
Screening for Appropriate Assessment

Proposed residential development at
Burgage More, Blessington, Co. Wicklow

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Executive Summary

This *Screening for Appropriate Assessment* report has been prepared by NM Ecology Ltd on behalf of Wicklow County Council (the applicant), as part of a planning application for a site at Burgage More in Blessington. The proposed development will involve the construction of 106 new residential units.

In accordance with their obligations under the *European Communities (Birds and Natural Habitats) Regulations 2011* (SI 477/2011), Wicklow County Council must assess whether the proposed development could have 'likely significant effects' on any Natura 2000 sites. This document provides supporting information to assist the local authority with an Appropriate Assessment screening exercise, including: a description of the proposed development, details of its environmental setting, a map and list of Natura 2000 sites within the potential zone of impact, and consideration of potential source-pathway-receptor links.

A potential groundwater pathway to the *Poulaphouca Reservoir* SPA was considered, but not found to be feasible. No pathways to this or any other Natura 2000 sites were identified. Therefore, we conclude that the proposed development will not cause direct or indirect impacts on any Natura 2000 sites, and thus that Appropriate Assessment is not required.

1 Introduction

1.1 Background to Appropriate Assessment

Approximately 10% of the land area of Ireland is included in the European Network of Natura 2000 sites, which includes Special Protection Areas (SPAs) to protect important areas for birds, and Special Areas of Conservation (SACs) to protect a range of habitats and species. Legislative protection for these sites is provided by the *European Council Birds Directive (79/409/EEC)* and *E.C. Habitats Directive (92/43/EEC, as amended)*, which are jointly transposed into Irish law by the *European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477/2011, as amended)*.

Regulation 42 (1) states that: “*Screening for Appropriate Assessment of a plan or project for which an application for consent is received [...] shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on [any Natura 2000 sites].*” To ensure compliance with this regulation, planning authorities must screen all planning applications for potential impacts on Natura 2000 sites. Supporting information may be requested from the applicant to assist with this process.

This document provides background information to assist the planning authority with a *Screening for Appropriate Assessment* exercise for the proposed development. It includes a description of the proposed development, a review of the site’s environmental setting, details of Natura 2000 sites within the potential zone of impact, an appraisal of *source-pathway-receptor* relationships, and an assessment of potential impacts.

1.2 Statement of authority

This report was written by Nick Marchant, the principal ecologist of NM Ecology Ltd. He has an MSc in Ecosystem Conservation and Landscape Management from NUI Galway and a BSc in Environmental Science from Queens University Belfast. He is a member of the Chartered Institute of Ecology and Environmental Management, and operates in accordance with their code of professional conduct.

He has thirteen years of professional experience, including ten years as an ecological consultant, one year as a local authority biodiversity officer, and two years managing an NGO in Indonesia. He provides ecological assessments for developments throughout Ireland and Northern Ireland, including wind farms, infrastructural projects (roads, water pipelines, greenways, etc.), and a range of residential and commercial developments.

1.3 Methods

This report has been prepared with reference to the following guidelines:

- *Appropriate Assessment of Plans and Projects in Ireland* (Department of the Environment, Heritage and Local Government, 2009)
- *OPR Practice Note PN01: Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator 2021)
- *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4), E.C., 2002*
- *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal* (Chartered Institute of Ecology and Environmental Management, 2019)

In accordance with Section 3.2 of *Appropriate Assessment of Plans and Projects in Ireland*, a screening exercise comprises the following steps:

1. Description of the project and local site characteristics
2. Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives
3. Assessment of potential impacts upon Natura 2000 sites, including:
 - Direct impacts (e.g. loss of habitat area, fragmentation)
 - Indirect impacts (e.g. disturbance of fauna, pollution of surface water)
 - Cumulative / 'in-combination' effects associated with other concurrent projects
4. Screening Statement with conclusions

A desk-based study was carried out using data from the following sources:

- Plans and specifications for the proposed development
- *A Report for the purposes of Appropriate Assessment Screening* prepared by Moore Group in April 2019
- *A Winter Bird Survey Report* prepared by MKO consultants in 2021
- Qualifying interests / conservation objectives of Natura 2000 sites from www.npws.ie
- Bedrock, soil, subsoil, surface water and ground water maps from the Geological Survey of Ireland webmapping service (dcenr.maps.arcgis.com), the National Biodiversity Data Centre (<http://maps.biodiversityireland.ie/>), and the Environmental Protection Agency web viewer (gis.epa.ie/EPAMaps/)
- The *Wicklow County Development Plan 2016 - 2022*, and details of permitted or proposed developments from the local authority's online planning records

Desktop data from internet resources was accessed in May and June 2021, and a site inspection was carried out on 26 May 2021.

2 Description of the Project

2.1 Environmental setting

Site location and surroundings

The proposed development site (hereafter referred to as the Site) is located in a rural setting to the south of Blessington town. It currently consists of a single field of improved grassland surrounded by treelines..

The northern and eastern boundaries of the Site adjoin similar agricultural fields. The western boundary is marked by Burgage More Road, and the southern boundary by residential gardens and a horse-training facility. The broader surroundings consist mainly of agricultural land, low-density housing, and Poulaphouca Reservoir.

Geology and soils

The Site is underlain by coarse greywacke & shale, which is a poor aquifer. Subsoils are limestone gravel, and soils are a fine loamy drift with siliceous stones.

Hydrology

There are no watercourses in the vicinity of the Site, nor any drainage ditches around the margins of the field. The closest watercourse is an unnamed stream located approx. 600 m to the north-west. The main surface water feature in the area is the Poulaphouca Reservoir (also known as Pollaphouca or Blessington Lake), which is approx. 250 m east of the Site. It is an active reservoir that supplies drinking water to the Dublin area.

Under the Water Framework Directive status assessments 2013 – 2018, Poulaphouca Lake is of Good status.

2.2 Description of the proposed development

The proposed development will consist of 106 no. residential units, ranging from one-bedroom to three-bedroom units. The primary access point will be from Burgage More road, and it will lead to paved internal roads and parking spaces. Communal outdoor space will be provided. Most of the boundary trees will be retained and incorporated into the development, but some will be felled for safety reasons.

Foul water will be discharged to a local authority foul sewer on Burgage More road and conveyed to the Blessington Waste Water Treatment Works. Surface water runoff from roofs and paved surfaces will be discharged to a soakaway.

2.3 Other nearby developments (potential in-combination effects)

The Site is not zoned as part of the *Wicklow County Development Plan 2016 – 2022*. Live and recently approved planning applications in the vicinity of the Site were reviewed on the online planning records of Wicklow County Council (DCC), but none were found.

3 Description of Natura 2000 sites

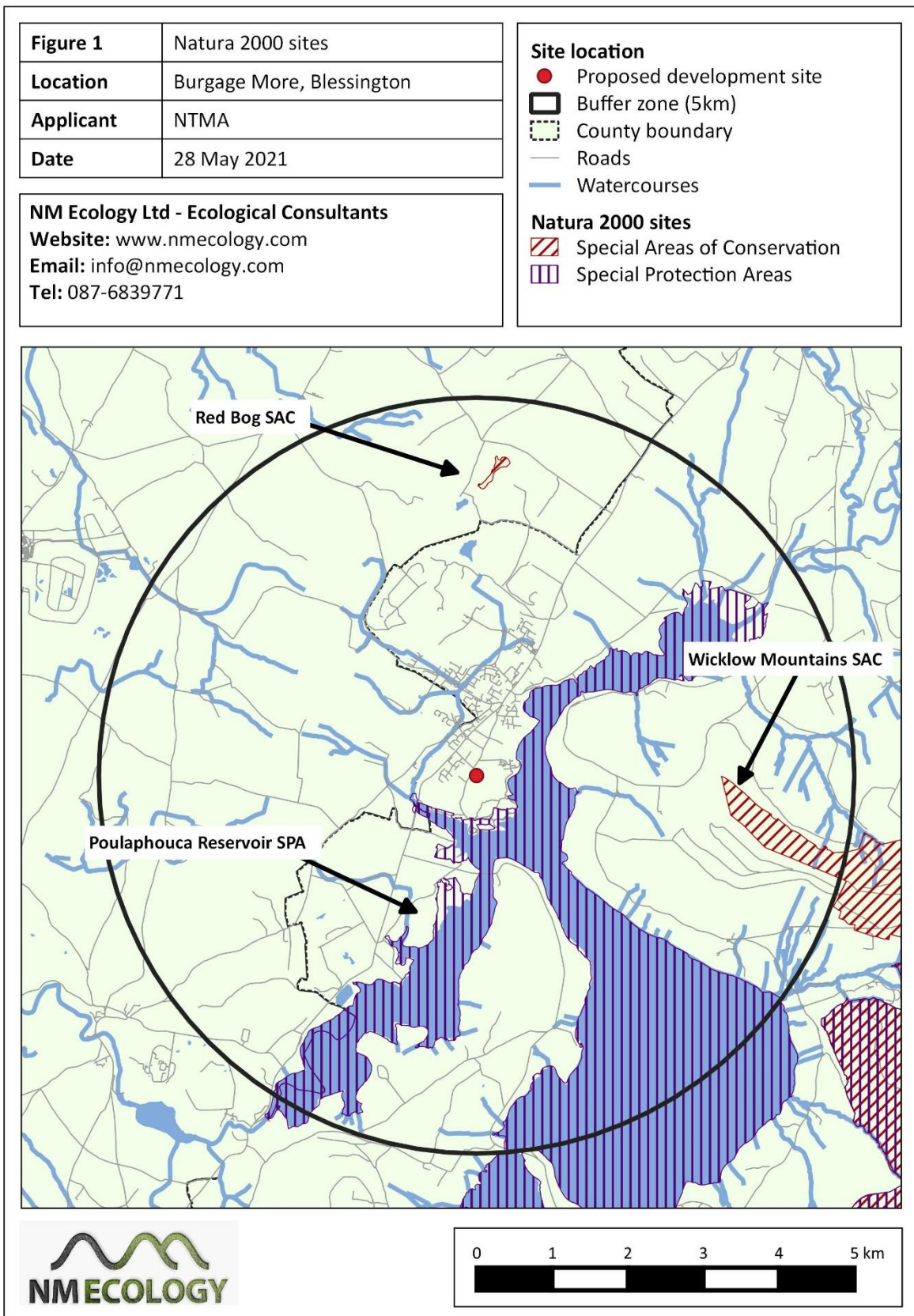
3.1 Identification of Natura 2000 sites within the zone of influence

The proposed development is not located within or adjacent to any Natura 2000 sites. Potential indirect impacts were considered within a potential zone of influence of 5km¹. The locations of relevant sites are shown in Figure 1, and details are provided in Table 1.

Table 1: Natura 2000 sites within 5 km of the Site

Site Name	Distance	Reasons for designation
Poulaphouca Reservoir SPA (4063)	0.25 km east	Habitats: freshwater lake and nearby agricultural grasslands Special conservation interests: greylag goose, lesser black-backed gull
Wicklow Mountains SAC (2122)	3.3 km east	Annex I Habitats: oligotrophic waters of sandy plains, natural dystrophic lakes and ponds, northern Atlantic wet heaths with <i>Erica tetralix</i> , European dry heaths, Alpine and Boreal heaths, Calaminarian grasslands of the <i>Violetalia calaminariae</i> , Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas, blanket bogs, siliceous scree of the montane to snow levels, calcareous rocky slopes with chasmophytic vegetation, siliceous rocky slopes with chasmophytic vegetation, old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles Annex II Species: otter
Red Bog SAC (397)	3.8 km north	Annex I Habitats: transition mires and quaking bogs Annex II Species: none

¹ We consider a potential zone of influence of 5km to be proportionate for the Site due to the moderate scale of the proposed development and its suburban / rural setting.



3.2 Conservation objectives

The standard conservation objective for all SACs and SPAs in Ireland is “to maintain or restore the favourable conservation condition of the qualifying interests for which the SAC / SPA has been selected”. In addition, the Department of Culture, Heritage and the Gaeltacht have produced detailed conservation objectives for the Natura 2000 sites listed in Table 1. They can be viewed on the website of the National Parks and Wildlife Service (<http://www.npws.ie/protected-sites>), but are not reproduced here in the interests of brevity.

3.3 Identification of potential pathways for indirect impacts

Indirect impacts can occur if there is a viable pathway between the source (the Site) and the receptor (the habitats and species for which a Natura 2000 site has been designated). The most common pathway for impacts is surface water, e.g. if a pollutant is washed into a river and carried downstream into a Natura 2000 site. Other potential pathways are groundwater, air (e.g. airborne dust or sound waves), or land (e.g. flow of liquids, vibration). The zone of effect for hydrological impacts can be several kilometres, but for air and land it is rarely more than one hundred metres. An appraisal of potential pathways to the Natura 2000 sites in Table 1 is provided below.

The *Poulaphouca Reservoir* SPA is located approx. 250 m east of the Site. The SPA has been designated for an overwintering population of greylag geese, and a winter roost of lesser black-backed gull. There are no rivers, streams or drainage ditches linking the Site and the reservoir, so a pathway via surface water can be ruled out. Groundwater could potentially provide a pathway, considering that the soils are relatively well-drained. A pathway over land is not considered feasible due to the 250 m distance and the drainage capacity of underlying soils. Air can be ruled out as a pathway at this distance.

The *Wicklow Mountains* SAC is located 3.3 km east of the Site. It has been designated to protect a range of upland habitats including heath, bog, lakes, scree and woodland, as well as otters. It is located at a higher elevation than the Site and in a different river catchment, so pathways via surface water and ground water can be ruled out. Pathways via land or air can also be ruled out due to distance.

The *Red Bog* SAC is located 3.8 km north of the Site. It was designated to protect a wetland complex of lake, fen and bog (referred to jointly as transition mire habitat). It is located in a separate river catchment, so a pathway surface water can be ruled out. Pathways via groundwater, land and air can be ruled out due to distance.

In summary, a potential pathway via groundwater was identified between the Site and the *Poulaphouca Reservoir* SPA. This will be assessed in greater detail in Section 4.

3.4 Suitability for SPA bird species

The Site is approx. 250 m from the *Poulaphouca Reservoir SPA*, which has been designated for overwintering populations of greylag goose and lesser black-backed gull. The population of greylag geese is of note, because this species typically feeds on agricultural land, particularly cereal stubble and grassland. The following is noted in the site synopsis for the *Poulaphouca Reservoir SPA*: “*Poulaphouca Reservoir is of national importance for its Greylag Goose population, which is one of the largest in the country. The site provides the main roost for the birds, with feeding occurring mostly on improved grassland outside of the site.*” In theory the agricultural grassland within the Site could provide potential feeding habitat for this species, so further desktop and field assessments were carried out.

A previous Appropriate Assessment screening report was carried out for the Site in 2019 by Moore Group. The following was stated in the report: “*Consultation with the NPWS for the existing Blessington Greenway by the author established that the main concentration of Geese is located in the area of Threecastles to the north of the lake. Thus, disturbance impacts are unlikely in this area of Burgage More.*” The Threecastles area is located 4.5 km north-east of the Site.

In order to confirm the presence or absence of SPA bird species from the Site, a series of bird surveys were carried out by MKO Planning and Environmental Consultants between January and March 2021. Six surveys were carried out in total, each comprising a Vantage Point survey and a Transect Survey to search for goose droppings. No greylag geese were observed during any of the surveys, and no goose droppings were found during transect surveys. Lesser black-backed gulls were observed on three occasions (ranging from 1 – 6 birds on each occasion) flying within 500m of the Site, but not passing directly over the Site. Therefore, we conclude that the Site is of no importance for either of the qualifying interests of the *Poulaphouca Reservoir SPA*. A full outline of methods and results is provided in the *Winter Bird Survey Report 2021* that accompanies this application.

Based on the desktop and field data presented above, we conclude that the Site is of no importance for either of the qualifying interests of the *Poulaphouca Reservoir SPA*.

4 Assessment of potential impacts

4.1 Direct impacts

The Site is not located within or adjacent to any Natura 2000 sites, so there is no risk of habitat loss, fragmentation or any other direct impacts.

4.2 Indirect impacts

Potential changes in water quality (construction phase)

A potential pathway via groundwater was identified in Section 3.3 between the Site and the *Poulaphouca Reservoir* SPA. The bedrock underlying the Site has low permeability (it is a poor aquifer), but the soils appear to be well-drained. This suggests that rainfall (or other surface water) at the Site will percolate to ground and flow laterally through the subsoil / soil. The *Poulaphouca Reservoir* SPA is located approx. 250 m to the east of the Site, and is at a lower altitude, so it is possible that groundwater will seep in that direction.

However, it is important to note that any waterborne pollutants that percolate to ground during the construction of the proposed development would be filtered by 250 m of intervening soils prior to reaching the reservoir. Most pollutants would be filtered to negligible concentrations within that distance. Even if there was a large-scale pollution event within the Site, it is expected that only trace quantities of pollutants would reach the reservoir.

The qualifying interests of the SPA are greylag geese and lesser black-backed gulls. It has been established in Section 4.4 that greylag geese feed primarily on agricultural lands outside the SPA, not on aquatic vegetation. Lesser black-backed gulls are omnivorous species, whose diet is described on the Birdwatch Ireland website as “*a wide variety of prey including fish from the sea, waste from fisheries, rubbish from landfill sites, insects in flight, young birds and food from other birds*”. On this basis, neither species appears to feed exclusively on plants or animals in the reservoir, and thus neither would be at risk of ingesting pollutants generated during the construction of the proposed development.

Overall, considering that any pollutants generated during construction works would be filtered prior to reaching the reservoir, and that aquatic organisms within the reservoir are not the primary sources of nutrition for the SPA’s qualifying interests, it is not considered possible that any pollutants from the Site could negatively affect the qualifying interests of the SPA. Therefore, we conclude that the proposed development poses no risk of impacts on the *Poulaphouca Reservoir* SPA.

Potential changes in water quality (operational phase)

Foul water from the proposed development will be discharged to a local authority foul sewer and treated in the Blessington Waste Water Treatment Works (WWTW). The Annual Environmental Report and other licensing documents were reviewed on the EPA website. The existing WWTW has a PE of 6,000 and incorporates tertiary treatment. It is currently overloaded and not compliant with its Emission Limit Values. However, at the time of writing the plant is undergoing a substantial upgrade, which will increase its PE to 9,000, along with improvements to the primary treatment systems and aeration tanks. The upgrade will be complete before the

construction of the proposed development. Therefore, there is no evidence to suggest that foul water from the proposed development could have any impact on Natura 2000 sites.

During the operation of the proposed development, rainwater will either percolate to ground in green areas (the underlying soils are well-drained), or will be collected in gutters / drains and discharged to a soakaway. Rainwater is generally free of pollutants, and will not pose a pollution risk to the SPA or any other Natura 2000 sites.

4.3 Potential in-combination effects

No other live or approved planning applications were identified in the surrounding area that could potentially give rise to in-combination effects.

5 Conclusion of Stage 1: Screening Statement

In Section 3.2.5 of *Appropriate Assessment of Plans and Projects in Ireland* (NPWS 2010), it is stated that the first stage of the AA process can have three possible conclusions:

1. AA is not required

Screening, followed by consultation and agreement with the NPWS, establishes that the plan or project is directly connected with or necessary to the nature conservation management of the site.

2. No potential for significant effects / AA is not required

Screening establishes that there is no potential for significant effects and the project or plan can proceed as proposed.

3. Significant effects are certain, likely or uncertain

The project must either proceed to the second stage of the AA process, or be rejected.

Having considered the particulars of the proposed development, we conclude that this application meets the second conclusion, because there is no risk of direct or indirect impacts on any Natura 2000 sites. Therefore, with regard to Article 42 (7) of the *European Communities (Birds and Natural Habitats) Regulations 2011*, it can be excluded on the basis of objective scientific information following screening, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site. Therefore, we conclude that Appropriate Assessment is not required.

References

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