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Wildlife Licence Unit
Department of Culture, Heritage and the Gaeltacht
National Parks and Wildlife Service
Wildlife Licensing Unit, R. 2.03
90 King Street North
Smithfield
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13 August 2025

Re: Bat Derogation License Application for repair of Skerry Bridge, Mountmellick, Co. Laois,

Dear Wildlife Licensing Team,

On behalf of the applicant, Laois County Council, I wish to apply for a bat derogation license to allow urgent repair works to Skerry Bridge, Mountmellick, Co. Laois. The bridge is currently unsafe and not fit for purpose.

There are minor summer day roosts and night roosts of Natterer's Bat (*Myotis nattereri*) and Whiskered Bat (*Myotis mystacinus*) in stone crevices beneath Skerry Bridge, as detailed in the bat survey report attached with this application.

Laois County Council request that this license application would be processed in time to complete the urgent repair works to the bridge during September 2025, as there is also a need to complete the works within the open fisheries season. Otherwise, the repair works would need to be done during the next open season in July to September 2026.

Attached with this letter of application please find;

- NPWS Application Form for a Bat Derogation License (rev. 2.0, July 2025).
- Skerry Bridge Bat Survey Report by Abbott Ecology, July 2025.
- Appendix A: NPWS checklist of Supporting Information to be included with a derogation license application including proposed Bat Mitigation Measures and evidence of success where available.

Please do not hesitate to contact me if you require any further information.

Yours Sincerely,



Dr. Isobel Abbott

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Appendix A. NPWS Derogation License Application Form: Checklist of Supporting Information to be Included with Applications

The bat survey report attached contains most of the Supporting Information requested by the NPWS (see items numbered 1 to 7 in the text box below). This appendix addresses the items that are not included in full in the bat survey report attached.

As per recent NPWS email with the new derogation application form (rev 2.0, July 2025), the structure of the Supporting Information should be as follows:

- 1) Table of Contents
- 2) Introduction
 - a. Objective of the proposed works (for example, as part of construction of a national road, repair of roofing, undertaking surveys etc.)
 - b. Name, qualifications and relevant experience of scientific staff, including trainees, (e.g. ecologist) involved in the preparation of the application and those responsible for carrying out the proposed activity.
 - c. If this application is for the carrying out of surveys that may cause disturbance, qualifications of all involved must be provided and trainees must be clearly identified.
- 3) Background to proposed activity including location, ownership, type of and need for the proposed activity, planning history, policy context, zoning in relevant Development plan (or equivalent), etc.
- 4) Full details of proposed activity to be covered by the derogation (including a site plan). The site may be inspected by an NPWS representative, so the details given should clearly reflect the extent of the project. This information will be used to compare site conditions with the Method Statement.
- 5) Ecological Survey and site assessment (Not required for applications to carry out surveys)
 - a. Pre-existing information on species at location and environs.
 - b. Status of the species in the local/regional area (relevant to the consideration of the impact on the population at the relevant geographic scale (Test 3))
 - c. Objective(s) of survey
 - d. Description of Surveys Area
 - e. Survey methodology (including evidence as to how the methodology represents best practice and is appropriate to the Objective). Methodology should include survey maps, details of timing, climate, equipment used and identify any uncertainties or difficulties encountered.
 - f. Survey results including raw data, any processed or aggregated data, and negative results as appropriate. Photographs and maps must be provided where site-specific features are referred.
 - g. Population size class assessment.
- 6) Evidence to support the Derogation Tests
 - a. Test 1 - Reason for Derogation:
 - i. There should be a clear explanation as to why a specific reason(s) has been selected in the application form.
 - ii. Applicants are advised to read the guidance published by the NPWS '[Guidance on Applications for Regulation 54 Derogations for Annex IV species: Guidance for Applicants](#)' with specific reference to Section 3.1.
 - b. Test 2 - Absence of Alternative Solutions
 - i. Applicants must list the alternatives to the proposed activity that have been considered, including the do-nothing alternatives in a clear and objective manner. A basic requirement is that these alternatives should be compared in terms of their impact on the species subject to strict protection. It should be clear to NPWS officials as to why the chosen approach has been selected.
 - ii. Applicants are advised to read the guidance published by '[Guidance on Applications for Regulation 54 Derogations for Annex IV species: Guidance for Applicants](#)' with specific reference to Section 3.2.
 - c. Test 3 - Impact of a derogation on Conservation Status
 - i. Applicants should include details of the population at the appropriate geographic scale and an evaluation of how the proposed activity will affect the conservation status both before and after mitigation measures have been applied.
 - ii. Full and detailed descriptions of proposed mitigation measures that are relevant to the potential impact on the target species. Evidence that such mitigation has been successful elsewhere should be provided, where available.
 - iii. Applicants are advised to read the guidance published '[Guidance on Applications for Regulation 54 Derogations for Annex IV species: Guidance for Applicants](#)' with specific reference to Section 3.3.
- 7) Monitoring the impacts of the derogations
 - a. Applicants must include details of how they propose to verify whether the derogations have been implemented correctly and whether they achieved their objective, using scientifically based evidence, and, if necessary, how the applicant will take corrective measures where required.
 - b. Applicants should provide details of proposed reports to be submitted to the NPWS including the results of monitoring.
 - c. Applicants are advised to read the guidance published by the European Commission "[Guidance document on the strict protection of animal species of Community interest under the Habitats Directive](#)" with specific reference to Section 3.4.

Item 2b: Name, qualifications, and relevant experience of scientific staff.

Dr. Isobel Abbott (Principal Ecologist, Abbott Ecology): Isobel is an independent ecological consultant, specialising for >15 years in bat ecology, bat survey, assessment and mitigation. She graduated first in class in Zoology from University College Cork in 2007, and subsequently obtained her PhD on the effectiveness of bat mitigation measures employed on Irish national road schemes in 2012. She has published a number of research papers on bat ecology in scientific journals. She has extensive experience of conducting bat surveys and other multi-disciplinary ecology surveys for Ecological Impact Assessments, Preliminary Ecological Appraisal, and Ecological Constraints Reports. She has worked on a variety of projects including national bat monitoring programmes, wind farms, solar farms, road construction, bridge repairs, quarries, and residential and industrial developments. Isobel has designed bat mitigation measures and successfully applied for >50 bat derogation licenses from the National Parks and Wildlife Service associated with planning permission applications or research. She currently holds nationwide NPWS licenses to capture and handle bat species, and to disturb bat roosts for the purpose of ecological impact assessment and scientific study.

Item 4: Proposed Works and Full Site Plan

The proposed works are outlined in the attached bat survey report (Abbott Ecology, July 2025). A full site plan and draft engineering drawings for the proposed works are also attached with this application (Mark Murphy Consulting Ltd., July 2025).

Item 6: Evidence to Support the Derogation Tests

Test 1 and Test 2 are already addressed in the relevant section of the derogation application form attached.

Test 3 part ii: *(Full and detailed descriptions of proposed mitigation measures that are relevant to the potential impact on the target species. Evidence that such mitigation has been successful elsewhere should be provided, where available).*

In the hierarchy of bat roost conservation significance, and proportionate mitigation, presented in the latest Bat Mitigation Guidelines for Ireland (Marnell, Kelleher & Mullen 2022), minor day roosts of Whiskered Bat and Natterer's Bat is at the lower end of conservation significance, as shown in Plate 2 below from those guidelines.

The following bat mitigation measures are proposed, and have been agreed with Laois County Council;

- **A bat roost exclusion is necessary in order to avoid killing/injuring bats during the proposed bridge repair works.** This is provisionally planned for early September 2025 in the days immediately prior to bridge repair works (subject to bat license being granted). Otherwise, the bridge repair and the roost exclusion would need to take place during the next fisheries open season from July to September 2026 (subject to bat license being granted).
- Licensed bat ecologist, Isobel Abbott, to give a bat toolbox talk to the bridge repair team on the necessary bat roost mitigation actions.
- Bat ecologist (IA) will supervise a bat roost exclusion from the bridge, and will be on site or on call to capture/handle bats under appropriate license (License No. C026/2025), if necessary.
- The potential and confirmed roosting crevices at Skerry Bridge are also suitable for winter hibernation of bats. There was evidence of minor bat roosts, and no evidence of summer maternity roosting. **It may therefore be assumed that a small number of bats could be roosting inside the bridge at any time of the year.** It is recommended to conduct the bat roost exclusion and the repair works **outside of the winter months**, because bats are vulnerable to disturbance during hibernation, as disturbance burns valuable winter energy reserves, and it is difficult for them to find adequate insect prey, drinking water, and alternative roost sites during cold/wet weather.
- The bat roost crevices in Skerry Bridge were too deep and narrow to allow capture of bats by hand (under appropriate NPWS bat capture license). Bats will need to be excluded unharmed by allowing them to fly out from the bridge at night, and then preventing them from returning to roost in crevices. Tarpaulins to be lowered over the bridge openings and appropriately secured to prevent bats returning to roost in the bridge.
- Confirmed and potential roost crevices to be temporarily blocked with hessian or bubble wrap, after ensuring the crevices are not occupied. Bat roosting crevices should be marked with paint and reflective tape so that they can easily be located, and visible on infra-red camera video recordings. Visual checks, automated acoustic recording, and infra-red camera filming can be used to confirm that bats are successfully excluded before the bridge repair works commence (see bat survey report attached where these methods were used to assess the roosting situation). As presented in the bat survey report, both Natterer's Bat and Whiskered Bat come back to the bridge during all hours of

the night after they have emerged, and so extra caution is needed to make sure they are not roosting during bridge repair work. It is also important to make sure that Dipper does not get trapped under the bridge during works.

- To conserve bat roosting spaces in the bridge after repair works are complete, as many as possible of the roosting crevices in the stonework should be left in place (not filled in). This will be agreed between the supervising bat ecologist (IA) and a bridge repair engineer, as it will not be possible to retain all suitable cracks and crevices while making the bridge structurally sound. The agreed crevices to be retained will be clearly marked.
- Installation of suitable bat boxes and Dipper nest boxes will also be supervised by an ecologist.
- Ivy removal from the bridge parapets will proceed with care under supervision of the licensed bat ecologist (IA).

Evidence of effectiveness of bat roost exclusions, supervision of works, and bat handling: There are few publicly available reports on the results of bat exclusions from bridges. Marnell & Presetnik (2010) reports a favourable outcome of a bridge roost exclusion, and reports on bat exclusions from bridges would be available to the NPWS via license return reports. IA has previously supervised roost exclusions from bridges for bridge repair, when there were no bats roosting in the bridge at the time of the exclusion. In that case, suitable crevices were successfully retained (e.g. see license return report for DER-BAT-2017-146 and License No. C152-2017). IA has also had direct experiences where roosting bats did not come to harm during the demolition of buildings because of supervision of works, and careful manual demolition of buildings - the bats were handled (under license) and moved to a safe bat box/bat house, or flew away directly from the building themselves (e.g. see license return reports for DER-BAT-2024-193, DER-BAT-2024-07, and DER-BAT-2019-08). The bat measures saved bats from injury and death in these cases.

In the publication, Conservation Evidence, Berthinussen *et al.* (2021) summarize a relevant study from Ireland, as follows; “A before-and-after study in 1988–2005 of a road bridge over a river in northwest Ireland (Marnell & Presetnik 2010) found that after crevices were retained during strengthening work and repairs to the bridge, a Daubenton’s bat, *Myotis daubentonii*, maternity colony continued to roost in the bridge in similar numbers as before the work. A maternity colony of approximately 25 Daubenton’s bats was first recorded roosting in the bridge in 1988 (no more recent data provided). After the repair work was complete, four bats were recorded in the original roost crevice in 2004, and 25 bats were recorded in 2005. Strengthening works (including laying cement, pointing, and grouting) were carried out on the five-arch masonry bridge in September–October 2003. Roosting crevices were marked and temporarily filled with polystyrene to prevent them from being filled. Bats were counted in the bridge in July 2004 and 2005”.

Berthinussen *et al.* (2021) summarize a relevant study in America as follows; “A review in 2017–2018 of case studies at five road bridges in California, USA (Harvey & Associates 2019) found that when bat roosts were maintained during bridge replacement works, Yuma myotis bats *Myotis yumanensis* recolonised two of three roosts and Mexican free-tailed bats *Tadarida brasiliensis* recolonised three of four roosts in similar numbers to before the works, but pallid bats *Antrozous pallidus* did not return to either of two roosts. Yuma myotis bats recolonised two roosts in similar numbers to before the works (before: 220, 100; after: 220, 100), whereas numbers declined at a third roost (before: 40; after: 20). Mexican free-tailed bats recolonised three roosts in similar numbers to before the works (before: 200, 3,000, 994; after: 200, 3,000, 1,010), whereas numbers declined at a fourth roost (before: 2,000; after: 600). Pallid bats did not return to either of two roosts used by 18–20 bats. At all of five sites, the original bat roost structures (abutments: one site; hinges and expansion joints: four sites) were retained during bridge replacement works (dates not reported; see original report for details). Bats were temporarily excluded from roosts in hinges and expansion joints. Counts of bats before and after the works were taken from questionnaires completed by the California Department of Transportation. Field surveys (including daytime inspections, colony and emergence counts) were conducted by the authors in spring and summer 2017 and 2018 after bridge works were complete”.

Also in Conservation Evidence, Berthinussen *et al.* (2021) cites one study addressing the effectiveness of excluding bats from roosts during building work (Stone *et al.*, 2015), and summarized it as follows; “A replicated, before-and-after study in 2012–2013 of five buildings across England, UK (Stone *et al.* 2015) found that excluding bats from roosts within buildings resulted in no difference in roost switching frequency, core foraging areas or foraging preferences of soprano pipistrelle *Pipistrellus pygmaeus* colonies. All five bat colonies established in alternative roosts within three days of exclusion in other buildings within 1.5 km of the original roost. Bats switched roosts at a similar frequency before (average every 2.1 days) and after exclusion (average 2 days). Bats also foraged in similar sized core areas (before: average 44 ha; after: average 47 ha), travelled similar distances to foraging sites (before: average 1.5 km, after: average 1.5 km), and had the same foraging habitat preferences (data reported as statistical model results) before and after exclusion. Exclusion experiments were carried out in the spring of 2012 and 2013. Temporary one-way exclusion measures were installed at roost exits. The five sites had

150–300 bats present before exclusion, and four sites were known maternity roosts. Bats were radio-tracked for up to 4 h after sunset for 4–7 days before and after exclusion”.

Evidence of effectiveness of bat boxes: IA has had direct experiences of bats adopting bat boxes for roosting in a number of projects. There have been multiple studies which have shown that bats successfully shelter, and sometimes breed, in bat boxes (Flaquer, Torre & Ruiz-Jarillo 2006; McAney & Hanniffy 2015). In a study of the implementation and effectiveness of bat roost mitigation measures in England and Wales, bat boxes mounted externally on buildings showed the highest occupation rate regardless of bat species (Collins *et al.* 2020). However, the results of bat boxes are variable, and bat boxes are not usually considered suitable alternatives for bat maternity colonies (McAney & Hanniffy 2015; Mackintosh 2016; Marnell *et al.* 2022). The bat roosts in Skerry Bridge are not maternity colonies. In Conservation Evidence, Berthinussen *et al.* (2021) assess the overall effectiveness categories of all three of (i) “creating spaces for roosting bats in road/railway bridges and culverts”, (ii) “maintaining bat roosts in road/railway bridges and culverts”, and (iii) “provide bat boxes for roosting bats” as “likely to be beneficial”.

Conservation significance	Low	Roost status	Mitigation/compensation requirement (depending on impact)
	High		
		Feeding perches of common/rarer species	Flexibility over provision of bat-boxes, access to new buildings etc. No conditions about timing or monitoring
		Individual bats of common species	
		Small numbers of common species. Not a maternity site	
		Feeding perches of Annex II species	
		Small numbers of rarer species. Not a maternity site	Provision of new roost facilities where possible. Need not be exactly like-for-like, but should be suitable, based on species' requirements. Minimal timing constraints or monitoring requirements
		Hibernation sites for small numbers of common/rarer species	
		Maternity sites of common species	Timing constraints. More or less like-for-like replacement. Bats not to be left without a roost and must be given time to find the replacement. Monitoring for 2 years preferred.
		Maternity sites of rarer species	Timing constraints. Like-for-like replacement as a minimum. No destruction of former roost until replacement completed and usage demonstrated. Monitoring for at least 2 years.
		Significant hibernation sites for rarer/rarest species or all species assemblages	
		Sites meeting SAC guidelines	Oppose interference with existing roosts or seek improved roost provision. Timing constraints. No destruction of former roost until replacement completed and significant usage demonstrated. Monitoring for as long as possible.
		Maternity sites of rarest species	

Plate 2. Guidelines for proportionate mitigation (Marnell *et al.* 2022). Red boxes indicate where the Natterer's Bat and Whiskered Bat minor day roosts in Skerry Bridge fit in this scheme.

Item 7: (Monitoring the impacts of derogations, and proposed reports to be submitted to the NPWS including the results of monitoring)

A report on the bat mitigation measures carried out as part of the bat roost exclusion for Skerry Bridge is proposed to be submitted to the NPWS. This will say which bat species, if any, and how many, were roosting in Skerry Bridge before the bridge repair works. The report will detail how the roost exclusion was carried out, and report on the retention of crevices, and the installation of bat boxes.

Plate 2 above on proportionate mitigation would suggest that there would be minimal requirement for monitoring of the bridge in the years post-works, where there are small numbers of bats involved. If the NPWS require monitoring of whether the bat boxes and the retained crevices in Skerry Bridge are occupied by bats in the following year(s) after the bridge repair works, then Laois County Council will commission bat surveys.

References

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