

O'Donnell Environmental Ltd.  
103 Phoenix House,  
Monaghan Road,  
Cork City,  
T12H1XY.  
24<sup>th</sup> March 2023.

Mr. Paul Caprani,  
An Bord Pleanála  
64 Marlborough St,  
Dublin 1,  
D01 V902.

[by email to [p.caprani@pleanala.ie](mailto:p.caprani@pleanala.ie), cc [sids@pleanala.ie](mailto:sids@pleanala.ie)]

Paul

**Re: Ecological review of application for a Development at Shannonbridge under Section 4 of the Development (Emergency Electricity Generation) Act 2022 [Case reference ABP-315836-23].**

I have been engaged by An Bord Pleanála to review the above-named application and provide specialist input and support in relation to the biodiversity and 'Appropriate Assessment' aspects 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 15 years' professional experience in the environmental industry, in Ireland, UK and New Zealand.

I have reviewed the information which was provided to me via website link<sup>1</sup> on 17<sup>th</sup> February 2023 (the application) including an Environmental Report (AECOM, 2023), an Appropriate Assessment Screening & Natura Impact Statement (APEM, 2023) and supporting figures. I have viewed some information held on the planning file in relation to previous applications at the proposed site (e.g. Offaly Co. Co. planning Ref. 22/223 and PA19.303108) and an IPPC license (P0611-02) issued by EPA in respect of the existing 'West Offaly Power Station' facility. I also viewed observations in relation to the application.

I attended online meetings in relation to the project which were hosted by An Bord Pleanála on the 3<sup>rd</sup> March 2023, 10<sup>th</sup> March 2023 and 23<sup>rd</sup> March 2023. I attended an inspection of the proposed Shannonbridge site accompanied by you and Kevin McCloy (ESB) on 14<sup>th</sup> March 2023.

The proposed development and its environmental context, including in relation to Natura 2000 sites, is described within the application. The main findings of my review are provided below.

**Emissions to Water**

The Appropriate Assessment Screening & Natura Impact Statement was prepared by APEM based on a desk-based study; the assessment was evidently not informed by a site visit. APEM (2023) describes the existing surface water collection system as follows:

"Drainage arising from paved road surfaces and buildings, such as the boiler house and turbine house, is conveyed to the existing surface water drainage network on-site and existing settlement pond prior to discharging to the River Shannon... For the proposed development, surface water generated on existing impermeable surfaces will continue to be collected in a slightly modified

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<sup>1</sup> <https://www.gov.ie/en/publication/123c7-application-for-a-development-at-shannonbridge-under-section-4-of-the-development-emergency-electricity-generation-act-2022/?referrer=http://www.gov.ie/Shannonbridge/>

underground pipe network. This will then be conveyed by the existing drainage network to the settlement pond prior to discharging to the River Shannon”.

From review of existing drainage information submitted as part of a previous planning application at the proposed site (22/223), as well as observations made during site inspection, it appears that the above description of the existing surface water system is inaccurate. Much of the surface water arising on the site is conveyed to the existing ‘Peat Settlement Pond’ and receives hydrocarbon interception prior to discharge to the River Shannon at ‘SW6’. However, while surface water arising in the north of the site does receive hydrocarbon interception, settlement is not provided prior to discharge to the River Shannon via ‘SW7’. The suitability of existing infrastructure for the current proposal (as opposed for its designed purpose) is not described in the application, nor is its condition.

Surface water attenuation is not provided at the existing site, nor is it proposed in the application. While some attenuation capacity may be available for those areas which drain to the existing ‘Peat Settlement Pond’, cut-off of the outflow would be manual and the amount of attenuation capacity available would be dependent on water levels in the River Shannon. Attenuation storage systems along with suitable flow control devices would be beneficial for all stages of the proposed development (for example in the event of accidental discharge of distillate or the need to contain fire-water).

Mitigation measures presented within APEM (2023) include the design of construction and demolition works by geotechnical and civil engineers post-consent, and the use of silt fencing in relation to cement laden water prior to settlement and discharge to the River Shannon.

Waterborne contamination has the potential to impact upon the River Shannon through reduction in water quality, habitat degradation or habitat loss with consequences for prey availability for Otter and birds.

Overall, I have concerns regarding the accuracy and completeness of the information provided within the application in relation to protection of water quality, and the adequacy of the AAS&NIS in this regard.

In respect of the inadequacies identified above you may consider recommending conditions as suggested below:

*Prior to commencement of works, detailed surface water system design(s) for the site construction (including site clearance and demolition phases) and operational phase will be submitted to [the Minister] for approval. The design will contain appropriate solutions to achieve settlement and hydrocarbon interception following relevant industry best practice guidelines (e.g. CIRIA, 2001 & IFI, 2016) and will provide suitable attenuation measures including for firewater (e.g. following EPA, 2009).*

*Prior to commencement of works, details of a proposed surface and ground water monitoring program which will be carried out during the construction and operational phases will be submitted to [the Minister] for approval.*

*All discharges to water will comply with the European Communities Environmental Objectives (Surface Waters) Regulations 2009 as amended and European Communities Environmental Objectives (Groundwater) Regulations 2010 as amended.*

### **Emissions to Air**

Assessment of air quality impacts is outside my scope and my competence. The potential impact of the proposal in terms of emissions to air are discussed in the application and AECOM (2023) details an air dispersion modelling exercise. APEM (2023) concludes that there is no potential for significant effects on relevant Natura 2000 sites.

## **Impacts on Species**

Field surveys to inform the current application were carried out by AECOM in November and December 2022 in relation to habitats, protected species and wintering birds. Important information is omitted from the AECOM (2023) such as of names and qualifications of Surveyors, the methodologies employed, limitations etc. Provision of such information represents industry best practice (e.g. CIEEM Guidelines<sup>2</sup>).

### Birds

While survey information is limited, some winter bird surveys were carried out by AECOM in November and December 2022 with the relevant study area being the proposed site plus a 500m buffer. Notes were made in relation to birds during surveys carried out by APEM in December 2021. The site was not found to be used by species which are qualifying interests of the relevant Natura 2000 sites, although species including Whooper Swan were observed overflying the site at height in December 2021 and December 2022.

APEM (2023) identifies that the proposed chimney stacks could pose an obstacle to birds overflying the site but does not contain measures in relation to bird collision risk. Effects due to heat emissions from operational chimney stacks are not considered.

The proposed chimney stacks would occur in an area where taller existing buildings currently provide some screening effects (depending on directional of flight) and site lighting will provide some illuminance of the structures which may aid visibility by night-flying birds. No known issue associated with bird strike of existing structures, or injury as a result of heat emissions from the operational WOPS, has been noted within the application. No significant flightline of birds through the site are reported. While studies are limited, there is literature to suggest that structures below 60m in height present a lesser collision risk to birds than taller structures. The chimneys would be temporary (approx. 5 years) and in terms of heat impacts will have a with a maximum running time of 500 hours per annum.

Notwithstanding potential impacts on foraging habitat as a result of water quality deterioration (discussed above), I believe it is reasonable to conclude that an impact on relevant bird species such that a significant negative effect on the conservation objectives of the SPA would result is unlikely to occur.

Limited nesting habitat is available on the site for use by nesting birds and it was noted during site inspection on 14<sup>th</sup> March 2023 that clearance of vegetation within the proposed site has been carried out. On that occasion nest building behaviour by Jackdaws was noted concentrating mostly on the 'Rising Conveyor' which is proposed for demolition. Demolition of structures such as the 'Rising Conveyor' has not been carried out prior to 1<sup>st</sup> March 2023 (as proposed in AECOM, 2023) and that report states that demolition within the bird breeding season will take place only following confirmation that there is no evidence of nesting (in accordance with Wildlife Act 1976 as amended).

### Otter

Insufficient information is presented within the application (including AECOM (2023) and APEM (2023)) to rule out the potential for indirect impacts on Otter (a qualifying interest of River Shannon Callows SAC). APEM (2023) provides a pre-construction Otter survey as a mitigation measure intended to avoid a likely significant impact on the Natura 2000 site. An EIAR submitted to the planning file in relation to planning application reference 22/223 (AWN, 2022) details an Otter survey carried out by a named Ecologist in December 2021 and January 2022. The relevant study area for that survey contains the current study area and includes riparian habitat which borders the proposed site to the east. While Otter signs were noted on the riverbank, no holts were found to be present.

There is no suitable Otter habitat within the proposed site and reliable and valid information is available as to the absence of holts proximal to the proposed development. Screening of the river corridor is available due to the existence of an approx. 2m bund and trees which exist between much of the proposed site and the river corridor and due to the applicant's proposal to install acoustic barriers.

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<sup>2</sup> CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

Suitable measures are presented within the CEMP and elsewhere relating to noise and light impacts. Notwithstanding potential impacts on fish biomass as a result of water quality deterioration (discussed above), I believe it is reasonable to conclude that a significant negative effect on the Otter population associated River Shannon Callows SAC is unlikely to occur.

#### Bats

Insufficient information is presented within the application to allow the potential for effects on bats to be understood. A previous planning application 22/223 (AWN, 2022) details a bat assessment undertaken by a named Ecologist which found that no buildings within the proposed site are above 'negligible' suitability for roosting bats. One structure proximal to the proposed site (the 'Dalton Building') was identified as being used by roosting bats in 2016. The structure also now hosts a Peregrine Falcon nest box. AECOM (2023) makes reference to outdated standards in relation to lighting design to avoid impacts on bats.

In respect of the inadequacies identified above you may consider recommending conditions as suggested below:

*Ecological mitigation measures are proposed in the application relation to lighting and noise impacts and these will be implemented in full. During both the construction and operational phases lighting will conform to 'Bats and Artificial Lighting in the UK - Bats and the Built Environment Series' (Bat Conservation Trust/Institute of Lighting Professionals, 2018) or subsequent update.*

*Given the time which has elapsed since surveys in relation to Otter and Bats were carried out, it is recommended that appropriate pre-construction surveys should be undertaken to verify that the ecological context as currently understood remains valid.*

I trust the above information will assist you in your assessment of the application.

Yours sincerely,



**Tom O'Donnell BSc (Hons) MSc CEnv MCIEEM**  
Principal Ecologist & Director  
O'Donnell Environmental Ltd.  
[info@odonnellenviro.ie](mailto:info@odonnellenviro.ie)