

# Bat Surveys of Trees

At

Five Mile Lane  
St Athan  
Cardiff

Version 2 (amendments)

Date: 12/10/2015

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Site / job	Five Mile Lane
Report title	Bat survey of trees at Five Mile Lane.
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Local Authority	Vale of Glamorgan

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## Author

This survey and report was carried out by Mr Steve Wadley of AVA Ecology Ltd. Mr Wadley has 3 years experience of bat conservation, research and survey work. He holds a Natural England (NE) class 2 bat survey license (Number 20123667) and VBRV licence as well as a Natural Resources Wales (NRW) bat licence (58638:OTH:EPS:2014)

Mr Wadley is actively involved in woodland bat research in South East Wales (Wye Valley Bechstein's and Barbastelle bat Project) and provides educational presentations on bat conservation. He is also a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and Committee member of Gloucestershire bat group.

## Non Technical Summary

The trees inspected at five mile lane were identified as having potential for roosting bats as a result of a phase 1 extended habitat survey carried out by TACP. The categories of trees were assessed from ground level using Bat Conservation Trust (BCT) guidelines. Any trees categorised as Category 1, 1\* and 2 were then subject to an aerial survey carried out by Mr S Wadley of AVA Ecology Ltd and assisted by Mrs J Wadley (Assistant climber and trainee bat worker) Category 3 trees were not subject to aerial survey.

Generally the trees inspected by climbing offered varying potential for roosting bats but no evidence of bats was identified in any the trees during the inspection. (See results)  
However, tree 17 has high potential and is within 3m of a recorded long eared bat roost.

Although the trees have been subject to aerial inspection in August 2014, it must be remembered that tree dwelling bats can start to use trees at any time and have multiple roosting sites changing roost on average every 1.5 – 4 days. Evidence of roosting bats can be washed away by rain and wind and eaten by insects.

The trees which are given category 2, 1 or 1\* must be surveyed by climbing immediately prior to any works to ensure that bats are not present during any felling or remedial works.

## 1: Introduction

### 1.1 Site description

Five Mile Lane (A4226) runs in a general north to south direction. The road is bordered by mostly improved pasture but also some arable crop fields. Parts of the road are bordered by woodland including deciduous semi natural ancient woodland (See Phase 1 habitat survey appended).

There are several farm buildings along the road some being of older style and have good potential for bat species.

### 1.2 Proposed development

The development includes road improvements and widening of the road in some places which will necessitate the felling or pruning of some trees near to the proposed road / new route.

### 1.3 Aims of study

The objective of this study is to identify evidence of any use of the trees by bat species. The report aims to assess the level of usage, classification of roost present, and requirement for development license. It will also provide mitigation proposals to be carried out prior to, during and after the works.

## 2: Methodology

### 2.1 Desk study

A desk study was undertaken to identify any records of bats along the road and other bat roosts and activity within the route area. Records were obtained from South East Wales Biodiversity Centre (SEWBRc). The data search also included information on European and UK designated sites (e.g. Special Areas of Conservation (SACs) and Site of Special Scientific Interest (SSSIs). This information was provided by Natural Resources Wales.

### 2.2 Field surveys

The methods used were appropriate to achieve the aims of the survey following *Bat Surveys - Good Practice Guidelines* (2<sup>nd</sup> Ed; Bat Conservation Trust 2012) and BS 42020:2013 Biodiversity (Code of practice for planning and development).

The survey was carried out on the 4<sup>th</sup> August 2014 in clear weather and 19°C. Cloud cover was around 25%, wind speed 0-5mph.

The trees inspected are shown in Figures 1a-1d. The trees was inspected externally and internally (within potential roost features) using binoculars, endoscope and a high powered torch. Photographs of any evidence of bat activity and potential exit or entry points identified in the trees were taken and noted for the report.

Name	Bat Licence	Experience
Steve Wadley	51659:OTH:CSAB:2013	Experienced and licensed bat specialist.
Joanna Wadley		Experienced bat surveyor

## 3: Results

### 3.1 Desk study

The desk study resulted in the following information.

#### 3.1.1 Designated sites

Site of Special Scientific Interest

Cliff Wood - Golden Stairs  
Coedydd Y Barri / Barry Woodlands  
East Aberthaw Coast  
Ely Valley

Local Nature Reserve

Cliff Wood - Golden Stairs  
Cwm Talwg Woodlands

### 3.1.2 Protected species

The desk top survey identified the following bat records within the route area:

- Common Pipistrelle bat
- Noctule bat
- Nathusius bat
- Brown long eared bat
- Whiskered bat
- Serotine bat (maternity roost within 3km of trees surveyed)
- Lesser Horseshoe bat
- Greater horseshoe bat
- Whiskered / Brandts bat
- Natterers bat

### 3.2 Field survey

Tree Number	Grid Ref	Species	Category	Survey method	Notes
1	ST:08148 71376	Oak	3	Aerial	Mature tree, no potential or evidence of bats
5	ST: 08132 71133	Oak	3	Aerial	At 4m on west side of tree is a hole measuring 4cm quite shallow with no upward decay column. No evidence of bats.
17	ST:08030 70430 (metallic tag no. 1075)	Ash	1*	Aerial	At 6m on south side of tree is a west facing hole 7cm x 20cm key shaped, extends vertically to .5m, No evidence of bats but cat 1* potential.
18	ST:08034 70292	Mixed	3	Aerial	Hedgerow with several trees inc. Ash, Oak and Hawthorne. No bat potential in any of the trees.
22	(3 trees) a) ST: 08572 69588 b) ST: 08333 69742 c) ST: 08378 69700	Oaks	1 1 1	Aerial	a) Hollow tree with potential features but no evidence of bats. b) Potential features but no evidence of bats c) No evidence but good potential features.
23	ST: 08547 69576 ST: 08558 69575	Oak	1 & 3	Aerial	a) No evidence of bats, Hollow tree. Good potential Cat 1 b) No evidence of bats very limited potential Cat 3
26	ST: 08048 71562	Mixed	?	?	<b>No access allowed</b>
26a	ST: 08048 71562	Oak	?	?	<b>No access allowed</b>
32	ST: 07891 72626	Oak	3	Aerial	No evidence of bats and very limited potential.

## 4: Assessment

### 4.1 Survey constraints (Inc. equipment)

Trees 26 and 26a were not surveyed due to access issues. However from the nearby road it was possible to see the trees had a good potential for bat roosting.

### 4.2 Potential impacts

#### 4.2.1 Designated sites

In the absence of further survey and mitigation the proposed development would have a no potential impact on designated sites. This is because of the distance to the sites and no bat roosts being discovered during the survey.

#### 4.2 Bat roosts

In the absence of further survey and mitigation the proposed development would have a medium to high potential impact on bat roosts. This is due to the fact that bats may start to use the trees prior to works starting.

#### 4.2.3 Bat foraging and commuting habitat

In the absence of further survey or mitigation the proposed development would have a low potential impact on bat foraging and commuting routes. This is due to the possibility that bats may use the trees for foraging.

## 5: Legislation and policy guidance

This legislation must be considered at all stages of development.  
All bat species occurring in the UK are fully protected by European and UK law.

### **Under regulation 41 of the Conservation of Habitats and Species Regulations 2010 (as amended)**

(1) A person who—

- (A) Deliberately captures, injures or kills any wild animal of a European protected species,
  - (b) Deliberately disturbs wild animals of any such species,
  - (c) Deliberately takes or destroys the eggs of such an animal, or
  - (d) Damages or destroys a breeding site or resting place of such an animal,
- is guilty of an offence.

### **Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:**

- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used by bats for shelter or protection.
- Intentionally or recklessly disturb bats whilst in their place of rest or shelter.
- Sell or advertise for sale or transport bats (including their derivatives).

### **The Countryside and Rights of Way Act 2000 (CRoW)**

The Act places a duty on Government Departments and the National Assembly for Wales to have regard for the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

Schedule 9 of the Act amends SSSI provisions of the Wildlife and Countryside Act 1981 including provisions to change SSSIs and providing increased powers for their protection and management. The provisions extend powers for entering into management agreements; place a duty on public bodies to further the conservation and enhancement of SSSIs; increases penalties on conviction where the provisions are breached; and introduce a new offence whereby third parties can be convicted for damaging SSSIs. To ensure compliance with the Human Rights Act 1998, appeal processes are introduced with regards to the notification, management and protection of SSSIs.

Schedule 12 of the Act amends the species provisions of the Wildlife and Countryside Act 1981, strengthening the legal protection for threatened species. The provisions make certain offences 'arrestable', create a new offence of reckless disturbance, confer greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and enable heavier penalties on conviction of wildlife offences.

### **Planning Policy Advice**

#### **Planning Policy Wales Chapter 5 “Conserving and Improving Natural Heritage and the Coast”**

The Welsh Government’s objectives for the conservation and improvement of the natural heritage are to:

- promote the conservation of landscape and biodiversity, in particular the conservation of native wildlife and habitats;
- ensure that action in Wales contributes to meeting international responsibilities and obligations for the natural environment;
- ensure that statutorily designated sites are properly protected and managed;
- safeguard protected species, and to
- promote the functions and benefits of soils; and in particular their function as a carbon store.

#### **The UK Biodiversity Action Plan (UKBAP) includes objectives to conserve, and, where practicable, enhance:**

- The quality and range of wildlife habitats and ecosystems;
- The overall populations and natural ranges of native species;
- Internationally important and threatened species, habitats and ecosystems;
- Species, habitats and natural and managed ecosystems characteristic of local areas
- Biodiversity of natural and semi-natural habitats where this has been diminished over recent decades.

The Welsh Government is committed to promoting Habitat and Species Action Plans relevant to Wales prepared under the UKBAP in fulfilment of its obligations under the Countryside and Rights of Way Act.

#### **Protected species**

The presence of a species protected under European or UK legislation is a material consideration when a local planning authority is considering a development proposal which, if carried out, would be likely to result in disturbance or harm to the species or its habitat. Local planning authorities should advise anyone submitting a planning application that they must conform to any statutory species protection provisions affecting the site concerned, and should consult Natural Resources Wales before granting permission. An ecological survey to confirm whether a protected species is present and an assessment of the likely impact of the development on a protected species may be required in order to inform the planning decision.



Developments are always subject to the legislation covering European protected species regardless of whether or not they are within a designated site. New developments for which development works would contravene the protection afforded to European protected species require derogations from the provisions of the Habitats Directive.

Derogations may only be authorised if there is no satisfactory alternative and if the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range. The development works to be authorised must be for the purposes of preserving 'public health or safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.

Derogations are granted by a licence issued by the Welsh Government Local planning authorities are under a duty to have regard to the requirements of the Habitats Directive in exercising their functions. To avoid developments with planning permission subsequently not being granted derogations in relation to European protected species, planning authorities should take the above three requirements for derogation into account when considering development proposals where a European protected species is present.

## **6: Recommendations and Mitigation Measures**

### **6.1 Mitigation proposals**

The mitigation proposals for the development are as follows:

- a) A bat licensed ecologist must carry out an aerial re-inspection of those trees categorised as Category 1 or 1\* immediately prior to works commencing and be employed to be on site during any tree works to category 1 trees.
- b) A toolbox talk regarding bats must be given to the tree work contractors by the onsite ecologist.
- c) The client must ensure that the contractors are aware that no trees must be subject to works until the ecologist has given the toolbox talk.
- d) If bats are discovered during works, NRW must be informed. Work must stop and not resume until advice has been given by the onsite ecologist. The ecologist must have the necessary equipment to care for any discovered bat(s) and a method statement regarding actions on discovering bats must be in place prior to works commencing.
- e) Bright lighting must not be directed to towards the trees identified as having potential for roosting bats.

### **6.2 Further survey**

Further survey was deemed to be necessary to ensure bats are not harmed as a result of the development. This should include the surveys detailed in 6.1.a.

### **6.3 Requirement for licence.**

A European protected species licence was deemed not necessary at this stage but if bats are discovered in the trees between the date of survey and start of works or during works, then a licence will be required.

If required, an EPS Licence will only be issued if the following 3 tests have been met:

- The purpose of the work is for preserving public health or public safety or other imperative reasons of over-riding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment
- There is no satisfactory alternative
- The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status (FCS) in their natural range

## 7: Photographs



1) Tree 17 (category 1 tree)



2) Tree 17



3) Tree 32 and a shallow hole.



4) Tree 32



5) Tree 22a Hollow oak with high potential.

## **8: References**

Bat Surveys - Good Practice Guidelines 2012. Hundt, L. Bat Conservation Trust, London.

The bat workers' manual (3rd Edition). Joint Nature Conservation Committee  
Mitchell-Jones, A.J. & McLeish, A.P. (2004)

Bat mitigation guidelines. English Nature. Mitchell-Jones, A.J. (2004)

Bats and lighting. A. Fure (London Naturalist No. 85 2006)

South East Wales Biological Records Centre (SEWBReC) (bat records)

The Conservation of Habitats and Species Regulations 2010 (as amended)

The Wildlife and Countryside Act 1981 (as amended)

Tan 5 Planning Policy in Wales


Figures 1a-1d. Trees inspected for bats (see also the Table in Section 3.2).





- Legend**
- Locations of Bat trees surveyed
  - Proposed Scheme

● Tree 32



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NOTES



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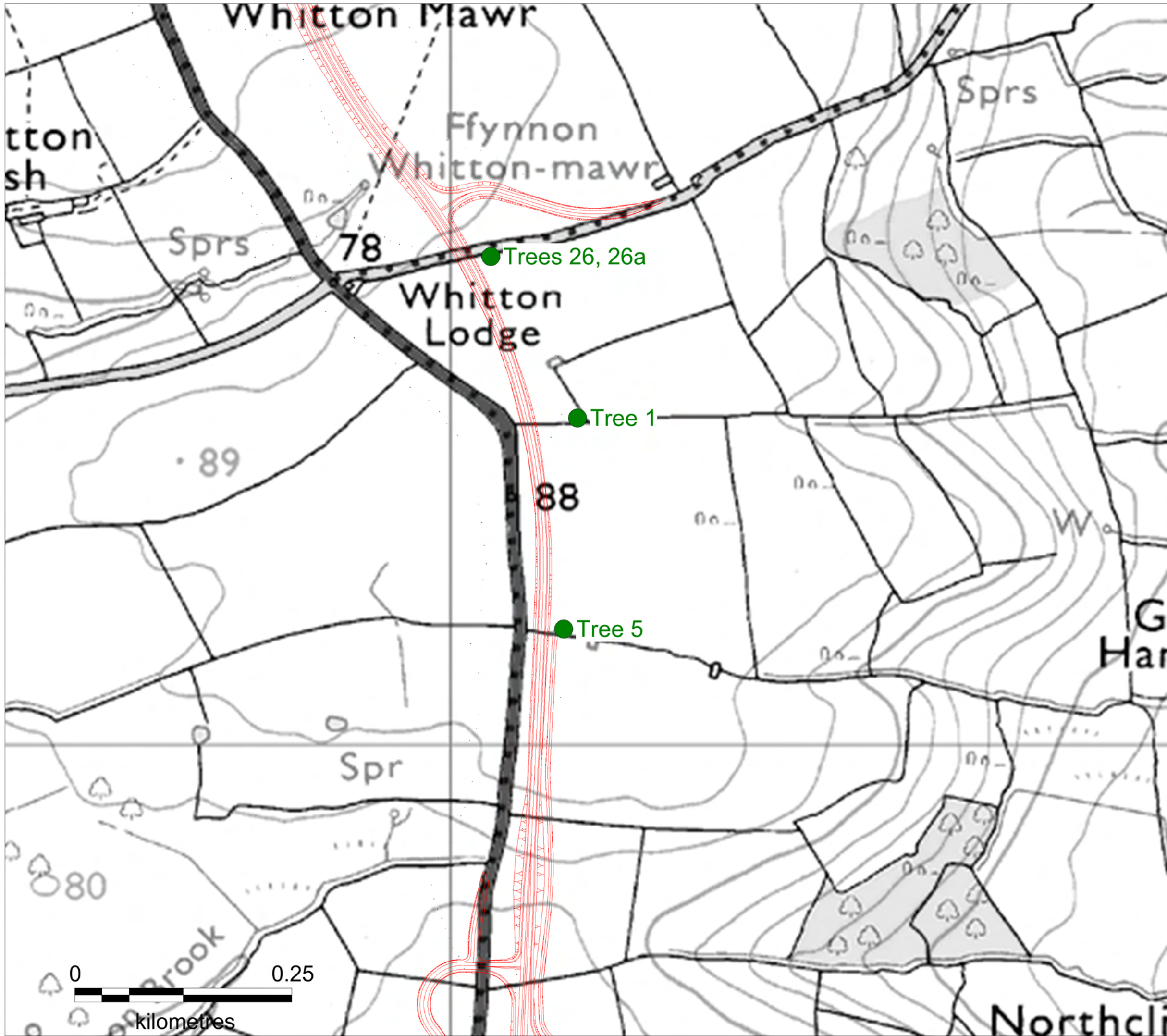
**Vale of Glamorgan  
A4226 Five Mile Lane Improvements  
Bat Tree Survey**

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**Legend**

- Locations of Bat trees surveyed
- Proposed Scheme



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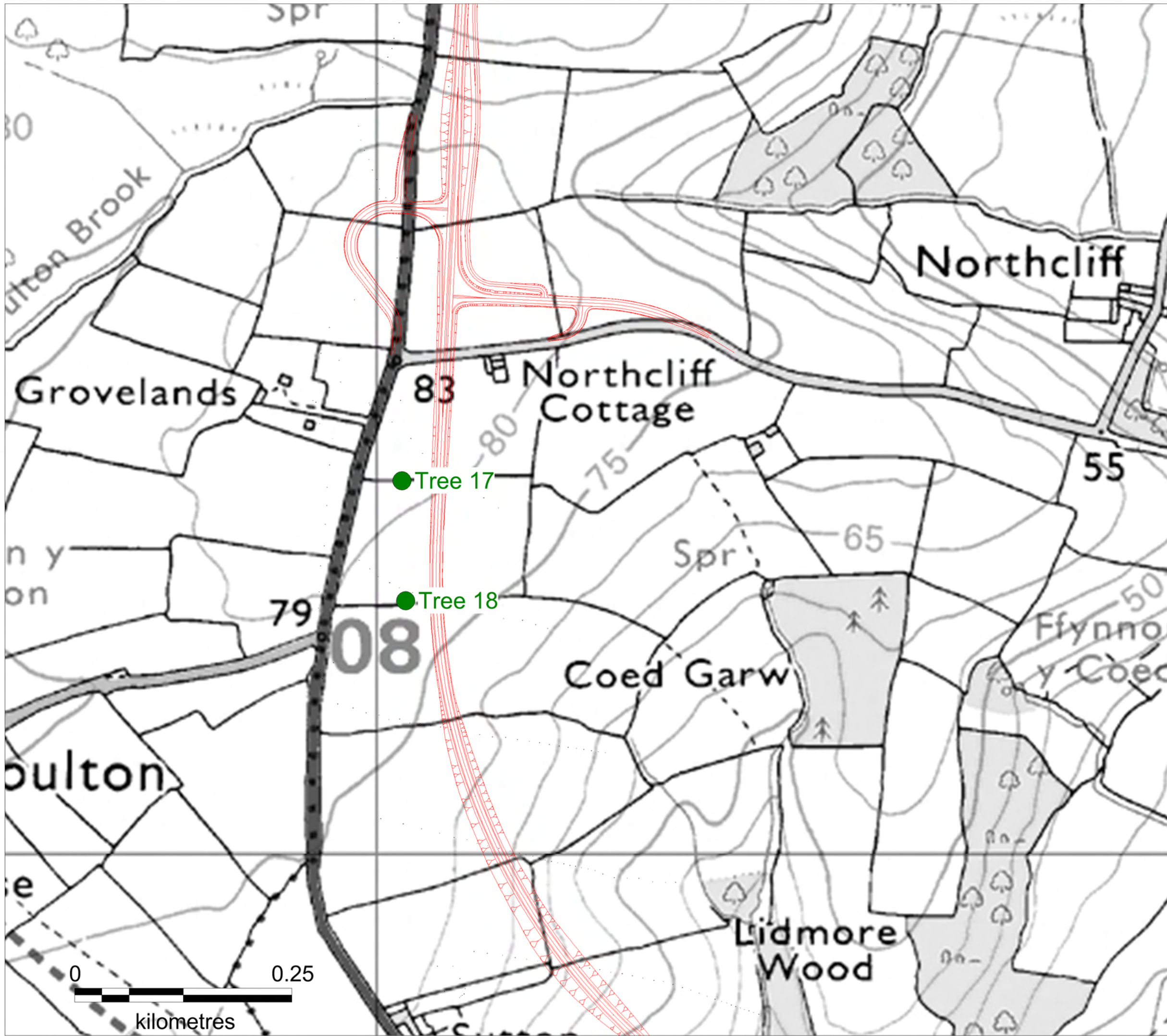
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- Legend**
- Locations of Bat trees surveyed
  - Proposed Scheme



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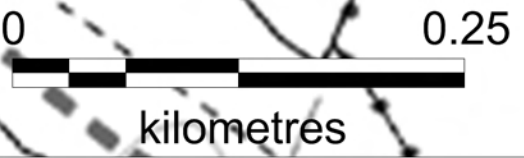
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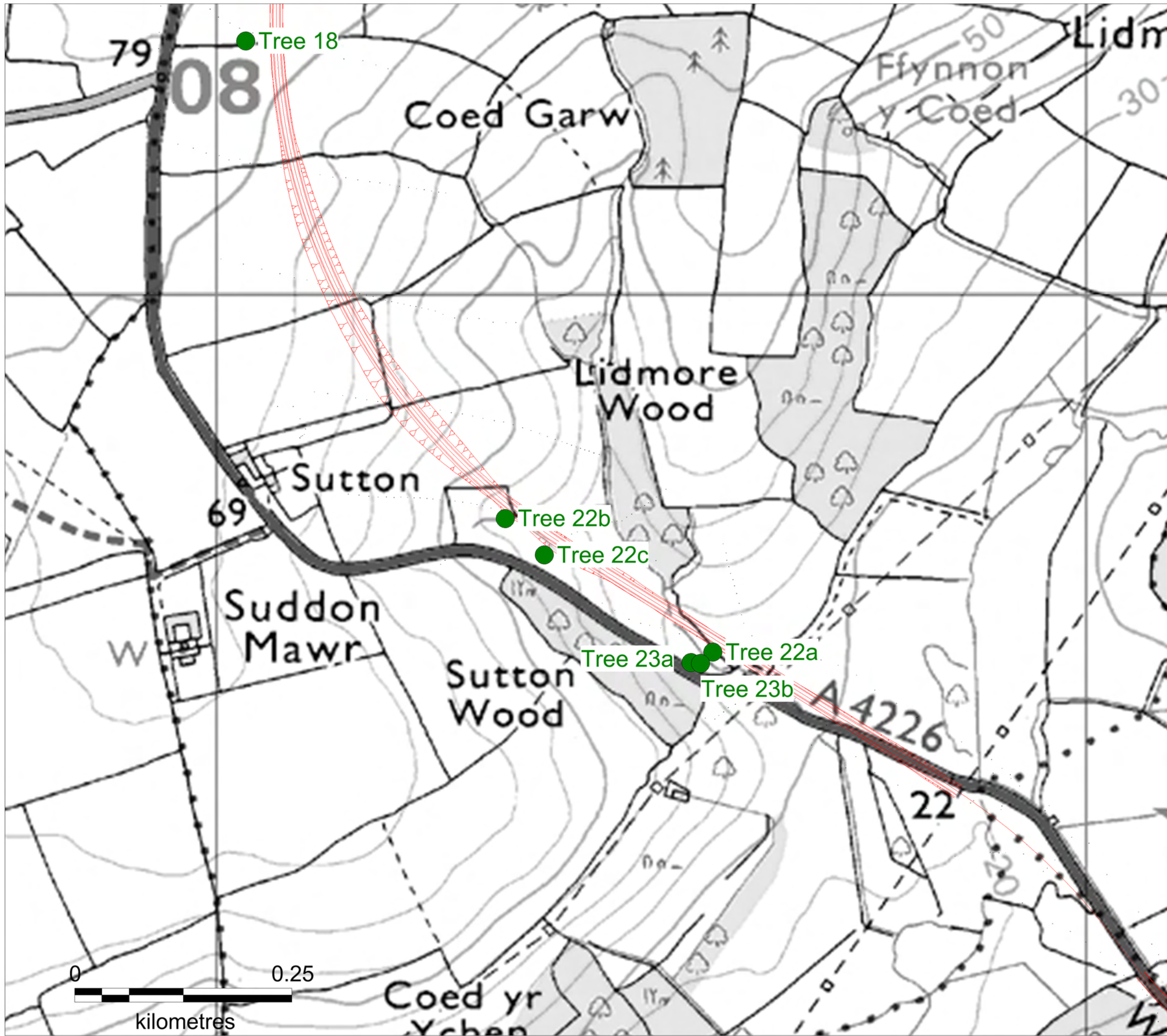
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**Legend**

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