

# Access Track and Passing Places for the Reeves Hill Wind Farm

*Construction Ecological Management Plan May 2015 v3*

Project:	Access Track and Passing Places for the Reeves Hill Wind Farm
Report:	Construction Ecological Management Plan v3
Date:	May 2015
Prepared By:	Sarah Cartmel and Alison Johnston
Updated By:	Neil Parker CEnv MCIEEM (7 <sup>th</sup> May 2015, V3)
Checked By:	Michael Phillips, Dulas Ltd 7 <sup>th</sup> May 2015

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# 1 Introduction

## 1.1 Background

A planning application has been submitted to Powys County Council (application reference P/2012/0573) for a new site access road from the A4113 to the Llanshay Lane and the creation of passing places on the Llanshay Lane to enable access to the consented Reeves Hill Wind Farm.

In November 2014 Dulas Ltd commissioned Cartmel Ecology Ltd to produce a Construction Ecological Management Plan (CEMP) for the proposed new access track for the Reeves Hill Wind Farm. Hannah Powell, Senior Ecologist of Powys County Council, requested this CEMP as part of her comments on the planning application. Her comments are included at Appendix 1.

Natural Resources Wales gave further advice on the draft CEMP, dated 17 December, stating that, subject to further provisions within this CEMP, they would be satisfied that Reasonable Avoidance Measures are in place to safeguard dormice, bats and great crested newts. All the recommendations of NRW have been incorporated within this updated CEMP except in respect of pre-commencement surveys which, for the reasons stated below, will be required to be a voluntary undertaking by the applicant. NRW comments are included at Appendix 2.

Following submission of the CEMP to Powys County Council further representation was made by the County Senior Ecologist (10<sup>th</sup> April) requiring further surveys for GCN in order to fully inform the appropriate CEMP measures. These further surveys have been conducted as part of the Extended Phase 1 Habitat Survey and Protected Species Habitat Suitability Assessment.

The following information has been used to compile this CEMP:

- A data search (updated in November 2014);
- A phase 1 survey in May 2008;
- An extended phase 1 survey and great crested newt assessment June 2011;
- The Design and Access Statement 2012; and

- Extended Phase 1 Habitat Survey and Protected Species Habitat Suitability Assessment, April 2015.

## **1.2 Site Description**

The site is located immediately to the south of the town of Knighton and commences from the existing quarry turning on the A4113. It lies at a height of 170 m to 400 m above sea level and consists of farmland and a minor road.

## **1.3 Summary of Proposed Works**

A new access route will be constructed across existing agricultural land and some widening of the existing Llanshay Lane will also be required for passing places for the construction traffic and abnormal loads.

The new access track will connect the main highway to Llanshay Lane in order to enable turbines to be delivered to the proposed wind farm site at Reeves Hill.

## **1.4 Summary of baseline ecology likely to be affected**

A Phase 1 survey of the proposed track route was carried out in 2008 and received comments from CCW. These comments were addressed with a second extended Phase 1 survey, carried out in June 2011 by Ecology Matters, and the report (Phase I walkover with Great Crested Newt habitat assessment and mitigation details) was submitted in support of the planning application at that time. CCW (Caroline Moscrop) wrote to the planning officer dealing with the application in July 2012 stating that they had no objection to the proposed scheme.

Further comments have now been received from Hannah Powell, the biodiversity officer for Powys County Council, and these are addressed in this document.

Her concerns are:

1. There is a dormouse record for Lower Woodhouse to the immediate east of the new access location. Dormice could be present in the hedgerows, but there is no consideration in the ecological assessment. Further information is required on the potential impacts to dormice.

2. There is no mention of a full tree survey for bats; only one tree is noted as having bat potential. A bat mitigation strategy is required with a tree protection plan and mitigation details for affects to bat flight lines.
3. Great crested newt Reasonable Avoidance Measures are required.
4. A hedgerow protection plan for retained sections and a planting and maintenance methodology for planting and establishing new hedges are required.

Given the previous reports of great crested newts and dormice at the site, the Applicant accepts that such species are highly likely to be present within the locality and in proximity to the development footprint. Such likely presence has informed the commitment to additional pre-commencement surveys as set out in section 4.5 of this CEMP.

### **1.5 Scope of the CEMP**

This CEMP has been produced to avoid or reduce the ecological impacts of construction works for the proposed development with regards to white-clawed crayfish, dormice, great crested newts, bats, nesting birds and hedgerows.

Through the implementation of appropriate mitigation measures, detrimental impacts and breaches of current British wildlife legislation will be avoided. Without these measures there is the risk of disturbing, injuring or killing nesting birds (during the breeding season), white-clawed crayfish, great crested newts, dormice and bats.

The CEMP sets out the necessary safe working methods where protected species are present within the construction zone for the scheme.

## 2 Aims and Objectives

### 2.1 Aim

The aim of this CEMP is to preserve and enhance the ecology of the site.

### 2.2 Objectives

The objectives are as follows:

- To ensure no breach of British wildlife legislation occurs on site for the duration of the proposed development.
- To protect important species from the proposed construction works.
- To minimise damage to adjacent habitats and protect habitats on site that are part of the final development.

### 2.3 Ecological Issues/Legislation

The priority ecological issues i.e. those that have legislative requirements or planning considerations and are relevant to the site and the proposed works are as follows:

#### 2.3.1 British legislation

- Nesting birds are protected by the Wildlife and Countryside act 1981 (as amended).
- White-clawed crayfish are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) making it a European Protected Species.
- Dormice are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) making it a European Protected Species.
- Great Crested Newts are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) making it a European Protected Species.
- Bats are protected by under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended) making it a European Protected Species.

### **2.3.2 Planning considerations**

The following habitats and species have been identified at the site or in proximity to it that may be considered relevant to the development:

- Local wildlife site – Knighton Railway Station Meadow (>500m to the north west of the site);
- Sites of Special Scientific Interest – River Teme (>300m to the north east);
- BAP habitats – Priority habitats on site include:
  - Ancient semi natural woodland
  - Running water
  - Standing water
  - Broadleaved woodland – plantation
  - Ancient replanted woodland
  - Broadleaved woodland - semi-natural
  - Neutral grassland - semi-improved
  - Hedgerows
- A data search obtained from BIS in November 2014 has identified 13 priority species within 1 km of the development site. Nine of these are UK BAP species: white-clawed crayfish, west European hedgehog, Wall (butterfly), Otter, hazel dormouse, polecat, brown long-eared bat, great crested newt and adder. Four are Local BAP species: palmate newt, smooth newt, badger, common pipistrelle.

### **2.3.3 Hedgerow Regulations**

The Hedgerow Regulations 1997 protect important hedgerows from damage or removal without prior consent from the Local Planning Authority (LPA). Where a hedgerow is considered as important as defined by the criteria set out in the Hedgerow Regulations 1997, the LPA can order its retention.

### **2.3.4 Hedgerow changes**

The length of hedgerow lost by this proposed development is small (approximately 10 m) and approximately 5 m of tree line will be removed but will be kept to a minimum.

A gap will be created (approximately 5 m wide) in the tree line along Caleck's Lane; canopy cover will be retained as close to the new track as possible to limit disruption to bat flight

lines. Dormice and great crested newt could be present along this old lane and birds may nest in the trees. No trees with potential bat roosting features were noted here but the lane provides a good sheltered foraging area for bats, which be retained either side of the gate.

The new track pass through an existing gateway in a species poor, managed hedgerow close to Llanshay Farm. The gateway will require approximately 2 - 3 m of widening. This hedgerow has very minor potential to be used by bats as a flight line, by nesting birds and dormice.

A section of mature mixed species hedgerow on the north side of Llanshay Lane will be affected, where the new access track joins this lane. Only a minimal area of hedgerow will be removed, sufficient for a gateway up to 5m in width. This section has potential for breeding birds, dormouse, bat flight line and great crested newt refugia. Following construction continuity will be achieved with a gate system and the bat flight line will not be disrupted.

Sections of Llanshay Lane will be widened. In these situations the hedges will be moved or translocated a few metres back and no new gaps will be created. This will only have a temporary effect during construction on dormice, newts and bat flight lines.

Any existing defunct sections of hedgerows will be planted up.

All hedgerows that will be affected by the proposed track will be either trimmed or translocated after cutting, thereby retaining a functional movement corridor within which additional gap planting will quickly re-establish.

# 3 Implementation of CEMP

## 3.1 Introduction

This section provides specific details relating to the CEMP such as safe working methods and timing constraints. A detailed plan showing areas where construction activities are restricted and where protective measures will be installed or implemented to enable the impact of habitats and/or species on site to be minimised will be drawn up prior to starting construction. These plans may need revising on confirmation of the extent and nature of activities occurring with the works footprint as works progress.

There are records of dormice and great crested newts close to the site and the hedges have been assessed as suitable for dormice with some areas suitable for resting sites for GCN.

Some hedges and tree lines will have sections removed, potentially disrupting any bat flight lines and at least one tree with bat roost potential will be lost.

## 3.2 Ecological management team

An Ecological Clerk of Works (ECoW) will be appointed to ensure that all site personnel are appropriately briefed on the ecological issues within the site and to ensure all safe working methods are carried out.

Tasks to be carried out by the ECoW will include:

- Review, agree and approve revisions of the CEMP.
- Erection and maintenance of markers and notices for limits around protected features with protected/priority habitats and species.
- Consideration of requests and granting of permission to enter within habitat and species exclusion zones.
- Conduct weekly checks for protected species within and adjacent to construction areas.
- Check ground ahead of likely construction (setting-out) for protected species.
- Recommend implementation of the terms of the specific mitigation statements
- Implementation of species protection licensing requirements.

- Where required, apply temporary hold on construction to ensure sufficient survey, discussion and protected species licensing are implemented.
- Maintain a register of faunal sightings/signs for the site within a GIS. The register is to be hosted on the site noticeboard so that construction staff can take note of any potential conflicts within their working zone.
- Maintain a register of habitat inspections carried out.
- Maintain a hard copy of the registers on a monthly basis or as required by the site manager for all personnel on site to consult.
- Provide advice and recommendations to the site manager, the developer, the developer's agent, local planning authority and statutory nature conservation organisations regarding the above items and where appropriate provide advice on aspects of implementation management planning.
- Attend and minute site management meetings as required to:
  - Review the construction progress on site in the context of ecological mitigation;
  - Review the effectiveness of the ecological mitigation;
  - Discuss the construction programme and advise on any protected species timing restrictions; and
  - Agree items for discussion at monthly client updates meetings/or similar.

### **3.2.1 ECoW Authority and Communication**

The success of the ECoW appointment is highly dependent on well-defined lines of communication. The construction method statements that follow in this document incorporate many of the areas of ECoW concern into construction daily activities. However, the ECoW will inform the site manager and developer/developer's agent of areas of particular concern, who will then make a decision as to the subsequent action.

The ECoW will be available to provide biodiversity related Toolbox Talks as part of the site induction process. All construction personnel will know of the circumstances when the ECoW should be contacted and relevant phone numbers. Furthermore, the Toolbox Talk will

confirm that the ECoW is the authoritative party for controlling work with relation to protected species, i.e. the ECoW has the authority to halt construction without the need to request permission from the site manager.

The ECoW will provide a liaison between the Local Authority Ecologist and Natural Resources Wales as required. In addition the ECoW will liaise with wider stakeholders as necessary to ensure a positive community relationship with respect to nature conservation issues surrounding construction of the development.

### **3.2.2 Reporting**

The ECoW will provide monthly report. The report will be in a format that is suitable for dissemination construction staff, the developer/developer's agent, local planning authority and statutory nature conservation organisations.

The ECoW will produce a final report to the developer/developer's agent documenting the ecological effects of the construction period. The evidence for effects will be based on findings included in the minutes of construction phase meetings, together with other information recorded by the ECoW such as monitoring surveys. The report will relate results to residual effects predicted in the Environmental Statement. The report will be made available to the contractor, Local Authority and Natural Resources Wales and other external organisations as required i.e. Environment Agency.

## **3.3 Safe Working Methods**

### **3.3.1 White-clawed Crayfish**

Disturbance to the watercourse during installation of the culvert crossing will be minimised to one phase of construction i.e. it will be completed in a continuous period rather than stages set over several months.

Where presence of white-clawed crayfish is confirmed a trapping and exclusion period will be implemented, under appropriate license, to ensure no direct harm occurs.

Silt and sediment traps will be installed below the crossing location to ensure water quality is retained further downstream and to reduce any impacts on the River Teme.

To prevent any accidental effects on the watercourse, i.e. vehicles turning to close or materials being spilled into the watercourse, Heras style fencing will be erected along the

construction zone sufficient to prevent breach of the watercourse in any location except the construction works.

### **3.3.2 Nesting birds**

All nesting and breeding birds are protected from disturbance, injury or killing while nesting. Likely locations include the hedgerows, trees, woodland and any areas of scrub or tall grass. Disturbance must be minimised in these areas during the breeding season (March to September).

Where suitable nesting habitat is planned for removal as part of the development, the timing of the removal can be very important to avoiding any impact. Where possible, suitable habitat should be removed during the winter period, before the end of February – if this does not impact on other protected species. Dormice will hibernate at the base of trees and hedgerows and newts under stones and other vegetation at ground level. Removal of vegetation above will not impact on these hibernation areas if done carefully, although a ground level search for dormice nests should be undertaken first.

Where this is not possible a suitably qualified ecologist must check the habitat carefully before removal to ensure no nests are present.

If a nest is found then works in the area must stop and works must not re-commence until the birds have naturally left the nest.

### **3.3.3 Great crested newts (GCN)**

There are three ponds within 200m of the development area that were recorded as suitable as potential breeding sites for great crested newts. Caleck's Pool at SO 30013 71941 is approximately 170 m east of the construction area, Sluice Pond in Llanshay Dingle at SO 29665 71704 is approximately 125 m from the construction area and a third pond which is linked and just north of Sluice Pond at SO 29616 71747 is approximately 180 m from the construction area.

These ponds have not been surveyed but they have been assessed as potentially suitable for GCN and there are records of this species within 1km of the development site.

All the hedgerows and tree lines have some potential to be used by great crested newts and a few rocky banks and discarded tree stumps have potential as hibernation sites.

The ponds will not be directly affected by the development but the movement of newts to their refugia and hibernation sites could be affected during construction.

The construction of the passing places will not damage any known great crested newt sites but could affect one potential hibernation area and other refuge sites under hedges.

According to the great crested newt mitigation guidelines (2010) the scale of impacts on GCN will be low at this site and therefore the following Reasonable Avoidance Measures (RAMs) will be implemented. However if any great crested newts are found during the pre-construction surveys an EPS licence will be applied for.

The following safe working methods will be carried out as part of the RAMs:

- A plan of areas that are known to or have potential to be used by GCN will be plotted on a map and made available to the contractors before the start of works
- All contractors will be made aware of the potential for GCN to be present on site, the legal situation and what to do if a GCN is found via a Toolbox Talk.
- The use of heavy machinery will be limited on site until an ecologist has checked the area.
- If ground clearance is to be undertaken in winter or early spring the leaf litter and moss will be carefully raked over and checked by hand.
- Any log/stone piles or potential hibernation sites will be dismantled by hand under the supervision of an ecologist.
- All vegetation clearance in areas of interest will be undertaken whilst an ecologist is on site and supervising the works.
- Tall areas of grass and scrub will be reduced in height of approximately 150 mm under the supervision of an ecologist. All cuttings are to be removed from the site and the area left undisturbed for a minimum of 48 hours. The area will be fingertip searched before it can be stripped. For areas where grass is already short these will be searched by hand prior to stripping.

- All hedges, grass verges and rocky banks to be disturbed during construction must be fingertip searched before any clearance work commences. The search will be undertaken immediately prior to clearance i.e. on the same day by an ecologist.
- There is a species rich hedge to be removed along Llanshay Lane. Initially the trees will be topped, gradually reducing in height until it is possible to search within the hedge for newts and dormouse.
- When trees and hedges are removed, the root balls will be inspected by an ecologist while they are being lifted and after.
- Any trenches/excavations on site need an escape route for animals if left overnight, for example a wooden plank would allow anything from a badger to a GCN to exit the hole. These excavations will be checked each morning prior to works starting to ensure the escape route is still in place and no animals have become trapped.
- An area nearby out of the work zone will be identified where any non-protected species can be moved if found during the searches.
- Any materials stored on site will be stored off the ground for example on a pallet to prevent the creation of new features for GCN to shelter under.
- No work that could disturb hibernating newts should take place during their hibernation period November to March.

#### **3.3.4 Dormice**

The dormouse records obtained from BIS indicate that gnawed nuts were found in Lower Woodhouse Wood in 2001. This wood is immediately adjacent to the quarry track in the north of the site. Hedgerows potentially connect this woodland to Caleck's Lane and other hedgerows on the agricultural land and on the hedgerows along Llanshay Lane. There is also a record from 1988 of dormice just outside the search area along Pitts Lane.

The hedgerow habitat along Llanshay Lane was noted as suitable (in the extended phase 1 survey) and dormice are therefore assumed to be potentially present in the hedgerows. No comprehensive survey has been carried out although there was a search for eaten hazelnuts during the extended phase 1 survey in 2011 (none were found).

A full survey in compliance with the Dormouse conservation Handbook (English Nature, 2005) is currently in progress with results expected to be available in December 2015. However, mitigation measures such as those that would inform a method statement are detailed below:

- A plan of areas that are known to or have potential to be used by dormouse will be plotted on a map and made available to the contractors before the start of works.
- Each of these areas will be checked immediately prior to clearance works.
- All contractors will be made aware of the potential for dormice to be present on site, the legal situation and what to do if a dormouse is found.
- The use of heavy machinery will be limited on site until an ecologist has checked the area.
- If ground clearance is to be undertaken in winter or early spring the leaf litter and moss will be carefully raked over and checked by hand.
- All vegetation clearance in areas of interest will be undertaken whilst an ecologist is on site and supervising the works.
- All hedges, grass verges and rocky banks to be disturbed during construction must be fingertip searched before any clearance work commences. The search will be undertaken immediately prior to clearance i.e. on the same day by an ecologist.
- Hedges will be cut back gradually over several days to allow any dormice that could be present time to move to an adjacent section of hedge.
- When trees and hedges are removed, the root balls will be inspected by an ecologist while they are being lifted and after.
- No work that could disturb hibernating dormice should take place during their hibernation period November to March.
- Where hedges are removed or widened to create a gap (temporary or permanent) aerial ropeways will be installed to allow any dormice within the area to continue to travel along the hedge either side of the new gap without having to travel across the ground.

### **3.3.5 Bats**

There are no known bat roosts on the site that will be affected by the proposed works.

One tree (a small crab apple with a cavity) will be felled and this was identified (during the extended phase 1 survey) as having bat roost potential. A dusk emergence or dawn re-entry survey will be undertaken before construction to determine current use. Where no likely absence is confirmed an endoscope survey will be completed immediately prior to felling. The tree was last inspected in April 2015 and no evidence of bats was seen.

The following methods will be employed prior to construction:

- The ECoW will inspect all trees to be felled and trimmed that will be affected by the construction.
- Any trees with bat roost potential will be marked and a full climbing inspection will be carried out (where possible) before works are carried out on the trees. Providing no bats or evidence of bats is found work will then take place on the tree.
- Any trees with high bat potential that are close to the construction area but not directly affected by the development will be marked and contractors made aware of a safe working distance to avoid disturbing any potential bat roosts.

### **3.3.6 General Species**

- Any trenches/excavations on site need an escape route for animals if left overnight, for example a wooden plank would allow anything from a badger to a GCN to exit the hole. These excavations will be checked each morning prior to works starting to ensure the escape route is still in place and no animals have become trapped.
- An area nearby out of the work zone will be identified where any non-protected species can be moved if found during the searches.

## **3.4 Hedgerow protection**

Some sections of species rich mature hedge will be affected by this development. In all such circumstances the hedges will simply be pushed back or translocated such that the habitat connectivity will not be lost; nor will hedgerows be grubbed out and replanted.

The following method for hedgerow translocation will be used:

- Hedges should only be moved in the dormant season (November to March).
- If the hedge has not been recently flailed then this will be done first. Alternatively, the hedge will be coppiced or trimmed.
- A trench will be dug of approximately 1m deep and 1m wide in the middle with side/s shallow tapered. If lifting from the road side one side of the trench can be fairly straight.
- Using a large excavator with a specially adapted blade fixed to its bucket, cut beneath the hedge from both sides to 'free it' and sever the roots.
- Where the hedge is to be moved directly back (from a road), scraping the root ball back (rather than lifting) may be possible. Working from the opposite side of the hedge to the bucket, pull the whole bank towards the excavator. Tracking up and down the hedge, repeatedly pull each section of hedge back by a very small distance to avoid it breaking up at all. Alternatively lift each section at a time (with great care) and carry in excavator bucket to the new site. Place immediately in the prepared trench which is to be their final destination. They should not be stored for any length of time, but the trench filled in as soon as possible with soil.
- If the vegetation on the top of the hedge has many gaps, plant up with locally appropriate species i.e. hazel, honeysuckle, oak, etc at a suitable density (usually 4/6 plants per metre in a double staggered row).

Where hedges are removed to create a gap (temporary or permanent) aerial ropeways will be installed to allow any dormice within the area to continue to travel along the hedge either side of the new gap without having to travel across the ground.

### 3.5 Timing restrictions

Safe working periods are shown in the table below.

Species	Operation	Period when work can take place
<b>Nesting Birds</b>	Vegetation clearance	September to February
<b>Great Crested Newts</b>	Vegetation clearance	March to September
<b>Dormice</b>	Hedgerow reduction	November to March
<b>Dormice</b>	Hedgerow removal	May to September
<b>Bats</b>	Vegetation clearance	May to October

## 4 Mitigation Requirements

In order to maintain and improve biodiversity on site a number of mitigation items are to be implemented. A description of such measures is set out below, and attached to the CEMP is a Habitat Management Map demonstrating where mitigation and compensation proposals will be located.

### 4.1 Bat flight routes

- There will be a relatively large gap created in the tree lines of Caleck's Lane when the track is constructed through here. This will require some replanting following construction. A closed gate will help to continue the flight route and trees or shrubs will be planted on either side.
- The crab apple tree with a cavity has to be felled and alternative bat roosting sites will be provided. Three bat boxes (Schwegler type as they are long lasting) will be installed in mature trees by the rocky outcrop.

### 4.2 Extra tree or hedgerow planting

- Any trees or hedges to be cleared will be replaced by alternative plantings close to the area removed or within the development area, with 3 trees replanted for every tree removed.
- Individual hawthorn or rowan trees will be planted along the east side of the track between Caleck's Lane and the quarry, each tree spaced 2m apart or in groups with 2m gaps between to allow stock through. This will create a new sheltered flight route for bats and may also aid newts in travelling across the site, but will be spaced to allow stock to continue to cross this area. This will also provide extra nesting sites for birds. Young trees will be fenced off from stock.
- Hawthorn and hazel trees will also be planted on the east side of the furthest north section of the access track, from the quarry to the main road. This will maintain a link for bats travelling from the town to the woodland.
- A hedge will be planted along parts of the access track from Llanshay Lane to Llanshay Farm.

- All tree and hedgerow species will be of local provenance. At least seven species (e.g. hawthorn, hazel, blackthorn, field maple, dog rose, honeysuckle, bramble and gooseberry) will be planted along the new access road

#### **4.3 Newts**

- The construction of the access route will not damage any known newt sites but may affect their access to refugia and hibernation sites.
- Mitigation will be required in terms of providing a culvert over the stream suitable for newts and positive enhancements to the area such as construction of piles of stones and hedgerow planting.
- A pile of stones suitable for hibernation should be constructed upstream of the access track on the edge of the existing wet woodland, at approximately SO 29884 71937. Pile of stones should also be incorporated into new hedgerow plantings and any existing suitable hedgerows.
- Fence the edge of the track to allow taller vegetation to grow up.
- Fence the edge of the stream to allow taller vegetation to grow up. Access for farm animals will be required so gateways should be installed.

#### **4.4 Culverts**

- A culvert will be installed over the stream. This will need to be of suitable design for great crested newts and white-clawed crayfish. It is important to ensure the culvert base is covered with substrate from the stream to create a more 'natural' habitat. The base of the culvert will be placed so that the widest part is 100m above the existing stream bed to ensure white-clawed crayfish and newts can continue to pass through i.e. there should not be a lip too steep (for the newts to gain access). The final design and positioning will be agreed on site with the contractors.
- In general small tracks with low traffic volume do not act as a barrier for newts, especially if taller vegetation is present either side of the track. Dry culverts may need to be installed along sections of the access track if it is raised above the surrounding ground level to allow safe passage of newts.

#### **4.5 Additional Survey Work**

Full surveys for white-clawed crayfish, great crested newt, dormice or bats have not been undertaken on this site, although there are relatively recent records within 1 km. A recent data search carried out by Powys Biodiversity Information Service (in April 2015) has not identified any more recent records of priority species than found in the previous data search. Great crested newts were recorded in the vicinity in 2001 and dormice in 1988 and white-clawed crayfish in 100m quadrats via the National Biodiversity Network website.

A full GCN survey is currently underway on all ponds within 500m of the Access Track to Llanshay Lane and Highway Improvements to establish the meta-population of the area with potential for GCN during the spring period March to mid-June. Three survey methods of torching, bottle trapping and egg searches will be carried out as per guidance. Results of the surveys will be used to update the RAMs including the mitigation measures and necessary licensing arrangements, if required.

A full nest tube survey of hedgerows and tree lines to be affected is currently underway. The survey method involves the installation of dormice nest tubes in May, which are inspected once a month (until November). An ecologist with a dormouse licence will carry out this work.

## 5 Post development monitoring/remedial works

To ensure no net loss of vulnerable species and to measure the success of mitigation proposals the habitat creation it is proposed on site will be monitored for 5 years post construction.

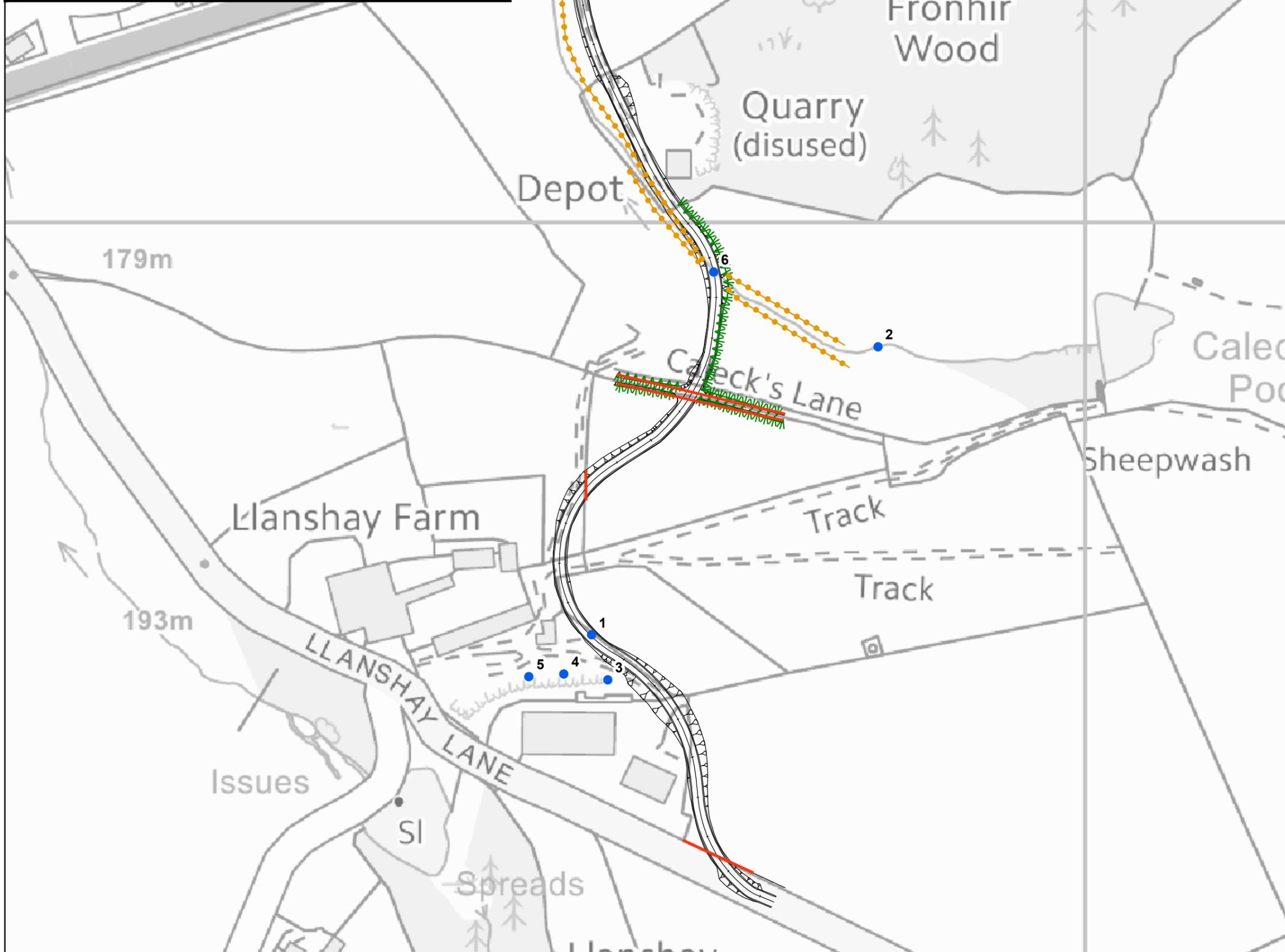
- Bat and bird boxes will be monitored in the 2<sup>nd</sup> and 3<sup>rd</sup> and 5<sup>th</sup> years.
- Newly planted and translocated sections of hedges will be monitored and maintained on a yearly basis to ensure they grow successfully.
- If the survey of the ponds finds a GCN population this should be monitored post construction in the second and fourth years to ensure there has been no detrimental effect to the local population.
- If the dormice survey finds dormice present along these hedges then post construction surveys must be carried out in the second and fourth years to ensure the continued presence of dormice.
- Newly planted hedges and tree lines should be monitored for use by bats post construction in the second and fifth years to determine how successfully they are used. This will be by placing static detectors on the hedges and tree lines for a period of at least three consecutive nights during the summer period.
- Results will be submitted to the local planning authority.
- The hedges will require future maintenance. This may need to include further remedial repairs; replacement planting and a cutting regime, which encourages recovery of the hedge.

Where mitigation has been unsuccessful alternatives must be discussed with the local planning authority biodiversity officer and NRW and any agreed works to be implemented.

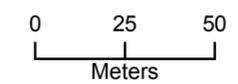
Id	Notes	Comment
1	Crab apple tree - potential bat roost	Emergence/re-entry survey and cavity chek
2	Pile of stones	Create GCN hibernacula
3	Bat box	Locate in suitable tree
4	Bat box	Locate in suitable tree
5	Bat box	Locate in suitable tree
6	Culvert	Create natural habitat gravel abse in culvert



## Reeves Hill Access Track Proposed Ecological Mitigation



- Legend**
- Mitigation Item
  - Hedge removal
  - Heras style fencing
  - W Tree planting
  - Development layout



## Appendix 1: Powys County Council Senior Ecologist comments

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From: Hannah Powell (CSP - Engineering Design)

Sent: 24 October 2014 13:16

To: Matthew Griffiths (CSP - Development Control)

Subject: RE: P/2012/0573 Reeves Hill - New Access Road and Highways Improvements -  
Further Information Required

Hi Matthew,

Yes, I have looked at the June 2014 ES. There is no mention of dormice in any of the reports. There doesn't appear to have been an updated background data search undertaken to inform the updated Extended Phase 1 habitat survey. The record is for Lower Woodhouse Wood to the immediate east of the new access location.

I have spoken to NRW and they may be providing further comments but this has yet to be confirmed. I understand that they last provided comments in 2012.

With regard to the crab apple tree, Table 8.2 Impact Avoidance and Mitigation Measures, states that it has bat roost potential and therefore three bat boxes will be provided in a suitable location. There are several other mature trees that may be affected by the proposed new access road and highways improvement works.

Therefore, a Bat Mitigation Strategy and Tree Protection Plan must also be included in the Construction Ecological Mitigation Plan (CEMP), alongside the great crested newt and bat flight lines reasonable avoidance measures.

It is considered that dormice may be present in the hedgerows that may be affected by the proposed works, however, there is no habitat assessment of the hedgerows for their importance to dormice. However, the ecological assessment does consider that the hedgerows are suitable for great crested newt and as bat flight lines and therefore, the hedgerow network is also considered suitable to support dormice, particularly as some of the hedgerows are classed as being species-rich. Further information, on the potential impacts to dormice is required.

Kind regards

Hannah Powell MCIEEM

Senior Ecologist

Uwch Ecologedd

Powys County Council

Cyngor Sir Powys

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Hannah Powell MCIEEM

Senior Highways and Planning Ecologist

Powys County Council

Cyngor Sir Powys

10<sup>th</sup> April 2015

Hi Steve,

In order to fully consider the full extent of any potential impacts to great crested newts as a result of the proposed development, PCC does require further information on great crested newts, particularly whether they are still present in the ponds. This information will also be required to inform the EPS licence as well as the CEMP. Fortunately, this is the optimal time of year for undertaking great crested newt surveys and therefore it is anticipated that the applicant can obtain this information and amend the CEMP accordingly prior to the planning committee on the 28th April. If additional information for the presence of great crested newts in the ponds on site and a reasoned justification and appropriate mitigation strategy is not submitted then the LPA would not be in a position to fully consider the impacts of the proposals on GCN. Therefore, I would strongly advise that the applicant undertakes a great crested newts survey.

No response has been received from the applicant's ecologist with regard to the further information required for great crested newts or an assessment of the potential impacts. In his email Mr Phillips refers to Natural England's risk assessment approach to GCN work, we are in Wales and therefore we are not required to comply with Natural England's guidance unless NRW as our statutory advisor states that it is appropriate to use on this occasion and provided that there is a robust justification provided by the consultant ecologist and that the LPA are satisfied that in determining an application that the LPA are in compliance with the legislation and the planning policy to ensure that any approval can not be challenged on ecology grounds. The LPA is bound by the requirements of planning policy Wales, TAN 5 Section 6.22 which states:

*6.2.2 It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. It is considered best practice that such a survey is carried out before planning application is submitted. Planning permission should not be granted subject to a condition that protected species surveys are carried out and, in the event that protected species are found to be present, mitigation measures are submitted for approval. However, bearing in mind the delay and cost that may be involved, developers should not be required to undertake surveys for protected species unless there is a reasonable likelihood of them being present. However, the level of likelihood that should trigger a requirement for developers to undertake surveys should be low where there is a possibility that European protected species might be present. It is considered best practice that such screening should be carried out by a competent ecologist on the basis of data provided by the relevant Local Record Centre(s)<sup>83</sup>. Where a survey is required by the authority, the survey should be completed and any necessary measures to protect the species should be in place, through conditions and/or planning obligations, before the permission is given. In appropriate circumstances, the permission may also impose a condition preventing the development from proceeding without the prior acquisition of a licence under the appropriate wildlife legislation.*

6.2.3 Annex 7 of this TAN summarises the law in relation to protected species. Where protected species are found on development sites, their statutory protection may be contravened either by the development work itself or by associated mitigation work designed to protect the species concerned, for example capture and rescue or translocation of the protected species from the development site in advance of works commencing. In order to avoid an offence being committed, such developments may require a licence from NRW.

Kind regards

## Appendix 2: Natural Resources Wales comments

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**FAO Matthew Griffiths**

Powys County Council  
Neuadd Maldwyn  
Welshpool  
POWYS  
SY21 7AS

17 December 2014

Dear Sir/Madam

**NEW SITE ACCESS ROAD FROM A4113 TO THE LLANSHAY LANE AND THE  
CREATION OF PASSING PLACES TO ENABLE ACCESS TO THE CONSENTED  
REEVES HILL WINDFARM AT AGRICULTURAL LAND SOUTH OF A4113 KNIGHTON  
POWYS**

Thank you for referring the applicant's Environmental Statement with additional information to us on 15 September 2014. We also received further ecology information on 19 November 2014. We can advise on the planning application, as submitted, as follows.

**European Protected Species (EPS)**

Further information indicates dormice, European Protected Species, in the locality of the proposal and our advice takes this into account. As stated in our previous response (former Countryside Council for Wales) on 18 July 2012, records for bats and great crested newts (also EPS) already exist in the locality.

In the absence of dormouse surveys, we advise you seek further information from the developer prior to the determination in the form of amendments made to the submitted Construction Environmental Management Plan (CEMP) dated November 2014 (version 3). To safeguard the maintenance of Favourable Conservation Status, under the Regulation 9(2) (f) duty, Conservation of Habitats and Species Regulations 2010 (as amended) we advise the following:

- The applicant fully accepts that dormice and Great Crested Newts will still be present within the locality and development footprint prior to construction based on existing records;
- The following amendments are made to the existing CEMP:
  - 1) A statement to specify that all additional surveys proposed at section 4.5 of the CEMP Nov 2014 (v3) CEMP (for bats, great crested newts and dormice) must be

carried out prior to commencement and will cover a full survey year. That these surveys are required to provide an update on the distribution of these protected species prior to commencement to further inform working methodologies and proposed mitigation and monitoring proposals and the application of EPS licences;

- 2) A statement that all hedgerows to be affected will be either trimmed or translocated (not grubbed out and replanted) after cutting thereby retaining a functional movement corridor which with additional gap planting quickly re-establishes itself;
- 3) The provision of a map to show where mitigation and compensation proposals new planting, bat boxes and habitat management etc will be located. This should be presented within a HMP;
- 4) Statements on the role of an Ecological Clerk of Works (ECoW) in respect of pre-commencement surveys, auditing and reporting on success and failure of mitigation and post development monitoring.

On satisfactory receipt of the above further information to your Authority we consider that the Reasonable Avoidance Measures (RAMs), mitigation and monitoring proposals for dormice, bats and great crested newts together with the mitigation proposals for hedgerows provided in the CEM, are likely to safeguard these species and the linear features they depend upon.

Given the poor condition and the management of many of the hedgerows in this locality it is unlikely that these features are of much value to dormice but it cannot be assumed that they have no functional use or benefit to dormice but will likely be of more value to bats and great crested newts. The most valuable hedgerows for dormice are those extending for about 300 to 400 metres to Llanshay Lane from the junction of Llanshay Lane with the Knighton to Ludlow road.

If the above information is satisfactorily submitted, to ensure there is no detriment to the Favourable Conservation Status of EPS arising from the development proposals (Article 12 of the Habitats Directive), we advise your Authority that:

- A planning condition must be secured to any decision notice requiring submission by the developer of a final detailed CEMP to be approved in writing by the LPA in consultation with NRW. The CEMP must include all protected species pre-commencement surveys proposals and methodologies and RAMs and any other necessary mitigation work including the protection of all linear connecting habitats and features and the species used by them;
- A planning condition must be secured to any decision notice requiring submission of a final detailed HMP to be approved in writing by the LPA in consultation with NRW. To safeguard protected species the HMP will set out the detailed proposals for the maintenance and management of the habitat features affected by the development proposals and any compensatory measures. In addition monitoring proposals will be

included in the HMP for dormice, great crested newts and bats and other protected species observed using these features during pre-commencement surveys;

- A planning condition must be secured to any decision notice requiring the use by the developer of a qualified and competent ECoW who will provide an audit of the success or failure of the proposed mitigation measures along with the results of the pre-commencement EPS surveys and monitoring and proposed remedial/habitat compensation works. This information must be reported to the LPA (and NRW) by the ECoW during the construction period for all RAMs and mitigation works and post construction, on completion of discrete monitoring events for the proposed habitats and species monitoring.

Our advice has been discussed with the developer and subject to the above amendments being addressed and the above conditions being secured, we do not require further consultation on this application.

#### Further Advice

The applicant should contact your Authority during the construction of the development for approval in writing if modifications to the CEMP are required. We advise you to contact us if this happens.

An EPS licence from us is likely to be required for impacts on the hedgerows along Llanshay Lane. We advise the developer to contact us to discuss this.

#### **Watercourse Crossing and Drainage**

It appears that one watercourse will be directly affect from in-channel impacts. This is the crossing at Llanshay Farm and we recommend you seek the advice of the Local Authority's Land Drainage team as they will consent any proposals to cross this watercourse. We would advise that the culvert is adequately sized and designed appropriately for the location. We note the CEMP has considered ecological constraints (primarily great crested newts) in respect of culvert design and would recommend the developer seeks guidance from the design manual for roads and bridges in this respect.

We are not aware of any flooding or drainage issues in the area, however appropriate and adequate drainage provision should be secured. The design manual for roads and bridges should be adhered to. We recommend this is agreed with your Authority's Land Drainage team.

I trust this advice is clear.

Yours faithfully

**James Davies**

**Senior Development Planning Advisor / Uwch Ymgynghorydd Cynllunio Datblygu**



**Cyfoeth  
Naturiol  
Cymru  
Natural  
Resources  
Wales**

Ein cyf/Our ref: WATE-702-190  
Eich cyf/Your ref: P/2015/0013

Tŷ Ladywell, Stryd y Parc, Y Drenewydd, SY16 1RD/  
Ladywell House, Park Street, Newtown, SY16 1RD

Ffôn/Tel Ffôn/Tel 03000 655220  
Ebst/Email [miguel.o.sanchez@naturalresourceswales.gov.uk](mailto:miguel.o.sanchez@naturalresourceswales.gov.uk)

Steve Packer  
Planning Officer  
Powys County Council  
Neuadd Maldwyn  
Severn Road  
Welshpool  
SY21 7AS

16<sup>th</sup> April 2015

Dear Mr Packer

**NEW SITE ACCESS ROAD FROM A4113 TO THE LLANSHAY LANE AND THE  
CREATION OF PASSING PLACES TO ENABLE ACCESS TO THE CONSENTED  
REEVES HILL WINDFARM AT AGRICULTURAL LAND SOUTH OF A4113 KNIGHTON  
POWYS**

Thank you for referring us to the Stonewall Hill Conservation Group's (SHCG) recent correspondence and Powys County Council's response to the further information supplied in the Construction Environmental Method Statement (CEMP) submitted on behalf of the applicant for the above application.

Our previous advice including suggested planning conditions was based on the assumption that the Environmental Statement contained the correct information and calculations for the land to be impacted by the proposal, such that the compensation proposals would avoid habitat losses for Protected species. On that basis we then advised that the final detailed Construction Environmental Management Plan (CEMP) and Habitat Management Plan (HMP) proposals, including the duration/timing of management actions and species surveillance, could be agreed post consent following pre-commencement surveys which would provide a baseline for subsequent monitoring of impacts.

We agree with PCC ecologist's conclusions that the great crested newt's survey is incomplete. NRW advise Powys that they may want to request more accurate information from the developer on habitat losses, the number of ponds likely to be effected and their use by great crested newt, as this will have a bearing on mitigation and compensation proposals and the location of pre-commencement surveys. Having considered additional information recently made available by the SHCG and Local Planning Authority's Ecologist, we wish to provide further advice in respect of the protected species.

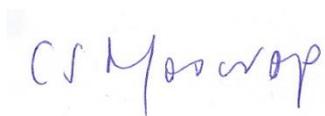
## European Protected Species (EPS)

We consider that, the CEMP underestimates the number of existing ponds within the impact zone of the access route and also the amount of hedgerow and roadside verge likely to be impacted as a result of the proposal. As a result the mitigation and compensation measures so far proposed will need to be revised in accordance with the submission of more accurate information to evidence no deterioration of the supporting habitats for the great crested newt and dormice populations likely to be effected by the development proposals. As supporting habitat for European Protected Species these landscape features (Article 10 of the Habitat Directive and Regulation 39 of the Conservation of Habitats and Species Regulations 2010 (as amended)) form an important part of the assessment of impacts on the Favourable Conservation Status (FCS) of these species, it is essential therefore, that accurate assessments are made and equally that sufficient compensation land/land management is able to be secured through the planning process to compensate for habitat losses and, is evidenced by the applicant in the CEMP and HMP to fully inform the determination process.

Very important is the long term (over the lifetime of the development) security and management of the proposed habitat compensation/enhancement areas or features in the HMP. To ensure this outcome the applicant will need the legal rights necessary to manage the compensation land and we advise that Powys consider the use of planning mechanisms such as Section 106 agreements linked to the HMP.

I hope these comments are of assistance. If you have any queries, or if you require any further information, please do not hesitate to contact us at the above address.

Yours sincerely



Caroline Moscrop

Arweinydd Tîm / Team Leader

Tîm Rheoli Adnoddau Naturiol - Sir Faesyfed/ Natural Resources Management Team – Radnorshire