

Appropriate Assessment Stage 1: Screening

Proposed Variation to Zoning of Lands at Annahagh, Co. Monaghan



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1 Introduction

1.1. Background

Flynn Furney Environmental Consultants have been appointed to provide the information necessary to allow the competent authority to conduct an Article 6(3) Screening for Appropriate Assessment for the proposed variation to the zoning of lands at Annahagh, Co. Monaghan. A full description of the proposed plan variation is given in Section 2 below.

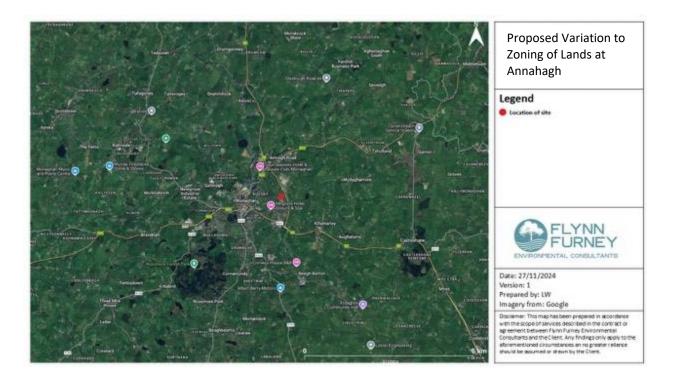


Figure 1 Location of Lands at Annahagh

Screening for Appropriate Assessment is required under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). This Appropriate Assessment Screening Report has been prepared in accordance with the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2021) and Managing Natura 2000 Sites: the



provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018) as well as the Department of the Environment's Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DoEHLG, 2010).

1.2. Relevant Legislation and Overall Screening Methodology

The methodology for this screening statement is set out in a document prepared for the Environment DG of the European Commission entitled 'Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC' (European Commission, 2019, amended 2021). This report and any contributory fieldwork were carried out in accordance with guidelines given by the Department of Environment, Heritage and Local Government (2009, amended 2010).

The process is given in Articles 6(3) and 6(4) of the Habitats Directive and is commonly referred to as 'Appropriate Assessments' (which in fact refers to Stage 2 in the sequence under the Habitats Directive Article 6 assessment). Article 6 of the Habitats Directive sets out provisions which govern the conservation and management of Natura 2000 sites. Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment:

"Any plan or project not directly connected with or necessary to the management of the (Natura 2000) site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implication 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."

Article 6(4) of the same directive states:

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative



solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

It is the responsibility of the proponent of the plan or project to provide the relevant information (ecological surveys, research, analysis etc.) for submission to the 'competent national authority'. Having satisfied itself that the information is complete and objective, the competent authority will use this information to screen the project, i.e. to determine if an AA is required and to carry out the AA, if one is deemed necessary. The competent authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned. The appropriate assessment process has four stages. Each stage determines whether a further stage in the process is required. If, for example, the conclusions at the end of Stage One are that there will be no significant impacts on the Natura 2000 site, there is no requirement to proceed further. The four stages are:

- 1. Screening to determine if an appropriate assessment is required.
- 2. Appropriate assessment
- 3. Consideration of alternative solutions
- 4. Imperative Reasons of Overriding Public Interest/Derogation

Table 1 The stages of AA

Stage 1: Screening for AA

The aim of screening is to assess firstly if the plan or project is directly connected with or necessary to the management of Designated Site(s); or in view of best scientific knowledge, if the plan or project,



individually or in combination with other plans or projects, is likely to have a significant effect on a Designated Site. This is done by examining the proposed plan or project and the conservation objectives of any Designated Sites that might potentially be affected. If screening determines that there is potential for significant effects or there is uncertainty regarding the significance of effects then it will be recommended that the plan or project is brought forward to the next stage of the AA process.

Stage 2: Appropriate Assessment

The aim of stage 2 of the AA process is to identify any adverse impacts that the plan or project might have on the integrity of relevant Designated Sites. As part of the assessment, a key consideration is 'in combination' effects with other plans or projects. Where adverse impacts are identified, mitigation measures can be proposed that would avoid, reduce or remedy any such negative impacts and the plan or project should then be amended accordingly, thereby avoiding the need to progress to Stage 3.

Stage 3: Assessment of Alternative Solutions

If it is not possible during Stage 2 of the AA process to conclude that there will be no adverse effects on site integrity, Stage 3 of the process must be undertaken which is to objectively assess whether alternative solutions exist by which the objectives of the plan or project can be achieved. Explicitly, this means alternative solutions that do not have adverse impacts on the integrity of a Designated Site. It should also be noted that EU guidance on this stage of the process states that, 'other assessment criteria, such as economic criteria, cannot be seen as overruling ecological criteria' (EC, 2002). In other words, if alternative solutions exist that do not have adverse impacts on Designated Sites; they should be adopted regardless of economic considerations. This stage of the AA process should result in the identification of the least damaging options for the plan or project.

Stage 4: Imperative Reasons of Overriding Public Interest (IROPI)/Derogation



This stage of the AA process is undertaken when it has been determined that a plan or project will have adverse effects on the integrity of a Designated Site, but that no alternatives exist. At this stage of the AA process, it is the characteristics of the plan or project itself that will determine whether or not the competent authority can allow it to progress. This is the determination of 'overriding public interest'. It is important to note that in the case of Designated Sites that include in their qualifying features 'priority' habitats or species, as defined in Annex I and II of the Directive, the demonstration of 'overriding public interest' is not sufficient and it must be demonstrated that the plan or project is necessary for 'human health or safety considerations'. Where plans or projects meet these criteria, they can be allowed, provided adequate compensatory measures are proposed. Stage 4 of the process defines and describes these compensation measures.

1.1 Appropriate Assessment Screening Report

This report provides stage one: screening for appropriate assessment. It aims to establish whether a plan or project is likely to have any significant effects on any Natura 2000 sites. The study is based on a preliminary impact assessment using both publicly available data and data collected during site visits and ecological surveys. This is followed by a determination of whether there is a risk that the effects identified could significantly impact any Natura 2000 sites, and if so, an AA is required. The need to apply the precautionary principle in making any key decisions in relation to the tests of AA has been confirmed by the European Court of Justice case law. Therefore, where significant effects are likely, possible or uncertain at the screening stage, AA will be required.

1.2 Reference Documents

The following relevant documents were considered in preparation of this report.



Table 2 Reference Documents

Name / Number	Description
Appropriate Assessment of Plans and	National guidance on Appropriate Assessment for planning
Projects in Ireland - Guidance for	authorities. Department of Environment, Heritage and Local
Planning Authorities	Government, (2010 revision)
	Circulars issued by the Department of Environment, Heritage
Appropriate Assessment under Article	and Local Government with guidance relating to Appropriate
6 of the Habitats Directive: Guidance	Assessment.
for Planning Authorities	Circular NPWS 1/10 & PSSP 2/10 (2010)
Assessment of Plans and Projects	The guidance within this document provides a non-mandatory
Significantly Affecting Natura 2000	methodology for carrying out assessments required under
sites: Methodological Guidance on the	Articles 6(3) and (4) of the Habitats Directive
Provisions of Article 6(3) and (4) of the	European Commission Environment Directorate-General, (2001
Habitats Directive 92/43/EEC	and updates April 2015 and September 2021).
	Publication to the Member States with an interpretation of
Managing Natura 2000 Sites: The	certain concepts in Article 6 of the Habitats Directive.
Provisions of Article 6 of the Habitats Directive 92/43/EEC	
Directive 32/43/ELC	EC Environment Directorate-General (2018)
Communication from the Commission	Publication relating to the use of the precautionary principle.
on the precautionary principle.	European Commission (2000)



1.3. Statement of Authority

Information provided and prepared for this report was compiled by ecologists from Flynn Furney Environmental Consultants. An earlier field assessment survey was undertaken by Jennifer McAree BSC, MSc MIEnvSCi, Erin McCrudden BSc, Billy Flynn BSc, MSc, CEnv and Lauren Woods BSc in September 2024. This report has been prepared by Billy Flynn and Lauren Woods.

2 Description of Proposed Work

2.1 Proposed Plan Variation

It is proposed to change the land use zoning for the subject lands in Annahagh, Monaghan Town from Strategic Residential Reserve to Industry, Enterprise, Employment to provide for new Industrial, Enterprise and Employment generating development.

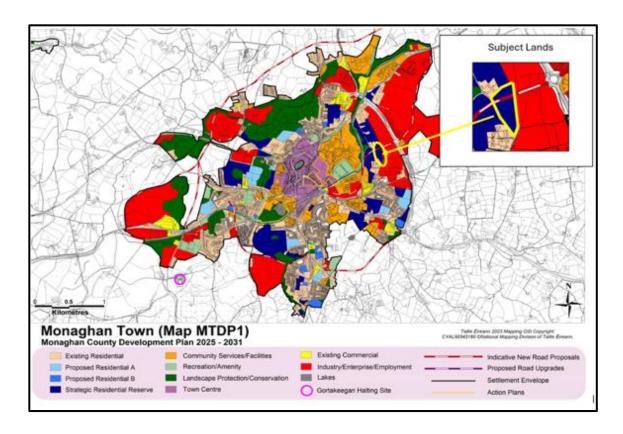


Figure 2 Land Use Zoning Pertaining to Subject Lands - Monaghan County Development Plan 2025-2031



2.2 Context

The subject lands at Annahagh are currently zoned as "Strategic Residential Reserve" as identified within Appendix 2. The zoning objective of Strategic Residential Reserve is "To protect lands that are considered strategic in location for future residential development". The principal permitted use on such lands is residential. Table 9.3 of the Development Plan, Development/Zoning Matrix, states that on lands zoned as "Strategic Residential Reserve", industrial uses both light and heavy, are not normally permitted. Section 9.1 of the Development Plan sets out an overall vision for the County settlements including how the sustainable and co-ordinated growth and development of the towns in the County can be shaped in a planned manner which will also act as a catalyst for the economic, physical, cultural, and environmental development of the towns. Objective MTSO 2 within Chapter 10 of the Development Plan seeks to ensure that a number of priorities for the town are delivered within the lifetime of the development plan including: "the development of the Industry, Enterprise and Employment lands at Annahagh and Tullyherim."

Section 10.7 of the Development Plan states that the provision of sufficient zoned Industry, Enterprise and Employment lands will provide certainty and clarity for all potential developers and encourage the location of new industries in the town thus helping to secure the provisions of Objective MTO 8 which seeks "To promote Monaghan Town as the key industrial and employment centre of the County in line with its 'Key Town' status as designated in the Northern and Western Regional Assembly Regional Spatial and Economic Strategy (NWRA RSES)."

It is therefore proposed to change the land use zoning for the subject lands in Annahagh, Monaghan Town from Strategic Residential Reserve to Industry, Enterprise, Employment to provide for new Industrial, Enterprise and Employment generating development.

As this is a variation to an existing plan, Monaghan County Council is required to carry out screening for Appropriate Assessment in order to assess any potential, likely significant effects of the proposed variation on any European Designated Sites.



3 Methodology

3.1 Desk Study

A desktop study was carried out as part of this screening process. This included a review of available literature on the site and its immediate environs. Sources of information included the National Parks and Wildlife Service databases on protected sites and species data, and from the Environmental Protection Agency on watercourses. Also reviewed were the Monaghan County Development Plan 2025-2031 and the Regional Spatial and Economic Strategy for the Northern and Western Region 2020-2032. Also included in the desk study were consultation responses from the Environmental Protection Agency, Meath County Council and the Department of Agriculture, Environment and Rural Affairs (NI).

3.2 Data Used to Carry Out the Assessment

The following sources of data were employed:

- Environmental Protection Agency (EPA) Appropriate Assessment Tool
- EPA Maps (to identify watercourses, hydrology and Natura 2000 site boundaries)
- NPWS protected species database and online mapping
- National Biodiversity Data Centre
- Inland Fisheries Ireland
- An Bord Pleanála's online database

3.3 SPR Model

This assessment was carried out with regard to the source-pathway-receptor (SPR) approach, a standard tool in environmental assessment. The SPR concept in ecological impact assessment relates to the idea that for the risk of an impact to occur, a source is needed (e.g. a development site); an environmental receptor is present (e.g. a lake); and finally, there must be a pathway between the source and the receptor (e.g. a watercourse linking the development site to the lake). Even though there might be a risk of an impact occurring, that does not necessarily mean that it will occur, and even if it does occur, it may not



be significant. Identification of a risk means that there is a possibility of ecological or environmental damage occurring, with the level and significance of the impact depending upon the nature and exposure to the risk and the characteristics of the receptor.

In this instance, the most relevant receptors are any relevant Natura 2000 sites with connectivity to the lands at Annahagh. These were considered during the desktop study stage of this screening assessment in order to assess the potential for significant effects upon their Qualifying Interests (QIs), Sites of Community Importance (SCIs) and Conservation Objectives (COs). This stage of the process is used to determine whether any of the Natura sites may be 'screened out'. That is, that they can be regarded as not being relevant to the process, having no potential to be significantly affected or impacted upon.

3.4 Field Survey

The field surveys were carried out in September 2024. Baseline ecological conditions were assessed. Habitats were classified according to Fossitt (2000). Where applicable, the habitat types and species usage were recorded (Smith et al. 2011; Scannell and Synnott, 1987; Wyse Jackson et al. 2016). Habitats were classified and dominant plant species were noted according to the guidelines given by the JNCC (2010) with reference to Smith et al. (2011) & Scannell and Synnott (1987).

4 Results

4.1 Desk Study

4.1.1 Surface Water

The nearest watercourse to the site is the Monaghan Blackwater River (Blackwater (Monaghan) River_040 WFD waterbody, European Code: IE_NB_03B010800, approx. 80m to the east of the site which flows south of Combilift. This river is locally known as the Cromghlinn river. This river achieved a 'Poor' WFD status. The closest WFD lake waterbody is Lambs Lough (European Code: IE_NB_03_90) which had an overall status of 'Moderate' between 2016 and 2021. The Ulster Canal also exists approx. 500 m to the west of the site.





Figure 3 Surface water features surrounding the site

4.1.1.1 Ground Water

Groundwater vulnerability is a term used to represent the natural ground characteristics that determine the ease with which infiltrating water and potential contaminants may reach groundwater in a vertical or sub-vertical direction. The site falls within the Monaghan Town WFD Ground Waterbody (European Code: IEGBNI_NB_G_012 which achieved an overall WFD status of 'Good' between 2016 and 2021 .The Groundwater vulnerability for the site is 'Low'.

4.1.2 Species Records

Records from the National Biodiversity Data Centre (NBDC) for the lands at Annahagh and surrounding area are presented below in **Appendix 1**.

4.1.3 Invasive Species Records

A search of records for invasive non-native species on the National Biodiversity Data Centre was carried



out as part of this project. The table below shows the First Schedule and Non-First Schedule Invasive species recorded on the NBDC database within 1km of the lands at Annahagh.

Table 3 Invasive species recorded on NBDC within 1km of the site

Invasive Species	Invasiveness	First Schedule	Recorded on Site
New Zealand Flatworm (Arthurdendyus triangulatus)	High	No	No
Canadian Waterweed (<i>Elodea</i> canadensis)	High	Yes	No
Japanese Knotweed (Fallopia japonica)	High	Yes	No
Jenkins' Spire Snail (Anguispira jenkinsiana)	Medium	No	No
Keeled Slug (Tandonia budapestensis)	Medium	No	Unknown, 10 km accuracy
Eastern Grey Squirrel (Sciurus carolinensis)	High	Yes	Unknown, 1 km accuracy
European Rabbit (<i>Oryctolagus</i> cuniculus)	Medium	No	No
Feral Ferret (Mustela furo)	High	No	No

4.2 Field Study Results

4.2.1 Habitats Assessment and Description

This section describes the habitats found within and surrounding the project site.

The site featured a range of habitats, including Improved Agricultural Grassland (GA1), Scrub (WS1), Mixed Broadleaved Woodland (WD1), Grassy Verge (GS2), Treelines (WL2), Hedgerows (WL1), areas of Recolonising Bare Ground (ED3), Non-Native Shrub (WS3) and Buildings and Artificial Surfaces (BL3).



The improved agricultural grassland was characterised by a variety of species, including Perennial Ryegrass (Lolium perenne), Red Clover (Trifolium pratense), Creeping Bent (Agrostis stolonifera), Curly Dock (Rumex crispus), Creeping Buttercup (Ranunculus repens), Rushes (Juncus spp.), Ragwort (Jacobaea vulgaris), Meadowsweet (Filipendula ulmaria), Bird's-Foot Trefoil (Lotus corniculatus), Ribwort Plantain (Plantago lanceolata), Broad-Leaved Dock (Rumex obtusifolius), Redshank (Persicaria maculosa), Goldenrod (Solidago virgaurea), Brooklime (Veronica beccabunga), and Watercress (Nasturtium officinale). Waterlogged areas supported a higher proportion of wet grassland species, with Rushes being particularly dominant.

A grassy verge ran between treelines near a derelict building in the southern part of the site. It consisted of species such as Perennial Ryegrass, False Oat Grass (*Arrhenatherum elatius*), Buttercup species (*Ranunculus* spp.), Cleavers (*Galium aparine*), Common Nettle (*Urtica dioica*), Creeping Thistle (*Cirsium arvense*), and Wood Avens (*Geum urbanum*). Scrub habitat occurred in scattered patches around the site, dominated by Bramble (*Rubus fruticosus agg.*) and Young Willow (*Salix* spp.).

A small section of mixed broadleaved woodland existed to the west of the site, consisting of mature Ash (*Fraxinus excelsior*), Horse Chestnut (*Aesculus hippocastanum*), and Birch (*Betula* spp.). The understorey was primarily composed of Common Nettle, Creeping Thistle, and Herb-Robert (*Geranium robertianum*).

Recolonising bare ground was found in the eastern part of the site, featuring species such as Silverweed (*Potentilla anserina*), Yorkshire Fog (*Holcus lanatus*), and Common Nettle where round bales were being stored. Treelines and hedgerows bordered much of the fields on-site and were rich in native species, including Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), Bramble, Ash, Bush Vetch (*Vicia sepium*), Wild Strawberry (*Fragaria vesca*), and Hedge Bindweed (*Calystegia sepium*). The treeline habitats featured several mature Wild Cherry trees (*Prunus avium*), along with mature Black Poplars (*Populus nigra*). Notable Aspen trees (*Populus tremula*) were also present on-site, as well as Crab Apple trees (*Malus sylvestris*) and Guelder Rose (*Viburnum opulus*). Other species included Elder (*Sambucus nigra*), Dog Rose (*Rosa canina*), Ivy (*Hedera helix*), and Hart's-Tongue Fern (*Asplenium scolopendrium*).

The buildings and artificial surfaces habitat included roads, pathways, and a derelict building in disrepair



located in the southern part of the site. Photos of the habitats present are available in

Appendix 2.



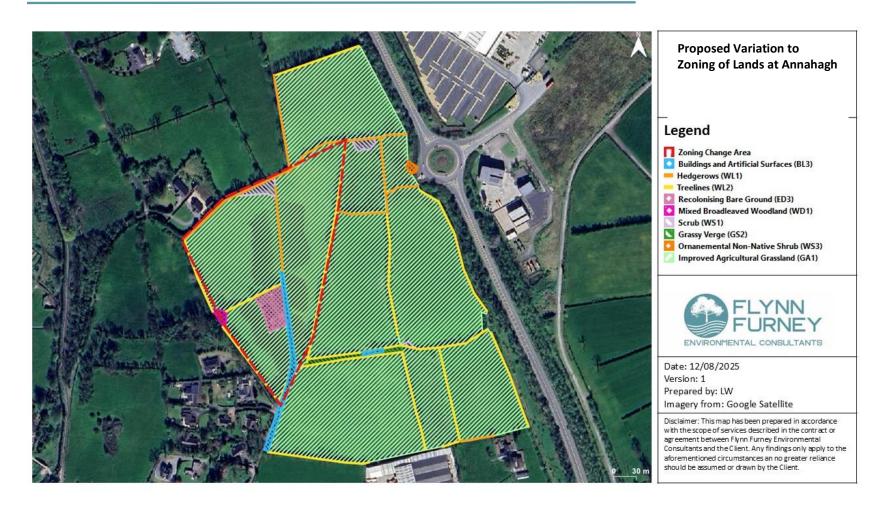


Figure 4 Habitat map



4.2.2 Annex I Habitats

Annex I habitats, identified as of utmost conservation importance under the Habitats Directive, receive legal protection within the Irish framework through the transposition of the Directive into national law, primarily under the European Communities (Natural Habitats) Regulations (S.I. 94 of 1997), which mandates the designation and conservation of Special Areas of Conservation to safeguard these critical habitats. **Table 4** assesses whether any habitat found during ground surveys has links with any of these habitat types.

Table 4 Summary of the habitats recorded on the proposed project site

Habitat Recorded	Fossitt Code	Links with Annex I Habitats
Buildings and Artificial Surfaces	BL3	No
Hedgerows	WL1	No
Treelines	WL2	No
Recolonising Bare Ground	ED3	No
Mixed Broadleaved Woodland	WD1	No
Scrub	WS1	No
Grassy Verges	GS2	No
Ornamental/ Non-Native Shrub	WS3	No
Improved Agricultural Grassland	GA1	No



4.2.3 Significance of habitats

The majority of the habitat types found surrounding the site are those associated with semi-urban areas. There are no habitats listed on Annex I of Directive 92/43/EEC (Habitats Directive) within the survey area. No species of rare, threatened or protected species of plants as per the Red Data List (Wyse Jackson et al., 2016) and no species listed on the Flora (Protection) Order 2022 were present.

4.2.4 Avifauna

A dedicated bird survey was not carried out, however, during the survey the majority of birds seen and heard were typical of species within a semi-urban setting. No birds protected under the EU Birds Directive (2009/147/EC), or the Habitats Directive (Council Directive 92/43/EEC) were observed. A list of species recorded during the field survey are outlined below.

Table 5 Bird species recorded during field surveys

Bird Species	Approx. Location (ITM)	BoCCI Status	Notes
Wren (Troglodytes troglodytes)	668373.77,834159.23	Green	Seen in treeline
	668382.93,834275.31		Heard in distance
Blackbird (Turdus merula)	668382.93,834275.31	Green	Heard in distance
Buzzard (Buteo buteo)	668273.70,834050.61	Green	Heard in distance
	668404.08,834318.58		
Sparrowhawk (Accipiter nisus)	668386.78,834051.25	Green	Heard in distance
Goldfinch (Carduelis carduelis)	668382.93,834275.31	Green	Heard in distance



4.2.5 Mustelids

Most terrestrial mammals enjoy some level of legal protection in Ireland, with 13 listed on the EU Habitats Directive, 22 on national legislation in the Republic of Ireland, and 18 on national legislation in Northern Ireland. It is an offence to intentionally kill or injure a protected species or to wilfully interfere with or destroy the breeding site or resting place of a protected wild animal. Evidence of several mammals were recorded during field surveys. This included Badgers (*Meles meles*), Pine Marten (*Martes martes*) and Fox (*Vulpes vulpes*). Additionally, mammal trails were noted in various locations on-site, particularly towards the south of the site along species rich treelines. The locations of mammal evidence recorded is outlined below.

Table 6 Mammal evidence recorded on-site and location

Mammal	Evidence	Approx. Location (ITM)
General evidence	Trails	668362.67,834094.64
		668480.49,834057.86
		668480.60,834050.50
		668489.44,834023.31
Badger	Sett with 3 entrances (active)	668250.273,834121.089
	Disused sett	668375.81,834055.50
Pine Marten	Scat	668489.248,834025.573
Fox	Den (Potential burrow taken over by fox)	668245.49,834099.09



4.2.6 Chiroptera

In Ireland, nine species of bat are currently known to be resident. These are classified into two Families: the *Rhinolophidae* (Horseshoe bats) and the *Vespertilionidae* (Common bats). The lesser horseshoe bat *Rhinolophus hipposider*os is the only representative of the former Family in Ireland. All the other Irish bat species are of the latter Family and these include three pipistrelle species: Common (*Pipistrellus pipistrellus*), *Soprano (P. pygmaeus) and* Nathusius' (*P. nathusii*), four Myotids: Natterer's (*Myotis nattereri*), Daubenton's (*M. daubentoniid*), Whiskered (*M. mystacinus*), Brandt's (*M. brandtii*), the Brown Long-eared (*Plecotus auratus*) and Leisler's (*Nyctalus leisleri*) bats. Bat surveys included a visual inspection during daylight hours of trees and buildings within the area and an assessment for roosting bats. The hedgerows on site have low to high suitability bat habitat as some areas did not provide enough space, shelter, protection to be used by a large number of bats on a regular basis while other areas did. Many trees did not contain obvious holes, cracks or cavities however, there were also large dead trees and mature trees covered with mature ivy. Additionally, the site is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water and can be determined 'Moderately to Highly suitable' in terms of connectivity.

4.2.7 Lepidoptera

The Marsh Fritillary butterfly (*Euphydryis aurinia*) is Ireland's only Habitats Directive Annex II insect species. In Ireland, the species relies solely on Devil's-Bit Scabious as its larval food plant. No stands of Devil's-Bit Scabious were recorded within or surrounding the lands at Annahagh. No larval webs can therefore occur on site.

4.2.8 Invasive Species

Ireland is a signatory of a number of international treaties and conventions, including the Convention on Biological Diversity and most notably Regulation (EU) 1143/2014 on the prevention and management of the introduction and spread of invasive alien species (The IAS Regulation). Such legal instruments require the Irish Government to address issues of invasive alien species. This has been implemented through national legislation via the Wildlife Acts 1976 and 2000 (as amended) and further regulated through the



European Union (Invasive Alien Species) Regulations 2024. These regulations outline the legal implications associated with alien invasive species and the steps required for early eradication, management and containment. Article 17 in particular sets out restrictions on particular species of national concern, which are listed in the First Schedule of the regulations.

Under Article 17 of the Regulations, it is an offence to:

- Plant, disperse, allow dispersal or cause the spread of invasive species.
- Keep the plants in possession for the purpose of sale, breeding, reproduction,
- propagation, distribution, introduction or release.
- Keep anything from which the plant can be reproduced, or propagated from, without a granted licence.

Invasive species can have significant and detrimental impacts on Natura 2000 sites, which are designated to protect habitats and species of European importance. The introduction and spread of invasive species can disrupt ecosystems, threaten native biodiversity, and compromise the achievement of conservation objectives. No First Schedule invasive species were identified during the field surveys. However, there were some on-First Schedule invasives recorded on-site. The location of these invasives can be seen below. Management guidelines have been detailed in the separate EcIA prepared for invasives on-site.

Table 7 Location of invasive species on-site

Invasive Species Recorded	Location (ITM)	Invasiveness
On-Site		
Red Osier Dogwood	668495.58,834287.98	Not assessed
	668491.53,834298.53	
	668492.15,834309.02	
Lilac	668454.708,834058.213	Medium
Snowberry	668478.08,834043.68	Low



Sycamore	668549.82,833954.94	Medium
	668448.03,834066.78	
	668370.06,834164.10	

5 Identification of the European Sites within the Likely Zone of Impact

The following methodology was used to establish which European Sites are within the Likely Zone of Impact of the proposed zoning variation:

- The most recent Geographic Information System (GIS) spatial datasets for designated European sites and water catchments were acquired from the National Parks and Wildlife Service (NPWS) website (www.npws.ie) and the Environmental Protection Agency (EPA) website (www.epa.ie). These datasets were employed to discern European Sites susceptible to potential impacts from the proposed zoning variation.
- An investigation into the site characteristics and the risks to the environment with consideration for the potential zone of impact was carried out to determine all probable pathways and risks to site conservation.
- A source-pathway-receptor model was utilised to identify European Sites within a 15km radius of
 the lands under assessment, providing contextual information on these sites based on sitespecific conservation objectives. The assessment also considered European Sites beyond the
 15km radius, employing a source-pathway-receptor approach to identify potential impacts.
 Hydrological catchment mapping facilitated the evaluation of potential hydrological connectivity
 between the lands proposed for zoning variation and European Sites.
- For Special Protection Areas (SPAs), lacking specific European or Irish guidance, the 'Assessing Connectivity with Special Protection Areas (SPA)' guidance from Scottish Natural Heritage (SNH) (2016) was consulted.

All pertinent European Sites are considered, identifying those within the likely Zone of Impact. This



screening assessment evaluates direct and indirect impacts of the proposed zoning variation, considering size and scale, land-take, distance, resource requirements, emissions, excavation, transportation, and construction/operation duration. Site synopses and conservation objectives from the NPWS website were reviewed as of the report's preparation.

5.1 Works, Site Characteristics and Risks to the Environment

The principal risks posed from the proposed plan relate to surface water discharge from the site during future works or operations that may impact the water quality of the receiving environment, leading to likely significant effects (LSE) on any QIs or Site(s) of Community Importance (SCI) species.

Table 8 Potential Impacts, Effects and their zone of influence

Potential Impact and	Description	Zone of Influence
Effect		
Construction/Installation	The permanent loss of the	Lands within the proposed footprint
of Infrastructure and	habitats is present in the footprint	of site and access routes.
potential QI habitat loss.	of the proposed works.	
Changes in water quality	Reduction in the quality of	Changes in surface water quality
and quantity/distribution	retained habitat or loss of habitat	within the local water courses or
resulting in habitat loss or	from surrounding areas as a result	surface water bodies including the
degradation.	of surface water or groundwater	rivers in close proximity associated
	pollution.	with a future development.
Noise, dust, vibration and	Direct impact on species reducing	Within or adjacent to the works area
or human presence	their ability to forage or breed.	for birds.
resulting in disturbance.		
Invasive Species	The spread of invasive species	Assessed based on the presence of
	within designated sites as a result	invasive species stands within or
	of this variation to zoning.	surrounding the subject area.



5.2 Designated Sites within the Zone of Influence (ZoI)

Designated Sites within the zone of influence are outlined below. Two SACs and three SPAs were identified to occur within the Zol.

Table 9 Designated Sites within the Zol

Site Name and	Qualifying Interests	Distance from	Conservation	Likely Impact Determination
Code		Site	Objectives	
Slieve Beagh	 Hen Harrier (Circus cyaneus) 	10.8 km from	Detailed	There is no direct overlap between the site
SPA [004167]	[A082]	the site, no	conservation	under assessment and this designated site.
		hydrological	objectives for this	No SCI bird species were recorded within the
		connection	site were reviewed	footprint of the site. There is no indirect
			as part of the	connectivity via drainage ditches, streams or
			assessment and are	other watercourses. The substantial buffer
			available at	distance between the lands at Annahagh
			www.npws.ie	and this SPA is too great for significant
				impacts to occur due to disturbance or
				increased anthropogenic activity on-site.
				This site will not be considered further.



Magheraveely	 Calcareous fens with 	13.2 km from	Detailed	There is no direct overlap between the lands		
Marl Lough	Cladium mariscus and	the site, no	conservation	at Annahagh and this designated site. No QI		
SAC	species of the Caricion	hydrological	objectives for this	habitats or species were recorded within the		
[UK0016621]	davallianae	connection	site were reviewed	footprint of the lands at Annahagh. There is		
	Whit Clawed Crayfush		as part of the	no indirect connectivity via drainage ditches,		
	(Austropotamobius pallipes)		assessment and are	streams or other watercourses. The		
	Hard oligo-mesotrophic		available at	substantial buffer distance between the		
	waters with benthic		https://www.daera-	lands at Annahagh and this SAC is too great		
	vegetation of Chara spp.		ni.gov.uk/protected-	for significant impacts to occur due to		
	Alkaline fens		areas/type/sac	disturbance or increased anthropogenic		
				activity on-site.		
				This site will not be considered further.		
Slieve Beagh-	Hen Harrier (Circus cyaneus)	16 km from	Detailed	There is no direct overlap between the lands		
Mullaghfad-		the site, no	conservation	at Annahagh and this designated site. No SCI		
Lisnaskea SPA		hydrological	objectives for this	bird species were recorded within the lands		
[UK9020302]		connection	site were reviewed	at Annahagh. There is no indirect		
			as part of the	connectivity via drainage ditches, streams or		
			assessment and are	other watercourses. The substantial buffer		



			available at https://www.daera- ni.gov.uk/protected- areas/type/spa	distance between the lands at Annahagh and this SPA is too great for significant impacts to occur due to disturbance or increased anthropogenic activity on-site. This site will not be considered further.
Slieve Beagh	Blanket bogs	16 km from	Detailed	There is no direct overlap between the lands
SAC	 European dry heaths 	the site, no	conservation	at Annahagh and this designated site. No QI
[UK0016622]	Natural dystrophic lakes and	hydrological	objectives for this	habitats were recorded within the footprint
	ponds	connection	site were reviewed	of the lands at Annahagh. There is no
			as part of the	indirect connectivity via drainage ditches,
			assessment and are	streams or other watercourses. The
			available at	substantial buffer distance between the
			https://www.daera-	lands at Annahagh and this SAC is too great
			ni.gov.uk/protected-	for significant impacts to occur due to
			areas/type/sac	disturbance or any increased anthropogenic
				activity on-site.
				This site will not be considered further.



Lough Neagh	Bewick's Swan (<i>Cygnus</i>	38 km from	Detailed	There is no direct overlap between the lands		
and Lough Beg	columbianus bewickii)	the site, 57 km	conservation	at Annahagh and this designated site. No SCI		
SPA	Whooper Swan (<i>Cygnus</i>	hydrologically	objectives for this	bird species were recorded within the		
[UK9020091]	cygnus)		site were reviewed	footprint of the lands at Annahagh. While		
	• Pochard (Aythya ferina)		as part of the	there is no indirect connectivity via drainage		
	• Tufted Duck (Aythya		assessment and are	ditches, streams or other watercourses		
	fuligula)		available at	directly on-site, there is a river (Cromghlinn		
	• Goldeneye (<i>Bucephala</i>		https://www.daera-	river) approximately 80m to the north-east		
	clangula)		ni.gov.uk/protected-	of the site which is hydrologically connected		
	Little Grebe (<i>Tachybaptus</i>		areas/type/spa	to this SPA (57km downstream). However,		
	ruficollis)			the substantial buffer distance between the		
	Great Crested Grebe			lands at Annahagh and this SPA is too great		
	(Podiceps cristatus)			for significant impacts to occur due to		
	Cormorant (<i>Phalacrocorax</i>			disturbance or increased anthropogenic		
	carbo)			activity on-site.		
	• Mute Swan (Cygnus olor)			This site will not be considered further.		
	• Greylag Goose (Anser anser)					
	• Shelduck (Tadorna tadorna)					
	Gadwall (Mareca strepera)					



• Shoveler	(Anas clypeata)		
• Scaup (A)	ythya marila)		
• Coot (Ful	lica atra)		
• Snipe (Go	allinago gallinago)		
Redshanl	k (Tringa totanus)		
• Common	Gull (Larus canus)		
• Lesser Bl	ack-headed Gull		
(Larus fu	scus intermedius)		
• Teal (And	as crecca)		
• Lapwing	(Vanellus vanellus)		
• Curlew (/	Numenius arquata)		



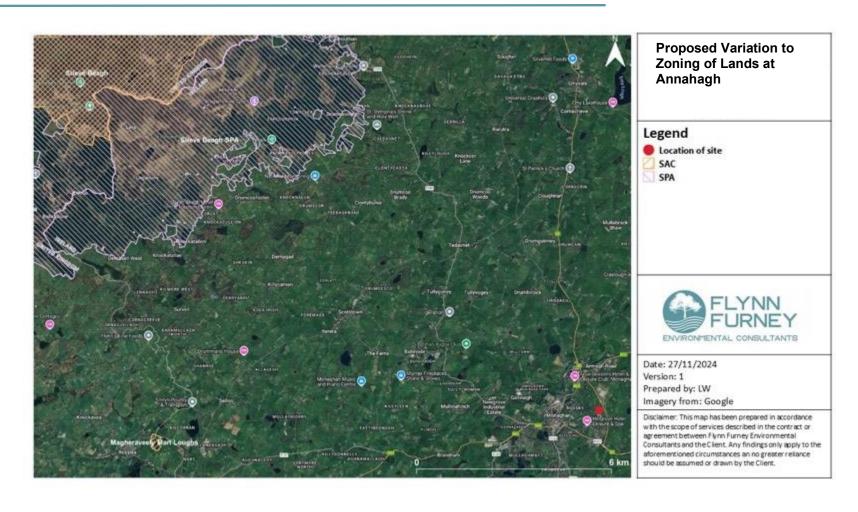


Figure 5 Location of Designated Sites in relation to the location of the lands at Annahagh



5.3 European Sites with the Potential to be Significantly Affected by the Proposed Variation to Zoning

Initial screening has identified no European site requiring further consideration in this assessment. All Natura 2000 sites are at a significant remove and have no identifiable connectivity with the lands at Annahagh. Given the nature of the proposed zoning variation, there is no known vector, pathway or conduit for impacts between the relevant lands and the Natura 2000 sites. Therefore, the proposed zoning variation is considered extremely unlikely (NRA, 2009) to have any significant direct or indirect impacts on Natura 2000 sites and they are therefore not considered further in this screening assessment.

6 Assessment Criteria

6.1 Is the Project Necessary to the Management of the Designated Site(s)?

The proposed zoning variation is not necessary to or connected with the management of any Designated sites.

6.2 Possible Direct, Indirect or Secondary Impacts

All impacts (both direct and indirect) have been assessed within this report. A conclusion has been drawn by the authors that no significant impacts are predicted as a result of the proposed variation.

6.3 Cumulative and In-Combination Impacts

A search of the Monaghan County Council planning registers was carried out in August 2025. Nearby projects were considered for any in combination or cumulative impacts. The site has a history of planning permissions. Notably, planning reference 1869 granted in 2018 allowed for the development of a new advanced technology building, including access from a proposed service road, connection to public services, car parking, signage, and ancillary works. However, this permission expired in 2021 and this was



not constructed. To the south, planning application 18202 was approved in 2018 for the demolition of an existing industrial unit and the construction of a new single-storey industrial unit with associated works, but it expired in 2023. Also in this area, planning application 22239, granted in 2022, permits the installation of 837.00 m² (154.35 kWp) of photovoltaic panels on existing manufacturing building roofs behind the office area. This permission remains valid until 2027.

To the west, smaller-scale developments include planning reference 21520, which granted permission for a single-storey dwelling with a detached domestic garage, treatment plant, percolation area, new entrance, and all associated site works. Further information was submitted, leading to a revised location and design. On the eastern side, several planning applications exist, including reference 15292, which permitted land infilling using excavated soils from the Combilift Development (Planning Ref: 15/168). This permission expired in 2020. Additionally, retention planning application 22273, granted in 2022, allows for the retention of a mono-pitched extension at the rear of the production facility, with permission lasting until 2027. To the northeast, planning application 17181, approved for the construction of a replacement dwelling with an amended design and the retention of the existing farm dwelling for agricultural use (previously approved under Planning Ref: 16/349), expired in 2022.

Since the proposed variation does not impact any Natura sites, it is therefore very unlikely to have cumulative or in-combination effects with any other projects or plans. A conclusion has been made by the authors that no cumulative or in-combination impacts upon any Natura site is predicted.



6.4 Conclusion

This report presents the information for the relevant authority, Monaghan County Council, to carry out a screening for AA. A recommendation that a Stage II is not required is made, based on the findings of this assessment. It is for the relevant authority to reach one of the following conclusions:

- I. A Stage 2 AA of the proposed zoning variation is required if it *cannot* be excluded, on the basis of objective information, that the proposed plan variation, individually or in combination with other plans or projects, will not have a significant effect on any European Designated Sites.
- II. A Stage 2 AA of the proposed plan or project is not required if it *can* be excluded, on the basis of objective information, that the proposed plan variation, individually or in combination with other plans or projects, will not have a significant effect on any European Designated Sites.

It is the conclusion of this report that the proposed variation in zoning would not have a significant effect on European Designated Sites and progression to a Stage 2 Appropriate Assessment is not required. Accordingly, having carried out the Stage 1 Appropriate Assessment Screening, the competent authority may determine that a Stage 2 Appropriate Assessment of the proposed site investigation works is not required as it can be excluded, on the basis of objective scientific information following screening under Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011, as amended, that the proposed works, individually or in combination with other plans or projects, will not have a significant effect on any European site.



References

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal 2nd Edition. The Chartered Institute of Ecology and Environmental Management, Winchester.

Chartered Institute of Ecology and Environmental Management (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland.

Collins, J. ed. (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). The Bat Conservation Trust. London. ISBN – 13 978-1-87-2745-96-1

Curtis, T.G.F. and MacGough, H.N., 1988. The Irish red data book. Wildlife Service Ireland.

EPA (2015a). The EPA's Advice Notes on Preparing Environmental Impact Statements Draft.

EPA (2015b). The EPA's Draft Revised Guidelines on Information to be Contained in Environmental Impact Statements.

European Commission (2007) Interpretation manual of European Union habitats – EUR27.

Fossitt, J.A. (2000) A Guide to Habitats in Ireland. The Heritage Council, Kilkenny.

Joint Nature Conservation Committee (JNCC) (2010) . Handbook for Phase 1 Habitat Survey – a technique for environmental audit. Joint Nature Conservation Committee, Peterborough (UK).

King, J.L., Marnell, F., Kingston, N., Rosell, R., Boylan, P., Caffrey, J.M., FitzPatrick, Ú., Gargan, P.G., Kelly, F.L., O'Grady, M.F., Poole, R., Roche, W.K. & Cassidy, D. (2011) Ireland Red List No. 5: Amphibians, Reptiles & Freshwater Fish. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Lewis, L. J., Coombes, D., Burke, B., O'Halloran, J., Walsh, A., Tierney, T. D. & Cummins, S. (2019)



Countryside Bird Survey: Status and trends of common and widespread breeding birds 1998- 2016. Irish Wildlife Manuals, No. 115. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Lysaght, L. and Marnell, F. (Eds) (2016) *Atlas of Mammals in Ireland 2010 – 2015*, National Biodiversity Data Centre, Waterford.

Monaghan County Council (2025) Monaghan County Development Plan 2025-2031. Monaghan County Council, Monaghan.

National Roads Authority (2009). Guidelines For The Assessment Of Ecological Impacts Of National Road Schemes. NRA, Dublin.

Northern and Western Regional Assembly (2020) Regional, Spatial and Economic Strategy 2020-2032. Project Ireland. <u>www.nwra.ie</u>

Smith, G. F., O'Donoghue, P., O'Hora, K., & Delaney, E. (2011) *Best Practice Guidance for Habitat Survey and Mapping*. The Heritage Council, Kilkenny.

Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016). Ireland Red List No. 10: Vascular Plants. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland



Appendices

Appendix 1 NBDC records within 1km of the lands at Annahagh

Species name	Record count	Date of last record	Title of dataset	Designation
Acari	2	06/07/2010	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
Common Frog (Rana temporaria)	2	15/06/2003	Irish National Frog Database	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex V Protected Species: Wildlife Acts
Smooth Newt (Lissotriton vulgaris)	2	29/06/2010	Newt Survey 2010-2014	Protected Species: Wildlife Acts
Erpobdella	2	18/06/2013	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
Glossiphonia	3	14/09/2017	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
Glossiphonia complanata	1	19/09/2007	River Biologists' Database (EPA)	
Helobdella	4	14/09/2017	A national macroinvertebrate dataset collected for the	



	ı	T		
			biomonitoring of Ireland's	
			river network, 2007–2018	
			(EPA)	
Tubificidae	4	14/09/2017	A national macroinvertebrate	
			dataset collected for the	
			biomonitoring of Ireland's	
			river network, 2007–2018	
			(EPA)	
Barn Owl (<i>Tyto alba</i>)	2	31/07/1991	The Second Atlas of Breeding	Protected Species: Wildlife Acts Threatened
			Birds in Britain and Ireland:	Species: Birds of Conservation Concern
			1988-1991	Threatened Species: Birds of Conservation Concern
				>> Birds of Conservation Concern - Red List
Barn Swallow (<i>Hirundo rustica</i>)	8	25/05/2023	Birds of Ireland	Protected Species: Wildlife Acts Threatened
				Species: Birds of Conservation Concern
				Threatened Species: Birds of Conservation Concern
				>> Birds of Conservation Concern - Amber List
Black-billed Magpie (Pica pica)	14	25/05/2023	Birds of Ireland	
Blackcap (Sylvia atricapilla)	11	25/05/2023	Birds of Ireland	
Black-headed Gull (Larus ridibundus)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened
				Species: Birds of Conservation Concern
				Threatened Species: Birds of Conservation Concern
				>> Birds of Conservation Concern - Red List
Blue Tit (Cyanistes caeruleus)	11	18/05/2012	Birds of Ireland	
Bohemian Waxwing (Bombycilla	1	31/12/2011	Bird Atlas 2007 - 2011	
garrulus)				
Brambling (Fringilla montifringilla)	2	31/12/2011	Bird Atlas 2007 - 2011	
Carrion Crow (Corvus corone)	1	29/02/1984	The First Atlas of Wintering	
			Birds in Britain and Ireland:	
			1981/82-1983/84.	
Chaffinch (Fringilla coelebs)	13	25/05/2023	Birds of Ireland	



Coal Tit (Periparus ater)	10	18/05/2012	Birds of Ireland	
Common Blackbird (Turdus merula)	11	18/05/2012	Birds of Ireland	
Common Bullfinch (Pyrrhula pyrrhula)	12	14/04/2012	Birds of Ireland	
Common Buzzard (Buteo buteo)	13	02/07/2018	Birds of Ireland	
Common Chiffchaff (<i>Phylloscopus</i> collybita)	8	18/05/2012	Birds of Ireland	
Common Coot (Fulica atra)	8	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Cuckoo (Cuculus canorus)	3	31/12/2011	Bird Atlas 2007 - 2011	
Common Grasshopper Warbler (Locustella naevia)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Kestrel (Falco tinnunculus)	8	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Kingfisher (Alcedo atthis)	5	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List



Common Linnet (Carduelis cannabina)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern
				Threatened Species: Birds of Conservation Concern
				>> Birds of Conservation Concern - Amber List
Common Moorhen (Gallinula	10	31/12/2011	Bird Atlas 2007 - 2011	22 Birds of Conscivation Concern Amber List
chloropus)		31/12/2011	Dird Atlas 2007 - 2011	
Common Pheasant (<i>Phasianus</i>	6	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected
colchicus)				Species: EU Birds Directive Protected Species: EU
				Birds Directive >> Annex II, Section I Bird Species
				Protected Species: EU Birds Directive >> Annex III,
				Section I Bird Species
Common Pochard (Aythya ferina)	2	29/02/1984	The First Atlas of Wintering	Protected Species: Wildlife Acts Protected
			Birds in Britain and Ireland:	Species: EU Birds Directive Protected Species: EU
			1981/82-1983/84.	Birds Directive >> Annex II, Section I Bird Species
				Protected Species: EU Birds Directive >> Annex III,
				Section II Bird Species Threatened Species: Birds
				of Conservation Concern Threatened Species:
				Birds of Conservation Concern >> Birds of
				Conservation Concern - Amber List
Common Raven (Corvus corax)	2	31/12/2011	Bird Atlas 2007 - 2011	
Common Sandpiper (Actitis	1	31/07/1991	The Second Atlas of Breeding	Protected Species: Wildlife Acts Threatened
hypoleucos)			Birds in Britain and Ireland:	Species: Birds of Conservation Concern
			1988-1991	Threatened Species: Birds of Conservation Concern
				>> Birds of Conservation Concern - Amber List
Common Snipe (Gallinago gallinago)	10	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected
				Species: EU Birds Directive Protected Species: EU
				Birds Directive >> Annex II, Section I Bird Species
				Protected Species: EU Birds Directive >> Annex III,
				Section III Bird Species Threatened Species: Birds
				of Conservation Concern Threatened Species:



				Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Starling (Sturnus vulgaris)	15	25/05/2023	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Swift (Apus apus)	7	25/05/2023	Swifts of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Common Whitethroat (Sylvia communis)	3	31/12/2011	Bird Atlas 2007 - 2011	
Common Wood Pigeon (Columba palumbus)	12	18/05/2012	Birds of Ireland	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
Corn Crake (<i>Crex crex</i>)	1	31/07/1972	The First Atlas of Breeding Birds in Britain and Ireland: 1968-1972.	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Eurasian Collared Dove (<i>Streptopelia decaocto</i>)	13	25/05/2023	Birds of Ireland	
Eurasian Curlew (Numenius arquata)	3	31/07/1991	The Second Atlas of Breeding Birds in Britain and Ireland: 1988-1991	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation



				Concern >> Birds of Conservation Concern - Red List
Eurasian Dotterel (Charadrius morinellus)	1	12/05/2005	Rare birds of Ireland	
Eurasian Jackdaw (Corvus monedula)	16	25/05/2023	Birds of Ireland	
Eurasian Jay (Garrulus glandarius)	5	31/12/2011	Bird Atlas 2007 - 2011	
Eurasian Siskin (Carduelis spinus)	7	11/02/2012	Birds of Ireland	
Eurasian Sparrowhawk (Accipiter nisus)	6	31/12/2011	Bird Atlas 2007 - 2011	
Eurasian Teal (Anas crecca)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern -> Amber List
Eurasian Tree Sparrow (Passer montanus)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Eurasian Treecreeper (<i>Certhia familiaris</i>)	6	31/12/2011	Bird Atlas 2007 - 2011	
Eurasian Wigeon (Anas penelope)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern >> Birds of Conservation Concern - Amber List



Eurasian Woodcock (Scolopax rusticola)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern -> Amber List
European Golden Plover (<i>Pluvialis</i> apricaria)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex I Bird Species Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Protected Species: EU Birds Directive >> Annex III, Section III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
European Goldfinch (Carduelis carduelis)	11	14/04/2012	Birds of Ireland	
European Greenfinch (Carduelis chloris)	10	11/02/2012	Birds of Ireland	
European Robin (Erithacus rubecula)	14	25/05/2023	Birds of Ireland	
Fieldfare (Turdus pilaris)	3	31/12/2011	Bird Atlas 2007 - 2011	
Goldcrest (Regulus regulus)	11	25/05/2023	Birds of Ireland	
Great Cormorant (<i>Phalacrocorax</i> carbo)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Great Crested Grebe (Podiceps cristatus)	6	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern



				Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Great Tit (Parus major)	13	25/05/2023	Birds of Ireland	
Grey Heron (Ardea cinerea)	11	11/02/2012	Birds of Ireland	
Grey Partridge (<i>Perdix perdix</i>)	1	31/07/1972	The First Atlas of Breeding Birds in Britain and Ireland: 1968-1972.	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species: Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Grey Plover (<i>Pluvialis squatarola</i>)	1	29/02/1984	The First Atlas of Wintering Birds in Britain and Ireland: 1981/82-1983/84.	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Grey Wagtail (Motacilla cinerea)	8	10/10/2018	Birds of Ireland	
Hedge Accentor (Prunella modularis)	12	18/05/2012	Birds of Ireland	
Hooded Crow (Corvus cornix)	9	18/05/2012	Birds of Ireland	
House Martin (<i>Delichon urbicum</i>)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
House Sparrow (Passer domesticus)	11	18/05/2012	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Jack Snipe (Lymnocryptes minimus)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species



				Protected Species: EU Birds Directive >> Annex III, Section III Bird Species
Lesser Black-backed Gull (Larus fuscus)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Lesser Redpoll (Carduelis cabaret)	7	31/12/2011	Bird Atlas 2007 - 2011	
Little Grebe (Tachybaptus ruficollis)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Long-eared Owl (Asio otus)	4	31/12/2011	Bird Atlas 2007 - 2011	
Long-tailed Tit (Aegithalos caudatus)	9	14/04/2012	Birds of Ireland	
Mallard (Anas platyrhynchos)	13	25/05/2023	Birds of Ireland	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
Meadow Pipit (Anthus pratensis)	8	31/12/2011	Bird Atlas 2007 - 2011	
Merlin (Falco columbarius)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Mew Gull (<i>Larus canus</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List



Mistle Thrush (Turdus viscivorus)	13	25/05/2023	Birds of Ireland	
Mute Swan (Cygnus olor)	8	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Northern Lapwing (Vanellus vanellus)	7	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Northern Wheatear (Oenanthe oenanthe)	1	31/07/1972	The First Atlas of Breeding Birds in Britain and Ireland: 1968-1972.	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Peregrine Falcon (Falco peregrinus)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex Bird Species
Pied Wagtail (Motacilla alba subsp. yarrellii)	3	18/05/2012	Birds of Ireland	
Redwing (Turdus iliacus)	4	31/12/2011	Bird Atlas 2007 - 2011	
Reed Bunting (Emberiza schoeniclus)	9	31/12/2011	Bird Atlas 2007 - 2011	
Rock Pigeon (Columba livia)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species
Rook (Corvus frugilegus)	14	04/08/2017	Birds of Ireland	
Sand Martin (<i>Riparia riparia</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List



Sedge Warbler (Acrocephalus schoenobaenus)	4	31/12/2011	Bird Atlas 2007 - 2011	
Sky Lark (<i>Alauda arvensis</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Song Thrush (Turdus philomelos)	13	25/05/2023	Birds of Ireland	
Spotted Flycatcher (Muscicapa striata)	6	18/05/2012	Birds of Ireland	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Stock Pigeon (<i>Columba oenas</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Stonechat (Saxicola torquata)	1	31/12/2011	Bird Atlas 2007 - 2011	
Tufted Duck (<i>Aythya fuligula</i>)	6	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex II, Section I Bird Species Protected Species: EU Birds Directive >> Annex III, Section II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern -> Amber List
Water Rail (Rallus aquaticus)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
White Wagtail (Motacilla alba)	9	31/12/2011	Bird Atlas 2007 - 2011	
White-throated Dipper (Cinclus	7	31/12/2011	Bird Atlas 2007 - 2011	



cinclus)				
Whooper Swan (<i>Cygnus cygnus</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts Protected Species: EU Birds Directive Protected Species: EU Birds Directive >> Annex Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Willow Warbler (Phylloscopus trochilus)	10	25/05/2023	Birds of Ireland	
Winter Wren (<i>Troglodytes</i> troglodytes)	12	18/05/2012	Birds of Ireland	
Yellowhammer (<i>Emberiza citrinella</i>)	1	31/07/1972	The First Atlas of Breeding Birds in Britain and Ireland: 1968-1972.	Protected Species: Wildlife Acts Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Geophilus flavus	2	01/01/1913	Centipedes of Ireland	
Geophilus insculptus	1	01/09/1912	Centipedes of Ireland	
Lithobius (Lithobius) variegatus	2	01/01/1913	Centipedes of Ireland	
Asellus	4	14/09/2017	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
Gammarus	2	14/09/2017	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
Gammarus duebeni	2	06/07/2010	A national macroinvertebrate	



Common Chthonid (Chthonius (Chthonius) ischnocheles) Arthurdendyus triangulatus	1	31/12/1912 29/10/2012	dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA) Pseudoscorpions of Ireland New Zealand Flatworm (Arthurdendyus triangulatus)	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive
			Database	Species Species >> Tright impact invasive
Dendrocoelum	1	14/09/2017	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
flatworms (<i>Tricladida</i>)	2	18/06/2013	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
Bluebell (Hyacinthoides non-scripta)	1	08/05/2024	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Brooklime (Veronica beccabunga)	1	19/09/2007	River Biologists' Database (EPA)	
Canadian Waterweed (<i>Elodea</i> canadensis)	1	19/09/2007	River Biologists' Database (EPA)	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Curled Pondweed (Potamogeton crispus)	1	19/09/2007	River Biologists' Database (EPA)	





Elder (Sambucus nigra)	1	29/05/2018	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Herb-Robert (Geranium robertianum)	1	29/05/2018	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Irish Whitebeam (Sorbus hibernica)	1	13/06/2019	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	Threatened Species: Vulnerable
Japanese Knotweed (Fallopia japonica)	1	10/10/2018	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Primrose (<i>Primula vulgaris</i>)	1	29/03/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Purple-loosestrife (Lythrum salicaria)	1	19/09/2007	River Biologists' Database (EPA)	
Reed Canary-grass (<i>Phalaris</i> arundinacea)	1	19/09/2007	River Biologists' Database (EPA)	
Spindle (Euonymus europaeus)	1	04/09/2018	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Taraxacum aggregate	1	28/03/2018	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
Leiobunum rotundum	1	02/10/1995	Harvestmen (Opiliones) of Ireland	
Mitopus morio	1	02/10/1995	Harvestmen (Opiliones) of Ireland	





Malinen sethion	1	02/10/1005	Hamisaturas (Onilianas) af	
Nelima gothica	1	02/10/1995	Harvestmen (Opiliones) of Ireland	
Nemastoma bimaculatum	1	02/10/1995		
Nemastoma bimaculatum	1	02/10/1995	Harvestmen (Opiliones) of Ireland	
Olizalanhus hansani	1	02/10/1005		
Oligolophus hanseni	1	02/10/1995	Harvestmen (Opiliones) of Ireland	
Darolia donhus garostis	1	02/10/1995		
Paroligolophus agrestis	1	02/10/1995	Harvestmen (Opiliones) of Ireland	
7-spot Ladybird (Coccinella	3	18/04/2019	Ladybirds of Ireland	
· · · · · · · · · · · · · · · · · · ·	3	18/04/2019	Ladybirds of freiand	
septempunctata) Green-veined White (Pieris napi)	10	14/05/2019	Butterflies of Ireland pre-2022	
		10/06/2019	Butterflies of Ireland pre-2022	
Large White (Pier <i>is brassicae</i>)	1			
Meadow Brown (Maniola jurtina)	6	03/07/2019	Butterflies of Ireland pre-2022	
Orange-tip (Anthocharis cardamines)	4	07/06/2018	Butterflies of Ireland pre-2022	
Peacock (Inachis io)	3	24/08/2019	Butterflies of Ireland pre-2022	
Ringlet (Aphantopus hyperantus)	5	03/07/2019	Butterflies of Ireland pre-2022	
Small Heath (Coenonympha	1	31/12/1970	Distribution Atlas of	Threatened Species: Near threatened
pamphilus)			Butterflies in Ireland 1979 (An	
			Foras Forbartha)	
Small Tortoiseshell (Aglais urticae)	2	05/09/2023	Butterflies of Ireland post	
			2021	
Small White (Pieris rapae)	3	14/05/2019	Butterflies of Ireland pre-2022	
Speckled Wood (Pararge aegeria)	8	10/06/2019	Butterflies of Ireland pre-2022	
Wood White (Leptidea sp.)	2	31/12/1970	Distribution Atlas of	
			Butterflies in Ireland 1979 (An	
			Foras Forbartha)	
Brown Hawker (Aeshna grandis)	1	31/12/1919	Dragonfly Ireland	
Common Blue Damselfly (Enallagma	1	08/06/1919	Dragonfly Ireland	
cyathigerum)				
Large Red Damselfly (Pyrrhosoma	1	08/06/1919	Dragonfly Ireland	



nymphula)			
Variable Damselfly (Coenagrion pulchellum)	1	30/06/1919	Dragonfly Ireland
Rabbit Flea (Spilopsyllus cuniculi)	1	31/12/1996	Fleas (Siphonaptera) of Ireland
Baetis	1	14/09/2017	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)
Angle Shades (Phlogophora meticulosa)	1	16/07/2023	Moths Ireland
Buff Footman (Eilema depressa)	1	16/07/2023	Moths Ireland
Burnished Brass (Diachrysia chrysitis)	1	16/07/2023	Moths Ireland
Common Grass-veneer (Agriphila tristella)	1	12/08/1984	Moths Ireland
Crinan Ear (Amphipoea crinanensis)	1	31/08/1911	Moths Ireland
Dark Arches (Apamea monoglypha)	1	16/07/2023	Moths Ireland
Death's-head Hawk-moth (Acherontia atropos)	2	23/10/2013	Moths Ireland
Double Dart (Graphiphora augur)	1	16/07/2023	Moths Ireland
Double-square Spot (Xestia triangulum)	1	16/07/2023	Moths Ireland
Flame Shoulder (Ochropleura plecta)	1	16/07/2023	Moths Ireland
Four-spotted Footman (<i>Lithosia quadra</i>)	1	16/07/2023	Moths Ireland
Heart & Dart (Agrotis exclamationis)	1	16/07/2023	Moths Ireland
Large Yellow Underwing (Noctua pronuba)	1	16/07/2023	Moths Ireland
Light Arches (Apamea lithoxylaea)	1	16/07/2023	Moths Ireland
Mesapamea secalis agg.	1	16/07/2023	Moths Ireland



5 (11 1 1 1	1 4	46/07/2022	T. a	
Rustic (Hoplodrina blanda)	1	16/07/2023	Moths Ireland	
Silver Y (Autographa gamma)	2	16/07/2023	Moths Ireland	
Smoky Wainscot (Mythimna impura)	1	16/07/2023	Moths Ireland	
Snout (Hypena proboscidalis)	1	16/07/2023	Moths Ireland	
White Plume Moth (Pterophorus pentadactyla)	1	15/07/2021	Moths Ireland	
Common Green Capsid (Lygocoris (Lygocoris) pabulinus)	1	31/12/1911	True Bugs (Heteroptera) of Ireland	
Sphagnum Bug (Hebrus (Hebrusella) ruficeps)	1	12/10/1900	True Bugs (Heteroptera) of Ireland	
Chironomidae	3	18/06/2013	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
Helophilus pendulus	1	03/07/2012	Hoverflies (Syrphidae) of Ireland	
Rhingia campestris	1	13/06/2012	Hoverflies (Syrphidae) of Ireland	
Simuliidae	4	14/09/2017	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
Bog-moss Flapwort (Odontoschisma sphagni)	1	31/07/1900	Bryophytes of Ireland	Threatened Species: Least concern
Common Liverwort (<i>Marchantia</i> polymorpha)	2	31/12/1980	Bryophytes of Ireland	
Marchantia polymorpha subsp. polymorpha	1	31/07/1980	Bryophytes of Ireland	Threatened Species: Least concern



Common Flat-backed Millipede (Polydesmus angustus)	1	02/10/1995	Millipedes of Ireland	
Eyed Flat-backed Millipede (Nanogona polydesmoides)	1	02/10/1995	Millipedes of Ireland	
Ophyiulus pilosus	1	02/10/1995	Millipedes of Ireland	
White-legged Snake Millipede (Tachypodoiulus niger)	1	02/10/1995	Millipedes of Ireland	
Ancylus fluviatilis	2	19/09/2007	A national macroinvertebrate dataset collected for the biomonitoring of Ireland's river network, 2007–2018 (EPA)	
Arion (Arion)	1	31/12/1913	All Ireland Non-Marine Molluscan Database	
Arion (Carinarion)	2	31/12/1913	All Ireland Non-Marine Molluscan Database	
Arion (Kobeltia)	2	31/12/1913	All Ireland Non-Marine Molluscan Database	
Brown Lipped Snail (Cepaea (Cepaea) nemoralis)	2	31/12/1913	All Ireland Non-Marine Molluscan Database	
Carychium	1	31/12/1913	All Ireland Non-Marine Molluscan Database	
Cellar Snail (Oxychilus (Oxychilus) cellarius)	2	31/12/1913	All Ireland Non-Marine Molluscan Database	
Clear Glass Snail (Aegopinella pura)	1	31/12/1913	All Ireland Non-Marine Molluscan Database	
Cochlicopa	2	31/12/1913	All Ireland Non-Marine Molluscan Database	
Columella aspera	1	31/12/1913	All Ireland Non-Marine Molluscan Database	



Common Bithynia (Bithynia (Bithynia)	2	31/12/1913	All Ireland Non-Marine	
tentaculata)		31/12/1313	Molluscan Database	
Common Bladder Snail (<i>Physa</i>	1	31/12/1913	All Ireland Non-Marine	
fontinalis)	_	31/12/1313	Molluscan Database	
Common Chrysalis Snail (<i>Lauria</i>	2	31/12/1913	All Ireland Non-Marine	
(Lauria) cylindracea)	_		Molluscan Database	
Common Whorl Snail (Vertigo	1	31/12/1913	All Ireland Non-Marine Threatened Species: Near t	nreatened
(Vertigo) pygmaea)		, ,	Molluscan Database	
Dusky Slug (Arion (Mesarion)	2	31/12/1913	All Ireland Non-Marine	
subfuscus)			Molluscan Database	
Dwarf Pond Snail (Galba (Galba)	1	31/12/1913	All Ireland Non-Marine	
truncatula)			Molluscan Database	
Dwarf Snail (Punctum (Punctum)	1	31/12/1913	All Ireland Non-Marine	
pygmaeum)			Molluscan Database	
Eccentric Grass Snail (Vallonia cf.	2	31/12/1913	All Ireland Non-Marine	
excentrica)			Molluscan Database	
English Chrysalis Snail (<i>Leiostyla</i>	1	31/12/1913	All Ireland Non-Marine Threatened Species: Vulner	able
(Leiostyla) anglica)			Molluscan Database	
Euconulus	1	31/12/1913	All Ireland Non-Marine	
			Molluscan Database	
Field Slug (Deroceras (Deroceras)	1	31/12/1913	All Ireland Non-Marine Threatened Species: Data d	eficient
agreste)			Molluscan Database	
Flat Valve Snail (Valvata (Valvata)	1	31/12/1913	All Ireland Non-Marine	
cristata)			Molluscan Database	
Garlic Snail (Oxychilus (Oxychilus)	2	31/12/1913	All Ireland Non-Marine	
alliarius)			Molluscan Database	
Glossy Glass Snail (Oxychilus	1	31/12/1910	All Ireland Non-Marine	
(Oxychilus) navarricus subsp.			Molluscan Database	
helveticus)	_			
Great Pond Snail (Lymnaea (Lymnaea)	2	31/12/1913	All Ireland Non-Marine	



stagnalis)			Molluscan Database	
Hairy Snail (Trochulus (Trochulus)	2	31/12/1913	All Ireland Non-Marine	
hispidus)			Molluscan Database	
Hedgehog Slug (Arion (Kobeltia)	2	31/12/1913	All Ireland Non-Marine	
intermedius)			Molluscan Database	
Horny Orb Mussel (Sphaerium	2	31/12/1913	All Ireland Non-Marine	
corneum)			Molluscan Database	
Jenkins' Spire Snail (Potamopyrgus	1	18/06/2013	A national macroinvertebrate	Invasive Species: Invasive Species Invasive
antipodarum)			dataset collected for the	Species: Invasive Species >> Medium Impact
			biomonitoring of Ireland's	Invasive Species
			river network, 2007–2018	
			(EPA)	
Keeled Ramshorn (<i>Planorbis</i>	2	31/12/1913	All Ireland Non-Marine	
carinatus)			Molluscan Database	
Keeled Slug (Tandonia sowerbyi)	1	31/12/1913	All Ireland Non-Marine	Invasive Species: Invasive Species Invasive
			Molluscan Database	Species: Invasive Species >> Medium Impact
				Invasive Species
Large Amber Snail (Succinea putris)	1	31/12/1910	All Ireland Non-Marine	
			Molluscan Database	
Lymnaea (Stagnicola)	1	31/12/1913	All Ireland Non-Marine	
			Molluscan Database	
Marsh Slug (Deroceras (Deroceras)	1	31/12/1913	All Ireland Non-Marine	
laeve)			Molluscan Database	
Marsh Whorl Snail (Vertigo (Vertigo)	1	31/12/1913	All Ireland Non-Marine	Threatened Species: Vulnerable
antivertigo)			Molluscan Database	
Netted Slug (Deroceras (Deroceras)	1	31/12/1910	All Ireland Non-Marine	
reticulatum)			Molluscan Database	
Pellucid Glass Snail (Vitrina pellucida)	1	31/12/1913	All Ireland Non-Marine	
			Molluscan Database	
Pfeiffer's Amber Snail (<i>Oxyloma</i>	2	31/12/1913	All Ireland Non-Marine	



(Oxyloma) elegans)			Molluscan Database	
Pisidium	3	18/06/2013	A national macroinvertebrate	
			dataset collected for the	
			biomonitoring of Ireland's	
			river network, 2007–2018	
			(EPA)	
Planorbis	1	19/09/2007	A national macroinvertebrate	
			dataset collected for the	
			biomonitoring of Ireland's	
			river network, 2007–2018	
			(EPA)	
Plated Snail (Spermodea lamellata)	1	31/12/1913	All Ireland Non-Marine	Threatened Species: Endangered
			Molluscan Database	
Porous Pea Mussel (<i>Pisidium obtusale</i>)	1	31/12/1913	All Ireland Non-Marine	
			Molluscan Database	
Prickly Snail (Acanthinula aculeata)	1	31/12/1913	All Ireland Non-Marine	Threatened Species: Near threatened
	_		Molluscan Database	
Rayed Glass Snail (Nesovitrea	1	31/12/1913	All Ireland Non-Marine	
(Perpolita) hammonis)		2.4.24.2.2	Molluscan Database	
Rounded Snail (Discus (Gonyodiscus)	2	31/12/1913	All Ireland Non-Marine	
rotundatus)		2.4.24.2.2	Molluscan Database	
Shiny Glass Snail (Zonitoides	3	31/12/1913	All Ireland Non-Marine	
(Zonitoides) nitidus)	_		Molluscan Database	
Short-ended Pea Mussel (Pisidium	2	31/12/1913	All Ireland Non-Marine	
subtruncatum)	_		Molluscan Database	
Smooth Glass Snail (Aegopinella	2	31/12/1913	All Ireland Non-Marine	
nitidula)	4	24/42/4242	Molluscan Database	
Smooth Jet Slug (Milax gagates)	1	31/12/1913	All Ireland Non-Marine	
		/ /	Molluscan Database	
Sphaerium	3	14/09/2017	A national macroinvertebrate	



				1
			dataset collected for the	
			biomonitoring of Ireland's	
			river network, 2007–2018	
			(EPA)	
Strawberry Snail (Trochulus	2	31/12/1913	All Ireland Non-Marine	
(Trochulus) striolatus)			Molluscan Database	
Striated Whorl Snail (Vertigo (Vertigo)	2	31/12/1913	All Ireland Non-Marine	Threatened Species: Near threatened
substriata)			Molluscan Database	
Tree Slug (Lehmannia marginata)	1	31/12/1913	All Ireland Non-Marine	
			Molluscan Database	
Tree Snail (Balea (Balea) perversa)	1	31/12/1913	All Ireland Non-Marine	Threatened Species: Vulnerable
			Molluscan Database	·
Two-toothed Door Snail (Clausilia	2	31/12/1913	All Ireland Non-Marine	
(Clausilia) bidentata)			Molluscan Database	
Valve Snail (Valvata (Cincinna)	1	31/12/1913	All Ireland Non-Marine	
piscinalis)			Molluscan Database	
Vitrea	1	31/12/1913	All Ireland Non-Marine	
			Molluscan Database	
Wandering Snail (Radix balthica)	2	31/12/1913	All Ireland Non-Marine	
			Molluscan Database	
White Ramshorn (Gyraulus (Gyraulus)	1	31/12/1913	All Ireland Non-Marine	
albus)			Molluscan Database	
Yellow Slug (Limacus flavus)	1	31/12/1913	All Ireland Non-Marine	
			Molluscan Database	
Brown Ditrichum (Ditrichum pusillum)	1	31/12/1912	Bryophytes of Ireland	Threatened Species: Data deficient
Drab Brook-moss (Hygrohypnum	1	31/12/1910	Bryophytes of Ireland	Threatened Species: Least concern
luridum)				·
Feathery Bog-moss (Sphagnum	1	31/12/1907	Bryophytes of Ireland	Threatened Species: Least concern
cuspidatum)		, ,		'
Felted Thyme-moss (Rhizomnium	1	31/12/1912	Bryophytes of Ireland	Threatened Species: Near threatened
			, , , ,	•



pseudopunctatum)				
Giant Spear-moss (Calliergon giganteum)	1	31/12/1907	Bryophytes of Ireland	Threatened Species: Least concern
Hutchins' Pincushion (<i>Ulota hutchinsiae</i>)	1	31/12/1912	Bryophytes of Ireland	Threatened Species: Least concern
Intermediate Hook-moss (Drepanocladus cossonii)	1	31/12/1907	Bryophytes of Ireland	Threatened Species: Least concern
Lyell's Bristle-moss (<i>Orthotrichum lyellii</i>)	1	31/12/1907	Bryophytes of Ireland	Threatened Species: Least concern
Palustriella commutata var. commutata	1	31/12/1910	Bryophytes of Ireland	
Purple-stalked Pocket-moss (Fissidens osmundoides)	1	31/12/1907	Bryophytes of Ireland	Threatened Species: Least concern
Sphagnum beothuk	2	31/07/1900	Bryophytes of Ireland	
Tall Thyme-moss (<i>Plagiomnium elatum</i>)	1	31/12/1980	Bryophytes of Ireland	Threatened Species: Least concern
Thick-nerved Apple-moss (<i>Philonotis</i> calcarea)	1	31/12/1912	Bryophytes of Ireland	Threatened Species: Least concern
Wall Thread-moss (Bryum radiculosum)	1	31/12/1907	Bryophytes of Ireland	Threatened Species: Least concern
Daubenton's Bat (Myotis daubentonii)	3	31/07/2017	National Bat Database of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
Eastern Grey Squirrel (Sciurus carolinensis)	2	31/12/1981	Mammal Recording Scheme 1970-1985 (An Foras Forbartha)	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> EU Regulation No. 1143/2014 Invasive Species: Invasive Species: Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Eurasian Badger (Meles meles)	5	31/12/2014	Badger Setts of Ireland Database	Protected Species: Wildlife Acts





Eurasian Red Squirrel (Sciurus vulgaris)	2	05/10/2018	Mammals of Ireland 2016- 2025	Protected Species: Wildlife Acts
European Otter (Lutra lutra)	1	10/08/2008	Road Kill Survey	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex II Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
European Rabbit (<i>Oryctolagus</i> cuniculus)	4	31/12/1982	Mammal Recording Scheme 1970-1985 (An Foras Forbartha)	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species
Feral Ferret (Mustela furo)	1	31/10/1997	National Feral Ferret (Mustela putoris furo) Database	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species
Lesser Noctule (Nyctalus leisleri)	2	20/06/2012	National Bat Database of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
West European Hedgehog (Erinaceus europaeus)	2	31/12/1981	Mammal Recording Scheme 1970-1985 (An Foras Forbartha)	Protected Species: Wildlife Acts



Appendix 2 Some Photographs of the Lands at Annahagh

Fig	Description	Image
no.		
1.	Treelines to the south-east of the site	



Agricultural grassland in the middle of the site





Treeline in the centre of the site



Laneway to the south of the site



Agricultural grassland to the south of the site





Hedgerow and agricultural grassland to the north-west of the site





7. Old building to the south of the site along the grassy laneway





Another old building to the south of the site at approximately 668515.84,834063.12 ITM

