

Biodiversity and the Planning Process

Guidance for developers on the management of biodiversity issues during the planning process.

**prepared by Cork County Council Planning Department,
as an action of the County Biodiversity Action Plan 2013**

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What is biodiversity and why is it important

The biodiversity of Cork includes our native plant and animal species, and the places (habitats and ecosystems) where they live. Our landscape has been shaped by our geographical position on the southern coast of the country, our geology dominated by sandstone ridges and limestone valley floors, and the influence of the people who have settled here. These elements determine the range of native plants, animals, habitats and ecosystems that make up the unique biodiversity of the county.

The protection of our biodiversity matters for ethical, environmental and economic reasons. Healthy functioning ecosystems clean our water, purify our air, maintain our soils, provide us with food, medicines and fuel, and they help to regulate our climate. A healthy environment provides places for recreational and spiritual enjoyment for the inhabitants of the county, and for those visit here. It also provides attractive spaces for people to live and to do business.

Biodiversity is threatened globally and locally by the ever increasing demands of people for space, fuel, food and other resources. Loss or damage to sites and places of biodiversity value caused by changes in land use practices and pressure for development, disturbance of places used by wild animals and birds for sheltering, feeding or breeding, and pollution of watercourses all affect the extent and quality of our natural environment.

Planning Authorities have a responsibility to safeguard this biodiversity, and are legally obliged to assess the potential of all planning applications that come before them, to determine whether the proposals contained therein could have impacts on our environment. Different types and levels of assessment are applied, depending on the sensitivity and level of legal protection afforded to the sites, places, habitats and species that may be affected by any proposed development. It is, therefore, important for anyone applying for planning permission to consider the potential impacts of their proposal on the biodiversity of their site at the earliest possible stage of the planning process.

The purpose of this guidance is to assist the general public and prospective developers in dealing with issues relating to the protection of natural and semi-natural habitats and native species in the planning process. It provides information to help you to identify whether there are issues relating to your site and the protection of wildlife which must be addressed during the planning process. It also provides a guide as to what you will be required to submit with your planning application should such issues arise. By dealing with these issues at the earliest stages of planning a new development, you are more likely to be able to integrate your proposed development into the landscape sensitively, to minimise impacts on biodiversity, and less likely to incur delays or disappointment in the planning process.

How can development impact on biodiversity?

Any development such as new houses, industrial complexes and infrastructure can have the potential to have negative impacts on biological diversity if not planned properly. However sensitive development can enhance biodiversity and can help to avoid or mitigate many of these impacts. Some of the impacts of development on biodiversity are set out briefly below.

Direct loss of habitats of ecological value has the single greatest impact on biodiversity. Animal and plant species exist within and are dependant upon certain habitat types to provide them with food and shelter and to ensure their survival. Removal of habitats of ecological value which may be nationally, regionally or locally rare can have significant effects on populations of plants and animal species dependant on these habitats.

Habitat fragmentation is caused by changes of land use, or by the splitting of large areas of a particular habitat type, until only smaller fragments of the original habitat remain. The effect tends to cause a reduction in biological diversity.

Loss of ecological connectivity between habitat types is caused by the removal of linear biological features, and small patches of habitats of ecological value which allow movement of wild plant and animal species through the natural landscape (eg removal of field boundaries including banks, ditches and hedgerows). Linear developments such as roads, can also reduce the ability of plant and animal species to move between sites, or particular habitat types, to occupy new niches, or to access habitats essential for different stages in their life cycle.

Disturbance to species can arise where development causes the avoidance or abandonment of breeding, resting or feeding areas by particular species because of increased human or other disturbance. For instance, populations of birds subject to continual levels of disturbance caused by the development of pedestrian walks or cycleways close to important feeding or breeding sites, may end up avoiding particular sites or locations. Disturbance can also be caused by the generation of noise or vibrations, or by the introduction of lighting in inappropriate areas. Such disturbance can have impacts on the wellbeing of populations of some species.

Impacts on water and air quality Development projects can give rise to atmospheric pollution and pollution of waterways or water bodies. Air pollution can cause decreases in diversity of sensitive species such as lichens. Pollution of waterways or water bodies can result in declines in the number and distribution of sensitive species that require the protection of a high standard of water quality to survive (eg fish and invertebrates).

The **spread of alien invasive plant and animal species** can have a significant economic impact as well as having an impact on biodiversity. The spread of invasive plant species such as Japanese Knotweed can result from activities associated with site preparation for development. The removal of vegetation on a site, or the drainage of a site, can allow the establishment of invasive species, as conditions become suited to these species. Spores or seeds or fragments of certain plant species can be transported between construction sites on plant and other equipment, or in soils, and can lead to establishment from invasive plants in new areas. Click [here](#) for more information on invasive alien plant and animal species of concern in Ireland.

Cumulative Impacts. While localised impacts on habitats or species caused by individual developments may not seem significant in their own right, they can often add up to a significant impact when considered cumulatively with similar impacts arising from other activities or developments affecting a particular site or species. Planning Authorities must have regard to cumulative impacts on protected sites and species when assessing individual planning applications for developments affecting these.

Positive Impacts. New development can offer opportunities to create, restore or enhance habitats within a particular area or site. Development of new wetland features as part of Sustainable Urban Drainage Systems, new planting of native trees or hedgerows, and sensitive management of grassland habitats can all help to increase the biodiversity value of a site or area which is proposed for development, and to mitigate for potential losses elsewhere within a site.

Designated sites, protected species and habitats

Our biodiversity is protected by both European and Irish legislation, most particularly the [EU Habitats and Birds Directives, the EU \(Natural Habitats\) Regulations 2011, and the Irish Wildlife Acts \(1976 and 2000\)](#). The requirements of the Habitats and Birds Directives have been incorporated into planning law in the [Planning and Development \(Amendment\) Act, 2010](#). It may be useful for anyone considering developing within or near protected sites or areas to be familiar with this legislation.

The Habitats Directive and Special Areas of Conservation

The [Habitats Directive](#) provides for the protection of biodiversity across Europe through the designation of [Special Areas of Conservation](#). These sites are proposed or designated¹ for protection because they support habitats and/or populations of plant and animal species that have been identified to be rare or threatened at a European level. The habitats for which sites can be proposed for designation include coastal habitats such as sand dunes, upland habitats such as blanket bog and heath, freshwater habitats including lakes and rivers, and a number of different woodland types. The species for which such sites are proposed for designation include both plants and animal species eg Killarney Fern, Otter, Salmon and Freshwater Crayfish. Sites proposed and designated under the Habitats Directive are known as Special Areas of Conservation (SACs). Many sites support more than one protected habitat type and they may also support protected species. These sites are selected because they support the best national examples of important habitats, and/or they support important populations of protected species.

The Birds Directive and Special Protection Areas

The [Birds Directive](#) provides for the protection of sites used (for breeding, roosting or feeding) by species of birds that are rare, or vulnerable or in danger of extinction. It also provides for the protection of areas that are particularly important for migratory birds, where they congregate in significant numbers. These are usually wetlands, and include many coastal estuarine sites. Sites designated under the Birds Directive are called [Special Protection Areas](#).

The Natura 2000 Network

The network of sites designated or proposed for designation across Ireland and Europe under the Habitats and Birds Directives is known as the **Natura 2000 Network**. This network includes Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), as well as sites that are proposed for designation as SACs or SPAs. The sites are also known as **Natura 2000 sites** or **European Sites**. Proposed developments affecting or potentially affecting such sites must be assessed by the Planning Authority to determine any likely impacts on the sites, their habitats and species, before permission can be granted for these. The Planning Authority cannot grant permission for developments which would adversely affect the integrity of these sites, except in very exceptional circumstances. It is important to be aware that certain activities or works which would not normally require planning permission (exempted development), may not be exempt where such works are proposed within a Natura 2000 site, or where it could otherwise have an impact on a Natura 2000 site.

The Wildlife Act and Natural Heritage Areas

[Natural Heritage Areas](#) (NHAs) and proposed Natural Heritage Areas (pNHAs) are sites that are designated or proposed for designation under the [Wildlife \(Amendment\) Act 2000](#). These are sites that are of national importance and they generally support a range of habitats, plant and animal species and, in some cases, geological features. The Cork County Development Plan provides protection for these sites, and as such, the Planning Authority must have regard to the potential for any development proposal to impact on such sites during the planning assessment process. As with Natura 2000 sites, certain activities or works which would not normally require planning permission (exempted development), may not be exempt where such works are proposed to be undertaken within an NHA or within a pNHA.

Wetlands

[Wetland](#) habitats occur where the water table is at or near the land surface, or where the land is periodically covered by shallow water. They include a range of different habitat types including marshes, fens, reedbeds, bogs and wet woodlands. These areas tend to have high biodiversity value, as well as serving other functions relating to the protection of water quality and protection from flooding. While many protected areas include wetlands, most occur outside protected sites. Works involving the drainage or reclamation of a wetland generally require planning permission and may be subject to Environmental Impact Assessment.

¹ Legal protection applies to both proposed and designated Special Areas of Conservation and Special Protection Areas.

Protected Plants and Animals Special consideration must be given by the Planning Authority to assess the impacts of development on plant and animal species that are protected by national or international legislation, or that are considered to be rare in a national or international context. Most native Irish mammals, amphibians and birds, and some native fish and invertebrate species are protected. Of particular relevance are plant species listed under the Flora Protection Order; plant and animal species listed in the Habitats Directive; birds listed in the Birds Directive; and plant and animal species protected under the Wildlife Act. Click [here](#) for a list of protected sites, plants and animal species that have been recorded in Cork.

How do I know if my development will have an impact on biodiversity?

Check if your proposed development is within or near a designated site, or a site proposed for designation for the protection of habitats or species. You can do this by consulting with maps and other online information. Maps and other information relating to sites that are protected for nature conservation, or that are proposed for protection for nature conservation can be accessed [here](#). You can also view maps at the public counter in Planning Department or you can consult with planning staff or local staff of the National Parks and Wildlife Service directly. You will need to consider whether your development could have negative impacts on a designated site, if it is proposed to be located within or adjacent to such a site. You may also need to consider potential impacts arising from your development on protected sites that are a located some distance away from your development site. For example if you are proposing to abstract water from, or discharge waste or surface water to a watercourse or waterbody linked to a protected site.

Check if there are protected species occurring within or near your site. Your site may contain habitats that supports protected species. For instance, if there is a river running through your site, there may be Otters using the area. Old buildings on your site may support breeding or hibernating bats or Barn Owls. There may be Badger setts in scrub or woodland areas within or around your site. You are advised to consult with the local Conservation Ranger, if you are aware of a particular species that occurs in or around your proposed development site, to establish how best to approach the development to avoid or minimise impacts on these. Click [here](#) for contact details for Conservation Rangers covering the County of Cork.

Consider whether your site may host other features of biodiversity value. Many features of the landscape outside designated sites have ecological value, or may have particular restrictions when it comes to planning (eg wetlands, hedgerows, old trees or trees protected by Tree Preservation Order). In planning your development, it is advised to identify these features at the outset and to provide for the retention of these within your site where possible. For example, very old field boundaries including hedgerows that form townland boundaries are of particular value from a cultural heritage perspective, as well as from an ecological point of view.

What must I submit with my planning application?

Where a potential impact on a protected site or species has been identified, it is likely that you will be required to submit information relating to the ecology of your site. This information will help the Planning Authority to assess the potential impacts of the development on the protected site or species. The following may be of assistance in determining what you should submit.

Development potentially affecting Natura 2000 sites

The Planning Authority screens all planning applications submitted to it, to determine whether the developments proposed therein have the potential to have significant impacts on any Natura 2000 site. This process is known as **Appropriate Assessment (AA) Screening**. Impacts can be caused by activities giving rise to loss or deterioration of habitats within the protected sites, or disturbance to

species within or near the protected sites, or could be caused by developments at some distance from the sites arising from changes to hydrology (natural drainage patterns, water levels and flow rates) or impacts on water quality. Where the Planning Authority cannot rule out significant impacts on these sites during AA Screening, it must carry out a more detailed assessment known as an Appropriate Assessment (AA). It is usually possible to avoid or mitigate most significant impacts if a development is properly sited, well designed and planned, and if proposed construction methods have regard to high environmental standards. However, permission for development is unlikely to be successful if the Planning Authority is unable to rule out the potential for the development to have impacts on the integrity of any Natura 2000 site during the Appropriate Assessment process.

Depending on the location, scale or type of your development, and if you have not already done so, you may be requested to submit a **Habitats Directive Screening Report** or a **Natura Impact Statement** at the further information stage of the planning process. These reports should be prepared by professional experienced ecologists, and their purpose is to assist the Planning Authority in assessing the application to determine whether it could have implications for any Natura 2000 site. You are advised to contact the Planning Department in advance of submitting your planning application if you think that your development could potentially have an impact on a Natura 2000 site.

Developments which require Appropriate Assessment, may also require an [Environmental Impact Assessment](#) (EIA) if they are of a certain type or class, or if it has been determined that they would be likely to have significant impacts on the environment. Where it has been identified that both EIA and AA is required, the **Environmental Impact Statement** and the **Natura Impact Statement** must be submitted as separate documents, or the **NIS** should be contained as a distinct chapter or appendix within the **EIS**.

Development potentially affecting habitats or sites outside the Natura 2000 network

Where your proposal could affect a Natural Heritage Area, or a proposed Natural Heritage Area, or some other site or habitat of local biodiversity value, you may be required to submit an ecological report to assist the Planning Authority to determine the potential for impact of the development on the site or habitat. The ecological report should contain information about the site its habitats and species, a description of the proposed development, and an assessment of the significance of any predicted impacts of the development on the site. The report should also describe any mitigation measures proposed to be undertaken to avoid or minimise negative impacts on the environment.

Development potentially affecting a wetland

Planning permission is required for development proposals which involve the drainage or reclamation of any wetland area over 0.1ha. For wetland areas under 0.1ha, planning permission may also be required if the drainage would be likely to have significant impacts on the environment. The Planning Authority must screen all planning applications which would result in the drainage of wetlands, where the area to be drained is over 0.1ha, to determine if Environmental Impact Assessment (EIA) is required. EIA is mandatory for proposals to drain >2ha of wetland. You are advised to contact the Planning Authority in advance of submitting your planning application, where the proposal will involve the drainage or reclamation of any wetland area greater than 0.1ha. Click [here](#) for more information on wetlands and the planning process.

Development potentially affecting strictly protected species

In certain cases, you may be required to carry out species specific surveys (eg birds, bats, otters or badgers and rare plants) where there is a possibility that a proposed development could affect an important breeding or resting site a rare bird or other animal species, or the location of a rare plant. A license may be required to remove or disturb such sites. Such licenses are administered by the National Parks and Wildlife Service, and where a development is likely to impact on the habitat of any of these, it is advised that such license be in place in advance of seeking planning permission. Click [here](#) for more information on the licensing process.

General recommendations

Consider the potential for impact on biodiversity at the earliest possible stage in the planning and design of your project. This will allow you to design your project in such a way so as to **avoid negative impacts on designated sites, protected habitats and species and on biodiversity generally**. In particular consider the potential for indirect impacts on designated sites, including impacts on water quality if your proposed development is within the catchment of a designated river. Species surveys and habitat mapping may be required to complete any necessary ecological reports. Some species surveys and the mapping of some habitats may have to take place at certain times of year. Early planning will identify all such issues and minimise the risk of delay later.

If you have identified a potential impact on a protected site or species arising from your proposal, **compile the necessary information in advance of making your planning application**. Consult with the Planning Authority in advance of compiling any ecological reports (Appropriate Assessment Screening Reports, Natura Impact Statements, general ecological reports or species specific reports) to scope out the issues to be addressed, the level of information to be provided and the format in which this needs to be presented. Where the development is in a sensitive location which could impact on a Natura 2000 site, or on an NHA or pNHA, or where it could impact on a protected species, you may also need to contact the [National Parks and Wildlife Service](#).

Remember, where a proposed development will interfere with the breeding site or resting place of certain protected species, you will be required to obtain a license from the National Parks and Wildlife Service before you can proceed. Such licenses are likely to be subject to certain conditions and must be in place in advance of making a planning application.

You are advised to complete all ecological reports in advance of submitting your planning application. Given the requirements for timing for surveys and mapping, there may be insufficient time to resolve ecological issues at the further information stage.

Use professional expertise

The completion of ecological survey work and the compilation of ecological reports, AA screening reports, Natura Impact Statements and species reports requires professional ecological input. A good professional ecologist should be able to address most of the general issues that will arise when planning a development in the countryside. You may however require specialist expertise to tackle more specific issues in certain situations. The [Institute of Ecology and Environmental Management](#) hosts a [directory](#) of professional commercial ecologists working in Ireland. The relevant qualifications and experience of the persons carrying out all ecological survey and assessment work should be cited in any ecological reports submitted to the Planning Authority.

Have regard to best practise and national guidelines

To ensure the production of a high quality ecological report, regard should be had to best practise in the following areas:

- the conducting of all ecological survey work;
- preparation of habitat maps;
- evaluation of site and habitat quality;
- assessment of significance likely effects;
- preparation and presentation of ecological data and reports;
- the development of mitigation and monitoring measures.

There are many published sources relevant to these areas. An experienced ecologist will be familiar with these.

Avoid impacts on biodiversity. Protecting and enhancing biodiversity within a development scheme not only benefits the environment, but can increase the marketability and economic value of a development. Here are some things that you can do to avoid or minimise impacts on sites or species.

Other more specific measures may be required depending on the location of your proposal and the issues which may arise.

- Retain features of biodiversity value such as woodlands, hedgerows, old trees, riverside vegetation and wetlands within your site.
- Protect [water quality](#) by avoiding development in wet areas and flood plains, implementing best practise during construction, and by incorporating water quality protection measures and surface water attenuation measures into the design of your project.
- Consider the timing of construction works to avoid disturbance related impacts on sites or habitats used by bats, birds or other animal species for breeding, feeding, roosting or hibernating.
- Avoid unnecessary outdoor lighting in or near habitats of biodiversity value.

Explore opportunities for biodiversity enhancement. Consider integrating measures into your development to compensate for impacts on biodiversity where habitat loss or disturbance cannot be avoided, or to simply add biodiversity value to your site. Some examples of things that you could do are set out below. More site specific mitigation may be required in certain cases.

- Lay new hedges to replace any lost during the development process. These can be used to link any areas of fragmented habitat, or to link the site to other areas. Maintain your hedgerows and treelines. Gaps in hedgerow networks can be filled to encourage connectivity. Click [here](#) for more information on the planting and management of hedgerows.
- Use native tree and shrub species in landscape planting. Click [here](#) for more information on how to choose suitable species for your site.
- Consider the use of integrated constructed wetland or reedbed systems for stormwater attenuation or for the management of waste water on your site. These can also provide valuable wildlife habitat.
- Consider erecting [bird boxes](#) or [bat boxes](#) if your development has resulted in the loss of breeding or hibernating habitat for bats or birds.

Links

If you have enquiries on any of the above you can contact Cork County Council using the contact details below:

Ph Cork County Council Ecologist: 021 4285960

The following is a short list of websites where additional information on a range of issues relating to biodiversity can be accessed. There are some links to web accessible best practise guidance contained here too.

ABOUT BIODIVERSITY GENERAL

International

[Convention on Biological Diversity](#)

[EU Environment Life Programme: Nature and Biodiversity](#)

[Millenium Ecosystem Assessment](#)

National

[National Biodiversity Data Centre](#)

[National Biodiversity Plan](#)

[Cork County Biodiversity Action Plan](#)

[Notice Nature](#)

[Water Matters – The Water Framework Directive](#)

BIODIVERSITY AND DEVELOPMENT - GUIDANCE, GUIDELINES AND OTHER USEFUL INFORMATION

Appropriate Assessment and Natura 2000 Sites

[Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites](#), European Union
[Guidelines for Local Authorities on Appropriate Assessment](#), Department of Environment, Heritage and Local Government
[Non-energy Mineral Extraction and Natura 2000](#), European Union
[The Implementation of the Birds and Habitats Directives in Estuaries and Coastal Zones – Port Development and Dredging](#), European Union
[Wind Energy Developments and Natura 2000](#), European Union

Badgers

[Guidelines for the Treatment of Badgers Prior to the Construction of National Road Schemes](#), National Roads Authority

Bats and Birds

[Bats and Lighting](#), Notice Nature
[Bats in Buildings](#), Notice Nature
[Bat Survey Guidelines for Traditional Farm Buildings](#), Heritage Council
[Bats, Birds, Buildings and You](#), Heritage Council
[Bats and Roads](#), National Roads Authority
[Bats and Their Habitats](#), Teagasc
[Bird Nestboxes](#), Teagasc
[Bird Survey Guidelines for Traditional Farm Buildings](#), Heritage Council

Ecological Assessment

[Guidelines for Ecological Impact Assessment, UK](#), Institute of Ecology and Environmental Management
[Guidelines For Assessment of Ecological Impacts of National Road Schemes](#), National Roads Authority
[Ecological Surveying Techniques for Protected Flora and Fauna](#), National Roads Authority

Habitats of Ireland

[A Guide to Habitats in Ireland](#), Heritage Council

Habitat Mapping

Best Practise Guidance for Habitat Survey and Mapping, Heritage Council

Hedgerows and Trees

[A Guide to Growing Irelands Native Trees](#), Tree Council of Ireland
[Hedgerow Management](#), Teagasc
[Hedgerows](#), Notice Nature
[Guidelines for the Protection and Preservation of Trees, Hedgerows and Scrub During and Post Construction](#), National Roads Authority
[Trees and Development A Guide to Best Practise](#), Northern Ireland Planning Service

Invasive Species

[Best Practise Management Guidelines, Japanese Knotweed](#), Invasive Species Ireland
[Best Practice Management Guidelines, Himalayan Balsam](#), Invasive Species Ireland
[Best Practice Management Guidelines, Giant Hogweed](#), Invasive Species Ireland
[Best Practice Management Guidelines, Rhododendron](#), Invasive Species Ireland
[The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads](#), National Roads Authority

Otters

[Guidelines for the Treatment of Otters](#), National Roads Authority

Wetlands and Water

[Guidelines for the Crossing of Watercourses During the Construction of National Road Schemes](#), National Roads Authority
[Managing Wetlands](#), Ramsar
[Wise Use of Wetlands](#), Ramsar

Wildlife and Development - General

[Biodiversity and Development, Good Practise Guidelines For Developers](#), Kildare County Council

[Wildlife, Habitats and Development](#), Notice Nature

Key Stakeholders

State and Semi-state Agencies

[Coillte](#)

[Environmental Protection Agency](#)

[Inland Fisheries Ireland](#)

[National Parks and Wildlife Service](#)

[Teagasc](#)

[The Forest Service](#)

[The Heritage Council](#)

Non Governmental Organisations

[An Taisce](#)

[Bat Conservation Ireland](#)

[Birdwatch Ireland](#)

[Coastwatch](#)

[Irish Peatlands Conservation Council](#)

[Irish Whale and Dolphin Group](#)

[Tree Council of Ireland](#)

Other Websites You Might Find Useful

[The Business and Biodiversity Resource Centre](#)

[The Construction Industry Research and Information Association](#)

[Scottish Natural Heritage-Planning and Development](#)