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Lawley House
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Cork City,
T12 N6PY.
10th December 2025.

David Ryan
An Coimisiún Pleanála,
64 Marlborough St,
Dublin 1,
D01 V902.

[by email to ([REDACTED])]

David,

Re: Technical support to An Coimisiún Pleanála in relation to Environmental Impact Assessment (EIA) Screening Determination under Article 120 (3) (b) of the Planning and Development Regulations 2001, as amended, for Amending Part 8 application to approved Part 8 (Ref: 2870-15) Royal Canal Greenway Phase 4 (ABP Ref. 318309-23).

I have been engaged by An Coimisiún Pleanála to review the above-named application and provide specialist input and support in relation to bats to assist your assessment of the application.

I am a Chartered Environmentalist (CEnv) and a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). I have a relevant bachelor's degree and master's degree and 17 years' professional experience in the environmental industry, in Ireland, UK and New Zealand. I have completed numerous assessments on the potential effects of proposed developments on bats, including onshore wind energy projects. I am licensed by NPWS to work with bats.

I have reviewed the information which has been provided to me by An Coimisiún Pleanála, specifically:

- Dublin City Council (DCC) FI Response dated 27th May 2025 (incl. Appendix A (bat surveys), Appendix B (2023 lighting trial report (Bat Eco Services, 2024)), Appendix C (Habitat loss locations) and Appendix D (Landscape design)).
- Royal Canal Greenway Cycle and Pedestrian Route Phase 4 - Phibsborough to Ashtown - Amending Part VIII Report. Roughan & O'Donovan-AECOM Alliance (June 2023) (incl. associated drawings).
- Royal Canal Greenway Cycle and Pedestrian Route Phase 4 - Phibsborough to Ashtown - Ecological Impact Assessment. Roughan & O'Donovan-AECOM Alliance (June 2023).
- Royal Canal Greenway Cycle and Pedestrian Route – Phase 4 Phibsborough to Ashtown - Environmental Impact Assessment Screening. Roughan & O'Donovan-AECOM Alliance (September 2023).

- Royal Canal Greenway Cycle and Pedestrian Route – Phase 4 Phibsborough to Ashtown - Appropriate Assessment Screening Report. Roughan & O'Donovan-AECOM Alliance (September 2023).
- Submissions by FP Logue Solicitors on behalf of Jacqui McElhinney and Francis Mackey dated 28th July 2025 and 18th October 2023.

I attended an online meeting in relation to the project on the 22nd September 2025.

The main findings of my review are provided below.

Relevant Standards & Survey Effort

Article 5(3)(a) of the amended Directive 2014/52/EU requires that *"the developer shall ensure that the environmental impact assessment report is prepared by competent experts"*. Marnell et al. (2022)¹ states that bat survey reports should *"present the qualifications and experience of the surveyors and authors"*.

In relation to bats, survey and reporting for the Ecological Impact Assessment (EcIA) were carried out by Kate Moore BSc (Hons) GradCIEEM, who is described as being an Ecologist with a degree in Environmental Biology from UCD and over five years' experience in ecological consultancy. Her experience of survey and assessment of effects in relation to bats specifically is not stated. The EcIA was reviewed by Patrick O'Shea BA (Hons) MSc MCIEEM who is described as being an Ecologist with a degree in Natural Sciences from TCD and an MSc in Ecological Management and Conservation Biology from QUB.

The FI Response letter from Dublin City Council was written by Brian Keaney, A/Deputy City Planner, Dublin City Council. No qualifications or experience which would be relevant to an assessment of effects on bats are provided.

Appendix B of the FI Response contains a bat survey report (Outdoor Lighting Study (Bats) - Royal Canal, Glasnevin, Dublin (March 2024)) which was written by Dr. Tina Aughney of Bat Eco Services, but, this report is in relation to the 2023 lighting trial only. Dr. Aughney is described as being a bat specialist with approximately 25 years professional experience and who is licensed by NPWS to work with bats.

No new survey data was presented as part of the FI Response, and so the assessment of effects is based on data gathered in 2021 and 2022 in relation to the original Part VIII proposal. In relation to bat surveys, the Ecological Impact Assessment (EcIA) (Roughan & O'Donovan-AECOM Alliance, June 2023) refers to the relevant survey standards as being NRA (2006)² and Collins (2016)³ and states that all surveys were conducted adhering to best practice guidance. NRA (2006) provides relevant survey standards in relation to survey of trees for evidence of roosting bats only. No significant limitations are stated within the EcIA.

¹ Marnell, F., Kelleher, C. & Mullen, E. (2022). Bat mitigation guidelines for Ireland v2. Irish Wildlife Manuals, No. 134. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.

² NRA (2006). Guidelines for the Treatment of Bats during the Construction of National Road Schemes. National Roads Authority, Dublin

³ Collins, J. (Ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London. [Collins (2016) has since been revised but was relevant at the time of the assessment]

Bats have correctly been identified within the EclA as a 'Key Ecological Receptor'. In general, an assessment of effects on a project on bats should consider the potential for effects on roosting, foraging and commuting bats - each of these are discussed separately below.

In relation to identifying potential bat roosts which may be affected directly or in-directly by the proposal, the Methodology (s. 3.6.4) presented within EclA states that the field-survey effort focused solely on trees, and no study area is defined. The Results section (s. 5.4.3) indicates that built features were considered also, and the surveys were carried out within the "study area" (defined in s. 3.3 of the EclA as the development site plus a 50m buffer). The Results section states simply that "*No trees or buildings with Low, Moderate or High bat potential were identified within the study area*", but no data, details or photographs are provided to document the assessment process or to substantiate this finding.

In relation to foraging and commuting habitat, following Collins (2016), the study area and its environs should be considered to be at least of 'moderate' suitability habitat for bats. For 'moderate' suitability habitats the recommended reasonable survey effort to describe bat activity would be monthly surveys from April to October inclusive, combined with five nights passive monitoring per month (Collins, 2016). Active transect surveys were carried out on two dates in May 2021 and unlabelled drawings provided in Appendix B of the FI Response appear to show that suitable spatial coverage was achieved.

To avoid the risk of passive detectors being stolen, static, manned surveys were carried out on six dates between June and September 2022 for approx. 2.5 hours after sunset from three fixed locations shown at Figure 2 of the FI Response. Comparison of these locations with publicly available lighting data shows that these static locations may all be in areas illuminated by public lighting and therefore may not represent unilluminated area of canal in terms of bat activity, particularly in relation to Daubenton's Bat. The recording locations do not provide suitable coverage of the area where canal habitat is proposed to be lost. No particular bat foraging or commuting areas are identified, and in terms of the spatial distribution of bat activity, the EclA and FI Response note only that bats, incl. Daubenton's Bat, were recorded feeding over the canal and along hedgerows and treelines. Lack of specific data on the spatial distribution of bat activity along the canal (as discussed above), compounded by an absence of baseline lighting data, would limit the opportunity to design-in dark landscape crossing points and dark foraging habitats.

Overall, it is considered that the survey methodology and effort applied is not compliant with Collins (2016) and is insufficient to comprehensively characterise bat activity in the study area. The absence of passive survey data in particular means there is a deficit of fully quantitative, repeatable, baseline data.

Overall, deficits appear to be present in the survey methodology presented particularly in terms of:

- The absence of a comprehensive characterisation of bat activity and its spatial distribution.
- The absence of any information on the suitability of structures within the 'study area' or 'zone of influence' to host roosting bats.

The level of survey effort and assessment afforded to bats in the current application appears to be significantly less than was the case for Otter, a species also protected by Annex IV of EU Habitats Directive.

Following CIEEM guidance on the lifespan of the ecological data⁴, the lifespan of the 2021 data may have been exceeded at the time the application was submitted in October 2023.

Assessment of Potential Effects

Annex IV(3) of the EIAR Directive 2011 (as amended) requires a “*description of the relevant aspects of the...baseline scenario...and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge*”. Bats and their roosts are protected by The Wildlife Act, 1976 (as amended), and the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) provides strict protection to all Irish bat species.

A detailed and appropriate description of the proposed project is generally provided within the application although a discrepancy in the total area of canal habitat to be permanently lost occurs; a figure of approx. 2000m² is provided in the FI Response whereas the Amending Part VII Report and EcIA both state a figure of 2500m². The proposed lighting solution is not fully defined.

An appropriate study area and zone of influence are defined within the EcIA, but as outlined above it is unclear the extent to which the described methodology was applied within the study area, in particular in relation to the possible presence of roosting bats.

Disturbance to Roosting Bats

As outlined above, the potential for roosting to occur in trees within the immediate works area appears to have been properly considered but the extent to which the suitability of trees and structures within the wider ‘study area’ has been considered, if any, is not clear. It is noted that the ‘study area’ includes a large number of structures as well as trees, and in my experience, it is possible that some of these host roosting bats. Bat Eco Services (2024) states that the author “*had previously recorded a soprano pipistrelle roost in a building along the Royal Canal adjacent to the study area*”. The likely in-direct effects on this roost, or any others that may exist in the zone of influence of the proposed works, have not been identified or considered in the FI Response or EcIA.

Disturbance to Foraging or Commuting Bats Due to Habitat Loss or Fragmentation

During construction and operation, habitat loss will occur due to a reduction in canal surface area, illumination of adjoining habitat and temporary loss of linear commuting and foraging features. The requirement for canal realignment works to be carried out mid-September to mid-March will mitigate (but not eliminate) the loss of foraging habitat during the winter months. A landscape design (‘Landscape General Arrangement’ drawings dated 19/11/2023) is presented as part of the FI Response and while short-term effects on foraging and commuting bats are acknowledged in the application, detailed landscaping measures are proposed. The EcIA states that in the longer terms the proposal will result in a nett benefit in terms of linear habitat, scrub habitat and trees.

The FI Response states that the permanent loss of canal surface area (foraging habitat for Daubenton’s Bat in particular) will not be significant given the overall proportion of the Royal Canal in the area of the proposed development. This is not reliable as i) there is no certainty presented within the application that Artificial Light At Night (ALAN) would not result in the disturbance of remaining foraging habitat

⁴<https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>

within the current study area and ii) the proportion of other areas of Royal Canal already affected by lighting is not considered within the application (and a brief examination of DCC public lighting data⁵ suggests that unilluminated areas west and east of the study area are scarce).

Disturbance Due to Lighting

As outlined within the EclA, bats forage along the entire length of canal which is proposed for works and the area is currently not subject to public lighting (although light-pollution from adjoining land-uses is highlighted within Bat Eco Services (2024)).

The project description within the EIA Screening states that the project will include “bat friendly public lighting” - however this term is a misnomer. ALAN negatively affects bats and even small amounts (as low as 0.1 Lux) can reduce bat activity and/or alter the behaviour of bats, especially later emerging species such as Daubenton's Bat. The effects of ALAN on bats are well discussed in 'Bat Eco Services' (2024) which accompanies the FI Response. ALAN has been shown to be particularly harmful to bats along river corridors (ILP & BCT, 2023⁶). In consultation carried out on behalf of DCC in 2021 and 2023, NPWS highlighted that the impact of lighting on Daubenton's Bat is a key concern.

Lighting related mitigation is provided in relation to construction phase lighting, but the measures are vague and do not provide certainty as to its effect (“...artificial lighting will be limited to the works area. Light spill outside this area will be prevented, as much as possible”). Construction phase lighting is proposed between 07:00 and 18:00 as required, unless otherwise “signed off by Dublin City Council”. The FI Response indicates that timing is an effective avoidance measure as bats would not be active at these times and states that sunset in Dublin is 20:30 in Mid-March and 20:00 in late October. This is incorrect - sunset in Dublin is approximately 18:06 on 25th October and 17:04 on 26th October after the clocks go back, with regular bat activity often continuing well into November as days get shorter still and so this proposed avoidance measure is defective. No screening or other measures to reduce the effects of ALAN are proposed during the construction phase. The proposed construction phase lighting would likely adversely affect bat activity.

While the importance of avoiding ecological effects is highlighted in the EclA, no alternative operational phase solutions which do not involve ALAN are presented. DCC propose that dimmable LED lighting will be installed on 5m poles but will not be commissioned until the final lighting regime (specifically timing, colour and lux levels) are decided post-consent in discussion between 'DCC public lighting' and NPWS; informed by results of the ongoing lighting trial. I have not seen evidence that NPWS have agreed to post-consent discussion, and NPWS have commented in a similar situation that there is “no statutory basis to involve the Department post consent to discuss mitigation measures” and that such matters “should be resolved prior to consent being granted” (Ref. ABP-317447-23).

The 2023 Lighting Trial Report (Bat Eco Services, 2024) describes how LED lighting was installed on three 5m poles, and 2700 Kelvin (warm white) luminaires were used although associated lux level was not defined and the lighting used was not directional. The report presents a very comprehensive desk-study of all available information (including ILP & BCT (2023)) and ultimately appears to simply confirm what is already known, i.e. that ALAN negatively affects bats. Illuminance resulted in a significant (46%)

⁵ <https://data.gov.ie/dataset/street-lighting-dublin-city> - accessed 24th November 2025

⁶ Institute of Lighting Professionals & Bat Conservation Trust (2023). Bats and artificial lighting at night. Guidance Note GN08/23. BCT, London & Institution of Lighting Professionals (ILP), Warwickshire.

reduction in bat registrations overall, and a highly significant reduction in Daubenton's Bat registrations in particular (75%).

It is noted that key recommendations arising from the 2023 Lighting Trial Report (Bat Eco Services, 2024) have not been reflected in the current proposal i.e. the planting of tall vegetation at intervals or the planning of treelines/hedgerows along the tow path and further reducing the blue component of proposed lighting to a maximum of 2200 Kelvin.

Basic operational phase lighting mitigation is presented by DCC, and emphasis is placed on further measures which will be designed based on further study and discussion with NPWS. The EcIA and EIA Screening reports both appear to disregard the potential for operational-stage effects on bats due to ALAN, presumably on the basis that a lighting solution will be found which simultaneously meets the requirements of DCC public lighting and avoids any significant negative effect on bats. It is clear that such a solution (if it exists) would not eliminate the occurrence of an impact on bats but would at best mitigate the effect. The placement and height of lighting poles have been determined, and this limits the opportunity to reduce effects in any post-consent design process. The assessment of effects due to operational stage lighting is significantly hindered by the absence of a final lighting design and illuminance contours are not provided as is recommended within ILP & BCT (2023) guidance.

EcIA (Table 6.3) states that in the absence of mitigation "*The potential for habitat fragmentation and barrier effects during the operational phase due to artificial lighting is considered to constitute a Permanent Significant Negative Impact at the local level*". This finding is considered reasonable. As discussed above, no reliable mitigation measures are presented which would reduce lighting-related operational-stage effects. In the EcIA the residual effect of lighting in the operational phase appears to be discussed in combination with habitat loss and is described as being "*Minor negative impacts on [bats] within the site as a result of habitat loss*" however for the above reasons, this residual effect conclusion in relation to lighting is not considered reasonable or sound.

The potential for operational-stage effects is addressed within the FI Response letter which states that "*there is no real likelihood of disturbance and barrier effects on bats at both the construction and operational stages of the proposed development, arising from artificial lighting*". The assessment of effects submitted within the FI Response does not follow any relevant guidelines, and as discussed above the FI Response contains significant technical errors and does not appear to have been prepared by a suitably qualified and experienced Ecologist.

Cumulative effects

A general assessment of cumulative effects on the environment as a whole was considered in the EIA Screening Report. A list of potentially relevant plans and projects is presented. While it is outside the scope of the current review to independently verify the list of projects which might be relevant to the cumulative effects assessment, I note the absence of the consideration of the sections of the Royal Canal Greenway Cycle and Pedestrian Route Phase 4 which are permitted but not yet constructed (particularly in relation to ALAN). I feel this weakens the assessment of cumulative effects.

AA Screening

No SAC sites which list bats amongst their qualifying interests were screened into the assessment, and therefore the AA Screening ('Appropriate Assessment Screening Report'. Roughan & O'Donovan-

AECOM Alliance, September 2023) concludes that no significant adverse effects on any bat species listed in Annex II of EU Habitats Directive are likely to occur as a result of the proposal. Based on current scientific information, this conclusion is considered to be reasonable.

Conclusion

ALAN negatively affects bats, and in relation to lighting impacts on key habitat features (such as the canal) BCT & ILP (2023) states that "an absence of artificial illumination and glare acting upon both the feature and an appropriately sized buffer zone is most often the only acceptable solution".

I do not believe that Dublin City Council has provided sufficient information to inform a reasonable and sound assessment of potential effects on bats as a result of the proposed development. A limited survey effort was employed and technical issues with the survey methodology and assessment of effects are highlighted above.

Having reviewed all relevant aspects of the current application, I do not believe it is reasonable or sound to conclude that the likelihood of significant adverse effects on bats can be ruled out.

DCC should consider if a 'Regulation 54 Derogation' is required to facilitate the proposed works. NPWS state that "*Public authorities are advised that, when considering applications for development consent, they should ensure that such applications include copies of the derogation(s) that the applicant has considered it is necessary to acquire. The responsibility of avoiding disturbance or damage to Annex IV species, or of obtaining an appropriate derogation, rests with the applicant*" (NPWS, 2025⁷).

Yours sincerely,



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Principal Ecologist & Director
O'Donnell Environmental Ltd.

⁷ NPWS (2025). Applications for Regulation 54 Derogations for Annex IV Species - Version 1.