Requirement for European Protected Species (EPS) licence to demolish the derelict garage and lime kilns at Rockfield Farm.

1 Background

1.1 Ecological surveys including bat and bird surveys of the dwelling and farm outbuildings at Rockfield Farm, Undy have been undertaken in advance of development activity. The site is located at NGR ST 4376 8770 at an altitude of 13m Above Ordnance Datum. A large housing development providing new homes will be built at the site in addition to the housing development already underway by Bellway Homes.

1.2 As a consequence of negative results obtained from the 2014 bat survey, the majority of the farm outbuildings were demolished in early 2019 under demolition order DM/2018/01606 dated the 19th of October 2018. The farmhouse and derelict garage were reassessed in summer 2019 and the negative outcome relating to the farmhouse resulted in its prompt demolition. The final survey visit reported a live and torpid lesser horseshoe bat (*Rhinolophus hipposideros*) in the right hand lime kiln feature of the derelict garage. The demolition of the lime kilns will result in the destruction of a bat roost, and therefore before the garage and lime kilns can be dismantled, an EPS licence must be obtained from Natural Resources Wales (NRW). Bat presence is concluded to be occasional and opportunistic as during several site visits, a bat was found to be present on only one occasion. No quantity of bat droppings was present on the floor of the Rockfield lime kiln and if regular use was occurring, an obvious concentration of droppings would be expected.

1.3 A series of survey visits which have been conducted at Rockfield Farm as shown below.

Table 1: Summary of Survey Activity and Weather Conditions

Date	Survey Type	Timing	Weather Conditions
23/07/14	Botanical survey and habitat assessment, including protected species assessment (CH)	10.15 – 14.00 hours British Summer Time (BST)	Air temperature: 28°C Cloud cover: 1/8 oktas Wind speed: F2, light breeze Conditions: Muggy
17/07/14	Daytime visual building assessment and first dusk bat emergence/activity survey; Passive monitoring (DM, PM, DR, JH, MT, BR, JG)	20.00 – 22:30 hours BST (Sunset: 21.22)	Air temperature: 25°C – 23°C Cloud cover: 1/8 oktas Wind speed: F2, light breeze Conditions: Dry
17/08/14	Daytime visual building assessment and second dusk bat emergence/activity survey; Passive monitoring (DM, NI, PM, AL, BR, EH)	19.45 – 21.45 (BST) (Sunset: 20.33)	Air temperature: 16°C Cloud cover: 7/8 oktas Wind speed: F2, light breeze Conditions: Dry
11/12/2018	Day time visual inspection (DM, PW)	09.50 – 12.30 hours Greenwich Mean Time (GMT)	Air temperature: 7°C Cloud cover: 8/8 oktas Wind speed: F2, light breeze Conditions: Dry
16/05/2019	Dusk emergence/activity observation (PM, JH)	20.35 – 22.00 hours British Summer Time (BST) (Sunset 20.58 hours)	Air temperature: 14°C – 10°C Cloud cover: 3/8 oktas Wind speed: F3, gentle breeze Conditions: Dry
29/05/2019	Dusk emergence/activity observation (DM, NI)	20.30 – 22.15 hours BST (Sunset 21.15 hours);	Air temperature: 14°C – 13.5°C Cloud cover: 8/8 oktas Wind speed: F5, fresh breeze/strong gusts Conditions: Dry, damp, rain earlier
28/10/2019	Day time visual inspection of derelict garage and lime kilns (DM)	14.00 – 15.00 hours Greenwich Mean Time (GMT)	
Surveyors	Carola Hoskins(CH), Diane Morgan (DM), Phoebe Williams (PW) Phil Morgan (PM), Jim Hoskins (JH), Nigel Isaksson (NI), Ben Rees (BR), James Hoskins (JH), Mo Tillotson (MT), Jenny Gatward (JG), Alex Lock (AL), Emma Higgins (EH), Dawn Roxanne (DR)		

2 European Protected Species Licence Option A

2.1 The survey reports prepared by the Just Mammals Consultancy LLP contain detailed information and guidance concerning the EPS licence application process which are not repeated in this

document. The EPS licence is a legal document issued by Natural Resources Wales (NRW) which obliges the licence holder to carry through with all the conditions of the licence to ensure that negative impacts on protected species (namely bats) are either minimised or avoided. Failure to comply with the EPS licence has legal implications for the licence holder. The licence must be held by an individual who has the appropriate level of authority and responsibility within the project to ensure its conditions can be achieved: the licence cannot be in the name of a business or corporate entity.

2.2 Bat mitigation providing appropriate and suitable new roost opportunities must be provided ahead of the destruction of the existing roost at Rockfield Farm. Therefore the EPS licence must be obtained and the mitigation roost must be available for bats to use before the Rockfield garage and lime kilns can be dismantled and destroyed. An ecologist must be present on site to supervise the destructive works to check that there are no bats (crevice and non-crevice roosting species) within the masonry structure of the Rockfield lime kilns as the work progresses.

2.3 The most appropriate ***purpose*** for the EPS licence application as stated in Section 8 of the application form is recommended as the Public Safety option. Support material will be necessary to demonstrate the genuine and urgent nature of the removal of the garage and lime kiln in order to remove this hazard and danger to the public. Use of this option avoids the planning process to support the EPS licence application. With the recent human activity occurring in the garage which is in a highly dangerous state, this purpose for the EPS licence application is both relevant and appropriate.

2.4 A scheme of mitigation will be required: the Just Mammals preferred option is to utilise the lime kilns located 250m to the north just beyond the M4 motorway at NGR ST 4364 8800 on farmland in the ownership of Monmouthshire County Council. The land is tenanted and the enclosure is currently grazed by sheep. There is no evidence of disturbance or unlawful access onto the site. The northern lime kilns were examined on the 11th of November 2020. They are very similar in appearance and were presumably constructed at much the same time as the Rockfield lime kilns. They are in good condition and the entrance tunnel is longer at a dimension of just of 4m. A small number (6) of bat droppings were found on the floor of the right hand lime kiln but the floor of both kilns is composed of earth and old animal dung making it difficult to find bat droppings. The droppings appeared to be old and small and not distinctive to any degree to enable a determination of the bat species.

2.5 Based on the November 2020 inspection of the northern lime kilns, there is no evidence to indicate regular or significant bat activity occurs already at the lime kiln, as the discovery of a small number of bat droppings suggests occasional use. The feature looks to be eminently suitable for enhancement to make it more attractive as a bat roost. The lime kilns are set into a small bank and a glade of mainly mature oak trees fringe the depression. The trees provide a good connective landscape feature for bats, but the vegetation is not so dense as to form a barrier for bats.

2.6 Enhancements for the northern lime kilns are recommended by way of vertical plywood baffles so as to control the flow of air and produce a more stable temperature inside the left hand lime kiln. As there is no evidence to suggest current use by bats is occurring to any regular or significant degree, some sort of improvement is necessary to make the feature attractive – otherwise it seems logical to conclude that in its current state the northern lime kilns are not providing the sort of roost features that the bats wish to utilise.

2.7 The enhancements are proposed by way of two vertical plywood baffles installed for the left hand lime kiln. An outer timber panel is to be fitted across the opening. It is to stand vertically, positioned on the ground and extending to a vertical height of *circa* 1m. At this height, the baffle prevents livestock from entering the lime kiln but enables bats to fly in above the board. Timber posts of the style of gate posts will be needed, dug into the ground to support the baffle across the entrance. The second baffle is proposed for the interior of the left hand lime kiln – to be fitted extending 600mm down from the curving roof at a distance of *circa* 1.5m from the far end wall. In this position bats can fly beneath the interior baffle and access the sheltered space created behind the baffle. It is proposed that the baffle is held in position on a frame with free standing supporting legs so that there is no need to attach any supports into the masonry of the lime kiln. (See Appendix II for the design of baffles.)

2.8 The location of the bat roost mitigation feature must be in the same ownership as the bat roost being destroyed. This is so that there can be no loss of control over either of the sites during the course of the EPS licence period. EPS application documents require information to be provided about the ownership of the sites to avoid difficult situations arising which can prevent the installation of the mitigation features. Therefore ownership of both sites by the same party is the preferred means of avoiding problems. If both sites are not within the same ownership, it is likely NRW will require some supporting documents to secure with legal certainty the provision of the mitigation features on a site not within the ownership of the licence holder.

3 European Protected Species Licence Option B

3.1 A second option to secure an EPS licence for the demolition of the Rockfield lime kilns is to apply under the same Public Safety purpose as indicated above, but to offer mitigation by way of a Cathedine night roost design installed on the edge of the Breezy Bank woodland a short distance to the west of the former farmstead. This option carries a greater potential risk of future disturbance for the mitigation roost as the woodland will be in close proximity to the new housing development and it is likely to be attractive to children and youngsters as the nearest area of natural green space for recreation. The Cathedine night roost is a design with a pair of wheels making it to some degree mobile and therefore hopefully avoiding the need for planning consent which would apply for a permanent structure. The wheels do not imply the structure will be temporary and the materials for its construction must be made with long-term weather proofing in mind to create a roost expected to serve for a minimum of 15 years. (See design in Appendix III)

3.2 If the Cathedine night roost design is not accepted by NRW, then it may be necessary to provide a structure of the design of a small block built garage with a timber framed pitched roof with a loft space above a ceiling at wall plate height. An open hatch of dimensions 450mm x 450mm cut into the ceiling will provide bat access from the ground floor area into the loft space. A secure door must be fitted to keep out unlawful visitors and an opening point in a wall at a height of *circa* 1.7m of dimensions 350mm wide x 200mm high must be created to provide bat access into this structure. The position of this mitigation structure must be selected bearing in mind issues of lighting, connectivity to landscape features, and protective natural cover in the vicinity of the bat entry/exit point.

3.3 As indicated above, the garage design for the mitigation structure presents the likely need for planning consent to be issued by the LPA in order to provide the mitigation structure to compensate for the loss of the garage and lime kilns at the farmstead. As previously stated, the ownership and planning consent will need to be arranged preferably by a single party in order to secure all the legal ownership and planning issues for the EPS licence.

4 References

Schofield, H.W. (2008). '*The Lesser Horseshoe Conservation Handbook*', Vincent Wildlife Trust, Ledbury

Appendix I: Site Photographs

Plate 1 : Rockfield lime kiln (right hand side) 2019

Plate 2 : Lesser horseshoe bat in Rockfield lime kiln

Plate 3: Northern lime kilns

Plate 4: Northern lime kilns

Plate 5: Northern lime kilns

Plate 6: Northern lime kilns

Appendix II: Design of Vertical plywood baffles within a roost

Figure 1: Use of plywood baffles to control air flow

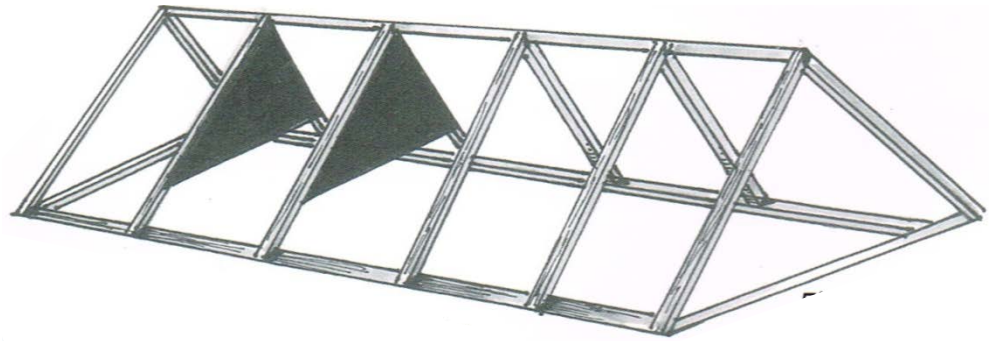
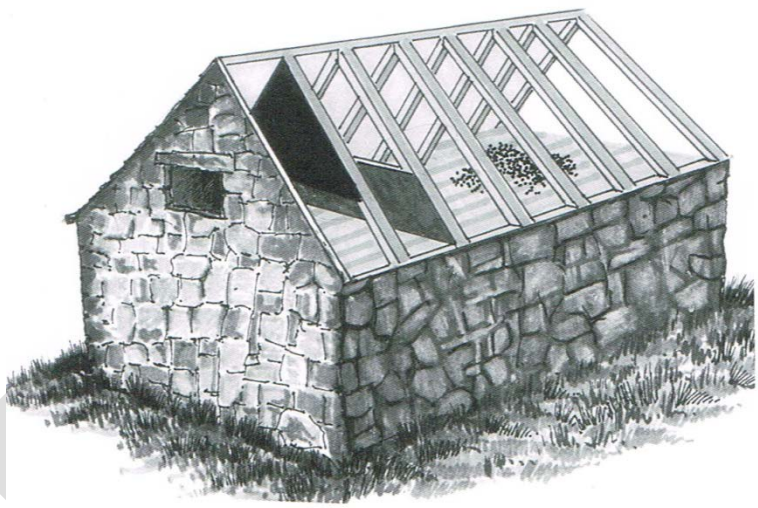


Figure 2: Use of plywood baffles to control air flow



Appendix III: Design of Cathedine Night Roost

Cathedine Night Roost Design

The Vincent Wildlife Trust