

Appendix 8A Planning, Policy and Legislation

The collation of ecological baseline data and the preparation of this assessment has had regard to the following legislation and policy documents. This is not an exhaustive list but the most relevant legislative and policy basis for the purposes of preparing this biodiversity chapter.

The following international legislation is relevant to the proposed development:

- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora; hereafter, referred to as the ‘Habitats Directive’. The Habitats Directive is the legislation under which the Natura 2000 network¹ was established and Special Areas of Conservation (SACs) are designated for the protection of natural habitat types listed in Annex I, and habitats of the species listed in Annex II, of that directive.
- Directive 2009/147/EEC; hereafter, referred to as the ‘Birds Directive’. The Birds Directive is the legislation under which Special Protection Areas (SPAs) are designated for the protection of endangered species of wild birds listed in Annex I of that directive.
- The following national legislation is relevant to the proposed development:
- Wildlife Acts 1976 to 2021; hereafter collectively referred to as the ‘Wildlife Acts’. The Wildlife Acts are the principal pieces of legislation at national level for the protection of wildlife and for the control of activities that may harm wildlife. All bird species, 22 other animal species or groups of species, and 86 species of flora are protected under this legislation.
- Planning and Development Acts 2000 to 2021; hereafter collectively referred to as the ‘Planning and Development Acts’. This piece of legislation is the basis for Irish planning. Under the legislation, development plans (usually implemented at local authority level) must include mandatory objectives for the conservation of natural heritage and for the conservation of European sites. It also sets out the requirements in relation to environmental assessment with respect to planning matters, including transposition of the Habitats and Birds Directive into Irish law.
- European Communities (EC) (Birds and Natural Habitats) Regulations 2011 to 2015; hereafter the ‘Birds and Habitats Regulations’. This legislation transposes the Habitats and Birds Directives into Irish law. It also contains regulations (49 and 50) that deal with invasive species (those included within the Third Schedule of the regulations).
- Flora (Protection) Order, 2022. This lists species of plant protected under Section 21 of the Wildlife Acts.

The following plans and policies are relevant to the proposed development:

- National Biodiversity Action Plan 2017-2021 (Department of Culture Heritage and the Gaeltacht, 2017)
- All-Ireland Pollinator Plan 2021-2025 (National Biodiversity Data Centre, 2021)
- Wicklow County Development Plan 2022-2028 (Wicklow County Council, 2022)

¹ The Natura 2000 network is a European network of important ecological sites, as defined under Article 3 of the Habitats Directive 92/43/EEC, which comprises both special areas of conservation and special protection areas. Special Areas of Conservation are sites hosting the natural habitat types listed in Annex I, and species listed in Annex II, of the Habitats Directive, and are established under the Habitats Directive itself. Special Protection Areas are established under Article 4 of the Birds Directive 2009/147/EC for the protection of endangered species of wild birds. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats.

In Ireland these sites are designed as *European sites* - defined under the Planning Acts and/or the Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

Relevant policies

Policies and objectives relevant to the proposed development and referenced in the chapter are presented in the following tables. Table 1 covers relevant policies and objectives found in the *Wicklow County Development Plan 2022-2028*, and includes those covering designated sites, water quality and biodiversity listed in the Chapter. Table 2 covers additional land use plan policies and objectives that are relevant in the wider area, together with the *Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031*, on European sites and water quality in the Irish Sea.

Wicklow County Development Plan 2022-2028
<p>CPO13.1</p> <p>To ensure and support the implementation of the EU Groundwater Directive and the EU Water Framework Directive and associated River Basin and Sub-Basin Management Plans and Blue Dot Catchment Programme, to ensure the protection, improvement and sustainable use of all waters in the County, including rivers, lakes, ground water, coastal and estuarine waters, and to restrict development likely to lead to a deterioration in water quality. The Council will also have cognisance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive.</p>
<p>CPO 13.5</p> <p>To ensure compliance with and to implement the provisions of the Nitrates Directive in so far as it falls within the remit of the Council to do so.</p>
<p>CPO 13.6</p> <p>To encourage and promote the use of catchment-sensitive farming practices, in order to meet Water Framework Directive targets and comply with the River Basin Management Plan.</p>
<p>CPO 13.16</p> <p>Permission will be considered for private wastewater treatment plants for single rural houses where:</p> <ul style="list-style-type: none">• the specific ground conditions have been shown to be suitable for the construction of a treatment plant and any associated percolation area;• the system will not give rise to unacceptable adverse impacts on ground waters / aquifers and the type of treatment proposed has been drawn up in accordance with the appropriate groundwater protection response set out in the Wicklow Groundwater Protection Scheme (2003);• the proposed method of treatment and disposal complies with Wicklow County Council's Policy for Wastewater Treatment & Disposal Systems for Single Houses (PE ≤ 10) and the Environmental Protection Agency "Waste Water Treatment Manuals"; and• in all cases the protection of ground and surface water quality shall remain the overriding priority and proposals must definitively demonstrate that the proposed development will not have an adverse impact on water quality standards and requirements set out in EU and national legislation and guidance documents
<p>CPO 13.21</p> <p>Ensure the implementation of Sustainable Urban Drainage Systems (SUDS) in accordance with the Wicklow County Council SuDS Policy to ensure surface water runoff is managed for maximum benefit. In particular to require proposed developments to meet the design criteria of each of the four pillars of SuDS design; Water Quality, Water Quantity, Amenity and Biodiversity.</p>
<p>CPO 17.1</p> <p>To protect, sustainably manage and enhance the natural heritage, biodiversity, geological heritage, landscape and environment of County Wicklow in recognition of its importance for nature conservation and biodiversity and as a non-renewable resource.</p>

CPO17.2

Ensure the protection of ecosystems and ecosystem services by integrating full consideration of these into all decision making.

CPO17.3

To support and promote the implementation of the County Wicklow Heritage Plan and the County Wicklow Biodiversity Action Plan.

CPO 17.4

To contribute, as appropriate, towards the protection of designated ecological sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); Wildlife Sites (including proposed Natural Heritage Areas); Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of 1979); Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs). To contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including but not limited to the following and any updated/superseding documents: 333 Chapter 17 | Natural Heritage & Biodiversity Draft Wicklow County Development Plan 2021-2027

- EU Directives, including the Habitats Directive (92/43/EEC, as amended)⁶, the Birds Directive (2009/147/EC)⁷, the Environmental Liability Directive (2004/35/EC)⁸, the Environmental Impact Assessment Directive (2011/92/EU, as amended), the Water Framework Directive (2000/60/EC), EU Groundwater Directive (2006/118/EC) and the Strategic Environmental Assessment Directive (2001/42/EC); EU 'Guidance on integrating ecosystems and their services into decision-making' (European Commission 2019)
- National legislation, including the Wildlife Acts 1976 and 2010 (as amended)⁹, European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, the Wildlife (Amendment) Act 2000, the European Union (Water Policy) Regulations 2003 (as amended), the Planning and Development Act 2000 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011), the European Communities (Environmental Liability) Regulations 2008 (as amended)¹⁰ and the Flora Protection order 2015.
- National policy guidelines (including any clarifying circulars or superseding versions of same), including 'Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment' (2018), 'Guidance for Consent Authorities regarding Sub-Threshold Development' (2003), 'Tree Preservation Guidelines', 'Landscape and Landscape Assessment' (draft 2000), 'Appropriate Assessment Guidance' (2010);
- Catchment and water resource management plans, including the National River Basin Management Plan 2018-2021 (including any superseding versions of same),
- Biodiversity plans and guidelines, including National Biodiversity Action Plan 2017-2021 (including any superseding versions of same) and the County Wicklow Biodiversity Action Plan;
- Ireland's Environment – An Integrated Assessment 2020 (EPA), including any superseding versions of same), and to make provision where appropriate to address the report's goals and challenges

CPO 17.5

Projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall not be permitted on the basis of this plan

CPO 17.6

Ensure that development proposals, contribute as appropriate towards the protection and where possible enhancement of the ecological coherence of the European Site network and encourage the retention and management of landscape features that are of major importance for wild fauna and flora as per Article 10 of the EU Habitats directive. All projects and plans arising from this Plan

will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive.

CPO 17.7

To maintain the conservation value of all proposed and future Natural Heritage Areas (NHAs) and to protect other designated ecological sites in Wicklow.

CPO 17.8

Ensure ecological impact assessment is carried out for any proposed development likely to have a significant impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Annex I habitats, or rare and threatened species including those species protected by law and their habitats. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

CPO 17.12

To protect non-designated sites from inappropriate development, ensuring that ecological impact assessment is carried out for any proposed development likely to have a significant impact on locally important natural habitats, species or wildlife corridors. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

CPO 17.14

Ensure that development proposals support the protection and enhancement of biodiversity and ecological connectivity within the plan area in accordance with Article 10 of the Habitats Directive, including linear landscape features like watercourses (rivers, streams, canals, ponds, drainage channels, etc), woodlands, trees, hedgerows, road and railway margins, semi-natural grasslands, natural springs, wetlands, stonewalls, geological and geo-morphological systems, features which act as stepping stones, such as marshes and woodlands, other landscape features and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones that taken as a whole help to improve the coherence of the European network in Wicklow.

CPO 17.15

To protect and enhance wetland sites that are listed as being of C+ or higher importance in the County Wicklow wetlands survey and any subsequent updates or revisions thereof and to implement the recommendations of the County Wicklow wetlands survey.

CPO 17.17

Work with statutory authorities to prevent and control the spread of invasive plant and animal species and require, where appropriate Invasive Species Management Plans to be prepared as part of the development management process where necessary.

CPO17.18

To promote the preservation of trees, groups of trees or woodlands in particular native tree species, and those trees associated with demesne planting, in the interest of the long-term sustainability of a stable ecosystem amenity or the environment generally, as set out in Schedule 17.05 and Maps 17.05 and 17.05A - H of this plan.

CPO 17.22

To require and ensure the preservation and enhancement of native and semi-natural woodlands, groups of trees and individual trees, as part of the development management process, and require the planting of native broad leaved species, and species of local provenance in all new developments

CPO 17.24

To ensure and support the implementation of the EU Groundwater Directive and the EU Water Framework Directive and associated River Basin and Sub-Basin Management Plans and Blue Dot Catchment Programme, to ensure the protection, improvement and sustainable use of all waters in the County, including rivers, lakes, ground water, coastal and estuarine waters, and to restrict development likely to lead to a deterioration in water quality. The Council will also have cognisance

of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive.

CPO 17.25

Ensure that floodplains and wetlands are retained for their biodiversity and ecosystems services value and resist development and activities that would interfere with the natural water cycle to a degree that would interfere with the survival and stability of these natural habitats.

CPO 17.26

Protect rivers, streams and other water courses by avoiding interference with river / stream beds, banks and channels and maintaining a core riparian buffer zone of generally 25m along watercourses (or other width, as determined by the Planning Authority having particular regard to 'Planning for Watercourses in the Urban Environment' by Inland Fisheries Ireland for urban locations) free from inappropriate development, with Wicklow County Development Plan 2022-2028 Chapter 17 | Natural Heritage & Biodiversity undeveloped riparian vegetation strips, wetlands and floodplains generally being retained in as natural a state as possible. Structures such as bridges should be clear span, and designed and built in accordance with Inland Fisheries Ireland guidance.

Table 1 - Relevant land use plan policies/objectives within Wicklow County Development Plan 2022-2028 relating to the protection of designated sites, water quality and biodiversity.

Eastern & Midland Regional Assembly, Regional Spatial & Economic Strategy 2019-2031

Regional Policy Objective 3.4

Ensure that all plans, projects and activities requiring consent arising from the Regional Spatial and Economic Strategy are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate. In addition the future strategic development of settlements throughout the Region will have full cognisance of the legal requirements pertaining to sites of International Nature Conservation Interest.

Regional Policy Objective 7.2

To achieve and maintain 'Good Environmental Status' for marine waters and to ensure the sustainable use of shared marine resources in the Region, and to promote the development of a cross-boundary and cross-border strategic management and stakeholder engagement framework to protect the marine environment.

Regional Policy Objective 7.10

Support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all water bodies in the Region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant Directives, River Basin Management plans and local authority land use plans.

Regional Policy Objective 7.11

For water bodies with 'high ecological status' objectives in the Region, local authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and areas 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to waterbodies identified as 'At Risk' as part of a catchment based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region.

Regional Policy Objective 7.12

Future statutory land use plans shall include Strategic Flood Risk Assessment (SFRA) and seek to avoid inappropriate land use zonings and development in areas at risk of flooding and to integrate sustainable water management solutions (such as SuDS, nonporous surfacing and green roofs) to create safe places in accordance with the Planning System and Flood Risk Assessment Guidelines for Local Authorities.

Regional Policy Objective 7.15

Local authorities shall take opportunities to enhance biodiversity and amenities and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned.

Regional Policy Objective 7.16

Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and local authority development plans.

Regional Policy Objective 7.22

Local authority development plan and local area plans, shall identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner and should also have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks and protected species.

Regional Policy Objective 10.6

Delivery and phasing of services shall be subject to the required appraisal, planning and environmental assessment processes and shall avoid adverse impacts on the integrity of the Natura 2000 network.

Regional Policy Objective 10.7

Local authority core strategies shall demonstrate compliance with DHPLG Water Services Guidelines for local authorities and demonstrate phased infrastructure – led growth that is commensurate with the carrying capacity of water services and prevent adverse impacts on the integrity of water dependent habitats and species within the Natura 2000 network.

Regional Policy Objective 10.10

Support Irish Water and the relevant local authorities in the Region to eliminate untreated discharges from settlements in the short term, while planning strategically for long term growth in tandem with Project Ireland 2040 and in increasing compliance with the requirements of the Urban Waste Water Treatment Directive from 39% today to 90% by the end of 2021, to 99% by 2027 and to 100% by 2040.

Regional Policy Objective 10.11

EMRA supports the delivery of the waste water infrastructure set out in Table 10.2, subject to appropriate environmental assessment and the planning process.²

Regional Policy Objective 10.12

Development plans shall support strategic wastewater treatment infrastructure investment and provide for the separation of foul and surface water networks to accommodate the future growth of the Region.

Regional Policy Objective 10.15

Support the relevant local authorities (and Irish Water where relevant) in the Region to improve storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban environment and in the development and provision at a local level of Sustainable Urban Drainage solutions.

Regional Policy Objective 10.16

Implement policies contained in the Greater Dublin Strategic Drainage Study (GDSDS), including SuDS.

Regional Policy Objective 10.18

Local authorities shall ensure adequate surface water drainage systems are in place which meet the requirements of the Water Framework Directive and the associated River Basin Management Plans.

² The Greater Dublin Drainage Project, the Ringsend Wastewater Treatment Plant Project, the Athlone Main Drainage Project and the Upper Liffey Valley Sewerage Scheme

Policy Objective GIB18: Protection of Natural Heritage and the Environment

It is a Policy Objective to protect and conserve the environment including, in particular, the natural heritage of the County and to conserve and manage Nationally and Internationally important and EU designated sites - such as Special Protection Areas (SPAs), Special Areas of Conservations (SACs), proposed Natural Heritage Areas (pNHAs) and Ramsar sites (wetlands) - as well as non-designated areas of high nature conservation value known as locally important areas which also serve as 'Stepping Stones' for the purposes of Article 10 of the Habitats Directive

Policy Objective GIB19: Habitats Directive

It is a Policy Objective to ensure the protection of natural heritage and biodiversity, including European Sites that form part of the Natura 2000 network, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.

Policy Objective GIB21: Designated Sites

It is a Policy Objective to protect and preserve areas designated as proposed Natural Heritage Areas, Special Areas of Conservation, and Special Protection Areas. It is Council policy to promote the maintenance and as appropriate, delivery of 'favourable' conservation status of habitats and species within these areas.

Policy Objective GIB22: Non-Designated Areas of Biodiversity Importance

It is a Policy Objective to protect and promote the conservation of biodiversity in areas of natural heritage importance outside Designated Areas and to ensure that notable sites, habitats and features of biodiversity importance - including species protected under the Wildlife Acts 1976 and 2000, the Birds Directive 1979, the Habitats Directive 1992, Flora (Protection) Order, 2015, Annex I habitats, local important areas, wildlife corridors and rare species - are adequately protected. Ecological assessments will be carried out for all developments in areas that support, or have potential to support, features of biodiversity importance or rare and protected species and appropriate mitigation/ avoidance measures will be implemented. In implementing this policy, regard shall be had to the Ecological Network, including the forthcoming DLR Wildlife Corridor Plan, and the recommendations and objectives of the Green City Guidelines (2008) and 'Ecological Guidance Notes for Local Authorities and Developers' (Dún Laoghaire-Rathdown Version 2014)

Policy Objective GIB23: County-Wide Ecological Network

It is a Policy Objective to protect the Ecological Network which will be integrated into the updated Green Infrastructure Strategy and will align with the DLR County Biodiversity Action Plan. Creating this network throughout the County will also improve the ecological coherence of the Natura 2000 network in accordance with Article 10 of the Habitats Directive. The network will also include non-designated sites.

Policy Objective EI7: Water Supply and Wastewater treatment and Appropriate Assessment

It is a Policy Objective to require that all developments relating to water supply and wastewater treatment are subject to screening for Appropriate Assessment to ensure there are no likely significant effects on the integrity, defined by the structure and function, of any European sites and that the requirements of Article 6 of the EU Habitats Directive are met. (Consistent with RPO 10.7 of the RSES).

Policy Objective EI8: Groundwater Protection and Appropriate Assessment

It is a Policy Objective to ensure the protection of the groundwater resources in and around the County and associated habitats and species in accordance with the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (Groundwater) Regulations, 2010. In this regard, the Council will support the implementation of Irish Water's Water Safety Plans to protect sources of public water supply and their contributing catchment.

Policy Objective EI2: Irish Water Enabling Policies Irish Water's Plans and Programmes

It is a Policy Objective - in conjunction with the Eastern and Midland Regional Authority, where appropriate - to work with and support Irish Water in the delivery of the strategic objectives and strategic water and wastewater projects and infrastructure as set out in the 'Water Services Strategic Plan' (2015), any subsequent plan, Irish Water's Capital Investment Plan 2020 – 2024, any subsequent Capital Investment Plans and the forthcoming National Water Resources Plan, so as to ensure provision of infrastructure to service settlements in accordance with the Core Strategy of this Plan, and the settlement strategy of the RSES. (Consistent with RPO 10.2, 10.3, 10.11, 10.16 of the RSES).

Policy Objective EI5: River Basin Management Plans (RMBPs)

It is a Policy Objective: To ensure the delivery of the relevant policies and objectives of the River Basin Management Plan for Ireland 2018 – 2021 and any subsequent plan, including those relating to protection of water status, improvement of water status, prevention of deterioration and meeting objectives for designated protected sites. To support Irish Water in its implementation of Water Quality Management Plans for ground, surface, coastal and estuarine waters as part of the implementation of the EU Water Framework Directive. To support Irish Water in the development of Drinking Water Protection Plans.

Policy Objective EI6: Sustainable Drainage Systems

It is a Policy Objective to ensure that all development proposals incorporate Sustainable Drainage Systems (SuDS).

Policy Objective EI7: Water Pollution

It is a Policy Objective to implement the provisions of water pollution abatement measures in accordance with national and EU Directives and other legislative requirements in conjunction with other agencies as appropriate.

Dublin City Development Plan 2022-2028

SI2:

To support and facilitate Irish Water to ensure the upgrading of wastewater infrastructure, in particular the upgrading of the Ringsend Wastewater Treatment Plant, and to support the development of the Greater Dublin Regional Wastewater Treatment Plant, the North Docklands Sewage Scheme, the Marine Outfall and orbital sewer to be located in the northern part of the Greater Dublin Area to serve the Dublin region as part of the Greater Dublin Strategic Drainage Strategy.

SI3:

To ensure that development is permitted in tandem with available water supply and wastewater treatment and to manage development, so that new schemes are permitted only where adequate capacity or resources exists or will become available within the life of a planning permission.

SI7:

To promote the progressive reduction of pollution of groundwater and prevent its further pollution

SI17:

To require an environmental assessment of all proposed flood protection or flood alleviation works

SI18:

To require the use of Sustainable Urban Drainage Systems in all new developments, where appropriate, as set out in the Greater Dublin Regional Code of Practice for Drainage Works. The following measures will apply:

- The infiltration into the ground through the development of porous pavement such as permeable paving, swales, and detention basins
- The holding of water in storage areas through the construction of green roofs, rainwater harvesting, detention basins, ponds, and wetlands
- The slow-down of the movement of water.

GI2:

That any plan/project, either individually or in combination with other plans or projects that has the potential to give rise to significant effect on the integrity of any European site(s), shall be subject to an appropriate assessment in accordance with Article 6(3) and 6(4) of the EU Habitats Directives

GI23:

To protect flora, fauna and habitats, which have been identified by Articles 10 and 12 of Habitats Directive, Birds Directive, Wildlife Acts 1976–2012, the Flora (Protection) Order 2015 S.I No. 356 of 2015, European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.

GI23:

To protect flora, fauna and habitats, which have been identified by Articles 10 and 12 of Habitats Directive, Birds Directive, Wildlife Acts 1976–2012, the Flora (Protection) Order 2015 S.I No. 356 of 2015, European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.

GI26:

To have regard to the conservation and enhancement of significant non-designated areas of ecological importance in accordance with development standards set out in this plan

Table 2 - Relevant land use plan policies/objectives relating to the protection of European sites and water quality in the Irish Sea

RECEIVED: 14/08/2023

Appendix 8B Examples of Valuing Important Ecological Features

RECEIVED: 14/08/2023

International Importance:

'European site' including Special Area of Conservation (SAC), Site of Community Importance (SCI), Special Protection Area (SPA) or proposed Special Area of Conservation.
Proposed Special Protection Area (pSPA).
Site that fulfils the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended).
Features essential to maintaining the coherence of the Natura 2000 Network.³
Site containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive.
Resident or regularly occurring populations (assessed to be important at the national level)⁴ of the following:
Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and/or
Species of animal and plants listed in Annex II and/or IV of the Habitats Directive.
Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971).
World Heritage Site (Convention for the Protection of World Cultural & Natural Heritage, 1972).
Biosphere Reserve (UNESCO Man & The Biosphere Programme).
Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979).
Site hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979).
Biogenetic Reserve under the Council of Europe.
European Diploma Site under the Council of Europe.
Salmonid water designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988, (S.I. No. 1988).⁵

National Importance:

Site designated or proposed as a Natural Heritage Area (NHA).
Statutory Nature Reserve.
Refuge for Fauna and Flora protected under the Wildlife Acts.
National Park.
Undesignated site fulfilling the criteria for designation as a Natural Heritage Area (NHA); Statutory Nature Reserve; Refuge for Fauna and Flora protected under the Wildlife Act; and/or a National Park.
Resident or regularly occurring populations (assessed to be important at the national level)⁶ of the following:
Species protected under the Wildlife Acts; and/or
Species listed on the relevant Red Data list.

³ See Articles 3 and 10 of the Habitats Directive

⁴ It is suggested that, in general, 1% of the national population of such species qualifies as an internationally important population. However, a smaller population may qualify as internationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

⁵ Note that such waters are designated based on these waters' capabilities of supporting salmon (*Salmo salar*), trout (*Salmo trutta*), char (*Salvelinus*) and whitefish (*Coregonus*)

⁶ It is suggested that, in general, 1% of the national population of such species qualifies as a nationally important population. However, a smaller population may qualify as nationally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

Site containing 'viable areas'⁷ of the habitat types listed in Annex I of the Habitats Directive

County Importance:

Area of Special Amenity.⁸

Area subject to a Tree Preservation Order.

Area of High Amenity, or equivalent, designated under the County Development Plan.

Resident or regularly occurring populations (assessed to be important at the County level)⁹ of the following:

Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;

Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;

Species protected under the Wildlife Acts; and/or

Species listed on the relevant Red Data list.

Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfil the criteria for valuation as of International or National importance.

County important populations of species, or viable areas of semi-natural habitats or natural heritage features identified in the National or Local Biodiversity Action Plan, if this has been prepared.

Sites containing semi-natural habitat types with high biodiversity in a county context and a high degree of naturalness, or populations of species that are uncommon within the county.

Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.

Local Importance (higher value):

Locally important populations of priority species or habitats or natural heritage features identified in the Local BAP, if this has been prepared;

Resident or regularly occurring populations (assessed to be important at the Local level)¹⁰ of the following:

Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;

Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;

Species protected under the Wildlife Acts; and/or

Species listed on the relevant Red Data list.

Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality;

Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value.

Local Importance (lower value):

⁷ A 'viable area' is defined as an area of a habitat that, given the particular characteristics of that habitat, was of a sufficient size and shape, such that its integrity (in terms of species composition, and ecological processes and function) would be maintained in the face of stochastic change (for example, as a result of climatic variation).

⁸ It should be noted that whilst areas such as Areas of Special Amenity, areas subject to a Tree Preservation Order and Areas of High Amenity are often designated on the basis of their ecological value, they may also be designated for other reasons, such as their amenity or recreational value. Therefore, it should not be automatically assumed that such sites are of County importance from an ecological perspective.

⁹ It is suggested that, in general, 1% of the County population of such species qualifies as a County important population. However, a smaller population may qualify as County important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

¹⁰ It is suggested that, in general, 1% of the local population of such species qualifies as a locally important population. However, a smaller population may qualify as locally important where the population forms a critical part of a wider population or the species is at a critical phase of its life cycle.

Sites containing small areas of semi-natural habitat that are of some local importance for wildlife;
Sites or features containing non-native species that are of some importance in maintaining habitat links.

RECEIVED: 14/08/2023

Appendix 8C Protected Sites for Nature Conservation in the Vicinity of the Proposed Development

European sites in the vicinity of the proposed development are listed below in Table 1, along with their qualifying/special conservation interests, reference to the most recent conservation objectives document, and their location relative to the proposed development site.

Other nationally protected sites for nature conservation in the vicinity of the proposed development are listed below in Table 2 along with the nature conservation interests for which they are designated, and their location relative to the proposed development site.

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Special Area of Conservation (SAC)	
<p>The Murrough Wetlands SAC [002249] 1210 Annual vegetation of drift lines 1220 Perennial vegetation of stony banks 1330 Atlantic salt meadows (<i>Glauco Puccinellietalia maritimae</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 7210 Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae* 7230 Alkaline fens</p> <p><i>S.I. No. 622/2017 - European Union Habitats (The Murrough Wetlands Special Area of Conservation 002249) Regulations 2017.</i> NPWS (2021) Conservation Objectives: The Murrough Wetlands SAC 002249. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.¹¹</p>	<p>Approximately 440m east from the proposed development</p>
<p>Wicklow Reef SAC [002274] 1170 Reefs</p> <p><i>S.I. No. 104/2016 - European Union Habitats (Wicklow Reef Special Area of Conservation 002274) Regulations 2016.</i> NPWS (2013) Conservation Objectives: Wicklow Reef SAC 002274. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 5.3km east from the proposed development</p>
<p>Deputy's Pass Nature Reserve SAC [000717] 91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p><i>S.I. No. 381/1982 - Nature Reserve (Deputy's Pass) Establishment Order, 1982.</i> NPWS (2021) Conservation Objectives: Deputy's Pass Nature Reserve SAC 000717. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.</p>	<p>Approximately 7.1km south-west from the proposed development</p>

¹¹ The versions of the conservation objectives documents referenced in this table are the most recent published versions at the time of writing

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>Magherabeg Dunes SAC [001766] 1210 Annual vegetation of drift lines 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2150 Atlantic decalcified fixed dunes (Calluno-Uliceatea)* 7220 Petrifying springs with tufa formation (Cratoneurion)*</p> <p><i>S.I. No. 611/2019 - European Union Habitats (Magherabeg Dunes Special Area of Conservation 001766) Regulations 2019.</i> NPWS (2017) Conservation Objectives: Magherabeg Dunes SAC 001766. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>Approximately 7.5km south-east from the proposed development</p>
<p>Vale of Clara (Rathdrum Wood) SAC [000733] 91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p><i>S.I. No. 212/2019 - European Union Habitats (Vale of Clara (Rathdrum Wood) Special Area of Conservation 000733) Regulations 2019.</i> NPWS (2021) Conservation Objectives: Vale of Clara (Rathdrum Wood) SAC 000733. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.</p>	<p>Approximately 9.8km south-west from the proposed development</p>
<p>Buckroney-Brittias Dunes And Fen SAC [000729] 1210 Annual vegetation of drift lines 1220 Perennial vegetation of stony banks 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2150 Atlantic decalcified fixed dunes (Calluno-Ulicetea)* 2170 Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) 2190 Humid dune slacks 7230 Alkaline fens</p> <p><i>S.I. No. 67/2022 - European Union Habitats (Buckroney-Brittias Dunes and Fen Special Area of Conservation 000729) Regulations 2022.</i> NPWS (2017) Conservation Objectives: Buckroney-Brittias Dunes and Fen SAC 000729. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>Approximately 10.8km south-east from the proposed development</p>
<p>Wicklow Mountains SAC [002122] 3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflora</i>)</p>	<p>Approximately 12.4km north-east from the proposed development</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoetes-Nanojuncetea</p> <p>3160 Natural dystrophic lakes and ponds</p> <p>4010 Northern Atlantic wet heaths with <i>Erica tetralix</i></p> <p>4030 European dry heaths</p> <p>4060 Alpine and Boreal heaths</p> <p>6130 Calaminarian grasslands of the <i>Violetalia calaminariae</i></p> <p>6230 Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)*</p> <p>7130 Blanket bogs (* if active bog)</p> <p>8110 Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>)</p> <p>8210 Calcareous rocky slopes with chasmophytic vegetation</p> <p>8220 Siliceous rocky slopes with chasmophytic vegetation</p> <p>91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>1355 Otter <i>Lutra lutra</i></p> <p>NPWS (2017) Conservation Objectives: Wicklow Mountains SAC 002122. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p style="color: red; text-align: right; font-size: 2em; opacity: 0.5;">RECEIVED: 14/08/2023</p>
<p>Carriggower Bog SAC [000716]</p> <p>7140 Transition mires and quaking bogs</p> <p>NPWS (2019) Conservation Objectives: Carriggower Bog SAC 000716. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.</p>	<p>Approximately 13km north-west from the proposed development</p>
<p>Glen of the Downs SAC [000719]</p> <p>91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>S.I. No. 178/1980 - Nature Reserve (Glen of the Downs) Establishment Order, 1980.</p> <p>NPWS (2020) Conservation Objectives: Glen of the Downs SAC 000719. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.</p>	<p>Approximately 14.6km north from the proposed development</p>
Special Protection Area (SPA)	
<p>The Murrough SPA [004186]</p> <p>A001 Red-throated Diver <i>Gavia stellata</i></p> <p>A043 Greylag Goose <i>Anser anser</i></p> <p>A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i></p> <p>A050 Wigeon <i>Anas penelope</i></p> <p>A052 Teal <i>Anas crecca</i></p> <p>A179 Black-headed Gull <i>Chroicocephalus ridibundus</i></p> <p>A184 Herring Gull <i>Larus argentatus</i></p>	<p>Approximately 440m east from the proposed development</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>A195 Little Tern <i>Sterna albifrons</i> A999 Wetland and Waterbirds</p> <p>S.I. No. 298/2011 - European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011. NPWS (2022) Conservation objectives for The Murrough SPA [004186]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.</p>	
<p>Wicklow Head SPA [004127] A188 Kittiwake <i>Rissa tridactyla</i></p> <p>NPWS (2022) Conservation objectives for Wicklow Head SPA [004127]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.</p>	Approximately 3.9km south-east from the proposed development
<p>Wicklow Mountains SPA [004040] A098 Merlin <i>Falco columbarius</i> A103 Peregrine <i>Falco peregrinus</i></p> <p>S.I. No. 586/2012 - European Communities (Conservation of Wild Birds (Wicklow Mountains Special Protection Area 004040)) Regulations 2012. NPWS (2022) Conservation objectives for Wicklow Mountains SPA [004040]. First Order Site-specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.</p>	Approximately 14.2km west from the proposed development

Table 1 - European sites in the vicinity of the proposed development

Designated Site Name [Code] and Reason for Designation	Location Relative to the Proposed Development Site
<p>The Murrough pNHA [000730]</p> <p>The site is designated under similar conservation objectives as its SAC and SPA designations. Refer to The Murrough Wetlands SAC [002249] and SPA [004186] in Table 1.</p>	Approximately 450m east of the proposed development
<p>Wicklow Town Sites pNHA [001929]</p> <p>The site is designated for the presence of rare plants, such as <i>Trifolium subterraneum</i>, which is unknown from elsewhere in Ireland.</p>	Approximately 1.6km south-east of the proposed development
<p>Wicklow Head pNHA [000734]</p> <p>The site is designated under similar conservation objectives as its SPA designation. Refer to Wicklow Head SPA [004127] in Table 1.</p>	Approximately 3.9km south-east of the proposed development
<p>Glenealy Woods pNHA [001756]</p> <p>The site is designated under similar conservation objectives as its SAC designation. Refer to Deputy's Pass Nature Reserve SAC [000717] in Table 1.</p>	Approximately 4.1km south-west of the proposed development
<p>Devil's Glen pNHA [000718]</p>	Approximately 5.1km north-west of the proposed development

Designated Site Name [Code] and Reason for Designation	Location Relative to the Proposed Development Site
The site is designated for its fine example of a mostly wooded, steep-sided rocky gorge, as well as the presence of a number of rare or scarce plants and birds.	
Magherabeg Dunes pNHA [001766] The site is designated under similar conservation objectives as its SAC designation. Refer to Magherabeg Dunes SAC [001766] in Table 1.	Approximately 8.1km south-east of the proposed development
Vartry Reservoir pNHA [001771] The site is designated for its wintering waterfowl, its diversity of habitats, as well as for the presence of some plant species that are relatively rare in eastern Ireland.	Approximately 9.6km north-west of the proposed development
Vale of Clara (Rathdrum Wood) pNHA [000733] The site is designated under similar conservation objectives as its SAC designation. Refer to Vale of Clara (Rathdrum Wood) SAC [000733] in Table 1.	Approximately 9.8km south-west of the proposed development
Buckroney-Brittias Dunes and Fen pNHA [000729] The site is designated under similar conservation objectives as its SAC designation. Refer to Buckroney-Brittias Dunes and Fen SAC [000729] in Table 1.	Approximately 10.8km south of the proposed development
Carriggower Bog pNHA [000716] The site is designated under similar conservation objectives as its SAC designation. Refer to Carriggower Bog SAC [000716] in Table 1.	Approximately 13km north-west of the proposed development
Avondale pNHA [002093] The site is designated for the presence of a large whiskered bat roost in the Avondale House. As 40 individual bats have been recorded emerging from the roost and the estimated national population of this species is only several hundred, colonies of more than 10 individuals are of national importance.	Approximately 13.4km south-west of the proposed development
Glen of the Downs pNHA [000719] The site is designated under similar conservation objectives as its SAC designation. Refer to Glen of the Downs SAC [000719] in Table 1.	Approximately 14.6km north-west of the proposed development

Table 2 - Nationally protected sites in the vicinity of the proposed development

Appendix 8D Desk Study Flora and Fauna Records

Desktop records of protected, rare, or other notable plant species are listed below in Table 1. These are plant species which are legally protected under the Flora (Protection) Order, 2022 and/or are listed as Critically Endangered, Endangered, Vulnerable or Near Threatened on the relevant national Red Data list for Ireland¹².

Species	FPO/EU Habitats Directive	Red-listed ¹²	Origin of record
<i>Asparagus prostratus</i> (<i>Asparagus officinalis</i> subsp. <i>prostratus</i>)	FPO	Endangered	NPWS database record (T39)
<i>Cephalanthera longifolia</i>	FPO	Vulnerable	NPWS database record (T29 and T39)
<i>Clinopodium acinos</i> (<i>Acinos arvensis</i>)	FPO	Near Threatened	NPWS database record (T39)
<i>Crambe maritima</i>	-	Near Threatened	NPWS database record (T39)
<i>Cynoglossum officinale</i>	-	Near Threatened	NPWS database record (T39)
<i>Equisetum x moorei</i> (<i>Equisetum hyemale</i> x <i>E. ramosissimum</i>)	FPO	Near Threatened	NPWS database record (T39)
<i>Glaucium flavum</i>	-	Near Threatened	NPWS database record (T39)
<i>Gymnocarpium dryopteris</i>	-	Regionally Extinct	NPWS database record (T29 and T39)
<i>Hordeum secalinum</i>	FPO	Vulnerable	NBDC database record; NPWS database record (T39)
<i>Hyoscyamus niger</i>	-	Near Threatened	NPWS database record (T39)
<i>Linaria repens</i>	-	Near Threatened	NPWS database record (T29 and T39)
<i>Logfia minima</i> (<i>Filago minima</i>)	FPO	Near Threatened	NPWS database record (T39)
<i>Lycopsis arvensis</i> (<i>Anchusa arvensis</i>)	-	Near Threatened	NPWS database record (T39)
<i>Malva neglecta</i>	-	Near Threatened	NPWS database record (T29 and T39)
<i>Omalotheca sylvatica</i> (<i>Gnaphalium sylvaticum</i>)	FPO	Endangered	NPWS database record (T29 and T39)
<i>Orobanche rapum-genistae</i>	-	Near Threatened	NPWS database record (T29 and T39)
<i>Roemeria hispida</i> (<i>Papaver hybridum</i>)	FPO	Regionally Extinct*[neo]	NPWS database record (T39)
<i>Scandix pecten-veneris</i>	-	Regionally Extinct	NPWS database record (T39)

¹² Vascular flora from 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.

Bryophytes from Lockhart, N., Hodgetts, N. & Holyoak, D. (2012) *Ireland Red List No.8: Bryophytes*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Species	FPO/EU Habitats Directive	Red-listed ¹²	Origin of record
<i>Scleranthus annuus</i>	FPO	Vulnerable	NPWS database record (T39)
<i>Sorbus hibernica</i>	-	Vulnerable	NPWS database record (T29 and T39)
<i>Torilis nodosa</i>	-	Near Threatened	NPWS database record (T39)
<i>Trifolium glomeratum</i>	FPO	Endangered	NPWS database record (T39)
<i>Trifolium scabrum</i>	-	Near Threatened	NPWS database record (T29 and T39)
<i>Trifolium subterraneum</i>	-	Vulnerable	NBDC database record; NPWS database record (T39)
<i>Vicia lathyroides</i>	-	Vulnerable	NBDC database record

*Species assessed as Regionally Extinct (RE) by Wyse Jackson *et al.* (2016) for which introduced, neophyte populations have since been discovered as *[neo].

Table 1 Records of protected, red-listed or notable flora recorded from the desk study in the vicinity of the study area

Desktop records of protected, rare, or other notable fauna species are listed below in Table 2. In relation to amphibian, reptile and mammal species those which are protected under the Wildlife Acts, the Habitats Directive and/or are listed as threatened (Vulnerable to Critically Endangered) on the relevant national Red Lists are included. In the case of bird species, only those species listed in Annex I of the Birds Directive or on the Birds of Conservation Concern in Ireland (BoCCI (Gilbert *et al.*, 2021)) Red List or Amber list are included in the table below. For invertebrate species, those which are listed as threatened (Near Threatened to Critically Endangered) on the relevant national Red List are included.

Common Name/ Scientific Name	Legal Status ¹³	Red List Status ¹⁴	Source
Mammals (Terrestrial)			
Otter <i>Lutra lutra</i>	WA, HD_II, V	Least concern	NBDC database record and field survey records along Rathnew Stream

¹³ HD_II/IV/V = Habitats Directive Annexes II/IV/V; WA = Wildlife Acts; BD_I/II/III = Birds Directive Annex I/II/III; OSPAR = Convention for the protection of the marine environment of the North-east Atlantic 1992

¹⁴ Mammals from Marnell, F., Looney, D. & Lawton, C. (2019) *Ireland Red List No. 12: Terrestrial Mammals*. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland.

Birds from Colhoun, K. & Cummins, S. (2013) *Birds of Conservation Concern in Ireland 2014-2019*. Irish Birds 9:523-544.

Amphibians, reptiles and fish from 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*.

Non-Marine Molluscs from Byrne, A., Moorkens, E.A., Anderson, R., Killeen, I.J. & Regan, E.C. (2009) *Ireland Red List No. 2: Non-Marine Molluscs*.

Butterflies from Regan, E.C., Nelson, B., Aldwell, B., Bertrand, C., Bond, K., Harding, J., Nash, D., Nixon, D., & Wilson, C.J. (2010) *Ireland Red List No. 4: Butterflies*.

Moths from Allen, D., O'Donnell, M., Nelson, B., Tyner, A., Bond, K.G.M., Bryant, T., Crory, A., Mellon, C., O'Boyle, J., O'Donnell, E., Rolston, T., Sheppard, R., Strickland, P., Fitzpatrick, U., & Regan, E. (2016) *Ireland Red List No. 9: Macro-moths (Lepidoptera)*.

Damselflies and dragonflies from Nelson, B., Ronayne, C. & Thompson, R. (2011) *Ireland Red List No.6: Damselflies & Dragonflies (Odonata)*.

Water beetles from Foster, G. N., Nelson, B. H. & O Connor, Á. (2009) *Ireland Red List No. 1: Water beetles*.

Common Name/ Scientific Name	Legal Status ¹³	Red List Status ¹⁴	Source
Badger <i>Meles meles</i>	WA	Least concern	NBDC database record NPWS database record (T29)
Common pipistrelle <i>Pipistrellus pipistrellus</i>	WA, HD_IV	Least concern	NBDC database record
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	WA, HD_IV	Least concern	NBDC database record
Brown Long-eared Bat <i>Plecotus auritus</i>	WA, HD_IV	Least concern	NBDC database record
Daubenton's bat <i>Myotis daubentonii</i>	WA, HD_IV	Least concern	NBDC database record
Leisler's bat <i>Nyctalus leisleri</i>	WA, HD_IV	Least concern	NBDC database record
Fallow deer <i>Dama dama</i>	WA	Least concern	NPWS database record (T29 and T39)
Hedgehog <i>Erinaceus europaeus</i>	WA	Least concern	NBDC database record NPWS database record (T29 and T39)
Irish hare <i>Lepus timidus</i> subsp. <i>hibernicus</i>	WA	Least concern	NPWS database record (T29 and T39)
Irish stoat <i>Mustela erminea</i> subsp. <i>hibernica</i>	WA	Least concern	NPWS database record (T29 and T39)
Red squirrel <i>Sciurus vulgaris</i>	WA	Least concern	NPWS database record (T29 and T39)
Mammals (Marine)			
Bottlenose dolphin <i>Tursiops truncatus</i>	WA, HD_II, IV	N/A	Irish Whale and Dolphin Group
Grey seal <i>Halichoerus grypus</i>	WA, HD_II, V	Least concern	NBDC database record
Harbour porpoise <i>Phocoena phocoena</i>	WA, HD_II, IV	N/A	NBDC database record Irish Whale and Dolphin Group
Harbour seal <i>Phoca vitulina</i>	WA, HD_II, V	Least concern	NPWS database record (T29)
Sowerby's beaked whale <i>Mesoplodon bidens</i>	WA, HD_IV	N/A	Public news
Birds			
Barn Owl <i>Tyto alba</i>	WA	Red	NBDC database record
Barn swallow <i>Hirundo rustica</i>	WA	Amber	NBDC database record
Bar-tailed godwit <i>Limosa lapponica</i>	WA, BD_I, SCI	Red	NBDC database record
Black-headed gull <i>Chroicocephalus ridibundus</i>	WA, BD II, SCI	Amber	NBDC database record

Common Name/ Scientific Name	Legal Status ¹³	Red List Status ¹⁴	Source
Black-tailed godwit <i>Limosa limosa</i>	WA, BD II, SCI	Red	NBDC database record
Common Goldeneye <i>Bucephala clangula</i>	BD II, WA, SCI	Red	NBDC database record
Common Greenshank <i>Tringa nebularia</i>	WA, BD II, SCI	Amber	NBDC database record
Common Kestrel <i>Falco tinnunculus</i>	WA	Red	NBDC database record
Common Kingfisher <i>Alcedo atthis</i>	BD I, WA, SCI	Amber	NBDC database record
Common linnet <i>Carduelis cannabina</i>	WA	Amber	NBDC database record
Common redshank <i>Tringa totanus</i>	WA, BD II, SCI	Red	NBDC database record
Common ringed plover <i>Charadrius hiaticula</i>	WA, BD II, SCI	Amber	NBDC database record
Common Sandpiper <i>Actitis hypoleucos</i>	WA	Amber	NBDC database record
Common starling <i>Sturnus vulgaris</i>	WA	Amber	NBDC database record
Common Snipe <i>Gallinago gallinago</i>	WA	Red	NBDC database record
Common Swift <i>Apus apus</i>	WA	Red	NBDC database record
Common Tern <i>Sterna hirundo</i>	BD I, WA, SCI	Amber	NBDC database record
Dunlin <i>Calidris alpina</i>	WA, BD_I, SCI	Red	NBDC database record
Eurasian curlew <i>Numenius arquata</i>	WA, BD_II (II), SCI	Red	NBDC database record
Eurasian Oystercatcher <i>Haematopus ostralegus</i>	WA, BD_II, SCI	Red	NBDC database record
Eurasian Teal <i>Anas crecca</i>	BD_II, WA, SCI	Amber	NBDC database record
Eurasian wigeon <i>Anas penelope</i>	WA, BD_II (I), III (II), SCI	Amber	NBDC database record
European herring gull <i>Larus argentatus</i>	WA, BD_II (II), SCI	Amber	NBDC database record
European Golden Plover <i>Pluvialis apricaria</i>	BD I, WA, SCI	Red	NBDC database record
European Greenfinch <i>Carduelis chloris</i>	WA	Amber	NBDC database record

RECEIVED: 14/08/2023

Common Name/ Scientific Name	Legal Status ¹³	Red List Status ¹⁴	Source
Goosander <i>Mergus merganser</i>	WA, BD_II	Amber	NBDC database record
European Shag <i>Phalacrocorax aristotelis</i>	WA, BD_II, SCI	Amber	NBDC database record
Gadwall <i>Anas strepera</i>	BD II, WA, SCI	Amber	NBDC database record
Great Cormorant <i>Phalacrocorax carbo</i>	WA, BD_II, SCI	Amber	NBDC database record
Grey plover <i>Pluvialis squatarola</i>	WA, BD_II, SCI	Red	NBDC database record
Hen Harrier <i>Circus cyaneus</i>	BD I, WA, SCI	Amber	NBDC database record
House martin <i>Delichon urbicum</i>	WA	Amber	NBDC database record
House Sparrow <i>Passer domesticus</i>	WA	Amber	NBDC database record
Lesser black-backed gull <i>Larus fuscus</i>	WA, BD_II, SCI	Amber	NBDC database record
Little egret <i>Egretta garzetta</i>	WA, BD_I	Green	NBDC database record
Mallard <i>Anas platyrhynchos</i>	WA, BD_II (I), III (I), SCI	Amber	NBDC database record
Meadow Pipit <i>Anthus pratensis</i>	WA	Red	NBDC database record
Common/ Mew Gull <i>Larus canus</i>	WA, BD_II, SCI	Amber	NBDC database record
Mute swan <i>Cygnus olor</i>	WA	Amber	NBDC database record
Northern Lapwing <i>Vanellus vanellus</i>	WA, BD II, SCI	Red	NBDC database record
Red kite <i>Milvus milvus</i>	WA, BD_I	Red	NBDC database record
Red Knot <i>Calidris canutus</i>	WA, BD_II, SCI	Red	NBDC database record
Red-breasted merganser <i>Mergus serrator</i>	WA, BD_II (II), SCI	Amber	NBDC database record
Sand Martin <i>Riparia riparia</i>	WA	Amber	NBDC database record
Sandwich Tern <i>Sterna sandvicensis</i>	WA, BD I, SCI	Amber	NBDC database record
Shelduck <i>Tadorna tadorna</i>	WA, BD_II, SCI	Amber	NBDC database record

RECEIVED: 14/08/2023

Common Name/ Scientific Name	Legal Status ¹³	Red List Status ¹⁴	Source
Short-eared owl <i>Asio flammeus</i>	WA, BD_I	Amber	NBDC database record
Sky Lark <i>Alauda arvensis</i>	WA	Amber	NBDC database record
Tufted Duck <i>Aythya fuligula</i>	WA, BD II, SCI	Amber	NBDC database record
Water Rail <i>Rallus aquaticus</i>	WA	Amber	NBDC database record
Willow Warbler <i>Phylloscopus trochilus</i>	WA	Amber	NBDC database record
Amphibians and Reptiles			
Common frog <i>Rana temporaria</i>	WA, HD_V	Least concern	NBDC database record NPWS database record
Common lizard <i>Zootoca vivipara</i>	WA	Least concern	NPWS database record
Smooth newt <i>Lissotriton vulgaris</i>	WA	Least concern	NBDC database record NPWS database record
Fish			
European eel <i>Anguilla anguilla</i>	OSPAR Convention	Critically Endangered	NBDC database record
River lamprey <i>Lampetra fluviatilis</i>	HD_II, V	Least Concern	IFI survey record (2010)
Invertebrates			
Bronze furrow bee <i>Halictus tumulorum</i>	N/A	Near Threatened	NBDC database record
Green moss beetle <i>Ochthebius viridis</i>	N/A	Near Threatened	NBDC database record
Barbut's Cuckoo Bee <i>Bombus barbutellus</i>	N/A	Near Threatened	NBDC database record
Red-tailed bumble bee <i>Bombus lapidarius</i>	N/A	Near Threatened	NBDC database record
Marine moss beetle <i>Ochthebius marinus</i>	N/A	Near Threatened	NBDC database record
Orangeman beetle <i>Helophorus fulgidicollis</i>	N/A	Vulnerable	NBDC database record
<i>Andrena (Cnemidandrena)</i> <i>denticulata</i>	N/A	Vulnerable	NBDC database record
Moss Carder-bee <i>Bombus muscorum</i>	N/A	Near Threatened	NBDC database record
Patchwork leaf-cutter bee <i>Megachile centuncularis</i>	N/A	Near Threatened	NBDC database record
Shiny-margined mini-mining bee <i>Andrena semilaevis</i>	N/A	Vulnerable	NBDC database record
Small heath butterfly <i>Coenonympha pamphilus</i>	N/A	Near Threatened	NBDC database record

Table 2 - Records of protected, red-listed or notable fauna from the desktop study in the vicinity of the study area

Appendix 8E Flora Species Lists for Habitats

RECEIVED: 14/08/2023

Species name	FPO or Red list status	DAFOR ¹⁵ scale in habitat
BC1 – Arable crops		
Annual Meadow grass <i>Poa annua</i>	N/A	F
Common Chickweed <i>Stellaria media</i>	N/A	F
Cleavers <i>Galium aperiene</i>	N/A	F
Corn spurrey <i>Spergula arvensis</i>	N/A	F
Creeping buttercup <i>Ranunculus repens</i>	N/A	O
Creeping thistle <i>Cirsium arvense</i>	N/A	O
Equal-leaved knotweed <i>Polygonum arenastrum</i>	N/A	O
Field speedwell <i>Veronica persica</i>	N/A	O
Fumitory species <i>Fumaria sp.</i>	N/A	F
Hairy bittercress <i>Cardamine hirsuta</i>	N/A	R
Germander speedwell <i>Veronica chamaedrys</i>	N/A	O
Groundsel <i>Senecio vulgaris</i>	N/A	O
Hedge mustard <i>Sisymbrium officinale</i>	N/A	F
Nipplewort <i>Lapsana communis</i>	N/A	F
Lesser swine-cress <i>Lepidium didymus</i>	N/A	O
Ragwort <i>jacobaea vulgaris</i>	N/A	O
Red-dead nettle <i>Lamium purpurea</i>	N/A	O
Thyme-leaved speedwell <i>Veronica serpyllifolia</i>	N/A	O
Scarlet pimpernel <i>Anagalis arvensis</i>	N/A	R
Scentless Mayweed <i>Tripleurospermum inodorum</i>	N/A	O
Shepherd's-purse <i>Capsella bursa-pastoris</i>	N/A	O
Willowherb <i>Epilobium spp.</i>	N/A	F
FW4 – Drainage ditch		
Bramble <i>Rubus fruticosus agg.</i>	N/A	O
Common nettle <i>Urtica dioica</i>	N/A	F
Great willowherb <i>Epilobium hirsutum</i>	N/A	A
Hemlock water-dropwort <i>Oenanthe crocata</i>	N/A	O
Ivy <i>Hedera helix agg.</i>	N/A	F
Soft Shield-fern <i>Polystichum setiferum</i>	N/A	O
Lesser celandine <i>Ficaria verna</i>	N/A	O
Pendulous sedge <i>Carex pendula</i>	N/A	O
Bramble <i>Rubus fruticosus agg.</i>	N/A	O
Honeysuckle <i>Lonicera periclymenum</i>	N/A	O
Ivy <i>Hedera helix agg.</i>	N/A	F
Water-cress <i>Nasturtium officinale</i>	N/A	F

¹⁵ DAFOR refers to the species being **D**ominant, **A**bundant, **F**requent, **O**ccasional, **R**are in the habitat

GS2 – Dry meadows and grassy verges		
American willowherb <i>Epilobium ciliatum</i>	N/A	F
Bird's-foot trefoil <i>Lotus corniculatus</i>	N/A	O
Broad-leaved dock <i>Rumex obtusifolius</i>	N/A	O
Bush vetch <i>Vicia sepium</i>	N/A	F
Common couch <i>Elytrigia repens</i>	N/A	O
Common hogweed <i>Heracleum sphondylium</i>	N/A	F
Cock's-foot <i>Dactylus glomeratus</i>	N/A	F
Cow parsley <i>Anthriscus sylvestris</i>	N/A	
Cleavers <i>Galium aperiene</i>	N/A	F
Creeping buttercup <i>Ranunculus repens</i>	N/A	A
Dandelion <i>Taraxacum officinalis</i> agg.	N/A	A
Germander speedwell <i>Veronica chamaedrys</i>	N/A	F
Great willowherb <i>Epilobium hirsutum</i>	N/A	F
Marsh foxtail <i>Alopecurus geniculatus</i>	N/A	F
Meadowsweet <i>Filipendula ulmaria</i>	N/A	F
Meadow vetchling <i>Lathyrus pratense</i>	N/A	O
Nipplewort <i>Lapsana communis</i>	N/A	F
Lesser burdock <i>Arctium minus</i>	N/A	R
Lesser celandine <i>Ficaria verna</i>	N/A	F
Lesser stitchwort <i>Stellaria graminea</i>	N/A	R
Prickly sow-thistle <i>Sonchus asper</i>	N/A	O
Red clover <i>Trifolium pratense</i>	N/A	F
Ribwort plantain <i>Plantago lanceolata</i>	N/A	F
Silverweed <i>Potentilla anserina</i>	N/A	F
Smooth hawksbeard <i>Crepis capillaris</i>	N/A	O
Spear thistle <i>Cirsium vulgare</i>	N/A	O
Thyme-leaved speedwell <i>Veronica serpyllifolia</i>	N/A	O
Yorkshire-fog <i>Holcus lanatus</i>	N/A	A
GS4 – Wet grassland		
American willowherb <i>Epilobium ciliatum</i>	N/A	F
Common reed <i>Phragmites australis</i>	N/A	F
Clonglomerate rush <i>Juncus conglomeratus</i>	N/A	O
Creeping buttercup <i>Ranunculus repens</i>	N/A	A
Flag iris <i>Iris pseudocarus</i>	N/A	O
Great willowherb <i>Epilobium hirsutum</i>	N/A	F
Jointed rush <i>Juncus articulatus</i>	N/A	O
Marsh cudweed <i>Gnaphalium uliginosum</i>	N/A	R
Marsh foxtail <i>Alopecurus geniculatus</i>	N/A	F
Marsh woundwort <i>Stachys palustris</i>	N/A	O
Meadowsweet <i>Filipendula ulmaria</i>	N/A	A
Oval sedge <i>Carex leporina</i>	N/A	O

RECEIVED: 14/08/2023

Sweet canary grass <i>Glyceria maxima</i>	N/A	A
Silverweed <i>Potentilla anserina</i>	N/A	F
Soft rush <i>Juncus effusus</i>	N/A	O
Water horsetail <i>Equisetum fluviatile</i>	N/A	O
WL1 – Hedgerow		
Ash <i>Fraxinus excelsior</i>	N/A	O
Beech <i>Fagus sylvatica</i>	N/A	R
Blackthorn <i>Prunus spinosa</i>	N/A	F
Bramble <i>Rubus fruticosus</i> agg.	N/A	O
Cleavers <i>Galium aparine</i>	N/A	R
Cherry laurel <i>Prunus laurocerasus</i>	N/A	O
Common hogweed <i>Heracleum sphondylium</i>	N/A	F
Common Ivy <i>Hedera helix</i> agg.	N/A	F
Common Nettle <i>Urtica dioica</i>	N/A	O
Creeping buttercup <i>Ranunculus repens</i>	N/A	O
Elder <i>Sambucus nigra</i>	N/A	A
Hawthorn <i>Crataegus monogyna</i>	N/A	O
Hedge bindweed <i>Calystegia sepium</i>	N/A	O
Holly <i>Ilex aquifolium</i>	N/A	O
Lime <i>Tilia</i> spp.	N/A	O
Lord's and ladies <i>Arum maculata</i>	N/A	F
Oak <i>Quercus</i> spp.	N/A	O
Sycamore <i>Acer pseudoplatanus</i>	N/A	F
Yew <i>Taxus baccata</i>	N/A	O
WL2 – Treeline		
Ash <i>Fraxinus excelsior</i>	N/A	O
Beech <i>Fagus sylvatica</i>	N/A	R
Bluebell <i>Hyacinthoides</i> spp.	N/A	R
Bush vetch <i>Vicia sepium</i>	N/A	F
Bramble <i>Rubus fruticosus</i> agg.	N/A	O
Broad-leaved Dock <i>Rumex obtusifolius</i>	N/A	R
Cleavers <i>Galium aparine</i>	N/A	R
Common Ivy <i>Hedera helix</i> agg.	N/A	F
Common Nettle <i>Urtica dioica</i>	N/A	O
Dog rose <i>Rosa canina</i> agg.	N/A	O
Douglas Fir <i>Pseudotsuga menziesii</i>	N/A	O
Elder <i>Sambucus nigra</i>	N/A	A
Ground ivy <i>Glechoma hederacea</i>	N/A	O
Hawthorn <i>Crataegus monogyna</i>	N/A	O
Hazel <i>Corylus avellana</i>	N/A	F
Hogweed <i>Heracleum sphondylium</i>	N/A	O
Honeysuckle <i>Lonicera periclymenum</i>	N/A	O

RECEIVED: 14/08/2023

Holly <i>Ilex aquifolium</i>	N/A	O
Horse-chestnut <i>Aesculus hippocastanum</i>	N/A	R
Ivy <i>Hedera helix</i> agg.	N/A	A
Lesser celandine <i>Ficaria verna</i>	N/A	F
Lord's and ladies <i>Arum maculata</i>	N/A	F
Oak <i>Quercus</i> spp.	N/A	O
Primrose <i>Primula vulgaris</i>	N/A	
Ramsons <i>Allium ursinum</i>	N/A	O
Soft Shield-fern <i>Polystichum setiferum</i>	N/A	O
Silver birch <i>Betula pendula</i>	N/A	R
Spanish chestnut <i>Castanea sativa</i>	N/A	F
Sycamore <i>Acer pseudoplatanus</i>	N/A	R
Viburnum <i>Viburnum tenuis</i>	N/A	O
Wild cherry <i>Prunus avium</i>	N/A	O
Winter heliotrope <i>Petasites fragrans</i>	N/A	F
Wych Elm <i>Ulmus glabra</i>	N/A	D
WS1 – Scrub		
Ash <i>Fraxinus excelsior</i>	N/A	F
Alder <i>Alnus glutinosa</i>	N/A	A
Blackthorn <i>Prunus spinosa</i>	N/A	A
Bramble <i>Rubus fruticosus</i> agg.	N/A	A
Elder <i>Sambucus nigra</i>	N/A	O
Gorse <i>Ulex europaeus</i>	N/A	F
Rusty Willow <i>Salix cinerea</i> subsp. <i>oleifolia</i>	N/A	D
Common Nettle <i>Urtica dioica</i>	N/A	O
Dog rose <i>Rosa canina</i> agg.	N/A	O
Eared willow <i>Salix aurita</i>	N/A	O
Brooklime <i>Veronica beccabunga</i>	N/A	O
Hemlock water-dropwort <i>Oenanthe crocata</i>	N/A	F
Himalayan balsam <i>Impatiens glandulifera</i>	N/A	R
Osier <i>Salix viminalis</i>	N/A	F
Ramsons <i>Allium ursinum</i>	N/A	F
Soft Shield-fern <i>Polystichum setiferum</i>	N/A	O
Water horsetail <i>Equisetum fluviatile</i>	N/A	O

RECEIVED: 14/08/2023