Specialist Report

R314020_App Ecol

Development	High performance rowing training centre including single storey boathouse, Burgage Moyle, Blessington, Co Wicklow.
Type of Application	Normal Planning Appeal- Remitted cased
Topic	Adequateness of scientific information for impact assessment of the proposed development on Greylag Geese, a Special Conservation Interest species of Poulaphouca Reservoir Special Protection Area. Specialist report to inform the Appropriate Assessment.
Ecologist/Scientist/Engineer	Maeve Flynn, BSc. PhD., MCIEEM
Planning Inspector	Karen Hamilton
Date	16/07/2025

Contents

1.0 Introduction

1.1. Scope of Report to Inspector

1.1.1. Case no. 314020 relates to the proposed development of a high-performance rowing training centre including a single storey boathouse rowing centre at Burgage Moyle, Blessington, Co Wicklow and Poulaphouca reservoir. This is a remitted case (302615-18) and in view of ecological issues raised, in particular implications for the Special Conservation Interest (SCI) species Greylag Goose (*Anser anser*) of Poulaphouca Reservoir Special Protection Area, the case was referred to the Inspectorate Ecologist.

1.1.2. This report to the Planning Inspector and available to the Commission is a written record of my examination and review of the Natura Impact Statement and associated appendices (August 2024) prepared by Cosicéim Consulting for Rowing Ireland in relation to the proposed Rowing Centre at Poulaphouca Reservoir as part of the consideration of the remitted planning appeal, pursuant to a request for further information under Section 131 and 132 of the Planning and Development Act (Amended). I have also taken relevant observations into account.

1.1.3. In my capacity of Inspectorate Ecologist with over 20 years professional experience with particular expertise in ornithology, I have the relevant expertise to provide a professional opinion as to the adequacy of the ecological information and the likely implications of the proposed development in view of the site-specific conservation objectives for Greylag Goose, an SCI of Poulaphouca Reservoir SPA.

1.1.4. This technical report does not comprise the Appropriate Assessment, rather it is focused on the consideration of one species, Greylag Goose, to assist the Inspector and the Commission in reaching clear precise and definitive findings to inform the Appropriate Assessment.

1.1.5. The SPA is also designated for Lesser Black Backed Gull (wintering only) and potential effects on this species are assessed in the Natura Impact Statement. The opportunistic and gregarious nature of this species combined with widespread use of many habitats makes it less vulnerable to disturbance and no significant issues were raised in relation to this species.

1.1.6. In this report I consider the following:

- Characteristics of the development: identification of risks for Greylag Geese
- Best available scientific information: soundness of technical content of the NIS including up to date survey information, and relevant publications related to wider trends for Greylag geese in Ireland
- Impact prediction: implications in view of the conservation objectives of Greylag Goose
- Mitigation measures: applicability and likely success
- Overall conclusion and recommendation to the Commission

1.2. Key guidance material

1.2.1. The documents have been reviewed with respect to the following current best practice guidance:

- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.3. Chartered Institute of Ecology and Environmental Management, Winchester
- DoEHLG (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, National Parks and Wildlife Service. Dublin
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC
- EC (2021) Assessment of plans and projects in relation to Natura 2000 sites. Methodological guidance on Article 6(3) and 6(4) of the Habitats Directive 92/43/EC

1.2.2. In addition, I make reference to the following document, NatureScot Research Report 1283[1]- Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species by authors Goodship, N.M. and

[1] NatureScot Research Report 1283 - Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species | NatureScot

Furness, R.W. (MacArthur Green) (2022). I attach the section relevant to Greylag Goose for the Commission at the end of this document.

2.0 Examination and Review of Natura Impact Statement (2024)

2.1. Expertise

2.1.1. The NIS was prepared by Ecologist Dr Niamh Burke of Cosicéim Consulting. I note that Dr Burke also prepared the previous iteration of NIS documents for the proposed rowing centre development. A comprehensive statement of professional competence is provided in Section 2.1 of the NIS which demonstrates her professional experience in academic research and consulting, and competence in the area of terrestrial and aquatic ecology. Bird surveys (wintering) were undertaken by Mr John Fox, whose experience in bird surveys is demonstrated having worked for BirdWatch Ireland, undertaking iWeBs surveys and a variety of survey work for consultancies.

2.2. Characteristics of the development

2.2.1. The proposed development is screened in for the need for Appropriate Assessment due to the likelihood of significant effects on one European Site, namely Poulaphouca Reservoir SPA which is designated for two wintering bird species Greylag Goose and Lesser Back-backed Gull.

Poulaphouca Reservoir SPA Site code 004063		
Species	**Conservation objective**	**Notes**
Greylag Goose	Restore favourable conservation condition	Designated for nationally important pop population with mean peak of 701 birds (1995/2000 period). Roost area at Threecastles and foraging areas are located agricultural land freshwater marsh Monitoring for the period 2012/2013- 2016/17 shows 78% population decline since the baseline (148 4 year mean peak). More recent data (Burke et al 2022) shows further decline in use of this area by this species.

Lesser Black-backed Gull	Maintain favourable conservation condition	Baseline surveys showed a winter population of 651 birds (1995-2000 period). Conservation objectives (NPWS 2024) note that there is insufficient data to generate a more recent population estimate (which has declined significantly). The closure of a number of landfill sites near Blessington is cited as a likely factor influencing the abundance of this species.

2.2.2. A full description of the proposed development is presented in application documents and in the Planning Inspectors report. As described in Section 3 of the NIS, the proposed development before the Commission is result of the consideration of a number of alternative locations and designs. It is stated that each option was considered in relation to the SPA designation with the aim of avoiding habitat loss and minimising disturbance. The recommendations of the National Parks and Wildlife Service (2011) were that *sites west of Blessington Lake where there is little/ no bird activity should be investigated or very strong mitigation measures put in place such as defined rowing schedules to ensure no pre-dawn rowing activity takes place in the Threecastles area*. The location of the proposed development site on the R758 east of the Baltyboys Bridge conforms to this recommendation, located at a distance of greater than 3 km from the Threescastles area. The physical development of the boat house, site access road, carparking and other ancillary structures and services will be located for the most part outside of the SPA boundary with shoreline overlap only and within an area dominated by conifer plantation. Approximately 0.3ha of conifer plantation will be removed to accommodate the boathouse and associated amenities.

2.2.3. The potential impact pathways from the construction and operational phase of the boathouse development including pollution resulting from site clearance and construction, drainage and waste management related emissions and disturbance of birds during the construction period are identified in the screening stage for AA and fully considered in view of the site specific conservation objectives with robust mitigation measures proposed to protect water quality (NIS 6.2) as part of the NIS (to inform AA) and in the Hydrological and Hydrogeological impact Assessment Report (JBA,2017).

2.2.4. The documentation provided illustrates that rowing has been taking place on Blessington lakes for up to 40 years. The current use of Blessington Lakes by 7 rowing clubs is described in a rowing activity report prepared by Rowing Ireland which outlines the annual levels of current activity. Rowing activity is constrained in the winter by daylight hours and greatest levels of activity are between the months of April to July, a period where no geese are present.

2.2.5. The degree to which the operational phase of the proposed new rowing centre would contribute to an increased use of Blessington Lakes from the current baseline is a key issue in the consideration of the remitted case. In consultation with the active clubs, Rowing Ireland provide an updated estimate of rowing activity which suggests that there is unlikely to be any overall increase in rowing activity. The NIS considers this report in detail as part of the assessment and includes consideration of other boating activities on the lake.

2.2.6. In summary, I consider that the location of boathouse and operational aspects of the proposed development have taken account of the ecological requirements of Greylag Geese throughout the design phase. The proposed boathouse is located at a distance of over 3km from the primary area of importance for the Goose population at Threecastles outside of a likely zone of influence of roosting or foraging geese as advised in nature conservations consultations. Current and future rowing activity patterns area a key consideration and existing constraints including winter rowing activity constrained to daylight hours with greatest levels of rowing occurring during April to July when geese are not present.

2.3. Best Available scientific information

2.3.1. The NIS (August 2024) provides updated scientific information from both desktop study and field surveys.

2.3.2. Site visits conducted in February and March 2023 and July 2024 confirmed that the habitats identified and evaluated in the initial baseline (2017) had not changed and the initial assessment remains valid. The updated NIS provides a comprehensive description of these habitats.

2.3.3. Wintering bird surveys were conducted monthly between November 2022 and March 2023. Vantage points were selected to provide surveyors coverage of the lake

including Baltyboys Bridge and Blessington Bridge and known areas for Greylag Geese roosting at Threecastles. While not precisely defined, the survey method aligns with standard wetland bird surveys including IWebs survey methodology. I am satisfied that based on the demonstrated professional experience and competence in wetland bird survey of Mr Fox that the survey approach was appropriate.

2.3.4. Over the 5 surveys conducted between November 2022 and March 2023, no sightings of Greylag Geese were recorded. An incidental recording of 25 Greylag Geese was supplied by NPWS (February 2023). As described in the NIS, this data trend aligns with the data collected as part of Greylag and Pink-footed Goose monitoring which is carried out as part of the Irish Wetland Bird Survey (IWeBS), delivered by BirdWatch Ireland under contract to the National Parks and Wildlife Service (Burke et al 2022)[2] and a summary table is presented below (emphasis added).

Table A1. Peak monthly counts at sites used by Icelandic Greylag Geese only (i.e. site not known to support feral birds) in the Republic of Ireland from 2017/18 to 2019/20. Annual peak counts in bold. -1 Indicates birds were present but not counted. See main text for caveats.

Flock	Site	Winter	J	A	S	O	N	D	J	F	M	A	M	J
Dundalk	0Z401 - Dundalk Bay	2017/18					111	**347**	100	50	100	100		
Dundalk	0Z401 - Dundalk Bay	2018/19				73	**517**		300	500	265			
Dundalk	0Z401 - Dundalk Bay	2019/20				71	**399**	100	340		100		4	
Rogerstown	0U407 - Rogerstown	2017/18							**10**					
Rogerstown	0U407 - Rogerstown	2018/19				2	**12**	11						
Rogerstown	0U407 - Rogerstown	2019/20							**30**					
Wicklow Icelandic	0U910 - Mountseskin/Gortlum	2019/20							**20**					
Wicklow Icelandic	0T198 - Poulaphouca Reservoir	2017/18					16		**96**		64			
Wicklow Icelandic	0T198 - Poulaphouca Reservoir	2018/19				**73**	64		2	3				
Wicklow Icelandic	0T198 - Poulaphouca Reservoir	2019/20					**8**							
Wicklow Icelandic	0T401 - North Wicklow Coastal Marshes	2017/18					128	150	**216**	210	140	15		
Wicklow Icelandic	0T401 - North Wicklow Coastal Marshes	2018/19					141	**204**	161	202	171		4	2
Wicklow Icelandic	0T401 - North Wicklow Coastal Marshes	2019/20				28	120	123	**170**	136	130			
River Suir	0M301 - River Suir Lower	2017/18					43		**216**					
River Suir	0M301 - River Suir Lower	2018/19					113	21		**228**	50			
River Suir	0M301 - River Suir Lower	2019/20					124	21	**238**	130	130			

2.3.5. I am satisfied that the NIS presents a comprehensive overview of the status and distribution and trends of Greylag Goose at Poulaphouca Reservoir, the wider Co. Wicklow area and national level trends. I draw the Commissions attention to the reporting in Burke *et al* (2022) which is the most recent summary of Greylag Geese in Ireland, see text box.

[2] Burke, B., Fitzgerald, N., Kelly, S. & Lewis, L.J. (2022) Greylag and Pink-footed geese in Ireland 2017/18-19/20. Irish Wetland Bird Survey (I-WeBS) Report. BirdWatch Ireland, Wicklow.

2.3.6. Overall, I am satisfied that the ecological information included in the updated NIS is adequate and up to date and represents the current best scientific knowledge of the field and the ecological methods are in accordance with good practice.

From Burke et al (2022) Greylag and Pink-footed geese in Ireland 2017/18- 19/20. Irish Wetland Bird Survey (I-WeBS) Report:

> Wicklow hosts both Icelandic Greylag geese and a population of feral birds. The Icelandic population uses sites in the north of the county, namely Poulaphouca Reservoir (0T198) and North Wicklow Coastal Marshes (0T401). Marked birds have been recorded at both sites within and between winters. The peak count at Poulaphouca during the study period was 96 birds in January 2018, with counts of up to 73 birds the following winter. When present, the geese almost exclusively use the Threecastles subsite (0T197). The very small numbers seen at this site in some midwinter months is possibly due to birds temporarily moving to nearby locations including Mountseskin/Gortlum (0U910) in Dublin. Depending on habitat availability, some birds may also locate to North Wicklow Coastal Marshes for extended periods. Numbers there are consistently higher through the winter, with regular counts of >120 and occasional counts in excess of 200 birds.
>
> Comparisons with annual peak counts in 2007/08 and previous years suggest decreased usage of Poulaphouca by Greylags in recent decades (Boland & Crowe 2008)[3].

2.4. Impact Prediction

2.4.1. Section 5.3 of the NIS provides an assessment of impacts on Poulaphouca SPA in view of the site-specific conservation objectives as defined by attributes and targets relevant to each bird species.

2.4.2. The potential for disturbance and displacement impacts that could undermine the targets set for achievement of the conservation objective to restore favourable conservation condition for Greylag Goose are dependent on the timing and location of rowing activity.

2.4.3. Any impact that could affect the winter spatial distribution of geese, cause significant disturbance, affect forage spatial distribution, affect roost or affect supporting habitat outside of the SPA would constitute and adverse effect.

2.4.4. It is clear from the examination of current rowing activity that there is limited overlap of high rowing activity in terms of timing, intensity and location with the Threecastles

[3] Boland, H. & Crowe, O. 2008. An assessment of the distribution range of Greylag (Icelandic-breeding & feral populations) in Ireland. Unpublished report. National Parks and Wildlife Service, Environment Agency Northern Ireland and BirdWatch Ireland report. Wicklow

area which is the traditional roost site for the SPA population. No aspect of the proposal will impact on or affect foraging within or outside of the SPA.

2.4.5. As identified in NIS Table 6.1, possible disturbance impacts could occur where lake usage timings coincide with areas when and where geese are present (namely Threecastles area).

2.4.6. In considering adequate distances to prevent disturbance from rowing activity on Greylag goose areas, section 6.4 of the NIS refers to a conservative and precautionary distance of 500-700m. In this respect I draw the Inspector and the Commissions attention to a NatureScot publication on disturbance distances of selected bird species[4]. This is an updated literature review of a document referenced in the NIS (Ruddock and Whitfield (2007) a review of disturbance distances in selected bird species). The NatureScot research report describes the likely sensitivity of Greylag geese to disturbance as **Medium**. The species generally shows more tolerance towards human disturbance compared with other geese species (in the UK). The recommended nonbreeding buffer zone distance is 200-600m. (Buffer zones indicate the potential range of distances to protect the majority of birds from human disturbance; for more precise disturbance distances on a focal species, each assessment should be carried out on a site-specific basis, which has been done in the consideration of the proposed rowing centre).

2.5. Mitigation measures

2.5.1. Successful integrated management and planning of rowing activity and routes requires spatiotemporal knowledge about the species needing protection and the activities. I consider that this knowledge has been demonstrated by the applicant as reported on in the NIS.

2.5.2. The principles of the mitigation hierarchy have been demonstrated throughout the development of the rowing centre with a focus on avoidance of important areas in the first instance. The location of the new boathouse is at a distance of over 3km

[4] NatureScot Research Report 1283 - Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species | NatureScot

from the Threecastles area and mid-lower sections of the lake will be used with more frequency over the current situation which is closer to Threecastles.

2.5.3. A rowing restriction is proposed north of Blessington Bridge with a rowing limited to south of the headland. This location is 750m from the Threecasles area and is further than the recommended nonbreeding buffer zone for Greylag Geese.

2.5.4. The rowing activity report has informed a rowing schedule designed in view of avoiding temporal and location specific impacts on Greylag Geese. Rowing does not and will not take place after dark. During the winter period there will be no rowing on Knockieran lake (closest to Threecastles) prior to 9 am and no rowing past the headland feature during this period.

2.5.5. Based on the information provided in the NIS, I consider that the proposed measured can be implemented and there is no uncertainty as to their likely effectiveness in preventing disturbance to Greylag geese when present at the SPA.

2.5.6. In combination effects are considered in NIS Section 6.6 and relevant plans and projects considered by the applicant including the development of a solar farm at Threecasles. The Blessington Greenway project has been refused planning permission and therefore is not relevant to the assessment. The NIS concludes that with the application of mitigation measures, no residual impacts are predicted that could combine with other non-significant effects to generate an adverse effect on the SPA. From the evidence presented I agree that this is a reasonable conclusion.

3.0 Conclusion

3.1. It is my professional opinion that the scientific information presented in the NIS and before the Commission conforms to the best available scientific knowledge required to undertake appropriate assessment.

3.2. The NIS and assessment therein confirms:

a) low numbers of Greylag Geese at Poulaphouca Reservoir and provides context of trends in the wider Wicklow area and nationwide,

b) the location of the boat house and rowing routes are outside of the zone of influence / disturbance areas of the traditional roost and foraging areas of Greylag Geese,

c) during the winter period when geese would be present, there is lower use of the reservoir by rowers and the timeframe is constrained by daylight and ESB regulations on use of the lake during hours of darkness.

d) measures proposed for management and restriction of routes in the Threecastles area to avoid encroachment on the most important Geese areas are implementable and the zone is inline with best sci information on disturbance distances of this species.

e) the magnitude of any likely increase in rowing activity has been addressed in a report prepared by the applicant. Any (moderate) increase in rowing activity from the current baseline would be during spring summer months when conditions on the lake are more favourable. This period is outside of the wintering season when Geese would traditionally come to the Reservoir. Therefore, any potential increase rowing activity during this time would not adversely affect the goose population.

f) In combination effects with other proposed projects and plans has been considered and no significant effects are predicted to arise.

3.3. From the information provided which I consider to be the best available scientific information, my examination and analysis of the NIS is that the proposed high performance rowing centre will not prevent or delay the conservation objectives of restoration of favourable conservation status of Greylag Goose or the maintenance of the favourable conservation status of Lesser Black-backed Gull at Poulaphouca Reservoir SPA and that no reasonable scientific doubt remains as to the absence of adverse effects on this European site.

Signed: 

Dr Maeve Flynn MCIEEM
Senior Ecologist (Inspectorate)

Appendix: NatureScot Research Report 1283 - Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species | NatureScot

Authors: Goodship, N.M. and Furness, R.W. (MacArthur Green) (2022) Disturbance Distances Review: An updated literature review of disturbance distances of selected bird species. NatureScot Research Report 1283.

Extract on Greylag Goose:

Greylag goose, *Anser Anser*

Conservation Status

UK: Amber List, Schedule 1 – Part II

European: Least Concern

UK status

Introduced/Resident Breeder, Winter Migrant

UK and Scottish population estimate

UK population = 47,000 breeding pairs, 230,000 individuals in winter (Woodward *et al*., 2020); Scottish population = at least 25,000 native/naturalised birds present all year round, with a further 85,000+ arriving from Iceland to winter in Scotland in the early 2000s (Forrester *et al*., 2012), although that number of migrants has decreased in recent years.

UK long-term trend

Population has increased considerably between 1981/84 – 2007-11, much of the increase has been of the resident population (Balmer *et al*., 2013).

AD/FID Quantitative disturbance distances

Greylag goose was not included in Ruddock and Whitfield (2007).

Breeding season:

Surveyor walking in a rural habitat in Denmark: Mean FID = 180m (n = 4); Min/Max FID = 180 to 180m (Díaz *et al*., 2021).

Surveyor walking in an urban habitat in Norway: Mean FID = 12.4 (n = 24); Min/Max FID = 6 to 20m (Díaz *et al*., 2021).

Surveyor walking in a rural habitat in Poland: FID = 77 (n = 1) (Díaz *et al*., 2021).

Surveyor walking in an urban habitat in Poland: Mean FID = 50.8 (n = 2); Min/Max FID = 49 to 52.4m (Díaz *et al*., 2021).

Nonbreeding season:

Surveyor walking in a wetland habitat in Denmark: Range of mean FID = 171 to 230m (n = 7 to 24) (Bregnballe *et al*., 2009).

MAD and/or Buffer zone Quantitative distances

No MAD or buffer zone available for greylag goose.

Ecology and non-quantitative disturbance responses

Greylag geese are widespread in the UK both during the breeding and nonbreeding seasons; three populations occur in the UK (native Scottish, reintroduced and Icelandic populations) but ranges now overlap to such an extent that it is impossible to separate them (Balmer *et al*., 2013). The resident British/Irish greylag goose population is now widespread throughout England (except the southwest and in north and southwest Wales) and Scotland (except the uplands and northeast); resident birds are sedentary, breeding and nonbreeding distributions are similar (Balmer *et al*., 2013). Resident birds breed near wetlands and occasionally on ledges of steep rocky slopes and tall heather, especially in Scotland (Snow and Perrins, 1998).

The Icelandic greylag goose population breeds in Iceland and winters in Britain (with smaller numbers wintering in Ireland, Norway and the Faeroe Islands); the majority of Icelandic birds winter in Scotland particularly in Orkney, Caithness and in east-central Scotland, with smaller numbers in southern Scotland, England and Wales (Balmer *et al*., 2013; Wernham *et al*., 2002). All greylag geese prefer foraging areas on low-lying agricultural land (Balmer *et al*., 2013), but this species will also forage on grasslands as well as fresh or saline shallow water areas (Snow and Perrins, 1998). Greylag geese show a strong preference for large, open fields that offer a clear view of potential predators (Newton and Campbell, 1973) although smaller fields may be used during the winter (see Hearn and Mitchell, 2004 for review).

Greylag geese generally show more tolerance towards human disturbance compared with other geese species present in the UK; birds on breeding grounds, roosting sites and in foraging areas may tolerate some degree of disturbance (Díaz *et al*., 2021; Hearn and Mitchell, 2004). However, this species will move away from areas that have high levels of human activity such as roads and human habitation. Keller (1991), found that overwintering greylag geese were heavily impacted by roads; in northeast Scotland, birds were not found within 100m of the nearest road and the median distance was 400m. In the Netherlands, Feige *et al*. (2008) found that this species will not breed or forage within a minimum distance of 100m of human buildings.

Likely sensitivity to disturbance = Medium

Quantitative information = Medium agreement & Limited evidence

Breeding season buffer zone = 200-600m

Nonbreeding season buffer zone = 200-600m

Greylag goose is assessed to have a medium sensitivity to human disturbance.

The maximum FID value recorded for greylag goose when approached by a pedestrian is a mean of 180m during the breeding season and a mean of 230m during the nonbreeding season.

In the UK, greylag goose has the potential to be disturbed on breeding grounds as well as on foraging and roosting grounds during the nonbreeding season. There are no published buffer zones for greylag goose, but from other studies on geese, a minimum buffer zone of 200-600m is suggested to protect breeding and nonbreeding birds from pedestrian disturbance.

Knowledge gaps

There are few published studies measuring AD/FID for greylag goose. Disturbance distance studies are required for a range of human activity for this species.