



Planning Inspectorate Reference No. EN020014

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Author: SP Manweb

Appendix 6.20 – Draft Dormouse EPS Licence and Method Statement

APPLICATION FOR A LICENCE TO DELIBERATELY KILL, INJURE, CAPTURE (TAKE), DELIBERATELY DISTURB, DAMAGE/DESTROY A BREEDING SITE/RESTING PLACE OR TRANSPORT AN EUROPEAN PROTECTED SPECIES (EPS)

THE CONSERVATION OF HABITATS AND SPECIES REGULATIONS 2010 FOR THE PURPOSE OF :-

- **Preserving public health or public safety** or other **imperative reasons of overriding public interest** including those of a social or economic nature and beneficial consequences of primary importance for the environment;
- **Preventing the spread of disease;**
- **Preventing serious damage** to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries; to allow people to carry out activities which would otherwise be illegal.

Information for completion of an application form:

1. Please complete in **BLOCK CAPITALS** (* delete as applicable)
2. **Please answer all questions in detail. All questions highlighted in red must be fully completed otherwise the application will be returned to the named Ecologist. Uncompleted questions will mean delays in your application being processed.**
3. Please be aware that if your activity has received planning permission (**please note that the Species Protection Team will not process applications where planning permission is still under consideration**), listed building consent and or a tree preservation order, you will need to include the following:
 - **Local Planning Authority Document** completed and signed prior to submitting your application
 - **Copy of the permissions associated with the application**
 - **Copy of the delegated decision report and / or planning committee minutes**
 - **Documentation from the Local Planning Authority confirming the discharge of any species related conditions which require discharge prior to the commencement of the development.**
4. Please ensure that Surveys submitted with your application are less than 2 years old.
5. Applications can be accepted **either** electronically or by post.

Electronic applications These can be e mailed to specieslicence@naturalresourceswales.gov.uk. Please **DO NOT** also send the application by post. We will not require wet signatures if the electronic signature box has been completed.

Postal Applications: Please provide two copies of every document, one copy of the application form must be originally signed by both the licensee and the Ecologist (wet signatures required). Please post to: **Species Protection Team, National Permitting Team, Natural Resources Wales, Maes y Ffynnon, Penrhosgarnedd, Bangor, LL57 2DW**

Please use the tick sheet provided at the end of this application form as a reminder to ensure that you have enclosed all the required documents to enable us to process your application.

6. An acknowledgment will be sent out on receipt of your application, please contact us if you have not received a response within 5 working days
7. NRW aims to process applications within **30 working days** of receipt of **all information required**, we cannot guarantee an earlier response.
8. All applicants should read the supporting notes at the end of this form.

1. Part A. The Applicant (the Developer or Landowner): Personal details

These questions relate to the person who will be the named licensee. This needs to be a named individual; company names and several individuals are not permitted. As the licensee, you will be responsible for ensuring compliance with the licence and its conditions.

1. (a) Name of applicant

Title (Mr/Mrs/Miss/Ms) Forename(s) Surname

Mrs	Claire	Duffy
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Company Name

Business Title (if appropriate)

(b) Address

Town

County Postcode

Tel number (incl. national dialling)

Mobile number

Email address (Please provide an email address if possible as it means we can email you a copy of your licence if approved. A postal copy will be sent regardless)

1. Part B. The Ecologist: Personal details and experience with the species concerned

These questions relate to the person acting on behalf of the developer/landowner and who will be responsible for delivering specific elements of any licence granted in respect of the disturbance of European Protected Species, including the overseeing of exclusion works and mitigation.

Title (Mr/Mrs/Miss/Ms) Forename(s) Surname

Mr	Jon	Guarnaccio
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Company Name

Business Title (if appropriate)

(b) Address

Town

County Postcode

Tel number (incl. national dialling)

Mobile number

Email address

2. Previous applications:						
Have you held a relevant EPS licence issued by any of the following? (please insert an X as appropriate)						
<table border="1"><tr><td>The Welsh Government</td><td><input checked="" type="checkbox"/></td><td>Natural Resource Wales</td><td><input type="checkbox"/></td><td>Other (please specify)</td><td><input type="text"/></td></tr></table>	The Welsh Government	<input checked="" type="checkbox"/>	Natural Resource Wales	<input type="checkbox"/>	Other (please specify)	<input type="text"/>
The Welsh Government	<input checked="" type="checkbox"/>	Natural Resource Wales	<input type="checkbox"/>	Other (please specify)	<input type="text"/>	
If YES , please give your last licence reference number	<input type="text" value="DOR/2653/WG/IND"/>					
and the year in which the licence was issued.	<input type="text" value="2012"/>					
What species did the licence cover?	<input type="text" value="Dormice"/>					

	<p>If NO, you will need to enclose written reference (originals only, not photocopies) from two people who can vouch for your suitability and competence for this type of work and give details of appropriate experience. At least one referee should have held a relevant licence within the last three years. We may contact these referees to verify their statements. Please include their names, contact details and qualifications below.</p>			
3.	Experience and qualifications			
a.	Please give brief details of your experience and qualifications relevant to the species listed at Part C (Question 5) below (continue on a separate sheet if necessary).			
	I have previously held two WAG development licences in respect of dormice and have held a NRW survey licence since 2005.			
b.	Please give brief details any experience and/or qualifications which you have gained with other species and you think is relevant to show your suitability and competence for the proposed works			
	I also hold a NRW bat licence and have held numerous Natural England EPS development licences for bats.			
4.	Accredited Agents			
	An accredited agent is a suitably qualified experienced person who is able to carry out work under a licence without the personal supervision of the licensee. To carry out work they must be in possession of a letter signed by the licensee appointing him or her as an accredited agent of the licensee for the purpose of the licence. At all times the licensee is fully responsible for all the work carried out under licence. An assistant is employed by a licensee or his/her agent to work under their direct personal supervision at all times. A breach of the licence conditions by an accredited agent, assistant or helper may result in the revocation of your licence.			
	Do you propose to employ accredited agents?	Yes	X	No
	If YES, please state their name(s) and the work they will be undertaking.			
	Hazel Robson MCIEEM (licensed dormouse ecologist)			
	Do you propose to employ assistants?	Yes	X	No
	If YES, please state their name(s) and the work they will be undertaking.			
	Katie Hadwin ACIEEM (dormouse licence trainee)			

Please answer questions 6-10 for the species specified in question 5. Please give as much detail and information as possible. Insufficient information may mean delays in processing your application as you will need to be contacted to give this. Make sure you answer all questions, in full. Please remember for question 10 to include the month and year to which you wish the licence to run until. Complete and attach an extra sheet if necessary.

Part C. The Application			
5.	Species (please insert a x as appropriate)		
	Otter		
	Dormouse		X
	Great Crested Newt		
	Bat		
Please indicate which species of bat is affected by the proposed works.			
	COMMON PIPISTRELLE (<i>Pipistrellus pipistrellus</i>)		BROWN LONG EARED (<i>Plecotus auritus</i>)
	SOPRANO PIPISTRELLE (<i>Pipistrellus pygmaeus</i>)		BARBASTELLE (<i>Barbastella barbastellus</i>)
	WHISKERED (<i>Myotis mystacinus</i>)		BRANDT'S (<i>Myotis brandtii</i>)
	DAUBENTON'S (<i>Myotis daubentonii</i>)		NATTERER'S (<i>Myotis nattereri</i>)
	LESSER HORSESHOE (<i>Rhinolophus hipposideros</i>)		NOCTULE (<i>Nyctalus noctula</i>)
	GREATER HORSESHOE (<i>Rhinolophus ferrumequinum</i>)		ALCATHOE (<i>Myotis alcathoe</i>)
Any other bat species (please specify)			
Note: Have you sent your records to the Local Records Centre? If not please contact Natural Resources Wales for advice at the contact provided at the end of this form or contact the LRC directly via the contacts on this link: www.lrcwales.org.uk			
		Yes	No

6.	Purpose of the licence application (please insert a x as appropriate)		
	Please indicate the primary purpose for undertaking the proposed works.		
	<i>Preserving -</i>	public health	
		public safety	
		¹ other imperative reasons of overriding public interest	X
	<i>Preventing -</i>	the spread of disease	
		serious damage to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries	
¹ including those of a social or economic nature and beneficial consequences of primary importance for the environment			
Please explain fully below your reasons for the purpose chosen above. (E.g. Why are the works necessary; how do they fit the selected purpose; What will be the result after the works?)			
The Proposed Development includes the following principal elements:			
<ul style="list-style-type: none"> Construction of a 17km 132kV overhead electricity distribution connection between Clocaenog Forest and St Asaph, both in Denbighshire; A temporary construction compound at Broadleys Farm, A453, Denbighshire and temporary storage or 'laydown areas' along the alignment, without which the overhead line could not be constructed; Access points for pedestrians and vehicles along the length of the Proposed Development for the duration of construction, without which the overhead line could not be constructed; Mitigation planting, and; Other integral works such as site preparation and clearance, earthworks, alteration of existing services, vegetation removal/planting and minor street works. 			
The main component of the Proposed Development is a new 17 kilometre 132,000 volt (132kV) Overhead Line			

from the proposed Collector Substation near Clocaenog Forest, which terminates in a field to the south of Trebanog, Groesffordd Marli, which is located 1.8km from St Asaph substation, located in North Wales.

1.

1. Overriding public interest

1.1 Social/economic

The UK has signed up to the EU Renewable Energy Directive, which includes a UK target of 15 percent of energy from renewables by 2020. To meet this target, along with emission reduction targets, generation from new renewable energy is required.

In support of this, in July 2005, the Welsh Assembly Government (WAG) published Technical Advice Note No 8 'Planning for Renewable Energy' (TAN 8). This document identified seven broad 'Strategic Search Areas' (SSAs) for onshore wind farms in Wales.

Clocaenog Forest in North Wales was identified in TAN 8 as a Strategic Search Area for renewable development (SSA A). As a result, new generation projects have been promoted in the area and require connections to the distribution system.

Four wind farm developers in SSA A have applied for and agreed terms with SP Manweb to provide them with connections to the electricity distribution network. Under the terms of its distribution licence, SP Manweb is obliged to make an offer of connection in response to each valid application made. The four contracted wind farms are

- Clocaenog Forest (SJ013578)

In September 2014 RWE NPower Renewables received a development consent for a new wind farm in Clocaenog Forest in North Wales. The wind farm is expected to generate between 64 and 96 MW, from 32 turbines. . .

- Brenig (SJ021742)

In April 2009, Brenig Wind Ltd received planning permission to build a 16 turbine wind farm at Llyn Brenig, with an installed generating capacity of 40MW.

- Nant Bach (SJ989470)

In May 2011, Vattenfall received planning permission to build an 11 turbine wind farm at Nant Bach, with an installed generating capacity of up to 27.5 MW.

- Derwydd Bach (SJ030500)

In July 2011 Tegni received planning permission to build a 10 turbine wind farm at Derwydd Bach, with an installed generating capacity of 23 MW.

1.2 Beneficial consequences of primary importance for the environment

The UK has signed up to the EU Renewable Energy Directive, which includes a UK target of 15 percent of energy from renewables by 2020. To meet this target, along with emission reduction targets, generation from new renewable energy is required.

7. Summary of the Planning Position (please insert a x in one box only)

No Planning Permission required	
Full Planning Permission granted	
Outline Planning Permission granted	
Reserved Matters	
Other consents granted for the proposed activity E.g., Listed building consents, Tree preservation orders etc. Please list these below	
Consent/s granted:	

Name of Planning Authority-	
Planning ref. No/s.-	
<ul style="list-style-type: none"> PLEASE MAKE SURE ALL REQUIRED PLANNING DOCUMENTATION IS SUBMITTED WITH YOUR APPLICATION <i>Please refer to note 3 on the 1st page for further details</i> Please note that the Species Protection Team will not process applications where planning permission is still under consideration and where any species related conditions are yet to be discharged. 	
8. Purpose of the proposed work	
(a)	Please explain why it is necessary to carry out the proposed work affecting the species.
<p>The infrastructure is required to allow for the electricity generated by four wind farms in TAN 8 SSA to be collected, via a new Collector Substation in Clocaenog Forest and transferred to the electricity distribution network.</p> <p>As part of the installation of overhead lines, poles may be positioned in hedgerows and woodland. Where this is to occur in a hedgerow, 5m of the hedgerow will be removed on a temporary basis for pole positioning and on a temporary or permanent basis for access to installation areas. Sections of hedgerow will be replaced after the installation phase of the works, where removal of a 5m section of hedgerow was temporary. A maximum of 20 hedgerows could be affected, by pole positions, out of eighty identified along the route, this would amount to a short temporary loss of 135.1m. Wherever possible existing access point shave been selected, however an additional 16 new access points will be required; 13 existing accesses will need to be widened. The total loss considered to be permanent is 106m of hedgerow.</p> <p>Where poles are to be positioned within woodland, trees and vegetation will be cleared to ground level to enable pole installation. Once poles are installed, woodland within approximately 12m of the overhead line will be maintained to a height of 3m, and put into a management regime of a rotational coppice and replanting. A route was initially selected to avoid woodland wherever possible thus minimising impact on woodland. A total of eleven areas of woodland would be affected along the entire route, amounting to 1.82ha.</p>	
(b)	Provide a description of the proposed activity (e.g. capture of otters followed by damage or destruction of breeding site or resting place)
<p>Phased clearance of vegetation to encourage displacement of dormice into adjacent habitats. No capture operations proposed.</p> <p>Hedgerows will be hard pruned using hand tools in Autumn, after the dormouse breeding season, once young are able to move. Hedgerow will be cut to discourage the use of those sections for hibernating dormice, but to allow for dormice to move across the section. Once within the dormouse hibernating period the remaining hedgerow bases will be removed and roots grubbed out. If temporarily removed hedgerows are not infilled by the end of the hibernating period, brash will be left <i>in situ</i> overnight for dormice to move across the area where hedgerow has been removed. Once the installation of poles is complete, those hedgerows to be replaced will be replanted.</p> <p>Areas of woodland will be hard pruned and cleared in Autumn, after the dormouse breeding season, once young are able to move. Trees will be felled, but stumps left. With felled material either chipped on site, or laid as hibernacula. Understorey species and scrub will be cleared.</p>	
9. Satisfactory alternatives:	
Please provide details of what other courses of action have you considered to avoid or minimise the effects on the protected species? E.g. doing nothing, alternative designs, or sites . Why are the alternatives not suitable? Why have they been discounted? Please attach further information if necessary.	

Due to the distribution of dormice within the local landscape, it is not possible to install the overhead line without causing some impacts on dormice.

An extensive routeing exercise was carried out to determine the Order Limits and Limits of Deviation for the Proposed Development taking into consideration a number of different factors including impacts on habitats and protected species. This has reduced the reduced number of woodlands effected.

10. Activities to be Licensed

(a) Proposed Methods

Please complete **all** relevant columns in the table below to indicate the methods you propose to **use, the activity involved, and the time period** for each method. This information will be used when drawing up the licence and failure to give full details may result in an inappropriate licence being issued.

Activity to be licensed (please insert a x as appropriate)						Method to be used e.g. hand, net, exclusion etc.	Time period (month and year)	
Capture (including temporary possession)	Transport	Disturb	Damage a breeding site or resting place	Destroy a breeding site or resting place	Kill (only in exceptional circumstances – see footnote ¹)**		From	To
		X	X	X		Hand tools, ground flail	09.20??	10.20??

**please include biosecurity measures within the provisions of the method statement

(b) Location of proposed licensed action

Site name and address	To be included		
Town			
County		Postcode	
O.S. Ref. (e.g. ST 123 123)			
(c)	Does your Method Statement include a location map of relevant scale? Normally 1:25,000	Yes	X No
(d)	Please provide an estimate of the number of animals that will be affected by the licensed work?	?	
(e)	Please state why the proposed actions will not be detrimental to the population of the species concerned at a favourable conservation status.		

¹ Killing will only be licenced in exceptional circumstances, you should discuss the particular situation with the Regional Senior Species Officer in NRW for your area.

Mitigation will be put in place to reduce the risk of disturbance, injury or fatal action to dormice. The removal of hedgerows and woodland, both temporarily and permanently, will result in damage and destruction to breeding and resting habitat of dormice.

An ecologist will be present on site at all times when any vegetation removal/management, be it for access, post installation or habitat manipulation, is to be undertaken. Dormice are generally shy animals and will avoid noise and activity; it is likely that during the summer they will move away from areas of disturbance.

Excavations should be filled in or covered over at night and checked each morning prior to the commencement of work. Alternatively escape routes can be incorporated into the excavation.

1. Prior to Construction Phase

1.1 Hedgerow

Small 5m sections of hedgerow will either be temporarily or permanent removed as part of the proposed works. Works to remove hedgerows will take place at the end of the breeding season for dormice, and so any young will be mobile and able to move if disturbed. Hedgerows will be hard pruned to discourage hibernating dormice from late September to October, with tree roots grubbed out at the end of October before dormice go to ground to hibernate.

1.2 Woodland

Woodland clearance will take place at the end of the dormice breeding season, between late September and October. Where possible clearance will take place using low impact tools, including hand tools and mobile chippers. Where ground flails are to be used, an ecologist will inspect the area by hand to check for hibernation nests prior to commencement of works.

2. Construction Phase

2.1 Hedgerow

Hedgerows can be important conduits for dormice and if removal is for more than 48 hours then brushings should be laid down over night to maintain the hedge line.

2.2 Woodland

3. Post Construction Phase

3.1 Hedgerow

Hedgerows will be replanted, where disturbance is temporary. A diverse mix of native saplings will be planted to infill hedgerows. Hedgerows should be cut on rotation every 3 years to encourage species to produce fruits and seeds used by foraging dormice. If flailing is required annually, hedgerow tops should be left to grow with cutting only taking place to the sides of a hedgerow where it is a matter of health and safety i.e. roads.

3.2 Woodland

Where woodland has been cleared or thinned, management should be put in place to encourage the growth of scrubby species, Woodland will be left to regenerate, and planted, to provide suitable habitat for foraging, nesting and breeding, hibernating and commuting dormice. along with possible tree planting, rotational coppice (every 5-8 years) and topping of trees to maintain safe clearance distances to the overhead lines.

11. Consideration of Designated Sites

Designated Areas: Local Nature Reserves (LNR), National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI), Special Protection Area (SPA), Special Areas of Conservation (SAC), Ramsar sites, and certain other river/lake systems.

(a)	Will any part of the proposed activity fall within an area covered by a designated site. E.g. LNR, NNR, SSSI, SAC, SPA, Ramsar?	Yes		No	X
(b)	Will any part of the proposed activity fall within or adjacent to a designated site?	Yes		No	X
(c)	If YES to either of the above, have you consulted with Natural Resource Wales for advice on the implications of your application on the protected site?	Yes		No	X
(d)	Please give either the outcome of your consultations or the reason why you have not consulted. Please enclose any relevant correspondence.				

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Part D. Declarations

12	Have you or your accredited agents or assistants ever been convicted of a wildlife offence?	Yes		No	X
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	If YES , please give details, including dates	
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13.	<p>I have read and understand the guidance provided in this application form. I declare that the particulars given are correct to the best of my knowledge and belief, and I apply for a licence in accordance with these particulars.</p> <p>Applicants should note that it is an offence regulation 57 of the Conservation of Habitats and Species Regulations 2010 to knowingly or recklessly provide false information in order to obtain a licence.</p> <p>If a licence is granted I agree to send to NRW a written report of the licensed activities within four weeks of the expiry of the licence.</p>
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I authorise employees or representatives of Natural Resource Wales to enter the site which subject to this application for the purpose of monitoring and inspecting the permitted works (please place an x in the box opposite).	<input type="checkbox"/>
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Signature of the Applicant		Date	
<i>For electronic applications please insert an electronic signature above or place an x in the box opposite to confirm agreement with the declarations above.</i>			<input type="checkbox"/>
Name in BLOCK LETTERS			
Signature of the Ecologist		Date	
<i>For electronic applications please insert an electronic signature above or place an x in the box opposite to confirm agreement with the declarations above.</i>			<input type="checkbox"/>
Name in BLOCK LETTERS			

Please complete this CHECKLIST fully

Please return your full completed application to the following Natural Resource Wales address:	
Species Protection Team, Natural Resources Wales, Maes y Ffynnon, Penrhosgarnedd, Bangor, LL57 2DW or e-mail your completed form to specieslicence@naturalresourceswales.gov.uk	Checklist before submitting your application:
	Completed Application Form (original plus one copy)
	Method Statement (original plus one copy)
	Protected Species Survey/s(original plus one copy)
	Completed original Local Planning Authority Consultation Document (if Planning Permission or other consents are required/have been granted)

Tel. 03000653000	Copy of any other granted consents (Listed building/ Tree preservation orders/ etc)	
	Copy of the permissions associated with the application and copies of the delegated decision report and / or planning committee minutes	
	Documentation from the Local Planning Authority confirming the discharge of any species related conditions which require discharge prior to the commencement of the development.	

NOTES FOR GUIDANCE (*Please read the following notes carefully*).

- i. This is an application form for a licence to deliberately kill, injure, capture (take), deliberately disturb, damage/destroy a breeding site/resting place or transport an European protected species (EPS) under the Conservation of Habitats and Species Regulations 2010 for the purpose of :-
- **Preserving public health or public safety** or other **imperative reasons of overriding public interest** including those of a social or economic nature and beneficial consequences of primary importance for the environment;
 - **Preventing the spread of disease;**
 - **Preventing serious damage** to livestock, foodstuffs for livestock, crops, vegetables, fruit, growing timber or any other form of property or to fisheries; to allow people to carry out activities which would otherwise be illegal.
- Natural Resources Wales, in exercise of the powers conferred under regulation 53(1) and 56(3) (a) of the Conservation of Habitats and Species, Regulations 2010 may issue licences for the following purposes:
- Provided that:**
- that there is **no satisfactory alternative;** and
 - that the action authorised **will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status** in their natural range.
- ii. All questions in this application form must be completed in full unless otherwise stated: failure to provide adequate information will delay the processing of your application. Any further information you wish to provide should be appended on additional sheets. We aim to process applications within 30 working days of receipt of all the information requested. We cannot guarantee an earlier response.
- iii. It is a condition of any licence issued that a full report of the work carried out under licence is submitted within four weeks of the expiry of the licence. You will be supplied with a licence report form on which to do this. Failure to do so may result in future applications being refused. Information from these reports is required to provide summary information to NRW and others on the number of licences issued, the purpose of the licence and which species are covered. None of these summary statistics includes personal information about licensees. The information may also be used for conservation purposes and shared with other organisations.
- iv. Please be aware that if your activity requires or has received planning permission, listed building consent and or a tree preservation order, you will need to include the following:
- Local Planning Authority Document completed and signed prior to submitting your application
 - Copy of the permissions associated with the application
 - Copy of the delegated decision report and / or planning committee minutes
 - Documentation from the Local Planning Authority confirming the discharge of any species related conditions which require discharge prior to the commencement of the development.
- v. If you are submitting your application by post please make sure that we are given 2 paper copies of all the required documentation including any plans of the buildings and that the print on these can clearly be read. All copies must be identical to the original document, and in colour as appropriate.
- vi. **Please note that we will not process your application until we have received all the relevant documentation. Please be aware that if we do not receive the correct amount of copies of the information asked for it will delay your application until we have received them.**
- vii. Please answer all questions fully and in detail. The more information you give us regarding your proposed activity, the less likely it is that we will need to contact you and cause delays in the progress of your application.
- viii. Please ensure that the information you send us, is properly separated and titled and if posted to us that each part is bound together; failure to do so will delay the processing of your application.

- ix. Applications are dealt with chronologically. This means they are processed according to when they were submitted, not according to the timing of the works. Please submit your application in good time before the proposed works. If you think your application needs to be dealt with urgently, please ring us to discuss and agree this before its submission.
- x. When answering questions, particularly 6-10, it may help with your answers if you consider the why, what, how, where and when, approach. For example: Why are you doing it? What are you going to be doing? How will it affect the species in question? Etc.
- xi. Natural Resource Wales can modify or revoke any licence that may be issued but this will not be done unless there are good reasons for doing so. Any licence that is issued is likely to be revoked immediately if it is discovered that false information had been provided which resulted in the issue of a licence.
- xii. All of the information held by NRW, relating to your application for a licence will be processed and managed by us in accordance with our obligations and duties under the:
 - Data Protection Act 1998;
 - Freedom of Information Act 2000;
 - The Environmental Information Regulations 2004; and
 - All other laws relating to access to information.

With this in mind, your information, including your personal information, may be the subject of a request by another member of the public. When responding to such requests we may be required to release information, including your personal information. Our response to such requests will be in accordance with the guidelines provided by the Welsh Government Code of Practice on Access to Information which can be found at www.information.wales.gov.uk

For further information about the personal data collected and its use, if you have any concerns about the accuracy of personal data, or wish to exercise any of your rights under the above legislation you should contact:

- Access to Information Officers, Natural Resources Wales, Ty Cambria, 29 Newport Road Cardiff CF24 0TP, or email atiteam@naturalresourceswales.gov.uk or telephone 0300 065 3000
- The Information Commissioners Office help line can be contacted on 029 2067 8400 or at www.ico.gov.uk

- xiii **Applicants should note that a licence from NRW does not grant access or power of entry onto any land.**
- xiv **Any information included in this application which the applicant considers to be in confidence for commercial or industrial reasons or to be the applicant's intellectual property must be clearly marked as such.**

In this document "Natural Resources Wales" means the Natural Resources Body for Wales established by article 3 of the Natural Resources Body for Wales (Establishment) Order 2012. The Natural Resources Body for Wales (Functions) Order 2013 transferred the relevant functions of the Countryside Council for Wales, and functions of the Environment Agency and the Forestry Commission in Wales to the Natural Resources Body for Wales.



**Application for a Licence
Dormice Method Statement**

Issue record

Issue	Date	Prepared by	Checked by	Approved by
1	February 2015	Katie Hadwin	Jon Guarnaccio	Jonathan Brickland

Table of contents



A INTRODUCTION 1

- A.1 Background to activity/development 1
- A.2 Full details of proposed works on the site that are to be covered by the licence 1
- A.3 Actions requiring licensing 2

B SURVEY AND SITE ASSESSMENT 2

- B.1 Existing information on the dormice at the survey site 2
- B.2 Field survey(s) 3

C IMPACT ASSESSMENT 12

- C.1 Short-term impacts: disturbance 13
- C.2 Long-term impacts: habitat modification 13
- C.3 Long-term impacts: habitat loss 13
- C.4 Long-term impacts: fragmentation and isolation 14
- C.5 Post-development impacts 14
- C.6 Predicted scale of impact 14

D DELIVERY INFORMATION – MITIGATION, COMPENSATION AND MONITORING 14

- D.1 Works to be undertaken 14
- D.2 Site clearance method detail - Woodland 15
- D.3 Dormice habitat 15
- D.4 Biosecurity risk assessment 18

E POST-DEVELOPMENT SITE SAFEGUARD 18

- E.1 Habitat/site management and maintenance 18
- E.2 Population and habitat monitoring 19

F TIMETABLE OF WORKS 21

G LAND OWNERSHIP – MITIGATION SITE/COMPENSATION SITE 23

H REFERENCES 24

I ANNEXE 1 25

Dormouse Survey Report - Peak Ecology Ltd, 2014 25

J ANNEXE 2 26

K ANNEXE 3 27

Tables and Figures

No table of figures entries found.

Table 1. Index of probability of finding dormice present in nest tubes in any one month (based on 50 tubes).....	4
Table 2. Survey results	5

A INTRODUCTION

A.1 Background to activity/development

The Proposed Development includes the following principal elements:

- Construction of a 17km 132kV overhead electricity distribution connection between Clocaenog Forest and St Asaph, both in Denbighshire;
- A temporary construction compound at Broadleys Farm, A453, Denbighshire and temporary storage or 'laydown areas' along the alignment, without which the overhead line could not be constructed;
- Access points for pedestrians and vehicles along the length of the Proposed Development for the duration of construction, without which the overhead line could not be constructed;
- Mitigation planting, and;
- Other integral works such as site preparation and clearance, earthworks, alteration of existing services, vegetation removal/planting and minor street works.

A.2 Full details of proposed works on the site that are to be covered by the licence

The main component of the Proposed Development is a new 17 kilometre 132,000 volt (132kV) Overhead Line from the proposed North Wales wind farm Collector Substation near Clocaenog Forest and which terminates in a field to the south of Trebanog, Groesffordd Marli, which is located 1.8km from St Asaph substation.

The Order Limits also includes land from an un-named highway to the south of Trebanog, Groesffordd Marli to the terminal point of the 132 kV Overhead Line. The DCO includes the rights to install (and keep installed), retain, use, inspect, maintain, renew, remove and relocate an underground cable in this land.

The 132kV Overhead Line would comprise conductors supported by double wood poles. The wood poles are generally no larger than 470mm in diameter, and would range between 11m and 16.6m in length. Taking into account that the nominal depth of the poles is 2.5m and the steel bracings and insulators add typically 2.3m to the length, the net result is that the actual conductor height above ground (at pole positions) is about 0.2m less than the pole length referred to. The average span between poles is 79m.

The Order Limits for the Proposed Development contain a Limit of Deviation (LoD) within which the 132kV Overhead Line would be located. The LoD provides a degree of flexibility to ensure that any environmental constraints, technical constraints or landowner requests can be accommodated. The LoD varies between 20m in areas with good ground conditions and 40m in areas with poor ground conditions.

The Proposed Development does not include all elements of the North Wales Wind Farms Connection Project. This is because the following elements are considered to be "Associated Development", which, in Wales, cannot be included in an application for a development consent order. Those elements not included within the Proposed Development are known as the Wider Scheme and comprises:

proposed works to St Asaph substation, including the development of an underground cable taking the connection point at St Asaph to the terminal point of the Proposed Development located in a field to the south of Trebanog, Groesffordd Marli (which is south of Glascoed Road, B5381). Further information is provided within Appendices 1.1 and 1.2 (DCO Document Ref 6.17);

- a new 132 kV electrical substation at Clocaenog Forest to act as the collector substation for four consented wind farms;
- temporary storage areas within the existing St Asaph substation and the Collector Substation at Clocaenog Forest; and
- diversions of existing of lower voltage overhead line crossings.

A.3 Actions requiring licensing

The proposed work is likely to disturb and potentially injure or kill dormice if present in hedgerows and woodland, along with damaging and destroying breeding sites and resting places, when sections of hedgerow are temporarily and permanently removed, along with areas of woodland to be cleared.

The removal of hedgerows on a temporary basis is needed to install poles in hedgerow; a maximum of 20 poles could be placed within hedgerows equating to 135m of hedgerow. The removal of hedgerows on a permanent basis is necessary to allow for access of vehicles to, and around, the site; a total length of 106m.

The clearance of woodland is required as to comply with The Energy Network Association Technical Specification (2004) which outlines overhead line clearances, in the interest of public health and safety. This equates to 1.58ha.

B SURVEY AND SITE ASSESSMENT

B.1 Existing information on the dormice at the survey site

B.1.1 Data search

Information was sought on existing dormouse records within a 2km radius of the survey area. This principally involved consultation with North Wales Environmental Information Service (COFNOD) which acts as a repository for ecological information from many sources in the region. In addition, ecological survey data collected as part of the Burbo Bank offshore wind farm extension was also obtained to inform the current survey.

COFNOD provided eleven dormouse records within the survey area. Seven of these records originated from Hafod Wood which is located approximately 1km west of Site 3 (Afon-Asa Wood (3d)) and connected to the site via the wooded Afon Asa corridor. The records were of dormice and dormice nests found in nest boxes within the woodland and date from 2012. The remaining four dormouse records were from separate sites and dated from 2000-01 but no details were given on the type of records. Two of these records were from the Bont-Newydd area which is located in the heavily wooded River Elwy valley. The sites are approximately 0.8 – 1km north east of Site 2 (Croenllwm Wood (2b)). The remaining two records originate from the Henllan area which is located next to Site 3 (Pandy Farm Wood (3e)) and from Coed Diffwys along the Afon Clywedog valley. The latter site previously comprised coniferous plantation but this has since been cleared. Coed Diffwys is situated approximately 2km south east of Site 8 and forms part of the extensive Clocaenog Forest.

The ecological surveys undertaken in support of the Burbo Bank offshore windfarm extension found one potential dormouse nest in a hedgerow 8km north east of Site 1, with a desk study record of dormice noted 1.8km east on the bank of the River Elwy.

B.1.2 Statutory sites notified for the species (SSSIs) within 10km

No statutory sites have been designated due to the presence of dormice.

B.1.3 Scaled plan/map of survey area

Figures from Appendix 6C of the ES Chapter 6 have been included in Annexe 2 below.

B.1.4 Site/habitat description

A detailed description of the habitats within each of the eight survey sites is shown in Table 2. In general, the survey area and surrounding land is characterised by undulating pasture fields bordered by heavily managed but species rich hedgerows. Mixed and broadleaved woodland is also common with numerous steep sided stream valleys vegetated by mature oak and ash woodland, often with abundant hazel in the understorey. There are some particularly large coniferous plantations mixed amongst the deciduous woodlands, these being populated by Norway and Sitka spruce as well as larch *Larix* sp.. Scrub habitats are relatively uncommon and typically only occur in discrete patches around the edges of woodlands.

B.2 Field survey(s)

B.2.1 Survey Objectives

The main objective of the survey was to establish the presence/absence of dormice and assess the value of habitats for dormice, thus informing this method statement.

B.2.2 Dormouse nest tube survey

Dormouse surveys of the survey area were carried out between July and November 2013 following best practice guidance given in English Nature's Dormouse Conservation Handbook (Bright et al., 2006) and Natural England's interim advice note on dormouse surveys (2011). This principally involved installing 555 dormouse nest tubes throughout the survey area and in adjoining habitats between 29th and 31st July 2013 and checking these for evidence of dormice between 29th August 2013 and 7th November 2013.

It was originally intended that the survey would focus on hedgerows as these are often used by dormice and represent the main habitat type to be affected by the proposed overhead line pole positioning. However, a scoping survey undertaken in June 2013 found that virtually all of the hedges in and around the preferred route corridor are intensively managed making a nest tube survey in late summer and autumn (when the hedges are flailed) impractical. The survey therefore targeted woodlands (there is very little scrub habitat present in the survey area) although a few less intensively managed hedges were also included in the survey.

Nest tube survey followed the methodology described in the Dormouse Conservation Handbook (Chanin and Woods, 2003), which uses a standardized scoring system to calculate the likelihood of detecting dormouse presence at a site. Based on using 50 nest tubes, each month that the nest tubes are in situ achieves a score of between 1 and 7 points, which is then added together to provide a total figure (see Table 1). Where less than 50 tubes are used the score per month is reduced accordingly and where the number of tubes is increased the score per month will also increase.

For example, 50 tubes from beginning of May to end September scores 20 points, 25 tubes for the same period would score 10 points and 100 tubes would score 40 points.

A score of at least 20 is required to have confidence in a negative result.

Table 1. Index of probability of finding dormice present in nest tubes in any one month (based on 50 tubes).

Month	Index of Probability
April	1
May	4
June	2
July	2
August	5
September	7
October	2
November	2

A total of eight sites were selected for survey (Annex 6C.1) with 75 tubes deployed at each site, apart from Site 8 where only 30 tubes were installed owing to a lack of horizontal branches onto which nest tubes could be attached. Using this number of tubes ensured that a 'probability score' of 20 was reached at each site (excluding Site 8).

Sites ranged from single blocks of woodland to a series of different habitat areas. In some instances these were several hundred metres apart but connected through the extensive hedgerow network and numerous wooded stream valleys that characterise the landscape. The River Elwy represents the only significant barrier to dormouse movements within the survey area

Dormouse nest tubes were fastened to the underside of thin branches at heights of between 0.5 - 2m and typically 10 – 20m apart. The tubes were left in situ for one month before being checked for evidence of dormice on 29th – 30th August 2013, 17th – 18th September 2013 and on 14th – 16th October 2013 when most of the tubes were retrieved. Unfortunately, ten tubes were lost at Site 5 due to hedge flailing in September 2013 while a further 25 tubes were lost at Site 4 when they were removed by the estate game keeper at some point in September 2013. To ensure that a minimum score of 20 was obtained, nest tubes at both of these sites were checked for a fourth and final time on 7th November 2013, with 40 additional tubes also installed at Site 5 in October 2013.

B.2.3 Dormouse nut search

In addition to the nest tube survey, hazel nut searches were undertaken within areas where fruiting hazel was present. This involved spending approximately 20 minutes searching per 10m² area of hazel. Undertaking hazel nut searches in late summer and autumn was advantageous in the respect that many of the nuts were recent in origin, facilitating the identification of those opened by dormice.

B.2.4 Survey constraints

The surveys were undertaken at an optimal time of year (Bright et al., 2006) by a suitably licensed ecologist and assistants in cognisance of relevant best practice guidance (Bright et al., 2006; Natural England, 2011). Access was possible to all parts of the sites selected and as such no significant constraints are associated with the survey.

B.2.5 Survey results

The results of the dormouse survey are shown in Table 2 below. In summary, evidence of dormice was recorded at four sites (site nos. 1 - 3 and 8) including nine dormouse nests, one of which was occupied by an adult male dormouse. Wood mice were also found during the survey and in a number of instances these had taken over/trashed dormouse nests. Despite hazel being abundant within the survey area, hazel nuts showing signs of having been opened by dormice were only found at site no.2 (Myfoniog Wood).

Table 2. Survey results

Site	Site Section	Habitat Components	Description	Evidence of Dormice
1	1a	Hedgerow	Hedgerow approximately 2 m high x 2 m wide on average. The hedge runs along a disused farm track with a similar hedge on the opposite side of the track and connects to the	A dormouse nest occupied by a wood mouse was recorded during August 2013. The nest was principally constructed from grass, various leaves and

Site	Site Section	Habitat Components	Description	Evidence of Dormice
			above woodland. The surveyed section of hedge is quite bushy in places and does not appear to be managed every year although part of the hedge had been flailed in September 2013. The hedge comprises a good mixture of species including hazel, holly, dog rose, blackthorn and occasional honeysuckle and hawthorn. Several semi-mature trees are also present within the hedge.	thistledown. When the tubes were retrieved in October, three additional unoccupied dormouse nests were found in the hedge, two of which had been trashed by wood mice. Wood mice were found to be common in this hedge, with two tubes occupied by several wood mice.
	1b	Coed Plas-Newydd	4.5 ha mixed woodland which has established around former quarry and comprises larch, sycamore with poor understorey in places but patches of hazel, blackthorn and holly.	None
	1c	Coed Cord	Two adjoining blocks of woodland. The western block is a linear strip of mixed woodland approximately 1 ha in size. Canopy species include oak, silver birch, ash, sycamore and a discrete area of spruce. Most of these trees are semi-mature and young specimens except the oak of which there are some large mature specimens, especially around the woodland edges. The understorey is dense and comprises bramble thickets (especially along the woodland edges), gorse, blackthorn, dog rose, hawthorn, hazel and occasional honeysuckle. The eastern block is 3.5 ha in extent and is essentially hazel coppice woodland under a canopy of semi-mature and mature oak trees. Hazel aside, there are few other species in the understorey with only occasional patches of bramble and hawthorn.	None
2	2a	Myfoniog Wood	Principally deciduous mature woodland along steep sided stream corridors (which flow into the River	A dormouse nest occupied by a wood mouse was recorded in September 2013. The nest

Site	Site Section	Habitat Components	Description	Evidence of Dormice
			Elwy) comprising mature oak, ash and sycamore with an understorey of hazel, holly, dog rose, hawthorn, blackthorn, honeysuckle and occasional patches of bramble and gorse. The woodland grades into spruce plantation towards the River Elwy.	was intact and constructed from fresh hazel leaves, gorse leaves, thistle-down and stripped bark. The tube was positioned in a small patch of gorse on the woodland edge. A dormouse nest occupied by an adult male dormouse was recorded a few metres away from the September nest in October 2013. The nest was constructed from woven honeysuckle bark with an outer layer of fresh hazel leaves. Several gnawed hazel nuts opened by dormice were found within 100m of the nests.
	2b	Croenllwm Wood	Mainly wooded stream corridor lined by deciduous woodland but with a small area of mature larch. Canopy species include oak, ash, alder, silver birch and sycamore but only a few mature specimens are present. The understorey is dense and dominated by hazel, dog rose, holly, honeysuckle, blackthorn, hawthorn and some bramble thickets, the latter especially prevalent in the more open areas outside of the woodland. The site forms part of the extensive woodland that lines the southern bank of the River Elwy.	A recently constructed dormouse nest constructed from an inner layer of woven grass and an outer layer of rowan leaves was found in October 2013.
3	3a	Hedgerow	Short 'L shaped' section of hedge linking to northern edge of Pandy Farm Wood. The hedge is approximately 2m – 3m high and wide, and comprises hazel, hawthorn, blackthorn and dog rose with the occasional semi-mature tree. The hedge does not appear to be flailed each year and had a good crop of fruit during the autumn.	An un-occupied dormouse nest made from woven grass and rose leaves was found during October.
	3b	Hedgerow	Tall, thick and bushy hedge averaging 4 m high x 3m wide. The hedge connects to the southern edge of Pandy Farm Wood and is unmanaged. Species present include hazel, blackthorn, hawthorn, holly, dog rose, bramble, gorse and	None

Site	Site Section	Habitat Components	Description	Evidence of Dormice
			birch.	
	3c	Hedgerow	As hedge 3b above but has been flailed in recent years and supports more hazel and holly.	None
	3d	Afon-asa Wood	Mature broadleaved woodland along steep sided stream valley. Canopy species include dominant oak and sycamore with frequent ash. The understory is relatively open and comprises mainly hazel and occasional holly and bramble.	None
	3e	Pandy Farm Wood	Mature oak dominated woodland along upper reaches of Afon Meirchion, a tributary of the River Elwy. Other common broadleaved species include ash and birch with occasional whitebeam. The understorey is dominated by hazel with frequent holly, hawthorn, elder, rowan, dog rose and honeysuckle. The understory is however relatively open with the best structure/connectivity within the canopy. The north east edge of the wood does, however, support a discrete area of dense bramble and blackthorn scrub.	None
4	4a	Pandy Wood	Site consists of a mix of habitats including a tree lined stream corridor, scrub and extensive mixed woodland. Dense bramble, gorse and blackthorn scrub prevail around edge habitats while the River Ystrad is mainly lined by hazel and alder but with frequent mature oak and sycamore and occasional semi-mature ash. Scrubby species are also present and include blackthorn, hawthorn and bramble. The woodland is mainly mature coniferous plantation (Norway spruce, Scot's pine and larch) with small pockets of deciduous woodland throughout. Hazel is the dominant species in these areas but there is a good mix of oak, ash, blackthorn, hawthorn, wych elm, field rose and honeysuckle. The understorey is particularly dense	None

Site	Site Section	Habitat Components	Description	Evidence of Dormice
			with some dense tangles of vegetation.	
5	5a	Hedgerow	The hedge is separated from the Aber Glyniau Wood by a 20m gap, while the hedge itself is severed by a country lane although there is aerial connectivity via mature trees either side of the lane. The downstream section is quite overgrown containing plenty of mature and semi-mature trees including willow, ash and alder. Shrubby species include occasional hazel, blackthorn, hawthorn, elder, holly, field rose, honeysuckle and bramble; the hedge being quite bushy in places up to 5 m high but typically 2 m wide. The upstream section of hedge is overgrown and gappy in places, and now represents more of a tree line largely comprising alder. Other more occasional species include hazel, blackthorn, hawthorn, bramble and field rose.	None
	5b	Hedgerow	Previously, dense and bushy hedge 3 m wide and 2 m high on average with dense bramble, elder, hazel, dog rose, honeysuckle, hawthorn and gorse. Also some willow, holly and rowan. The hedge was severely flailed in September significantly reducing its size and altering its structure.	None
	5c	Hedgerow	The northern third of the hedge has been lightly flailed and forms the edge of a small discrete wooded copse. The hedge mainly comprises bramble and holly but a number of mature oak, cherry and ash trees are also present. The remainder of the hedge was heavily flailed in September resulting in a hedge no more than 1 m wide x 1 m high.	A tube containing mainly leaves (green) and a small amount of grass was found in November 2013. It is uncertain whether this is a wood mouse nest or an unfinished/trashed dormouse nest.
	5d	Hedgerow	Over-grown hedge lining small stream, mainly comprising semi-mature oak and cherry but with some shrubby species including hazel, hawthorn and blackthorn.	None
	5e	Aber Glyniau	Small stream flanked by woodland	None

Site	Site Section	Habitat Components	Description	Evidence of Dormice
		Wood	which includes ash, alder and oak with a hazel understorey. Also willow, holly, bramble, hawthorn, cherry and gorse with some discrete patches of dense scrub around the woodland's edges.	
	5f	Foel Wood	Mixed mature woodland, the northern half of which predominantly comprises oak and sycamore with a hazel understorey. The woodland had developed on steep sided slopes and has limited structure within the understorey. It connects to hedge 5b at its northern end, which in turn connects to hedges 5c and 5d. The southern half of the woodland consists of mature Norway spruce plantation although the western edge includes deciduous species and connects to hedge 5e.	None
6	6a	Hedgerow	Unmanaged tall and thick hedgerow (4m high x 3m wide) comprising hazel, blackthorn, hawthorn, willow and alder.	None
	6b	Bron Haul Wood	Wooded stream corridor of deciduous composition. This is principally mature oak woodland with birch and alder and copious hazel within the understorey but the structure is in the canopy.	None
	6c	Ples Cefn Maen Wood	Wooded stream corridor supporting dense hazel, willow, rowan, blackthorn, birch, ash and sycamore, with dog rose and bramble along its edges. The woodland includes plenty mature ash trees and has a dense structure with lots of connectivity in the understorey with abundant honeysuckle.	None
7	7a	Hedgerow	Hedge on north side of B4501. Hedge is 2.5 m high x 1.5 m wide and has been lightly flailed. However, there are some particularly thick and bushy sections of hedge and species include hazel, gorse, bramble, hawthorn, blackthorn, dog rose and honeysuckle.	None

Site	Site Section	Habitat Components	Description	Evidence of Dormice
	7b	Hedgerow	Overgrown hedge on south side of B4501 opposite hedge 7a. The hedge is typically 4-5m high and 3m wide being quite bushy in places. The hedge has been lightly flailed on the road side only. Shrub species include hazel, hawthorn and blackthorn with tangles of honeysuckle. Self-seeded rowan and sycamore are present and there are many semi-mature trees; mainly birch, oak and sycamore.	None
	7c	Hedgerow	Overgrown hedge on north side of B4501 road. The hedge is 6 m tall and 2.5 m wide, and is lightly flailed on the road side. The hedge includes shrubby species such as hazel, blackthorn, hawthorn and dog rose but it is not particularly bushy and is structurally poor apart from the final (eastern) 50m of the hedge. Semi-mature trees such as oak, birch, rowan and willow occur as well as the occasional mature sycamore tree.	None
	7d	Hedgerow	Overgrown hedge on south side of B4501 road opposite hedge 7c. It is similar in composition to hedge 7c but it is wider and bushier. The hedge also supports more mature trees than hedge 7c including oak and ash. The presence of a wide verge between the road and hedge means that it is not flailed.	None
	7e	Soar Wood	Mature oak woodland on steep sided stream corridor. Other species include birch, rowan, gorse and honeysuckle although hazel dominates. The understorey is relatively open with the best connectivity in the canopy layer. Two blocks of mature spruce plantation border the woodland.	None
8	8a	Scrub	Scrub to the northern edge of the forest where a 2m – 3m wide strip of gorse scrub had developed.	An unoccupied dormouse nest was found in October 2013 within a tube attached to a barbed wire fence on the northern edge of the forest.

Site	Site Section	Habitat Components	Description	Evidence of Dormice
				The nest was mainly constructed from grasses and gorse leaves. The tube was retrieved in November 2013 by which time several wood mice had taken over the nest.
	8b	Clocaenog Forest	Clocaenog Forest is a vast area of mainly Norway and Sitka spruce plantation, with occasional larch throughout. The surveyed section has recently been densely re-planted with Sitka spruce saplings no more than 4m in height. Deciduous species are uncommon and confined to occasional young willow and birch trees; rank grasses and tall ruderals such as rosebay willowherb dominating. Dense stands of mature spruce and large expanses of clear fell are the typical habitat types, while a small stream that flows west to east through the plantation is flanked by dense gorse, birch and willow.	None

B.2.6 Interpretation/evaluation of survey results

Dormice have been shown to be present at Sites 1-3 in the northern part of the survey area and at Site 8 at the far southern end of the survey area. Furthermore, there are existing records of dormice between these sites and from the surrounding area. Additionally, the survey area supports some optimal dormouse habitat and that there is a high degree of connectivity through the extensive hedgerow and stream valley network. Taking this information into consideration it is likely that dormice are present in good populations in optimal habitat and generally widespread in the area, using hedgerows as places of refuge as well as for movement between optimal habitats.

C IMPACT ASSESSMENT

Any vegetation clearance, including temporary or permanent hedgerow removal and woodland clearance to facilitate works could disturb, injure or kill dormice.

Work between October and May is likely to impact upon hibernation dormice, and work between May and October is likely to impact upon active dormice that could be foraging, nesting and breeding.

Surveys have indicated that dormice could be present in all sections of woodland, including coniferous plantation and on the interconnecting hedgerows. It is assumed that dormice could be present in woodland, scrub and hedgerows at any point along the route.

C.1 Short-term impacts: disturbance

The temporary removal of 5m sections of hedgerow are likely to disturb, injure or kill either hibernating or active dormice depending on the time of year work is to take place. Where temporarily removed, a section of hedgerow will be cut and then dug out and removed, using heavy machinery, to then be replanted 48 hours later. A dormouse could be disturbed due to the noise and vibration caused by hand tools such as chainsaws, and vehicles. This is likely to cause dormice to disperse from that area until replanting has occurred. The temporary removal of a section of hedgerow is likely to restrict movement across the now fragmented hedgerow on a temporary basis.

The permanent removal of hedgerows, will equal 106m. When permanently removed, hedgerows will be hard pruned at the end of Autumn, before hibernation, using hand tools. They then would be grubbed out during the hibernating period, where an ecologist is able to assess for hibernating dormice in these sections prior to works. The removal of vegetation is likely to result in disturbance to dormice from vibrations and noise caused by chainsaws. When the remaining section of hedgerow requires grubbing out large machinery may be used and is also likely to cause disturbance during the removal of hedgerow roots. This is likely to cause dormice to disperse from that area. Dormice are likely to have restricted movement across the now fragmented hedgerow.

The loss of woodland equals a maximum area of 1.58ha. Trees will be felled to leave, where appropriate a coppice stool, during late Autumn, prior to dormice hibernation period. Work to fell woodland will be undertaken using chainsaws and chippers, with the majority of chipped material being removed from site. Dormice are likely to be disturbed from the noise and vibration of hand tools and chipper machines. Ground level disturbance will be minimal.

C.2 Long-term impacts: habitat modification

Hedgerows that have been permanently removed will be replanted with saplings after the decommission stage of the works. Hedgerow species will be selected to coincide with the present species found in that area.

Where woodland is felled, and put into a coppice management regime, ground flora and understorey habitats are likely to change as a result of the management within those areas.

C.3 Long-term impacts: habitat loss

It is likely that by felling woodland and putting these areas into rotational coppice management, resources for dormice will be improved. Established woodland often contains limited resources due to the closed structure of the canopy and the corresponding sparse ground storey vegetation. Initially after felling, if timber and brashings are removed then the habitat becomes very poor providing minimal cover, food or nesting/hibernating opportunities. However, appropriate management, i.e. creating coppice stools combined with the anticipated development of the ground storey vegetation results in very good habitat for dormice.

C.4 Long-term impacts: fragmentation and isolation

Sections of hedgerow removed to allow pole installation will be replaced within days and therefore there would be very little fragmentation as a result. If some plants in the replaced hedgerows failed gaps could appear which would be replanted; these gaps would be small and would not be a barrier to dormice.

Sections of hedgerow removed permanently to enable access could result in isolation if dormice are present in the area. Although it is acknowledged that dormice will cross short gaps and a 5m break is unlikely to result in isolation. Although reluctant to do so, dormice are capable of crossing non-corridor habitat (including dual carriageways) up to a distance of at least 12m (Chanin and Gubert 2012).

Sections of woodland felled to create the wayleave would be very open and could result in fragmentation and isolation but this would be short-lived and within two years the regrowth would provide sufficient cover to allow the free movement of dormice through the area.

C.5 Post-development impacts

Post development impacts will be minimal, areas of coppice will be left to develop back into woodland but the coppiced trees will be multi-stemmed providing potential hibernation sites. As trees grow and the canopy closes the ground flora will be shaded out and will become less suitable for dormice, being similar to its pre-development state.

C.6 Predicted scale of impact

In the absence of mitigation impact on dormice would be adverse as a result of habitat loss and fragmentation and would impact at a regional level. It is unlikely that the impact would result directly in local extinctions but fragmented and therefore isolated populations are more vulnerable and less likely to recover following other unrelated threats such as extreme weather conditions and poor woodland management.

D DELIVERY INFORMATION – MITIGATION, COMPENSATION AND MONITORING

D.1 Works to be undertaken

The local dormouse population will be maintained at favourable conservation status through implementation of the mitigation strategy. In summary this will involve the following:

- Undertaking vegetation clearance between late September – late October when animals (including juveniles) are active and able to respond immediately to the changes in their habitat.
- Persuading dormice to move into unaffected areas of surrounding habitat by progressively clearing strips of woodland vegetation no more than 50 m wide on successive days.

- Clearing vegetation under the supervision of a licensed dormouse ecologist using hand held tools, negating the need for heavy plant machinery.
- Habitat creation/re-planting hedges etc
- Installation of hardwood dormouse nest boxes within Clocaenog Forest to provide additional/compensatory nesting habitat.

D.2 Site clearance method detail - Woodland

If any habitat considered suitable for over-wintering dormice, including hedgerows, is to be removed then the habitat should be modified during the preceding active season to render it unsuitable for over-wintering. This would require hard pruning or felling for example, since dormice are unlikely to over-winter in exposed locations.

Hedgerows can be important conduits for dormice and if removal is for more than 48 hours then brushings will be laid down to maintain the hedge line until the hedgerow is replaced. In the event that a hedgerow is to be replanted, rather than replaced, the brushings will be retained around the base of the new plants to maintain conductivity without impeding growth of the new hedgerow.

Excavations will be filled in or covered over at night and checked each morning prior to the commencement of work. Alternatively escape routes can be incorporated into the excavation.

Woodland will be cleared in 0.5ha units, with uncrushed brush rows constructed immediately, or strips of connective trees left uncut (Bright *et al.*, 2006). Cutting will proceed under direct supervision of an ecologist and be undertaken at a speed and in a direction so as to allow dormice to move away from the area. This means cutting towards an area of woodland that is being retained rather than away from it where dormice could end up trapped in a small section of woodland that needs to be removed. Where sections of woodland are to be removed the initial habitat is unsuitable for dormice and connectivity must be maintained. This would be achieved through brush piles in the short and, when a longer term solution is required, hedgerow planting.

Compensatory habitat will be created to mitigate for the loss of areas of woodland and hedgerows, although it is acknowledged that coppiced woodland habitat can be more suitable for dormice than established unmanaged woodland. The loss of woodland would initially result in a loss of refuges, nesting sites and hibernations sites. Through the creation of habitat piles suitable sites will be created close to retained woodland to ensure that dormice can still utilise the area and the population is not compromised. Once coppices begin to develop the 'newly managed woodland' will become optimal dormouse habitat within two or three years.

D.3 Dormice habitat

D.3.1 In-situ retention of habitat

Where poles are due to be installed in hedgerows a 5m section will be removed. This removal will be temporary and the hedgerow will be replaced within 48 hours. Where hedgerows are to be removed as areas required for access, this removal may be temporary or permanent.

In cases where poles are to be positioned in woodland, only trees within the minimum clearance distance required to meet health and safety criteria, will be removed. Most trees that are felled will be then managed as a coppice; thus retaining the trees albeit in a different form. All woodland outside of this area will be retained.

D.3.2 Modification of existing habitat

Hedgerows will initially be hard pruned during the active dormouse season to avoid harming over-wintering dormice, under direct ecological supervision. Hedgerows to be removed permanently will be grubbed out. Where hedgerows are to be removed temporarily, for pole installation, they will be replanted within 48 hours.

Some woodland will be felled and coppiced with habitat piles of logs and brashings created to provide short term habitat until the coppice develops. Dormice fare best where there is a high degree of species diversity among trees and shrubs and a fully three-dimensional physical structure, with plenty of links between woody vegetation at all levels (Bright *et al.*, 2006). Coppiced woodlands tend to provide a better structured habitat for dormice and in areas where the number of tree species is limited additional planting of suitable species, (e.g. hazel, oak, hawthorn, blackthorn, dog rose and honey suckle), will be considered.

D.3.3 New habitat creation

An estimated 106m of hedgerow will be removed permanently to allow for access routes around the site, necessary to facilitate construction, inspections and decommissioning. In total 550m of hedgerow will be planted. The species lists for planted hedgerow will comprise hawthorn, blackthorn, hazel, holly and at least two species from dog rose, guelder rose, field maple and spindle.

Trees that are removed, including those in woodlands, will be replaced with saplings on a two for one basis. In most cases replacements will be the same species as the tree that is lost. However, non-native species will be replaced with native species. Where ash trees are removed it may not be appropriate to replant with ash because of the issues with 'ash die back' disease. In this case other native trees will be planted unless otherwise advised on consultation with NRW.

D.3.4 Habitat losses and gains summary table

Habitat	Retained	Removed	Enhanced	Created
Hedgerows		106m		550m
Woodland		1.82ha		
Coppice				1.82ha
Trees (outside of woodland area)		110		220

D.3.5 Scaled maps/drawings

Woodland removal and individual tree removal is annotated on the Impacts map included below in Annexe 3. Pole placement positions are also included on the Impacts map and these indicate where 5m sections of hedgerow will be temporarily removed.

D.3.6 Mechanisms for ensuring delivery of mitigation and compensation measures

All on site workers will receive a contractor's briefing/toolbox talk from a licenced ecologist. This briefing will be supported by a detailed method statement, incorporating the contents of this method statement and making it clear how work needs to proceed whilst ensuring legal compliance.

Key work areas, specifically those which could result in an offence, including any vegetation removal will be directly supervised by the licenced ecologist. Species lists for new planting of individual trees, woodland and hedgerows will be approved by the licenced ecologist and will be in accordance with this method statement. Any input from NRW on planting locations and species lists would be welcomed.

D.3.7 Mitigation contingencies

The mitigation outlined above is based on tried and tested practices and it is difficult to envisage a scenario when it could not all be implemented. However the following scenarios are feasible and would be addressed as detailed below.

- Failure of hedgerow once replaced – when hedgerows are removed and replaced there is a risk of failure particularly as a result of root damage and in warmer dry weather. The appropriate machinery will be used to minimise any risk of root damage and in drier conditions hedgerows will be watered to reduce stress. In the event that hedgerow plants fail, then these will be placed with appropriate species. The need for brashings to bridge gaps to ensure that dormice can still move through the area will be judged by a licenced ecologist at the time.
- Failure of trees to coppice – on occasion, and particularly when trees are diseased or their health is compromised, they may not regrow. The areas of cleared woodland will be inspected in the second year after felling and any failures will be replaced. The species of replacement tree will depend on the species of tree that is lost, the availability for food for dormice and the species of tree that have been removed as well as those that have been retained in the adjacent woodland.
- Failure of new planting, trees, woodland and hedgerow – areas of new planting will be inspected in the second year after felling/removal and any plants that have failed will be replaced on a like for like basis.

D.4 Biosecurity risk assessment

D.4.1 Phytophthora

In order to protect trees in the area, equipment which may have come into contact with *Phytophthora ramorum* or *Phytophthora kernoviae* will be disinfected with 'Propellar' according to the protocols outlined in 'Phytophthora Control Sites Operational Precautions' (Forestry Commission, 2010). This includes but is not limited to chainsaws, footwear and vehicle tyres.

E POST-DEVELOPMENT SITE SAFEGUARD

E.1 Habitat/site management and maintenance

E.1.1 Hedgerow re-planting

Where there is temporary removal of hedgerows as part of the pole installation work or access works, hedgerows will be replanted with a diverse mix of native saplings in winter. 550m of hedgerow will be planted to mitigate for a permanent loss of 106m of hedgerow.

When creating new hedgerows, or plugging gaps in existing ones, at least five and preferably seven different shrub/tree species should be planted. The best species to plant are hawthorn (for its flowers, insects and berries) and hazel (nuts and insects); with a diversity of other species to offer flowers insects and fruits at different times. Bramble would make a valuable addition, but is likely to arrive naturally.

E.1.2 Hedgerow laying

Hedgerows should be laid between 2-4m in height with a stem width of 50-100cm at the base between the late October and March.

E.1.3 Hedgerow cutting/flailing

It is recommended that most hedgerows should be cut at 3-year intervals. Cutting a hedgerow on its top has as much impact on dormouse density as cutting on both sides. Consideration should be given to hedge laying rather than cutting, especially as this will also help to prevent old hedges from becoming 'gappy'. Laying hedges to keep them stock-proof is a valuable alternative to installing wire fencing to close gaps, as flowering and fruiting can continue uninterrupted

- Except where road safety or access preclude it, hedgerows should be trimmed only every 3 years (or less frequently if possible) and maintained at a height of at least 3m, and preferably 4m. Hedgerows will be cut in late Autumn/early Winter.
- It is important not to cut all hedgerows at once, so that some heavily fruiting hedgerows are always present. As a guide, we suggest cutting only 10 to 30 per cent in any one year.
- In some places it may be feasible to cut only one side of the hedge, cutting the other a year or two later, thus not removing all the food sources at once and allowing some regrowth

before further cutting takes place. If possible, flails should not be used to manage hedgerows.

- Coppicing or, even better, laying should be used to manage hedgerows that become gappy or lack dense branches at their base. Fencing may be needed to prevent stock from causing damage before new growth has become established.
- If hedgerow size needs to be reduced it is better to avoid cutting the top and to cut one side only.

E.1.4 Woodland felling/thinning

Trees in woodland will be felled and thinned as a result of the pole installation.

E.1.5 Woodland replanting, coppicing and pollarding/topping of trees

In cleared areas, trees that are able to be retained will be put into rotational coppice, with an area directly under the overhead lines in a five year rotational coppice and areas either side of this in a nine year rotational coppice. Between two and three years after cutting, felled or coppiced areas develop thick growth of bramble and scrubs between stools, enhancing resources for dormice.

E.2 Population and habitat monitoring

E.2.1 Dormouse population monitoring

Populations of dormice will be monitored by installing nest boxes in woodland and hedgerows. Checks will be performed on nest boxes in accordance with The Dormouse Conservation Handbook (2006) with nest boxes checked at least twice a year (May and October) to record any animals present. Monthly checks will provide more and better quality information, particularly on breeding. It is important to be aware that the monitoring programme must be designed to ensure that it properly assesses the dormouse population in the area and should identify issues such as fragmentation and population structures and densities.

Checks will be undertaken each year for the first five years after construction and then on a two yearly cycle for a further six years. The state of the dormouse population will be under continuous scrutiny throughout the monitoring programme; however, after the monitoring is complete a review will be undertaken. If it is evident that there has been no adverse effect on the population then monitoring will cease. This review will also include an assessment of the connectivity, and therefore potential fragmentation, in the area.

E.2.2 Dormouse habitat monitoring

Regular maintenance of woodlands and hedgerows will be required to ensure optimal habitat is maintained for dormice.

Where hazel is present in woodlands and hedgerow, searches for gnawed hazel nut shells will help to determine if dormice are utilising those habitats for foraging. Searches are most useful over winter, with at least five 10 m x 10 m quadrats or more if squirrels have opened most of the nuts.

Timing of habitat monitoring would be every 2 yrs for 8 yrs.

E.2.3 Post-development mitigation contingencies

Once mitigation is in place and planting is established and it is assumed that any planting failures have been rectified it is anticipated that habitat is in place and the population of dormice will not be adversely affected. However, monitoring will be the test and should identify any issues with regards the population of dormice. If the monitoring identifies an issue such as potential fragmentation then this needs to be investigated, if it is shown that the problem has been caused by this development then it needs to be addressed. It is difficult to foresee problems that may arise but contingencies could include additional habitat management, improvements to connectivity and the additional planting of food plants.

E.2.4 Mechanism for ensuring delivery of post-development works

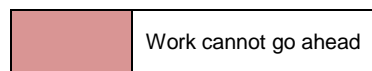
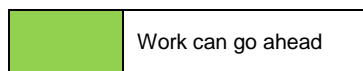
Dormice population monitoring will be undertaken by a licenced person, with all records of dormice returned as part of their licence to the National Dormouse Monitoring Programme (NDMP) and the National Dormouse Database (NDD).

The North Wales Dormouse Project staff will be contacted and, it is anticipated that they will become integrated with the development. A suitably licenced and/or experienced ecologist will oversee all proposed mitigation including woodland and hedgerow management.

F TIMETABLE OF WORKS

Activity	Year	Management rotation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Prior to Construction Phase														
Hedgerow hard pruning	1	N/A												
Hedgerow grubbing out	1	N/A												
Woodland clearance	1	N/A												
Construction Phase - after hedgerows have been hard pruned														
Hedgerow removal for 48 hrs	2	N/A												
Hedgerow Removal (permanent, if reqd.)														
Post Construction Phase														
Hedgerow replanting	2-3	N/A												
Hedgerow cutting		Every 3 years												
Hedgerow laying		As necessary												
Tree planting in woodlands	2-3	N/A												
Dormouse nest box installation	1	N/A												
Dormouse nest box checks	2-7 8-14	every year every 2 yrs												
Dormouse habitat monitoring	2-10	every 2 yrs												

KEY



G LAND OWNERSHIP – MITIGATION SITE/COMPENSATION SITE

There are numerous landowners along the length of the proposed development. All land owners are familiar with the scheme and have been contacted by SPEN during the consultations and during the survey works.

H REFERENCES

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I **ANNEXE 1**

Dormouse Survey Report - Peak Ecology Ltd, 2014

J **ANNEXE 2**

Survey Area Map

K **ANNEXE 3**

Impacts Map

