

NH179

140 Castle Avenue  
Clontarf  
Dublin 3

The Secretary  
Strategic Housing Unit  
An Bord Pleanála  
64 Marlborough Street  
Dublin 1

5<sup>th</sup> February 2018

Ref: ABP-300559-18.

I wish to lodge an observation on the application for a strategic housing development at St. Paul's College, Sybil Hill, Raheny, Co. Dublin. submitted by Crevak Trading GP Ltd.

I enclose the €20 fee in the form of a cheque payable to An Bord Pleanála.

While there are numerous reasons for refusal of this application: Z15 zoning, loss of community amenities, flooding, traffic, parking, dangers of only one way in/out, effect on Biosphere and inappropriate development to name but a few, one critical issue has not received as much attention as it should have, namely the effect on the local bat population.

The following is extracted from the National Parks and Wildlife Service Bat Mitigation Guidelines for Ireland by Conor Kelleher and Ferdia Marnell.

<https://www.npws.ie/sites/default/files/publications/pdf/IWM25.pdf>

- *Bats and their roosts are protected by Irish and EU law because all species have declined and some are threatened or endangered.*
- *There are 10 known species of bats in Ireland, each with its own lifestyle and habitat requirements. They use a wide variety of roosts, including buildings of all sorts, trees and underground places.*
- *Many bat roosts are used only seasonally as bats have different roosting requirements at different times of the year. During the summer, females of all species gather in colonies to give birth and rear their young; these maternity roosts are often in places warmed by the sun. During the winter bats hibernate, often in places that are sheltered from extremes of temperature.*
- *When planning a development it is advisable to check for the presence of bats as early as possible so that any planning and licensing issues can be addressed before resources are committed. Bat surveys require specialist knowledge and equipment.*
- *Planning authorities are required to take account of the presence of protected species, including bats, when considering applications for planning permission and may refuse applications on the grounds of adverse effects on these species or if an assessment of the impact of the development on protected species is inadequate. Planning conditions or agreements may be used to ensure the conservation status of protected species is maintained.*
- *Mitigation to reduce or compensate for any impact of development is generally a condition of the licence and must be proportionate to the impact. Mitigation measures will be proportionate to the impact and may require particular timing of operations, protection of existing roosts or the creation of*

LETTER DATED \_\_\_\_\_ FROM \_\_\_\_\_  
PL \_\_\_\_\_

AN BORD PLEANALA  
Received: 5/2/18  
Fee: 20 € - cheque  
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- 5 FEB 2018

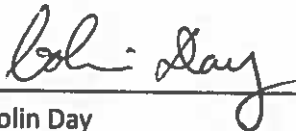
*new roosts to replace ones being lost. In some cases, a considerable period of time may be required to carry out this work. Monitoring of the effect of the mitigation is usually required.*

*• The National Parks and Wildlife Service strongly advises developers to seek the services of a professional ecological consultant with appropriate experience in assessing bat populations when contemplating a development proposal that would affect bats or their roosts.*

It is clear that the developers have not taken the above guidelines into full consideration with their application. In order to have a more comprehensive response to the developer's documentation, the undersigned has commissioned Dr. Grace O'Donovan, to provide an expert opinion on the documentation from an ecological viewpoint and in particular in relation to bats.

In conclusion, I strongly request that permission for this development be refused.

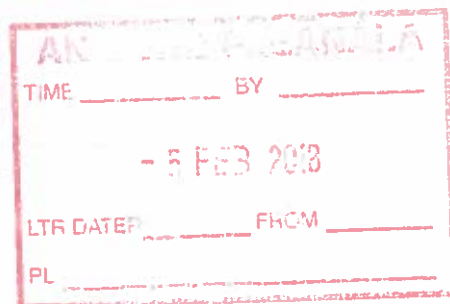
Yours sincerely,



Colin Day  
140 Castle Avenue,  
Clontarf  
Dublin 3

Enclosed:

Expert opinion on application for a strategic housing development at St. Paul's College, Sybil Hill, Raheny, Co. Dublin. submitted by Crevak Trading GP Ltd, reference number ABP-300559-18.



# Submission on the proposed residential development at St. Paul's College Raheny

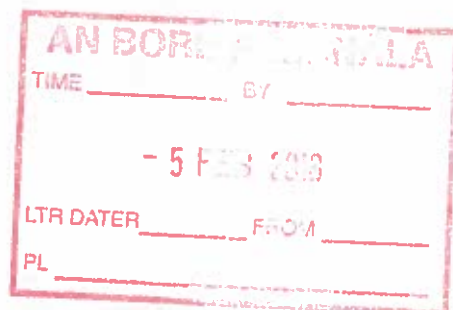
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This submission is by Dr Grace O'Donovan, a freelance ecologist based in the UK.

Dr. O'Donovan has over 30 years of experience in the area of plant and animal ecology and is a full member of the Institute of Ecology and Environmental Management (MCIEEM). She studied plant ecology for her doctorate from Trinity College Dublin and has worked as an academic in several universities, both in Ireland and the UK. She is currently an Associate Lecturer at the University of the West of England. Her specialist field is the use of remote sensing and GIS to map semi-natural habitats, particularly in the tropics.

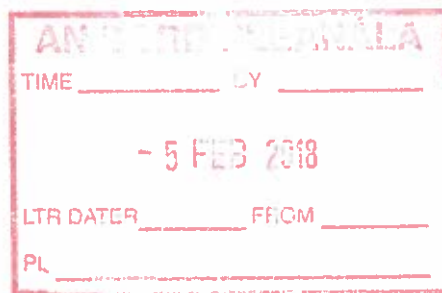
For the last 15 years, Grace has been involved full time in protected species work in the UK, has licenses to disturb bats and great crested newts, and has extensive experience in Environmental Impact Assessment and Appropriate Assessment, particularly in relation to wind farm construction and bats.

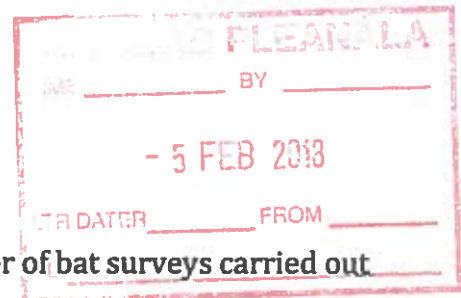
Dr Grace O'Donovan, BA Mod. Hons., Dip. EIA Man., MCIEEM  
2 Broadview,  
St. Marys,  
Chalford  
Glos. GL6 8PU  
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## Bat surveys

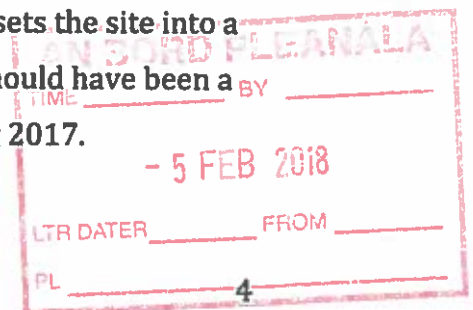
- It is very difficult to follow the type and number of bat surveys carried out in 2015-2017 due to the jumbled way they have been presented in the main EIS. It would have been much better to present the results of the surveys in Table form as is usual for these types of surveys. This is done for 2015 but not for the other years. As it stands it is very difficult to tease out what little results there are and what they mean.
- According to the recent bat survey guidelines<sup>1</sup> published in 2016, under the rule of proportionality, at least three transect surveys should be completed in a survey season, for habitats of low quality. This site should be considered of moderate to high quality due to the continuous good quality habitat present of tree lines, hedgerows, grassland, woodland blocks and several trees with potential roost features in the proposed development and in the vicinity. This type of habitat requires a minimum of one transect a month between April and September to adequately report on the presence of bats.
- Despite having sampled for bats over a three-year period, the whole survey season was not covered adequately in any year, and indeed, the sum of all three years' surveys does not constitute enough effort for even one year. It is not even clear if any real transect surveys were actually undertaken. There are no walking routes shown or stops mentioned.
- Similarly the static detection effort was well below what is required for a moderate site for bats. Detectors should have been set out for five consecutive nights along two points on the transect every month between April-September. From the methodology stated, Anabats were set out for only one day. This is obviously very poor practice – several should have been deployed throughout the site over the survey period to build up a comprehensive picture of bat activity around the site over time. The 2015

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<sup>1</sup> Collins J. (ed.) (2016) *Bat surveys for professional ecologists (3rd. edn)*. Bat Conservation Trust. London.

surveys carried out are already out of date and shouldn't be relied upon as cumulative reporting.

- There is a distinction made between bat calls and bat passes in the text – it is not clear why these have been called separate things. This needs to be clarified.
- The text in relation to the results of the bat surveys is very garbled and the sequence in which the data are presented is not at all clear. For instance, it seems that only two dusk surveys were completed in 2017 and no dawn surveys (according to Table 5.1). However, there is a paragraph shortly after stating that there were dawn surveys completed (see 4<sup>th</sup> paragraph in Section 5.1.3.2). In the results section there is also a paragraph describing bats seen on the dawn survey in 2017 and this is shown in Figure 5.7, despite not having appeared in the Table presented in the methods. The legend doesn't indicate what year the surveys are from. Figure 5.8 is not mentioned in the text, nor does it say what year the surveys are from. Figure 5.4 is mentioned several times in relation to bats recorded in a dawn survey, yet this is actually the figure for the habitat map.
- Results mention that three bats were recorded on 24/5/17 and refer to a Figure 5.5, but this figure has a legend stating it was results from the 6/7/17 survey. No survey results were presented for 2016, despite having been mentioned in the methodology.
- Bats are a material consideration in this EIA having protection at European and national level, and the level of survey does not reflect the real activity of bats in this area, which has well-connected tree lines and blocks of woodland nearby. The biological records suggest there is quite a lot of bat activity (250 *ad hoc* observations) and a significant number of roosts (36) within 10km of the site. This automatically sets the site into a high category of bat habitat as per the guidelines and should have been a wake-up call to do more comprehensive surveys during 2017.

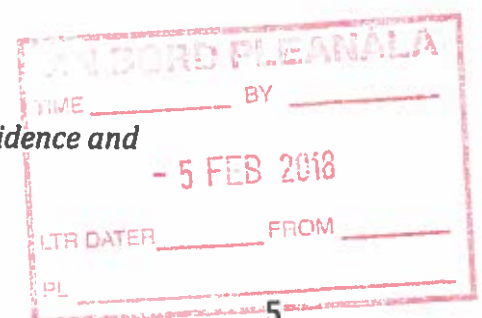


## Light in relation to bats

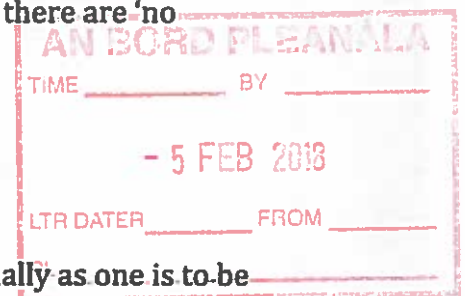
- There is no mention of a pre-development lighting survey. This is essential for the accurate prediction of the impacts of lighting applications on bats. Light readings were mentioned occasionally throughout the text for 2017 taken by the ecologist presumably, within the results but not mentioned in the methodology. There is passing reference to the fact that there were higher light levels to the west of the site and that bats avoided these areas, but no comprehensive survey of light levels was carried throughout the site as a whole. The equipment was not described for measuring light nor the rationale, or indeed what the lux reading means in relation to bat species. Lux readings should be taken with an instrument that can measure 0.01 lux for bat work (Stone 2013)<sup>2</sup>.
- Recent publications have outlined the impact of lighting on bat species and guidelines for surveying light levels (Stone *op. cit.*). The professional survey by lighting engineers models the light levels over the site after construction and operational phases but very little cross-correlation between the bat surveys and the lighting results are outlined, apart from guidelines being followed. The lack of a baseline survey of existing light levels make its very difficult to predict what effect the development will have on the existing bat population.
- Different bat species have very different responses to light levels and there is little mention of the light sensitivities of the particular bat species mentioned in the text and whether the construction will affect these species materially. Light has a huge impact on bats and it is not explicitly clear if the construction and operational phases of the development will be helping or hindering light levels on the site into the future in relation to bats.

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<sup>2</sup> Stone, E.L. (2013). *Bats and lighting: Overview of current evidence and mitigation*. University of Bristol, UK.



- There is a throwaway comment about bats using “very different dark corridors” to the ones they use at present after the construction (although ‘dark’ is not actually defined in relation to bats). This is not acceptable – bats should ideally not be disturbed by the development and it is not explained where these other ‘dark corridors’ are. Most bats use hedge lines and tree lines specifically for foraging, so if light is impacting on those remaining on site, they will not use them as all. It is therefore difficult for the reader to assess the real impact of lighting on bats and the whether the mitigation in place is sufficient to say that there are ‘no residual impacts’.



## Buildings surveys

- The buildings surveys for bats were inadequate, especially as one is to be demolished. Walk-around surveys for buildings in combination with other dusk surveys are not sufficient. The correct number of observers needs to be placed strategically around the building and note any emergences over a period of three hours. It is very easy to miss an emerging bat from a building, and even though there were no obvious signs of bats determined during the structural surveys, bats may be hiding in inaccessible places. Again, several emergence surveys should have been completed throughout the season to identify if maternity/day/night roosts were present especially as a potential exit hole was identified. This level of survey of a building due to be demolished is not adequate.

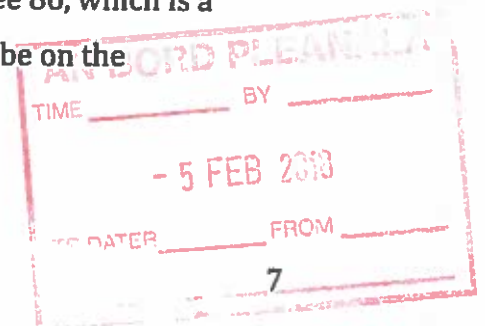
## Trees in relation to bats

- Tree surveys for bat occupancy are inadequate. Any roost features identified should have been investigated by a Licensed bat worker with ladders and an endoscope to fully assess the roost potential.
- If potential roost features (PRFs) have been identified in the field, then emergence surveys should also have been carried out individually on these trees over the survey period. A casual observation of these trees

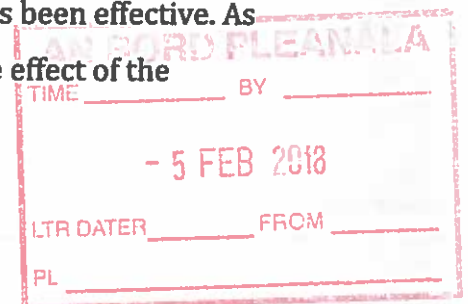


during other surveys is not satisfactory as it is notoriously difficult to ascertain if bats are using trees as roosts unless specifically observed from at least two directions.

- There is a hint in the non-technical summary and in the main EIA that trees with PRF will be removed for the development. A paragraph later in the mitigation section (5.5.2 Mitigation Measure 4 Bats) describes removing trees with PRF features as a “precautionary measure”. A precaution against what? Against light spill from the construction phase as is suggested? This is not acceptable under any circumstances. There seems to be an attitude that trees will be removed because of the development despite their conservation value and that the rest will be accommodated. This is wrong thinking; if there are trees with PRFs, they should be retained and the development altered to accommodate them. This is doubly unfortunate as they have not been surveyed properly to ascertain if there are bat roosts present. Trees with PRFs are undoubtedly used by bats throughout the year as bats frequently change roosts in trees throughout the summer, so the assumption is that bats are probably present at some point. The design of the development should be changed to accommodate the trees and potential roosting bats.
- A full arboricultural survey of the trees on site has been completed as part of the EIA. This has identified trees of worth or otherwise before the development commences, so that informed decisions may be made on how to deal with trees on site. However, no direct comparison has been made by the ecologists to the arboriculture survey in the EIA. The arboricultural report mentions the trees species to be removed in the area indicated in the habitat map, but they don't correlate with the trees mentioned as having PRFs in the habitat survey. The beech tree mentioned in the habitat survey doesn't appear to be in the position indicated in the arboricultural survey, and indeed Tree 86, which is a beech tree designated for removal, doesn't appear to be on the arboricultural figure at all.



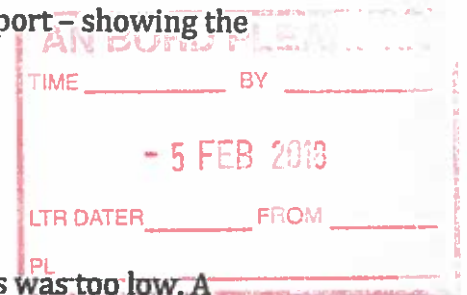
- The arboricultural survey should have been done in conjunction with the bat surveys as the conservation value of trees is now taken into account as part of the BS 5837:2012. Having read the arboricultural survey, there is no mention of any trees having a biodiversity interest, despite this being a part of the BS guidelines followed. This lack of co-ordination between disciplines in relation to trees and their conservation value is not acceptable.
- Mitigation states that removal of trees with PRFs will have significant impact on the bat population but then states mitigation of planting new trees to replace the old ones. This will not mitigate roosts lost in the short term as it takes at least 100 years for bat roost features to develop in trees. Bats are a long-lived species and the removal of a roost over a long time period will have a detrimental effect on the bats.
- Putting up three Schweigler bat boxes in trees will not mitigate for the impact of the proposed development on bats and quite frankly is an insult. There is no mention of what sort of bat boxes (maternity or hibernation?), where (taking lighting and additional habitat loss into account) or what aspects they should be placed on, and why three is considered to be enough. These are random statements with little thought put into them, making a mockery of mitigation practice.
- There is no mention of monitoring bats on site after the development is completed. Monitoring of bat activity after construction is essential for this type of project to see if the mitigation proposed has been effective. As the baseline data is already inadequate, monitoring the effect of the development would be quite difficult.



## Habitat surveys

- The habitat surveys recorded very few plant species – even for the depauperate habitats that were found on site. There were no full species lists of plants found which should have been supplied, not just the main

species encountered in the field. The habitat map should have had target notes on it to show potential for presence of rare or protected species (e.g. improved grassland and feeding birds, tree lines for commuting bats, trees with potential roost features and buildings with potential roost features)– as per the guidelines in Smith (2011)<sup>3</sup> and Fossitt (2000)<sup>4</sup>. The three (four?) trees identified with PRFs should have been more clearly shown and collated with the Arboriculture Report – showing the tree numbers corresponding with the Report.



## Breeding bird surveys

- Similarly to bats, the level of survey for breeding birds was too low. A minimum of three surveys should be conducted for breeding birds during one survey season. Only two were undertaken in 2017 and only one each in 2016 and 2015. Also, they should have spanned the breeding bird survey period, which is April to June<sup>5</sup>; and surveys were only conducted in June in 2017 – too little too late. Table 5.6 is mistakenly referred to as Table 5.4 in the text. There was no mention of any nests observed in trees on site in the text. Figures 5.9 and 5.10 are missing altogether.

## Zone of Influence

- This phrase peppers the document but can be different for different species and habitats. The Zone of Influence in the main EIA had been made explicit as 5km radius around the site yet there are no reasons given why this distance has been selected and there are no accompanying maps to illustrate what the Zone of Influence is. The Screening Document however, describes the zone of influence being up to 15km. No reason has

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<sup>3</sup>Smith G. F., O'Donoghue P., O'Hora K. and Delaney E. (2011) *Best practice guidance for habitat survey and mapping*. The Heritage Council.

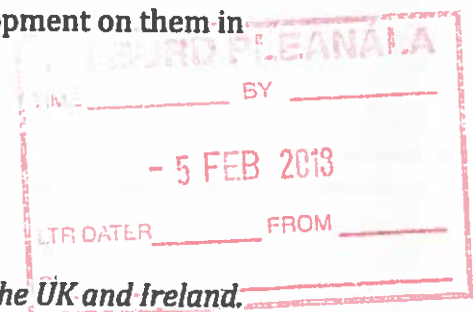
<sup>4</sup>Fossitt J. A. (2000) *A guide to the habitats in Ireland*. The Heritage Council.

<sup>5</sup>Ecological survey techniques for protected flora and fauna during the planning of national road schemes. (????) National Roads Authority.

been given for the change in ZOI distance. The CIEEM EcIA Guidelines<sup>6</sup> state that overlay maps of the Zone(s) of influence should be explicitly shown and referenced for each species and habitat affected.

## **GWDTEs**

- Groundwater Dependent Terrestrial Ecosystems (GWDTEs) are mentioned in passing in the text as something to take note of in relation to habitats on Bull Island. GWDTEs are habitat-specific and should be mentioned by name, as different habitats listed as GWDTEs have different sensitivities to groundwater and surface water pollution. As water from the development is being discharged into the Naniken River, ending up in Dublin Bay in close proximity to the said GWDTE, there is no clear statement anywhere about the potential impact of this discharge on the specific GWDTEs. There is obviously a clear lack of knowledge about these ecosystems, which are extremely sensitive, and the impact of the development on them.
- There is a Management Plan of Bull Island available to the public (McCorry and Ryle (2009)<sup>7</sup> which mentions the impacts of adjacent developments on the hydrology (surface water runoff and groundwater) of sensitive habitats of Bull Island. This was not referred to.
- There is no reference to GWDTEs in the Natura Impact Statement, despite a lengthy section on the effects of the accidental surface runoff into the Naniken Stream and hence into Dublin Bay. Why mention them at all if the EIA is not going to address the impacts of the development on them in a logical way?



<sup>6</sup> CIEEM (2016) *Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater and Coastal. (2nd Edn).*

<sup>7</sup> McCorry M. and Ryle T. (2009) *A Management Plan of Bull Island.*  
<http://dublinportblog.com/wp-content/uploads/2015/11/North-Bull-Island-Management-Plan-Final-copy.pdf>

- There are four figures on hydrology in the text (Figs. 7.2-7.6) that have no legends on them and are not referred to in the text, making them virtually useless for interpretation by the reader, particularly on such an important topic.

## General observations

- There are no page numbers in this document, making it very difficult to navigate around it. Figures and plates are often not referenced in the text – very poor practice in a document of this importance. Plates in the habitat section are not labelled sequentially e.g. 5.1 is followed by 5.3.1. There is a repetition of Plates 5.3.1 and 5.3.2, so very difficult to follow. Several figures have no legends and are not referred to in the text. Several figures are missing or mis-labelled in the text.
- Sentences are badly written e.g. *“Abundant to frequently tree and shrub species within the section located adjacent to St. Anne’s Park”* an utterly meaningless statement.
- Overall, the document does not inspire confidence that the issues have been addressed due to the poor presentation of the data and lack of cross-referencing between documents.

