alters a re-assessment of the likely impacts by a suitably experienced Ecologist will be required.

## Appendix 1 Summary of Extended Phase 1 Habitat Survey

### Desk Study

The desk study is an integral role in the ecological assessment. This desk-based study provides contextual information, such as the sites' proximity to designated sites and known records of protected species. This information is used to supplement the findings of the Extended Phase 1 Survey, and used to inform the recommendations and conclusions in Section 2 & 3.

### MAGIC website<sup>4</sup>

International statutory designations (1km)

National statutory designations (1km)

Waterbodies within 250m radius

Protected species records

### Extended Phase 1 Survey

The aim of the survey is to record and map the main habitat types and dominant plant species present in accordance with those classifications detailed in Handbook for Phase 1 Habitat Survey, JNCC, 2010<sup>5</sup>. The survey was extended to include an assessment of the suitability of those habitats for protected species undertaken by an experienced ecologist holding appropriate protected species licences, and membership with Chartered Institute of Ecology and Environmental Management and the Royal Society of Biology.

The survey does not aim to provide a complete floral and faunal inventory but seeks to identify field signs and/or habitats with the potential to support protected species. The need for further detailed Phase 2 Survey(s) were determined on this basis.

### Bat Roosting Assessment: Trees

An assessment of all suitable trees located on site was undertaken by a Natural England licensed bat worker to determine their potential to support roosting bats. This assessment was undertaken from ground level using binoculars and/or endoscopes.

All trees examined were categorised based on the number and types of features known to be suitable to support roosting bats, summarised in 6.2.4 of "Bat Surveys for Professional Ecologist: Good Practice Guidelines <sup>6</sup>". These features include but are not limited to;

Cracks and splits in limbs,

---

<sup>4</sup> Multi-Agency Geographic Information for the Countryside website ([www.magic.gov.uk/](http://www.magic.gov.uk/))

<sup>5</sup> Joint Nature Conservation Committee (JNCC) (2010) Handbook for Phase I Habitat Survey – a Technique for Environmental Audit. JNCC Peterborough.

<sup>6</sup> Collins, J. (ed) (2016) *Bat Surveys for Professional Ecologist: Good Practice Guidelines (3<sup>rd</sup> edn)* The Bat Conservation Trust, London



Cavities,  
Woodpecker holes,  
Loose bark thick-stemmed ivy.

### Preliminary Bat Roost Assessment: Buildings

A daytime external assessment of all structures on site was undertaken to determine their potential to support roosting bats, including but not limited to;

Cracks and crevices in brick work, timber joist/purlins.  
Slipped or missing roof and ridge tiles.  
Gaps between soffits and barge boards.

An internal assessment of all accessible loft voids was undertaken by a Natural England licensed bat worker for evidence of roosting bats such as droppings, feeding remains and urine staining within accessible areas.

Potential suitability of the structures are assessed by assigning a rating of low to high based on the number and type of external features considered suitable for roosting bats. The need for Phase 2 Emergence Surveys is decided on this basis.

### Reptiles

Terrestrial searches were undertaken during the Extended Phase 1 Survey for reptiles seeking refuge beneath debris, including log piles and brick/rubble where present.

### Nesting Birds

An assessment from the ground of all trees and boundary vegetation located on or immediately adjacent to the site boundary was undertaken by an experienced ecologist, to determine the suitability of habitats for nesting birds.

### Badgers

An experienced ecologist undertook a thorough site walkover to identify any evidence/field signs of badgers including setts, scrapings produced during foraging behaviour, latrines, paths and prints.

Where present, an assessment of excavations was made taking into account the shape of the entrance, quantity of spoil and presence of badger hair/claw marks. A classification of

sett type are made (Main Sett, Annex, Subsidiary, Outlier) based on the level of activity, number of entrances and proximity to other Setts in accordance with Harris et al (1989) <sup>7</sup>.

### Great crested newts - Habitat Suitability Index (HSI) Assessment

A desk-based study was undertaken using OS maps and online mapping resources to identify waterbodies within 250m of the site's boundaries. These ponds (where accessible) were assessed for their potential to support great crested newts using the Habitat Suitability Index developed by Oldham et al. (2000)<sup>8</sup>. The HSI scoring was performed in accordance with ARG UK (2010)<sup>9</sup>.

The assessment uses a scoring system based on ten factors such as water quality, presence of fish/waterfowl and quality of surrounding terrestrial habitat. Water bodies with higher scores are considered more likely to support great crested newts compared to those with low scores.

Table A1: Pond suitability for great crested newts determined using HSI scoring system.

HSI Score	Pond suitability to support great crested newts
<0.5	Poor suitability
0.5 – 0.59	Below average suitability
0.6 – 0.69	Average suitability
0.7 – 0.79	Good suitability
> 0.8	Excellent suitability

In addition to the HSI assessment a terrestrial hand search was undertaken to identify any amphibians seeking refuge beneath debris. This was completed by a great crested newt licence holder during the Extended Phase 1 Survey.

---

<sup>7</sup> Harris, S., Cresswell, P., and Jefferies, D. (1989). Surveying Badgers. Occasional publication of the Mammals Society.

<sup>8</sup> Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143-155.

<sup>9</sup> ARG UK (2010) Advice Note 5 Great Crested Newt Habitat Suitability Index.

## Appendix 2 Target notes

TN1 Newley formed pond

Plans

Plan 1

Site Plan

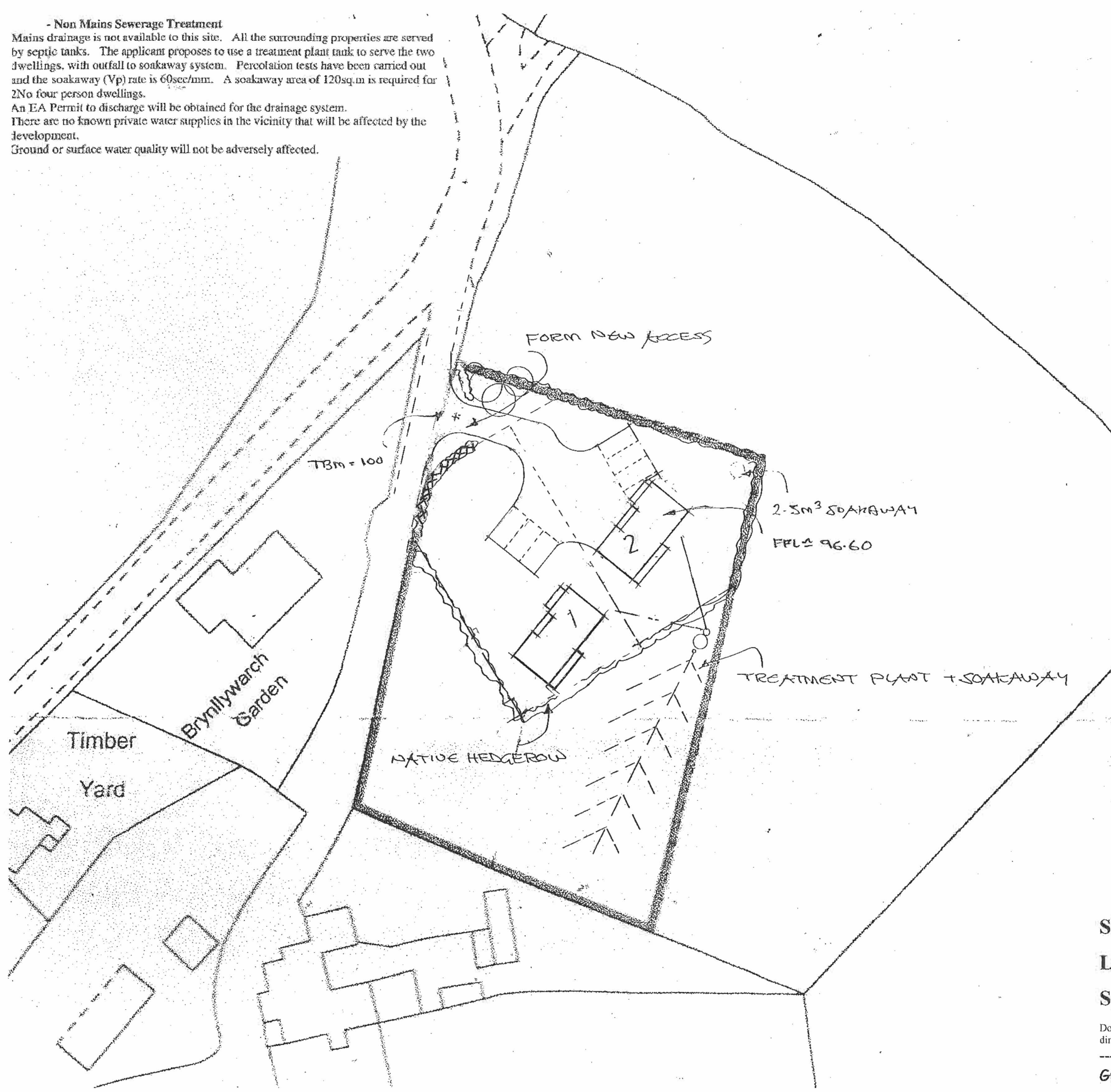
**- Non Mains Sewerage Treatment**

Mains drainage is not available to this site. All the surrounding properties are served by septic tanks. The applicant proposes to use a treatment plant tank to serve the two dwellings, with outfall to soakaway system. Percolation tests have been carried out and the soakaway (Vp) rate is 60sec/mm. A soakaway area of 120sq.m is required for 2 No four person dwellings.

An EA Permit to discharge will be obtained for the drainage system.

There are no known private water supplies in the vicinity that will be affected by the development.

Ground or surface water quality will not be adversely affected.



**Access Upgrade**

Form new access as indicated.

Set back hedgerow to give clear visibility of approximately 20m in each direction, measured 2.4m back off edge of carriageway in centreline of access.

Additionally, set back hedgerow to give clear visibility of 6m in both directions, measured 5.5m back off edge of carriageway in centreline of access

Measurements taken 1.05m height above carriageway in centre of access, and 0.26m above carriageway at end of visibility splay. Nothing to be planted or erected to obstruct visibility in this area.

Any entrance gates to be set back 5.5m from edge of highway.

First 5.5m of entrance to have macadam surfacing comprising 300mm minimum depth Type 1 granular sub base

100mm thick 28mm aggregate dense base to BS 4987 Pt 1

60mm thick consolidated 20mm aggregate dense binder course to BS4987

40mm thick consolidated 10mm aggregate close graded surface course to BS4987

No surface water to be allowed to run off onto highway (note that access falls back into site). Road within site to have stone sub base as above, with gravel surfacing.

**Hedgerow**

New hedgerow planting inside visibility splay to be mix of hawthorn (30%), quick thorn (20%), field maple (15%), hazel (10%), native holly (15%) & wild cherry (10%). Trees to be planted in two rows, 225mm apart and @ 250mm centres. Trees to be planted 300-450mm OG.

Hedgerow to be planted inside 1.2m high post & rail fence.

Only the species listed above shall be planted. The inclusion of additional native species is permissible. Non-native tree species are not permissible.

Hedgerow to be planted in first available planting season following commencement of construction works. Any damaged or diseased plants to be replaced within 5 years.

**Drainage**

Foul drains to flow to new treatment plant. Plant to have design population capacity of 10 people (based on maximum loading of 5 people per dwelling). Tank to provisionally be *Klargester BioDisc BG*

Roof & hard surface water to be taken to soakaway pits. Pit location & sizes to be verified on site following trial excavation & percolation tests. Soakaway design to accord with *BRE Digest 365*

**Site Plan – Plot 2**

**Land Adj Brynllwarch Gardens, Kerry**

**Scale 1:500 @ A3 Jun 18 Plan No: 3525.05<sup>A</sup>**

Do not scale from prints. Figured dimensions take precedence. The contractor is to check all dimensions before work commences and notify the contract administrator of any error or discrepancy

**Gwynfor Humphreys & Co: Chartered Building Surveyors**

# Salopian Consultancy

doug@salopianconsultancy.co.uk  
M:07939947631 T:01743243225

## Plan 1:Phase 1 Habitat map

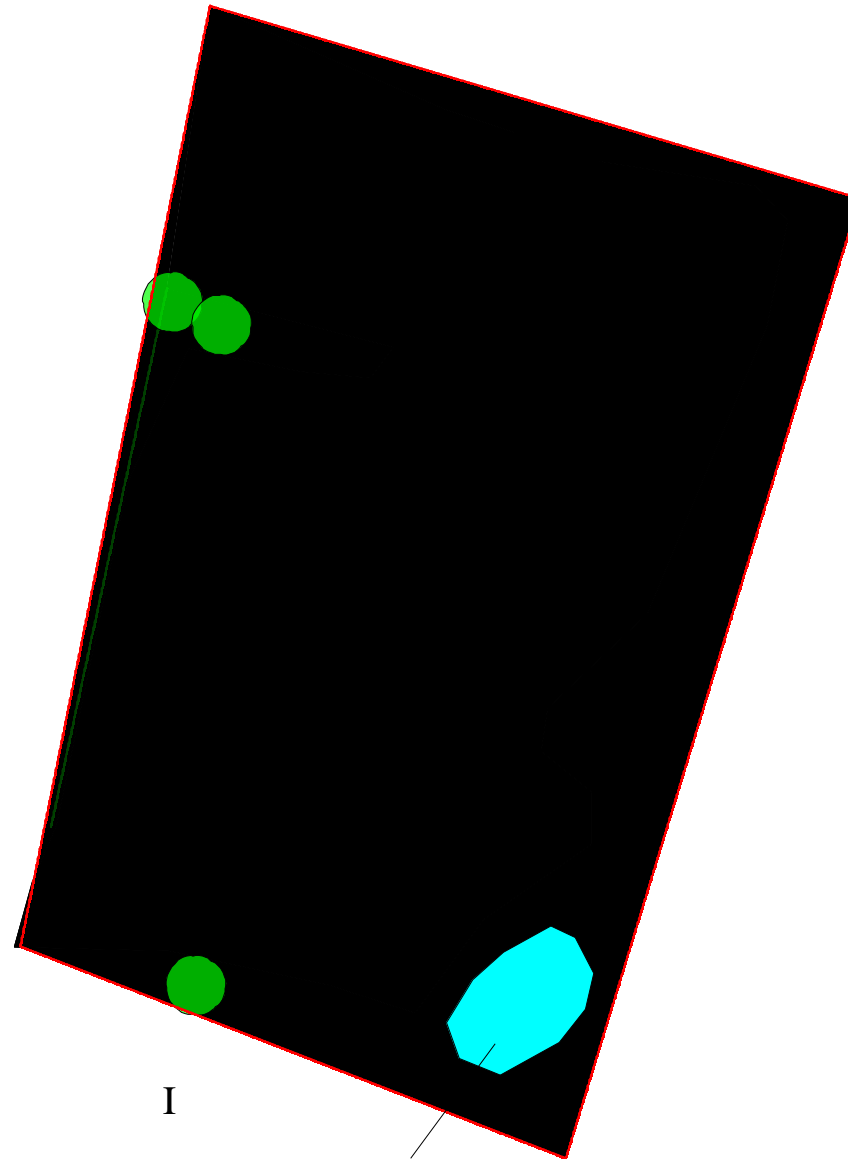
SCALE : 1 : 500 @ A4 DATE : 10/10/2022

MAP FILENAME : Brynlywarch



### Key

- Tall Ruderal
- Bare earth/hardstanding
- Buildings/structures
- Waterbodies
- Broad-leaved trees
- TN1 Target Note
- Species Poor hedgerow
- I Improved grassland



I

TN1

I