Screening Report for Appropriate Assessment of Large Scale Residential Development at Blessington Demesne, Blessington, Co. Wicklow

Compiled by OPENFIELD Ecological Services

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Introduction

Biodiversity is a contraction of the words 'biological diversity' and describes the enormous variability in species, habitats and genes that exist on Earth. It provides food, building materials, fuel and clothing while maintaining clean air, water, soil fertility and the pollination of crops. A study by the Department of Environment, Heritage and Local Government placed the economic value of biodiversity to Ireland at €2.6 billion annually (Bullock et al., 2008) for these 'ecosystem services'.

All life depends on biodiversity and its current global decline is a major challenge facing humanity. In 1992, at the Rio Earth Summit, this challenge was recognised by the United Nations through the Convention on Biological Diversity which has since been ratified by 193 countries, including Ireland. Its goal to significantly slow down the rate of biodiversity loss on Earth has been echoed by the European Union, which set a target date of 2010 for halting the decline, however this was not achieved. In 2010 in Nagoya, Japan, governments from around the world set about redoubling their efforts and issued a strategy for 2020 called 'Living in Harmony with Nature' however none of these targets were achieved. In December 2022, the Kunming-Montreal Global biodiversity framework was agreed with the headline of 'living in harmony with nature'. This has set ambitious goals to not only protect, but restore, nature, including by protecting 30% of land and sea by 2030.

In 2024 the fourth national biodiversity action plan was published to incorporate the goals set out in this framework, along with its commitments to the conservation of biodiversity under national and EU law.

The main pieces of legislation for conserving biodiversity in Ireland have been the Directive 2009/147//EC of the European Parliament and of the Council of November 2009 on the conservation of wild birds (Birds Directive) and Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive). Among other things, these require member states to designate areas of their territory that contain important bird populations in the case of the former; or a representative sample of important or endangered habitats and species in the case of the latter. These areas are known as Special Protection Areas (SPA) and Special Areas of Conservation (SAC) respectively. Collectively they form a network of sites across the European Union known as Natura 2000. The Birds and Habitats Directives have been transposed into Irish legislation by Part XAB of the Planning and Development Act 2000, as amended, and the European Communities (Birds and Natural Habitats) Regulations 2011, as amended. Part XAB applies in relation to AA screenings and AAs to be undertaken in respect of this proposed development. A report into the economic benefits of the Natura 2000 network concluded that "there is a new evidence base that conserving and investing in our biodiversity makes sense for climate challenges, for saving money, for jobs, for food, water and physical security, for cultural identity, health, science and learning, and of course for biodiversity itself" (EU, 2013).

Unlike traditional nature reserves or national parks, Natura 2000 sites are not 'fenced-off' from human activity and are frequently in private ownership. It is the responsibility of the competent national authority to ensure that Article 6(3) of the Habitats Directive is met. Article 6(3) of the Habitats Directive states:

Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.

Section 177U of the Planning and Development Act 2000 as amended requires the following in respect of AA Screening:

A screening for appropriate assessment shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.

The test at stage 1 AA Screening is that:

The competent authority shall determine that an appropriate assessment of a proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.

The test at stage 2 (Appropriate Assessment) under section 177V of the Planning and Development Act 2000 as amended, is:

Whether or not the proposed development, individually or in-combination with other plans or projects would adversely affect the integrity of a European site having regard to the European Site's conservation objectives.

The Purpose of this document

This document provides for the screening for appropriate assessment of a proposed Large Scale Residential Development on a site at Blessington, Co. Wicklow, to enable the competent authority to determine whether or not it is likely to have significant effects on any European sites, individually or in combination with other plans and projects, having regard to the site's conservation objectives. This report provides the necessary information to allow Wicklow County Council to carry out this screening.

About OPENFIELD Ecological Services

OPENFIELD Ecological Services is headed by Pádraic Fogarty who has worked for 25 years in the environmental field and in 2007 was awarded an MSc from Sligo Institute of Technology for research into Ecological Impact Assessment (EcIA) in Ireland. Since its inception in 2007 OPENFIELD has carried out numerous EcIAs for Environmental Impact Assessment Reports, and Screening Reports for Appropriate Assessment in accordance with the EU Habitats Directive, as well as individual planning applications. Pádraic is a full member of the Institute of Environmental Management and Assessment (IEMA).

Methodology

The methodology for this screening statement is clearly set out in a document prepared for the Environment DG of the European Commission entitled 'Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC' (EC, 2021).

In accordance with this guidance, the following methodology has been used to produce this screening statement:

Step 1: Management of the Natura 2000 site
This determines whether the project is necessary for the conservation management of the site in question.

Step 2: Description of the Project
This step describes the aspects of the project that may have an impact on the Natura 2000 site.

Step 3: Identify which Natura 2000 sites may be affected by the plan or project
This process identifies the conservation aspects of the Natura 2000 sites within the zone of influence of the project. This is done through a literature survey and consultation with relevant stakeholders – particularly the National Parks and Wildlife Service (NPWS).

Step 4: Assess whether likely significant effects can be ruled out in view of the site's conservation objectives
All potential effects are identified including those that may act alone or in combination with other projects or plans. Using the precautionary principle, and through consultation and a review of published data, it is normally possible to conclude at this point whether potential impacts are likely. Deficiencies in available data are also highlighted at this stage. Assessing whether an effect is significant or not must be measured against the conservation objectives of the Natura site in question.

If this analysis shows that significant effects are likely then a full AA will be required.

The steps are compiled into a screening matrix, a template of which is provided in Appendix II of the EU methodology.

Reference is also made to guidelines for Local Authorities from the Department of the Environment, Heritage and Local Government (DoEHLG, 2009) as well as 'Appropriate Assessment Screening for Development Management' (Office of the Planning Regulator, 2021).

A full list of literature sources that have been consulted for this study is given in the References section to this report while individual references are cited within the text where relevant.

Screening Template as per Annex 2 of EU methodology:

This project is not necessary for the management of the site and so Step 1 as outlined above is not relevant.

Brief description of the project

The proposed development principally comprises the construction of a mixed-use development with a gross floor area of 23,219.1 square metres and ranging in height from 1 No. to 5 No. storeys that includes: 233 No. residential dwellings (24 No. 1-bed, 103 No. 2-bed, 94 No. 3-bed and 12 No. 4-bed), of which 185 No. are houses (103 No. 2-bed, 70 No. 3-bed and 12 No. 4-bed) and 48 No. are apartments/duplexes (24 No. 1-bed and 24 No. 3-bed); 36 No. 'later living' dwellings (12 No. 1-bed and 24 No. 2-bed), of which 12 No. are houses (all 2-bed) and 24 No. are apartments (12 No. 1-bed and 12No. 2-bed); a medical centre (224 sq m); a pharmacy (115 sq m); and a café (60 sq m).

The development also comprises: 2 No. multi-modal entrances/exits with junctions at Blessington Inner Relief Road to the north-west and the local street to the south-west; a new pedestrian/cycle crossing to the south-east at the local street; upgrades to the Blessington Inner Relief Road roundabout to the west, including pedestrian/cycle crossings; new pedestrian/cycle crossing at Blessington Inner Relief Road to the north-west; 341 No. car parking space; cycle parking; hard and soft landscaping including public open space, communal amenity space and private amenity space (as gardens, balconies and terraces facing all directions); boundary treatments; 3 No. sub-stations; bin stores; public lighting; PV arrays atop all dwellings; PV array, lift overrun and plant atop the 5-storey mixed-use building; and all associated works above and below ground.

The site location is shown in figures 1 and 2 while the proposed layout is given in figure 3.

It is planned to construct a residential development on the site in Blessington as previously described. This will include site clearance and a construction phase to include new wastewater and surface water drainage infrastructure and connection to electricity and wastewater networks.

The main phases of this project include:

- Site clearance including removal of waste material
- A construction phase using standard building materials
- Construction will include a new surface water drainage infrastructure and connection to electricity and wastewater networks.
- An operation phase to which will see the development occupied.

Figure 1 – Site location (red circle) (from www.npws.ie) showing proximity to nearby Natura 2000 sites.

The development site is not located within or directly adjacent to any Natura 2000 sites (SAC or SPA). This part of Co. Wicklow is on the edge of Blessington town centre and is composed of land uses associated with buildings, roads and other built development. Recent and historic aerial photography shows that the development site itself has been in agricultural use until relatively recently, but new built development has emerged to the south and north-west. It is located east of a relatively new distributor road while housing developments can be found to the north and south.

A site visit was carried out for a previous development application on April 3rd 2019. This was up-dated with field surveys on January 9th and April 24th 2023. These showed that the development site is a large field of **dry meadow – GS2**. This is predominantly composed of rough grasses such as Cock's-foot *Dactylis*

glomerata, Timothy *Phleum pratense* and Creeping Bent *Agrostis stolonifera* along with typical grassland plants such as Clovers *Trifolium sp.,* Thistles *Cirsium sp.* and Creeping Buttercup *Ranunculus repens.*

To the north-west there is a patch of **wet grassland – GS4**, which is lower in elevation to the rest of the site and drains towards the Deerpark Stream. There are occasional Reed Canary-grass *Phalaris arundinacea,* with abundant Point Spear-moss *Calliergonella cuspidata* and Soft Rush *Juncus effussus* as well as Lesser Tussock-sedge *Carex diandra* and saplings of Grey Willow *Salix cinerea.* However, it was not wet underfoot during any survey and, as it is sloping ground there was no standing water.

The northern boundary is characterised by a **hedgerow – WL1** with Hawthorn *Crataegus monogyna,* Elder *Sambucus nigra* and Ivy *Hedera helix.* Further to the west of this hedgerow, this line becomes a tall **treeline – WL2** with Ash *Fraxinus excelsior* and Oak *Quercus sp.* The treeline is accompanied by a broad **drainage ditch – FW4.** Vegetation in this ditch consists of Water-cress *Nasturtium officinale* and (in April 2024) floating patches of the green alga *Clodophora sp.* This joins the Deerpark Stream, which follows the site boundary to the very north-west and is culverted under the distributor road. There are no plants which are listed as alien invasive under Schedule 3 of SI 477 of 2011.

Habitats on the development site can be broadly described as providing few resources for local wildlife although the treeline and hedgerow are of local biodiversity value. There are however no habitats which are listed on Annex I of the Habitats Directive.

The January 2024 survey was undertaken during the optimal period for surveying wintering birds. No wetland, wading or wintering birds were recorded. The lands are not suitable for regularly occurring populations either bird species which is listed as a qualifying interest of the Poulaphouca Reservoir SPA.

Inert construction and demolition waste will be removed by a licenced contractor and disposed of in accordance with the Waste Management Act.

Currently there is no attenuation of storm water and this is likely to be absorbed in soil. The Deerpark Stream flows into the Poulaphouca Reservoir and so is within the catchment of the River Liffey. The reservoir, which is designated as an SPA, can be found approximately 420m to the east as the crow flies. In accordance with the Greater Dublin Strategic Drainage Study this project will incorporate sustainable drainage systems (SUDS). Surface water run-off from roofs and driveways will discharge to a surface water sewer via attenuation storage tanks, flow control devices, swales, bioretention rain gardens, tree pits, permeable paving and oil/grit interceptors. In this way surface water quantity and quality will be maintained at a ‘greenfield’ standard. Attenuated surface water will ultimately enter the River Liffey via the Deerpark Stream.

SUDS are standard measures which are included in all development projects and are not included here to reduce or avoid any effect to a Natura 2000 site. This is confirmed in the judgment recently issued from the ECJU (Case C-

721/21, Eco Advocacy CLG v An Bord Pleanála) which confirms that where standard measures are included in the application they cannot be considered as mitigation in an AA context.

Foul and surface drainage infrastructure will be separated. Foul effluent from the proposed development will be sent to the wastewater treatment plant for Blessington which is licenced by the EPA to discharge treated effluent to the River Liffey (licence no.: D0063-01). Emissions in 2023 from the plant were fully in compliance with emission limit values set under the Urban Wastewater Treatment Directive. The Annual Environmental Report (AER) for that year – the most recent available - indicates plant has a design capacity 9,000 PE (population equivalent) and both mean and maximum loadings are well within this limit. The plant was recently upgraded to accommodate for population expansion.

Monitoring of the receiving water (the River Liffey) is carried out at points both upstream and downstream of the outfall point. The AER states that "the discharge from the wastewater treatment plant does not have an observable impact on the water quality. The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status."

Fresh water supply for the development will be via a mains supply. This originates in the Poulaphouca Reservoir.

There are no point air emissions from the site while some dust and noise can be expected during the construction phase.

Figure 2 – Indicative site boundary showing proximity to the Poulaphouca Reservoir SPA to the south-east (from www.epa.ie).

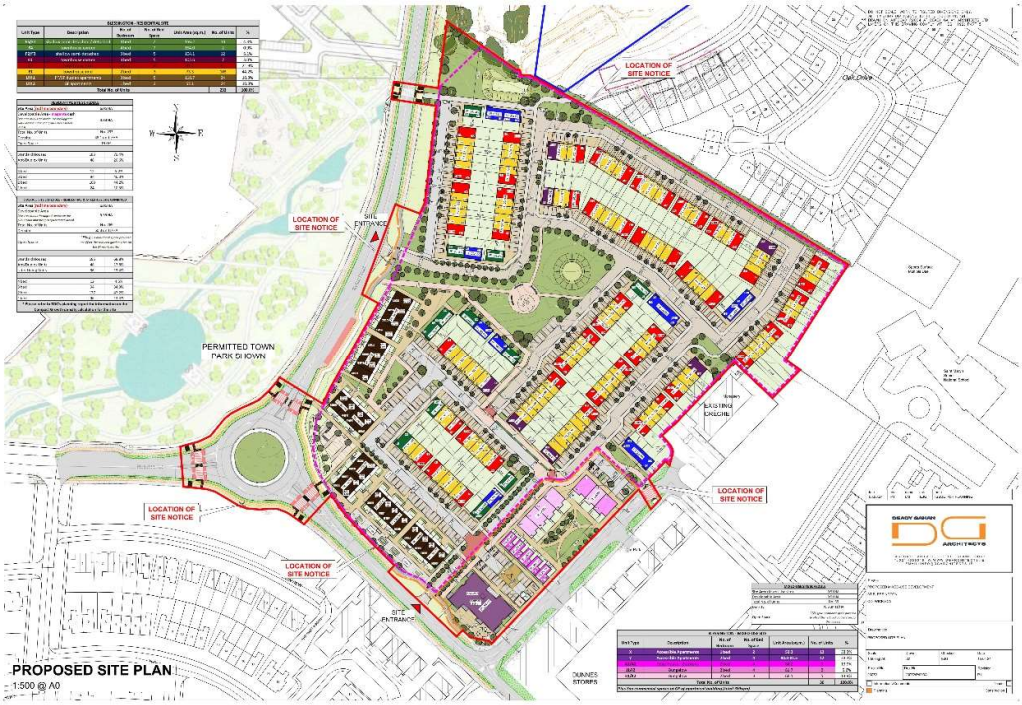

Figure 3 –Overview of the proposed development

Brief description of Natura 2000 sites

In assessing the zone of influence of this project upon Natura 2000 sites the following factors must be considered:

- Potential impacts arising from the project
- The location and nature of Natura 2000 sites
- Pathways between the development and the Natura 2000 network

There is no prescribed radius to determine which Natura 2000 sites should be examined in the AA Screening process and this depends upon the zone of influence of the project. An arbitrary radius of 15km is sometimes used and number of Natura 2000 sites fall within this radius. These are shown in figure 4.

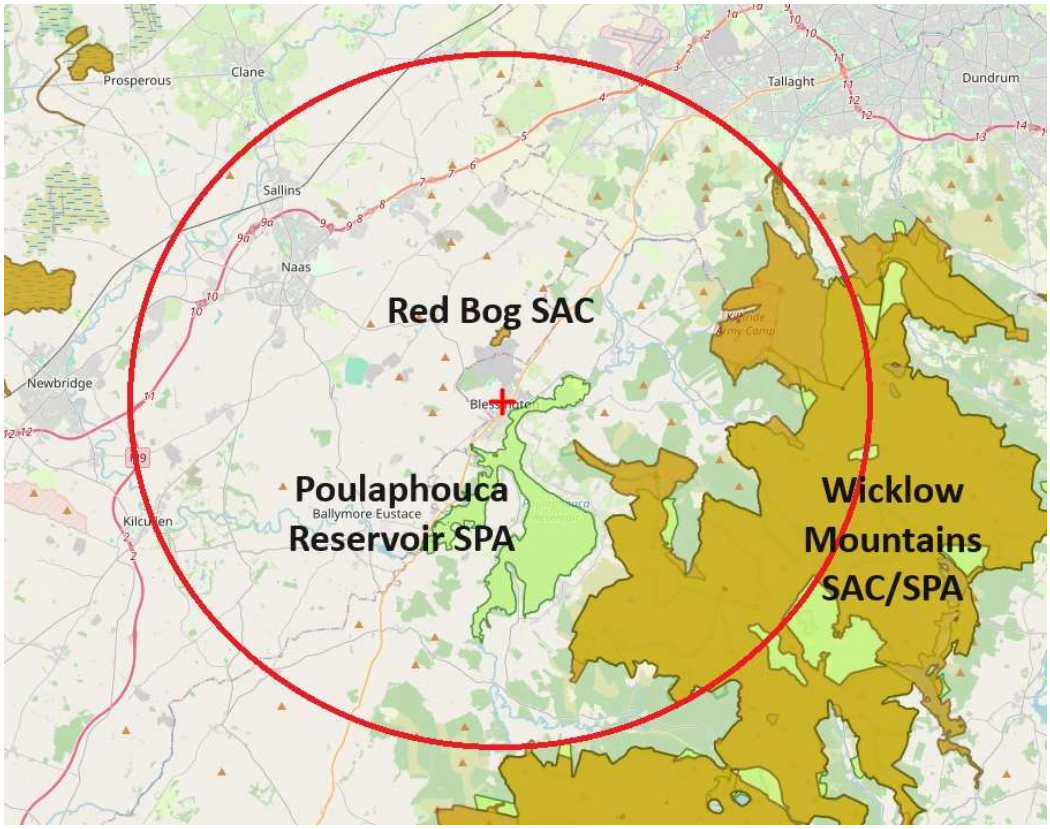

Figure 4 – Development site location (red cross) and Natura 2000 sites within an approximate 15km radius (from www.epa.ie).

It has already been stated that the site is not located within or directly adjacent to any Natura 2000 site. The nearest such area is the **Poulaphouca Reservoir SPA (site code: 4063)** which is located approximately 420m to the east of the development site at their closest points.

The **Poulaphouca Reservoir SPA** is located along the River Liffey behind a dam which was created in 1944. Its 'features of interest', i.e. the reasons why the reservoir warrants the SPA designation, include the Greylag Goose *Anser anser* and the Lesser Black-backed Gull *Larus fuscus*. The following descriptions are taken from the *Bird Atlas 2007-2011* (Balmer et al., 2013).

- **Greylag Goose.** Wintering Greylag Geese are very scattered in Ireland and occur on both coastal in inland sites. Their population has expanded greatly in their more northerly ranges (Iceland and Scotland) and this has coincided with losses elsewhere.
- **Lesser Black-backed Gull.** The wintering range of this distinctive gull has expanded in Ireland by 55% since the early 1980s while breeding colonies have similarly increased.

At an all-Ireland level both the Greylag Goose (wintering) and Lesser Black-backed Gull (breeding & wintering) are of medium conservation concern (amber listed, Gilbert et al., 2021).

Generic conservation objectives only are available for this SPA (NPWS, 2022).

Wicklow Mountains SAC & SPA (site codes: 2122 & 4040)
Wicklow Mountains is a large area and is designated as both an SAC and SPA as well as being a National Park. It is an upland area underlain with granite and is an important amenity and recreational area, as well as being of high conservation value. Its qualifying interests are shown in table 1 while its 'features of interest' are given as Merlin *Falco columbarius* (breeding) and Peregrine *Falco peregrinus* (breeding).

Table 1 – Qualifying interests for the Wicklow Mountains SAC (site code: 4040)

Habitats	Status
Active Blanket bog	Bad
Atlantic wet heath	Bad
European dry heath	Bad
Old oak woodland	Bad
Siliceous rocky slopes	Inadequate
Calcareous rocky slopes	Inadequate
Siliceous scree	Inadequate
Alpine and Boreal heath	Bad
Natural dystrophic lakes	Inadequate
Oligotrophic lakes	Inadequate
Species rich Nardus grassland	Bad
Calaminarian Grassland	Inadequate
Otter	Favourable

- **Active Blanket Bog (7130)** This is a very widespread habitat in Ireland found on uplands and lowlands along the Atlantic seaboard. Active blanket bog is peat forming, principally indicating the presence of Sphagnum sp. mosses but also other species. Degraded bog, where there is now forestry or bare peat, are excluded as they are not considered 'active'.
- **Atlantic wet heath (4010)** This is a heather dominant habitat that is intermediate between dry heath and blanket bog, and is frequently found in association with these two. Grazing and trampling by sheep is identified as the greatest threat to the status of the habitat but non-native invasive species such as Rhododendron and the moss *Campylopus introflexus* also impact negatively upon the habitat.
- **Dry heath (4030)**: This is a community of heather shrubs that occurs on well-drained, acidic, nutrient-poor mineral or peaty soils. Pressures on this habitat arise from high levels of sheep grazing, as well as afforestation, mining and quarrying. Unregulated burning is also identified as an important threat to the structure of this habitat.
- **Alpine and Boreal Heath (4060)** This habitat occurs on exposed mountain tops with acid substrate where stunted growths of heather are found. It is also found in the Burren, Co. Clare at low altitudes.
- **Siliceous Scree (8110)** This is a mountainous habitat characterised by expanses of shattered siliceous rock from small, mobile stones to stable boulders. Vegetation is sparse and frequently dominated by moss or lichen communities.
- **Calcareous or Siliceous Rocky Slopes (8210 & 8220)** These are vertical or near vertical slopes of calcareous or siliceous rock with cracks and fissures that are home to unique communities of plants. Climate change is considered to be the greatest threat where specialist arctic-alpine plants are to be found.
- **Upland Oligotrophic lakes (3130).** These are naturally low nutrient status lakes that in Ireland are associated with expanses of blanket bog. They are threatened by eutrophication (excessive input of nutrients) and peatland drainage.
- **Dystrophic lakes (3160)** These are naturally low oxygen, nutrient poor, acid lakes that occur in association with peatland habitats. They have low species diversity but some of these species are uniquely associated with this habitat.
- **Camalinarian Grassland (6130).** This unusual grassland community is found in Ireland on the sites of previous extraction works such as old mines. Certain bryophyte and vascular plants, including some notable rarities, thrive in conditions of high heavy metal concentrations, such as copper, lead or zinc.
- **Otter (1355)** This aquatic mammal lives its entire life in and close to wet places, including rivers, lakes and coastal areas. They will feed on a wide variety of prey items. Despite local threats from severe pollution incidents and illegal fishing, its population is considered stable and healthy, and so is assessed as being of 'good' status.

Generic conservation objectives only are available for this SPA (NPWS, 2022).

Site specific conservation objectives have been published for the SAC (NPWS, 2017) and are summarised as:

Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) (3110)
Habitat area stable or increasing, no decline in habitat distribution, typical species present and in good condition, vegetation composition correctly distributed and in good condition, Maintain appropriate natural hydrological regime necessary to support the habitat; Restore appropriate lake substratum type, extent and chemistry to support the vegetation; restore water transparency; Restore the concentration of nutrients in the water column to sufficiently low levels to support the habitat and its typical species; Restore appropriate water quality to support the habitat, including high chlorophyll a status; Maintain appropriate water quality to support the habitat, including high phytoplankton composition status; Restore/maintain trace/absent attached algal biomass (<5% cover) and high phytobenthos status; Maintain high macrophyte status; Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the habitat, subject to natural processes; Restore/maintain appropriate water colour to support the habitat;

Restore/maintain appropriate organic carbon levels to support the habitat; Restore/maintain appropriate turbidity to support the habitat; Maintain the area and condition of fringing habitats necessary to support the natural structure and functioning of habitat 3110.

Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea (3130)
Habitat area stable or increasing, no decline in habitat distribution, typical species present and in good condition, vegetation composition correctly distributed and in good condition, Maintain appropriate natural hydrological regime necessary to support the habitat; Restore appropriate lake substratum type, extent and chemistry to support the vegetation; restore water transparency; Restore the concentration of nutrients in the water column to sufficiently low levels to support the habitat and its typical species; Restore appropriate water quality to support the habitat, including high chlorophyll a status; Maintain appropriate water quality to support the habitat, including high phytoplankton composition status; Restore/maintain trace/absent attached algal biomass (<5% cover) and high phytobenthos status; Maintain high macrophyte status; Maintain appropriate water and sediment pH, alkalinity and cation concentrations to support the habitat, subject to natural processes; Restore/maintain appropriate water colour to support the habitat; Restore/maintain appropriate organic carbon levels to support the habitat; Restore/maintain appropriate turbidity to support the habitat; Maintain the area and condition of fringing habitats necessary to support the natural structure and functioning of habitat 3130.

European Wet Heaths (4010)
Habitat area stable or increasing subject to natural processes; no decline in habitat distribution; maintain soil nutrient status within natural range; maintain vegetation composition and structure (including negative indicator species and absence of burning); less than 10% disturbed/bare ground.

European Dry Heaths (4030)
Habitat area stable or increasing subject to natural processes; no decline in habitat distribution; maintain soil nutrient status within natural range; maintain vegetation composition and structure (including negative indicator species and absence of burning); less than 10% disturbed/bare ground.

Alpine and Boreal Heaths (4060)
Habitat area stable or increasing subject to natural variations; no decline in habitat distribution; maintain vegetation composition in a favourable status (including non-native and negative indicator species); less than 10% disturbed/bare ground; indicators of local distinctiveness maintained.

Calaminarian grasslands of the Violetalia calaminariae (6130)
No decline in habitat area subject to natural processes; no decline in habitat distribution; Maintain adequate open ground; Maintain high copper (Cu) levels in soil; Maintain low and open vegetation; Maintain diversity and populations of metallophyte bryophytes.

Species-rich Nardus grasslands (6230)
No decline in habitat area subject to natural processes; no decline in habitat distribution; Maintain soil nutrient status within natural range; Maintain variety of vegetation communities, subject to natural processes; Number of positive indicator species present at each monitoring stop is at least seven; At least two high quality indicator species for base rich examples of the habitat and at least one for base-poor examples of the habitat; Species richness at each monitoring stop at least 25; Cover of non-native species less than or equal to 1%; Cover of negative indicator species individually less than or equal to 10% and collectively less than or equal to 20%; Cover of Sphagnum species less than or equal to 10%; Cover of Polytrichum species less than or equal to 25%; Cover of shrubs, bracken (Pteridium aquilinum) and heath collectively less than or equal to 5%; Forb component of forb:graminoid ratio is 20- 90%; Proportion of the sward between 5cm and 50cm tall is at least 25%; Cover of litter less than or equal to 20%; Cover of disturbed bare ground less than or equal to 10%; Area of the habitat showing signs of serious grazing or disturbance less than 20m²; No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat.

***Blanket bogs* (7130)**
Area stable or increasing, subject to natural processes; No decline, subject to natural processes; Maintain soil nutrient status within natural range; At least 99% of the total Annex I blanket bog area is active; Natural hydrology unaffected by drains and erosion; Maintain variety of vegetation communities, subject to natural processes; Number of positive indicator species present at each monitoring stop is at least seven; Cover of bryophytes or lichens, excluding Sphagnum fallax, at least 10%; Cover of each of the potential dominant species less than 75%; Total cover of negative indicator species less than 1%; Cover of non-native species less than 1%; Cover of scattered native trees and shrubs less than 10%; Less than 10% of the Sphagnum cover is crushed, broken and/or pulled up; Last complete growing season's shoots of ericoids, crowberry (Empetrum nigrum) and bog-myrtle (Myrica gale) showing signs of browsing collectively less than 33%; No signs of burning in sensitive areas, into the moss, liverwort or lichen layer or exposure of peat surface due to burning; Cover of disturbed bare ground less than 10%; Area showing signs of drainage from heavy trampling, tracking or ditches less than 10%; Less than 5% of the greater bog mosaic comprises erosion gullies and eroded areas; No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat.

Siliceous scree (8110)
Area stable or increasing, subject to natural processes; No decline, subject to natural processes; Maintain soil nutrient status within natural range; Cover of bryophytes and non-crustose lichen species at least 5%; Proportion of vegetation composed of negative indicator species less than 1%; Proportion of vegetation composed of non-native species less than 1%; At least one positive indicator species present in vicinity of each monitoring stop in block scree; Total cover of grass species and dwarf shrubs less than 20%; Total cover of bracken (Pteridium aquilinum), native trees and shrubs less than 25%; Live leaves of forbs and shoots of dwarf shrubs showing signs of grazing or browsing collectively less than 50%; Ground disturbed by human and animal paths, scree running, vehicles less than 10%; No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat.

Calcareous rocky slopes with chasmophytic vegetation (8210)
Area stable or increasing, subject to natural processes; No decline, subject to natural processes; Maintain soil nutrient status within natural range; Number of ferns and Saxifraga indicators at each monitoring stop is at least one; Number of positive indicator species at each monitoring stop is at least three; Proportion of vegetation composed of non-native species less than 1%; Total cover of bracken (Pteridium aquilinum), native trees and shrubs less than 25%; Live leaves of forbs and shoots of dwarf shrubs showing signs of grazing or browsing collectively less than 50%; No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat

Siliceous rocky slopes with chasmophytic vegetation (8220)
Area stable or increasing, subject to natural processes; No decline, subject to natural processes; Maintain soil nutrient status within natural range; Number of ferns and Saxifraga indicators at each monitoring stop is at least one; Number of positive indicator species at each monitoring stop is at least three; Proportion of vegetation composed of non-native species less than 1%; Total cover of bracken (Pteridium aquilinum), native trees and shrubs less than 25%; Live leaves of forbs and shoots of dwarf shrubs showing signs of grazing or browsing collectively less than 50%; No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat

Old sessile oak woods (91A0)
No decline in native tree cover; variety of native species present; negative indicator species absent, i.e. Beech *Fagus sylvatica,* Rhododendron *Rhododendron ponticum* and Cherry Laurel *Prunus laurocerasus.*

Otter
No significant decline in distribution; no significant decline in terrestrial/estuarine/freshwater/lake habitat; no significant decline in couching sites or holts; no decline in available fish biomass;

Red Bog, Kildare SAC (site code: 0397)
According to the NPWS, this SAC "is located 3km north of the village of Blessington in east Co. Kildare, close to the boundary with Co. Wicklow. It comprises a wetland complex of lake, fen and bog situated in a hollow between ridges of glacially-deposited material and underlain by rocks of Ordovician age."

It is designated for a single qualifying interest, transition mires (habitat code: 7140) which is assessed nationally as 'bad' and 'deteriorating'.

Site-specific conservation objectives have been set (NPWS, 2019) and can be summarised as:

Transition mires – (7140)
Habitat area stable or increasing subject to natural variations; no decline in habitat distribution; maintain ecosystem function with regard to soil nutrients, peat formation, hydrology/water levels flow patterns and water quality; Maintain variety of vegetation communities, subject to natural processes; Maintain adequate cover of typical vascular plant and bryophyte species; Native negative indicator species at insignificant levels; Cover of non-native species less than 1%; Area showing signs of drainage from heavy trampling, tracking or ditches less than 10%; Cover of disturbed bare ground less than 10%; No decline in distribution or population sizes of rare, threatened or scarce species associated with the habitat; maintain features of local distinctiveness, subject to natural processes

Where only generic conservation objectives have been published by the NPWS these are stated as:

To maintain or restore the favourable conservation condition of the Annexed species for which the SPA has been selected.

In a generic sense 'favourable conservation status' of a habitat is achieved when:

• its natural range, and area it covers within that range, are stable or increasing, and
• the specific structure and functions which are necessary for its long - term maintenance exist and are likely to continue to exist for the foreseeable future, and
• the conservation status of its typical species is favourable.

While the 'favourable conservation status' of a species is achieved when:
• population dynamics data on the species concerned indicate that it is maintaining itself on a long - term basis as a viable component of its natural habitats, and
• the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
• there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long - term basis (NPWS, 2018).

Pathway Analysis

This project will not result in any direct loss of habitat within the boundary of any SAC/SPA. Figures 1 & 2 show the development location in relation to the SAC/SPA boundaries. The nearest such area is the Poulaphouca Reservoir, which lies 420m to the east at its closest point.

There is no terrestrial, surface or direct pathway between the development site and any Natura 2000 site.

Hydrological pathways lead to the Deerpark Stream and this flows in a south-westerly direction, entering the Poulaphouca Reservoir SPA south of Blessington. Following the flow of this watercourse the distance to the SPA is c.2.6km, while it is culverted under roads and housing along this route.

There are no direct or indirect, terrestrial or hydrological pathways to any other Natura 2000 site.

In summary, there are potential pathways for effects to arise to the Poulaphouca Reservoir SPA only. These pathways are hydrological in nature only.

Data collected to carry out the assessment

A series of site visits confirmed that habitats on the development site are not associated with the qualifying interests associated with the Poulaphouca SPA.

The EU's Water Framework Directive (WFD) stipulates that all water bodies were to have attained 'good ecological status' by 2015 or, with some exceptions, by 2027 at the latest. Blessington and the River Liffey were originally located within the Eastern River Basin District. In 2009 the first River Basin Management Plan (RBMP) was published to address pollution issues and included a 'programme of measures' which must be completed. In 2019 a second RBMP was published and this identified 190 priority areas for action. The catchment of the Poulaphouca Reservoir was highlighted as an 'area for restoration'. A third RBMP is due for publication in 2024.

Water quality in the Poulaphouca reservoir assessed as 'good status' in terms under the WFD for the 2016-21 reporting period. The Deerpark Stream (water body code: IE_EA_09L010400) is also 'good' status. These classifications indicate that ecological status is of an insufficient standard to meet the requirements of the WFD. This is due to its nutrient status. Measures must therefore be taken in the coming years to address existing problems and any new developments within the catchment must not contribute to the pollution loading. These data are taken from www.epa.ie.

The site synopsis report for Poulaphouca Reservoir indicated a peak mean between 1995-2000 in Greylag Goose numbers of 701 individuals (NPWS, 2014). Mean numbers have since fallen to 155 (over the seasons from 2005/06 – 2012/13; BirdWatch I-Webs counts[1]).

The Natura 2000 'standard data form' published by the NPWS states:

"The site is of national importance for its population of *Anser anser*, which is one of the largest in the country. The site provides the main roost for the birds, with feeding mostly on improved grassland outside of the site. A range of other waterfowl species occur in relatively low numbers, including *Cygnus cygnus*, *Anas Penelope* and *Bucephala clangula*. The reservoir attracts roosting gulls during winter, most notably a large population of *Larus fuscus*, which in Ireland is rare in winter away from the south coast."

The population of Lesser Black-backed Gulls at this location was estimated by NPWS at 65.

There is no evidence that water quality is implicated in changes to bird numbers at Poulaphouca Reservoir while water quality in any case is currently unpolluted.

While the qualifying interests of the Poulaphouca Reservoir (Greylag Goose & Lesser Black-backed Gull) are predominantly associated with wetlands,

[1] https://f1.caspio.com/dp.asp?AppKey=f4db3000060acbd80db9403f857c

Greylag Goose is known from agricultural land while Lesser Black-backed Gull is known to utilise inland sites for winter feeding and/or roosting (Balmer et al., 2013). Agricultural lands are favoured due to short-cropping of grass or tillage operations that expose invertebrate prey. The grasslands of the development site do not fall into these categories and are not suitable for regularly occurring populations of either species.

The Assessment of Significance of Effects

Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.

In order for an effect to occur there must be a pathway between the source (the development site) and the receptor (the SAC or SPA). Where a pathway does not exist an impact cannot occur.

The development site is not located within, or adjacent to, any SAC or SPA.

Habitat loss
The development site is approximately 420m from the boundary of the Poulaphouca Reservoir SPA. Because of this significant distance separating the two areas there is no pathway for loss or disturbance of habitats other semi-natural habitats that may act as ecological corridors for important species associated with the qualifying interests of the reservoir.

Habitat disturbance/Ex-situ effects
The development site was surveyed during the optimal period for wintering/wetland birds in 2024. No such bird species was recorded. Data presented already in this report shows that there is no evidence to point to the habitats present on the development lands being of significance for either Greylag Goose or Lesser Black-backed Gulls.

In summary, there is no evidence that the development lands are of significance to bird species listed as qualifying interests of Natura 2000 sites, or specifically the Poulaphouca Reservoir SPA while habitats on the development site are not of value for these species.

The site is considered too far from the Poulaphouca Reservoir, and with no direct line of sight, so that negative effects to wintering birds from visual disturbance cannot occur.

No significant ex-situ effects to Natura 2000 sites are likely to arise from this source.

Hydrological effects
There is a pathway from the site via surface and wastewater water flows to Poulaphouca Reservoir via the Blessington wastewater treatment plant and surface water.

- **Wastewater**

The Blessington wastewater treatment plant has been recently upgraded and there is no evidence that discharges are having an effect upon water quality in Poulaphouca Reservoir, which is assessed as 'good status'. Declines in Greylag Geese since the 1990s meanwhile may be due to "a northerly redistribution of the Icelandic wintering population" (Balmer et al., 2013).

- **Surface water**

The integration of standard SUDS measures into the project design will ensure that no changes will occur to the quantity or quality of surface water run-off. These are not mitigation measures in an AA context.

No significant effects to Natura 2000 sites are likely to arise from this source.

- **Pollution during construction**

During the construction phase some sediment may enter water courses, entrained in rain run-off. However, this is not significant given the temporary nature of this phase and given that sediment is not a significant water pollutant in lakes (unlike rivers where it can foul fish spawning beds). Furthermore, the distance to the SPA, following the course of the Deerpark Stream, is c.2.6km. Any pollutant will settle out of the water column well in advance of reaching the lake. In the unlikely event of pollution reaching the lake, there is no evidence to suggest this can have any effect on qualifying interests of the SPA when measured against its qualifying interests.

Abstraction

Evidence suggests that abstraction is not affecting the conservation objectives for Greylag Geese or Black-headed Gulls at the Poulaphouca Reservoir. Nationally the Greylag Goose has undergone a significant increase over 30 years in its wintering population in Ireland. The Bird Atlas 2007-11 shows that there has been a decrease in the Poulaphouca numbers however. This source suggests that the decline, which also occurred in a number of other sites in Ireland, "may be linked with a northerly redistribution of the Icelandic wintering population" (Balmer et al., 2013).

No effects are likely to arise to the Poulaphouca Reservoir SPA arising from this project.

Are there other projects or plans that together with the project or plan being assessed could affect the site?

Eventual implementation of the WFD will result in continued improvements to water quality throughout the catchment of the River Liffey. Environmental water quality can be impacted by the effects of surface water run-off from areas of hard standing. These impacts are particularly pronounced in urban areas and can include pollution from particulate matter and hydrocarbon residues, and downstream erosion from accelerated flows during flood events.

In March 2005 the Greater Dublin Drainage Study (GDDS) was published as a policy document designed to provide for drainage infrastructure to 2030. Because this development will be fully compliant with the GDDS there will be no negative impact to surface water quality.

Development in Blessington is planned for through the Wicklow County Development Plan 2022-2028. Within the Blessington Local Area Plan 2013-2019, identified the subject lands for residential development. This plan was subject to screening for Appropriate Assessment and this concluded that significant effects to Natura 2000 sites would not occur through its implementation.

AA of the Wicklow County Development Plan concluded that adverse effect to the integrity of Natura 2000 sites would not arise given the mitigation measures that are to be implemented.

This development can be seen in combination with similar residential developments in the Blessington areas, including directly to the north where a development by Cairn Homes (Sorrel Wood) has recently been completed (Ref. Ref.: 20/1146). Cairn Homes also recently received grant of permission from Wicklow County Council for 329 residential units and extension to the relief road. This scheme (Reg. Ref. 23/689) is currently on appeal to ABP.

There are no projects which can act in combination with this development which can give rise to significant effect to Natura areas within the zone of influence.

Conclusion and Finding of No Significant Effects

No significant effects will arise from this project to the Poulaphouca Reservoir SPA or any Natura 2000 site.

In carrying out this AA screening, mitigation measures have not been taken into account. Standard best practice construction measures which could have the effect of mitigating any effects on any European Sites have similarly not been taken into account.

On the basis of the screening exercise carried out above, it can be concluded that the possibility of any significant impacts on any European Sites, whether arising from the project itself or in combination with other plans and projects, can be excluded on the basis of the best scientific knowledge available.

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