

Chapter 24. Natural heritage

The natural heritage of County Sligo is of great local value, with many features of national and international importance. It consists of biodiversity and the physical and geological foundations which underpin it. Protecting and enhancing biodiversity and landscapes is vital to the health, well-being and people's quality of life. Biodiversity also provides opportunities to adapt to the challenges of climate change.

Relevant legislation

The **EU Habitats Directive** (92/43/EEC), the **EU Birds Directive** (2009/147/EC), **European Communities (Birds and Natural Habitats) Regulations 2011** (SI 477/2011) as amended, **Flora (Protection) Order 2015**, the **Wildlife Act 1976** (as amended), and the **Wildlife (Amendment) Act 2000** as amended, including all statutory instruments made under each act^{1,2}, provide for the protection of natural heritage. In addition, Ireland has ratified a number of international conventions and agreements relating to natural heritage and biodiversity including the **UN Convention on Biological Diversity (1992)**.

The **Planning and Development Act 2000 (as amended)** requires development plans to include mandatory objectives for the conservation of the natural heritage and for the conservation of European sites and any other sites which may be prescribed.

National and local policy documents

In 2022, the government published **Heritage Ireland 2030 – A Framework for Heritage**. The third **National Biodiversity Action Plan 2017-2023** is currently (2023) under review.

Both plans set out strategies for the conservation, management and promotion of Ireland's natural heritage as a resource to be enjoyed by all. These plans require local authorities to prepare and implement Heritage and Biodiversity Plans, in partnership with relevant stakeholders.

In 2010, Sligo County Council adopted its first **County Sligo Biodiversity Action Plan 2011-2015**, in accordance with the National Biodiversity Plan. This plan was incorporated into subsequent County Heritage Plans. **The drafting of the 2025-2030 County Sligo Biodiversity Action Plan is currently (2024) underway.**

24.1 Biodiversity

Biodiversity is the variety of life on Earth. It consists of native plants, animals and their habitats. Our survival depends on biodiversity and we rely on it for the "ecosystem services" that it provides, such as clean air and water, the control of climate and disease, the production of food, crop pollination, nutrient recycling etc.

Biodiversity loss is recognised as a global threat. The protection and wise use of biodiversity on land and water is vital to achieving sustainable development.

The fourth National Biodiversity Action Plan (NBAP) states that 85% of EU protected habitats are in unfavourable status, with almost half in decline. Over half of Ireland's plants and wintering bird species are declining, and 30% of bee species are threatened with extinction.

¹ Additional statutory instruments for the Wildlife Act 1976 (as amended) available at: https://www.irishstatutebook.ie/eli/isbc/1976_39.html#associatedsecondary

² Additional statutory instruments for the Wildlife (Amendment) Act 2000 (as amended) available at: https://www.irishstatutebook.ie/eli/isbc/2000_38.html#associatedsecondary

Protecting and restoring nature requires commitment across all sectors and organisations. Local Authorities play a key role in biodiversity conservation and will aim to fully integrate it into their policies, plans and actions, thus contributing to the implementation of the EU Biodiversity Strategy and EU Nature Restoration Law.

New development should contribute to the enhancement and restoration of biodiversity by demonstrating a site-specific **biodiversity net gain** as part of the planning process. Where the site has no biodiversity value, new developments should create new habitat, with a focus on species of local and regional significance, as outlined within the **County Sligo Biodiversity Action Plan. [PA-79]**

Biodiversity – general policies

It is the policy of Sligo County Council to:

- P-BD-1** Protect, conserve, enhance and sustainably manage the natural heritage, biodiversity, geological heritage, landscape and environment of County Sligo.
- P-BD-2** Protect and, where possible, enhance the plant and animal species and their habitats that have been identified under EU Habitats Directive (92/43/EEC), the EU Birds Directive (2009/147/EC), European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477/2011) as amended, Flora (Protection) Order 2015, the Wildlife Act 1976 (as amended), and the Wildlife (Amendment) Act 2000 as amended, including all statutory instruments made under each act.
- P-BD-3** Ensure that the ecological impact of all development proposals on habitats and species are appropriately assessed by suitably qualified professionals, in accordance with best practice guidelines, taking full account of the precautionary principle where uncertainty exists.
- P-BD-4** Minimise adverse impacts of proposed developments on existing habitats (whether designated or not) by including mitigation and/or compensation measures as appropriate. This shall comprise the retention and enhancement of all possible existing habitats, vegetation and breeding sites in the early design stages of the development. **[PA-84]**
- P-BD-5** Raise public awareness of the natural heritage and biodiversity of the County and encourage increased public participation in biodiversity conservation by supporting community-led initiatives.
- P-BD-6** Support the implementation of the All-Ireland Pollinator Plan 2021-2025 and any subsequent revisions.
- P-BD-7** Require development proposals on sites of 0.5 ha and over to retain existing high-quality ecological features and demonstrate a site-specific biodiversity net gain (BNG), indicating how the approach to development will leave the natural environment in a measurably better state than it was beforehand. The same approach will be encouraged, although not required, on sites under 0.5 ha.
- The biodiversity net gain (BNG) shall consist of the enhancement and restoration of existing habitats or the creation of new areas for wildlife, where the biodiversity value of the site is low or non-existent (e.g. certain brownfield sites). **[PA-80]**
- P-BD-8** Where buildings are proposed to be restored or demolished/replaced, the applicants/developers shall check for the presence of protected wildlife species and follow the protocols set out in the Heritage Council's guidelines "Wildlife in Buildings – Linking Our Built and Natural Heritage" (<https://www.heritagecouncil.ie/content/files/Wildlife-in-Buildings-linking-our-built-and-natural-heritage.pdf>) **[PA-85]**

Biodiversity – objectives

It is an objective of Sligo County Council to:

- O-BD-1** Implement, in partnership with the Department of Housing, Local Government and Heritage, relevant stakeholders and the community, the objectives and actions of both the *County Sligo Biodiversity Action Plan* and the *National Biodiversity Action Plan* as it relates to the remit and functions of Sligo County Council.
- O-BD-2** Prepare and support the implementation of a *Green Infrastructure Strategy*³ for County Sligo.

24.1.1 Protecting biodiversity - designated sites

EU nature legislation provides the legal basis for *Natura 2000*, the nature protection network, through designation of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). This European network of biodiversity sites is supplemented by the Natural Heritage Areas (NHAs) and statutory Nature Reserves designated in Ireland by the National Parks and Wildlife Service (NPWS). Locally, sites of heritage value are designated through the County Development Plan as County Biodiversity Sites.

European Sites: Natura 2000

The EU Habitats Directive (92/43/EEC) and the Birds Directive (2009/147/EC) provide for the conservation and protection of core breeding and resting sites for rare and threatened species, and rare habitat types considered to be most in need of conservation. Such sites, forming part of the EU network of ecologically important and protected sites known as Natura 2000, comprise:

- **Special Areas of Conservation (SAC)** – these sites are selected for the conservation and protection of plant and animal species (other than birds) and habitats listed in Annex I and Annex II of the EU Habitats Directive (92/43/EEC), which was transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477/2011) as amended.
- **Special Protection Areas (SPA)** – these sites are selected for the conservation and protection of birds and their habitats designated under the EU Birds Directive 2009 (2009/147/EC) which was transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477/2011) as amended.

There are 26 Natura 2000 sites within County Sligo. The NPWS identifies, evaluates and proposes sites for designation, and up-to-date information is available on the National Parks and Wildlife Service website. The boundaries of protected areas may change and new sites may be proposed for designation during the lifetime of this Plan. See **Appendix D** of this Plan.

Planning authorities are required to ensure that an **Appropriate Assessment** of the implications of development proposals on designated nature conservation sites (Natura 2000) is undertaken for all planning applications likely to have significant effects on these sites. Screening for Appropriate Assessment applies to all development proposals, either within or outside a Natura 2000.

³ Green Infrastructure can be broadly defined as a strategically planned network of high quality natural and semi-natural areas with other environmental features, which is designed and managed to deliver a wide range of ecosystem services and protect biodiversity in both rural and urban settings. (source: *Building a Green Infrastructure for Europe* – European Commission, 2013)

National site designations

The European network of biodiversity sites is supplemented by the following:

- **Natural Heritage Areas (NHA) and proposed Natural Heritage Areas (pNHA)** – designated under the Wildlife (Amendment) Act 2000. They encompass nationally-important semi-natural and natural habitats, landforms and geomorphological features.
- **Statutory Nature Reserves** – designated under Section 16 of the Wildlife Act. The objective of any such designation is to use or manage the land as a nature reserve in order to maintain and enhance the diversity of the habitats and species to be found there. The three Statutory Nature Reserves in County Sligo are:
 - Ballygilgan (Lissadell) Nature Reserve
 - Easky Bog Nature Reserve
 - Union Wood Nature Reserve
- **Ramsar Sites** – these are wetlands of significant value for nature. Ramsar sites located in County Sligo are:
 - Ballygilgan (Lissadell) Nature Reserve
 - Easky Bog (Site Code 471)
 - Cummeen Strand (Site Code 842)
 - Killala Bay/Moy Estuary (Site Code 843)
 - Lough Gara (Site Code 852)

Designated sites for nature conservation – policies

It is the policy of Sligo County Council to:

- P-DSNC-1** Protect and maintain the conservation status of all natural heritage sites designated or proposed for designation in accordance with European and national legislation and agreements.

These include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Natural Heritage Areas (NHA), proposed Natural Heritage Areas (pNHA), Ramsar Sites, Statutory Nature Reserves, as identified by the Minister for Culture, Heritage and the Gaeltacht, and any other sites that may be proposed for designation during the lifetime of this Plan.

In addition, the Council will identify, maintain and develop non-designated areas of high nature conservation value which serve as linkages or 'stepping stones' between protected sites in accordance with Article 10 of the Habitats Directive.

- P-DSNC-2** Promote the maintenance and, as appropriate, achievement of 'favourable conservation status' of habitats and species in association with the National Parks and Wildlife Service (NPWS).

Designated sites for nature conservation – policies

- P-DSNC-3** Carry out an appropriate level of assessment for all development plans, land-use plans and projects that the Council authorizes or proposes to undertake or adopt, to determine the potential for these plans or projects to impact on designated sites, proposed designated sites or associated ecological corridors and linkages in accordance with the Habitats Directive. All appropriate assessments shall be in compliance with the provisions of Part XAB of the Planning and Development Act 2000 (as amended).
- P-DSNC-4** Ensure that all development proposals are subject to the process of Screening for Appropriate Assessment and subsequent stages of Appropriate Assessment, as relevant, carried out to the satisfaction of the Planning Authority, in consultation with National Parks and Wildlife Service, as appropriate.

Designated sites for nature conservation – objectives

It is an objective of Sligo County Council to:

- O-DSNC-1** Identify any areas of high nature conservation value which are of major importance for wild fauna and flora in accordance with Article 10 of the Habitats Directive, and which have not been previously identified.
- O-DSNC-2** Undertake appropriate surveys and collect data to provide an evidence-base to assist the Council in meeting its obligations under Article 6 of the Habitats Directives (92/43/EEC) as transposed into Irish Law, subject to available resources.

24.1.2 Protecting biodiversity – non-designated sites

There are many sites throughout the County that host a range of plant and animal species or their habitats (including Annex I Habitats, Annex I Birds, Annex II and IV species, Flora (Protection) Orders etc.), which are not designated for nature conservation but nonetheless their ecological value is of high importance in the county.

Protected Species

Certain plant, animal and bird species are protected by law. This includes plant species listed in the Flora Protection Order 1999 and animals and birds listed in the Wildlife Act 1976 and subsequent statutory instruments, those listed in Annex IV of the Habitats Directive (92/43/EEC), and those listed in Annex I of the Birds Directive (2009/147/EC). Proposals for developments, where appropriate, will require an assessment of the presence of bats and other protected species, and must ensure that suitable avoidance and/or mitigation measures are put in place accordingly.

The Habitats Directive contains Annexes for plant and animal species (other than birds) identified to be of conservation concern and for which conservation measures and regulations apply.

The Birds Directive contains a number of Annexes which list bird species for which varying conservation measures and regulations apply. This protection applies wherever the bird species are found and is not confined to sites designated for nature conservation. This is particularly important when assessing development proposals for lands outside an SPA which are used for roosting, feeding, nesting etc. by bird species for which the SPA is designated.

The Habitats Directive and the transposition into Irish law of this Directive; the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477/2011) as amended, require that certain species listed in Annex IV of the Habitats Directive be strictly protected. These are as follows (species known to occur in Sligo are indicated thus *): all Bat species*, Otter*, Whales and Dolphins*, Leatherback Turtle, Natterjack Toad, Kerry Slug, Killarney Fern*, Slender Naiad and Yellow Marsh Saxifrage.

These species are not restricted to designated nature conservation areas. Bats and otters may be found anywhere in the County, where conditions and habitats are suitable. Carrying out of any work that has the potential to disturb these species, and for which a derogation licence has not been granted by the National Parks and Wildlife Service, may constitute an offence.

Protected species – policies

It is the policy of Sligo County Council to:

- P-PS-1** Ensure that development does not have a significant adverse impact incapable of satisfactory mitigation on plant, animal or bird species protected by law.
- P-PS-2** Consult with the National Parks and Wildlife Service (DHLGH) and take account of any licensing requirements when undertaking, approving, and authorising development which is likely to affect plant, animal or bird species protected by law.
- P-PS-3** Provide guidance to developers and others in relation to species protected by law and their protection and management in the context of development.
- P-PS-4** Ensure, where appropriate, the protection and conservation of areas, sites, species and ecological networks of biodiversity value outside designated sites, and require an appropriate level of ecological assessment by suitably qualified professionals to accompany any development proposals likely to impact on such areas or species.
- P-PS-5** Require all new developments to incorporate habitat facilities for wildlife species, including Swifts, in or on buildings or their facades, where appropriate.

Protected species – objective

It is an objective of Sligo County Council to:

- O-PS-1** Undertake surveys, as appropriate, to establish the location of protected flora and fauna in the Plan area through the County Heritage Plan and the County Biodiversity Action Plan.

24.1.3 Nature conservation outside of designated sites

Nature conservation legislation provides for the protection of sites and species of international and national importance. However, sites and species benefitting from statutory protection do not alone represent the full extent of natural heritage. In fact, most biological diversity occurs throughout the countryside. Rare and protected sites and species cannot survive independently of their surroundings.

Protected natural areas cannot thrive in isolation. Maintaining and re-establishing connectivity between these natural areas is needed in order to restore the health of ecosystems and allow species to thrive across their entire natural habitat.

This connectedness can be achieved through “green infrastructure”, which seeks to harness biodiversity as a natural infrastructure for the benefit of both people and nature. The wider landscape provides vital links and corridors to allow the movement of plants and animals between protected sites.

Promoting and protecting biodiversity and wildlife corridors

Article 10 of the Habitats Directive requires EU member states to secure the ecological coherence of the Natura 2000 network by maintaining and, where appropriate, developing features of the landscape (including those crossing national borders) which are of major importance for wild fauna and flora.

Such features are those which, by virtue of their linear and continuous nature (such as rivers with their banks or the traditional systems of marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal, and genetic exchange of wild species.

County Biodiversity Sites

Many sites of biodiversity value within the County do not meet the criteria that would enable them to be designated at national level. Although these sites are of great importance at regional and County level, to date they have not been fully surveyed or recognised as such. In order to inform this process, the County Council has commissioned – and continues to commission habitat surveys (e.g., hedgerows, wetlands and unimproved grassland) – refer to **Appendix E** of this Plan.

It is critical to the overall ecological network and biodiversity value of County Sligo that these sites are identified, valued, and conserved. Identification of important elements of the County’s ecological network has commenced under the County Habitat Mapping Programme. This ongoing work is also listed as an action of the County Sligo Heritage Plan and County Sligo Biodiversity Action Plan.

Nature conservation outside designated sites - policies

It is the policy of Sligo County Council to:

- P-NCODS-1** Minimise the impact of new development on habitats of natural value that are key features of the County’s ecological network. Developments likely to have an adverse effect on recognised sites of local nature conservation importance will be required to demonstrate the impacts on the ecological value of the site and will not be approved unless it can be clearly demonstrated that there are reasons for the development that outweigh the need to safeguard the nature conservation value of the site.

Nature conservation outside designated sites - policies

- P-NCODS-2** Ensure that development proposals, where relevant, improve the ecological coherence of the Natura 2000 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 Habitats Directive.
- P-NCODS-3** Ensure that proposals for development protect and enhance biodiversity, wherever possible, by minimising adverse impacts on existing habitats and by including mitigation and/or compensation measures, as appropriate, which ensure that biodiversity is enhanced.
- P-NCODS-4** Applications for development that is likely to have significant impact on natural habitats or species shall be accompanied by an ecological impact assessment (EclA), to ensure that such proposed development will not affect the integrity and conservation value of important biodiversity sites. **[PA-86]**
- P-NCODS-5** Ensure that no ecological networks, or parts thereof which provide significant connectivity between areas of local biodiversity, are lost without remediation as a result of implementation of this Plan.
- P-NCODS-6** Provide guidance for developers and the general public in relation to nature conservation outside designated sites and the conservation and enhancement of biodiversity and geological heritage in general.
- P-NCODS-7** Integrate biodiversity considerations into Local Authority plans, programmes and activities where appropriate.

Nature conservation outside designated sites – objectives

It is an objective of Sligo County Council to:

- O-NCODS-1** Continue the County Habitat Mapping project, thereby generating the necessary information to identify landscape features that are of major importance for wild fauna, flora and County Biodiversity Sites, as key features of the county's ecological network.
- O-NCODS-2** Identify and protect, in co-operation with the relevant statutory agencies and other relevant groups, County Biodiversity Sites which are not otherwise protected by legislation.
- O-NCODS-3** Ensure that the findings of the County Habitat Mapping project (when completed) are utilised to inform the development management process.

24.1.4 Wetlands

Wetlands include water courses, water bodies marshes, fens, reed beds, bogs and wet woodlands. Wetlands tend to have high biodiversity value, protect water quality and reduce flood risk. While many protected areas include wetlands, most wetland areas occur outside designated sites.

Planning legislation requires that works or development involving the drainage or reclamation of a wetland greater than 0.1 ha needs planning permission. For drainage or reclamation of wetlands greater than 2 ha, an Environmental Impact Assessment is necessary.

The Council will require an ecological assessment (including EIA, where necessary) to be carried out at the appropriate level in relation to proposals for drainage or reclamation of wetlands.

Wetlands policies

It is the policy of Sligo County Council to:

- P-WET-1** Have regard to the County Sligo Wetlands Surveys 2008-2011 and subsequent wetland surveys that may be published during the lifetime of this Plan. Protect surveyed wetland sites that have been rated of A (International), B (National) and C+ (County) importance.
- P-WET-2** Ensure that an ecological assessment at an appropriate level (including EIA, where appropriate) is undertaken in conjunction with proposals involving drainage, reclamation or infilling of wetland habitats.

24.1.5 Artificial lighting at night [PA-81]

Artificial lighting is invaluable to businesses, homes, roads and recreation. Where used inappropriately or excessively, however, it causes light pollution, which alters the natural night light levels for humans, animals and plants, with adverse effects on the environment, health, biodiversity and climate both through individual development and cumulative impact.

Light pollution can unbalance the migratory, nocturnal and reproductive activity of animals, negatively impact insects and pollinators, bats, birds and fish, and disrupts natural plants growth. Over 50% of Ireland's invertebrates and 30% of vertebrates are nocturnal and need natural darkness. Lighting on hedgerows, road verges tree lines and riverbanks and waterways represents a barrier to wildlife and can restrict the passage of bats and fish.

The widespread use of LEDs has resulted in high levels of blue-rich light negatively impacting ecology, human health and sleep patterns, while cloudy skies exacerbate light pollution further by reflecting light pollution back to the ground.

There shall be a strong presumption against new lighting in naturally dark areas with a commitment to preserve and protect existing dark sky areas.

Artificial lighting at night – policies

It is the policy of Sligo County Council to:

- P-ALAN-1** Ensure that artificial lighting of public buildings and car parking areas is used only when necessary, with dark-sky friendly lighting and design. New developments shall eliminate or mitigate for potential light pollution.
- P-ALAN-2** Where artificial lighting must be used, require developments to avoid glare and light trespass on adjacent natural areas such as hedgerows, road verges, tree lines, wetlands and river corridors, using shields and appropriate lighting design.
- P-ALAN-3** Require proposals for floodlighting of playing fields/pitches to include lighting schemes with measures to mitigate for light pollution through timing and the use of shielding. All schemes shall comply with the guidance within the Institution of Lighting Professionals (ILP) Guidance Note (GN01-2021) The Reduction of Obtrusive Light. **[PA-82]**

Artificial lighting at night – objective

It is an objective of Sligo County Council to:

- O-ALAN-1** Develop a **County Lighting Strategy** during the life of the development plan. The Strategy will include the adoption of Environmental Lighting Zones to minimise County Sligo's overall light pollution and ensure that the appropriate lighting levels are used in each zone, with protection for identified dark areas. **[PA-83]**

24.2 Woodlands, trees and hedgerows

Woodlands and trees make a significant contribution to biodiversity, landscape character and visual amenity. Trees are wildlife habitats, soften hard urban edges and provide scale and backdrops to streets and buildings. They also filter out noise, dust and pollutants and prevent flooding by retaining moisture.

Insensitively designed development can result in loss of or damage to important trees. It is therefore desirable that existing trees are taken into consideration in the formulation and assessment of development proposals. Where trees or groups of trees are of particular value and may be at risk from development or other activities, consideration will be given to the making of tree preservation orders in accordance with the Tree Preservation Guidelines.

Hedgerows constitute an important natural and historic resource, given their contribution to landscape quality, their ecological importance as wildlife habitats, corridors between habitats and historical significance as townland and field boundaries. Hedgerows are afforded protection under the Wildlife (Amendment) Act, 2000, which prohibits the cutting of hedges during the bird nesting period (1 March to 1 September).

While the relative importance of hedgerows is difficult to assess without a detailed survey, in general, the following categories are worthy of protection:

- ancient hedgerows – field systems dating prior to the mid-17th Century;
- townland boundaries;
- hedgerows that have a farming, landscape, cultural function;
- hedgerows incorporating archaeological features;
- hedgerows that are important as wildlife corridors between habitats;
- hedgerows adjacent to roads, green lanes, tracks and wooded ground;
- banks and ditches that may have the above characteristics.

Woodlands, hedgerows and trees policies

It is the policy of Sligo County Council to:

- P-WHT-1** Protect woodlands, hedgerows and trees from development that would impact adversely upon them. Promote new tree and woodland planting and the enhancement of existing hedgerows by seeking increased coverage, in conjunction with new development using native species of local provenance, where possible.
- P-WHT-2** Discourage the felling of mature trees to facilitate development and, where appropriate make use of tree preservation orders to protect important trees and groups of trees which may be at risk or have an important amenity or historic value.
- P-WHT-3** Require the planting of native broadleaved species, and species of local provenance, in new developments and as part of the Sligo County Council's own landscaping works.

Woodlands, hedgerows and trees policies

- P-WTH-4** Encourage the retention of hedgerows and other distinctive boundary treatments in rural areas and prevent loss and fragmentation where practically possible.
- If removal of a hedgerow, stone wall or other distinctive boundary treatment is unavoidable, reinstatement of the same type of boundary shall be required.
- P-WHT-5** Promote awareness and require the retention and protection of hedgerows which mark townland boundaries, in recognition of their historic value and archaeological importance.
- P-WHT-6** Protect native and semi-natural woodlands, groups of trees and individual mature trees in line with best practice and encourage their effective management and retention.
- Tree surgery rather than felling will be required, where possible, when undertaking, approving or authorising development.
- P-WHT-7** When undertaking, approving, or authorising development, ensure or require the protection of trees subject of Tree Preservation Orders, as well as Champion and Heritage Trees identified on the Tree Register of Ireland.
- P-WHT-8** Work in partnership with relevant stakeholders to develop, enhance and explore opportunities to develop woodland sites under the Native Woodland Scheme.

24.3 Invasive species

Invasive non-native plant and animal species are a major threat to biodiversity. There are prohibitions in relation to the introduction or dispersal of certain invasive species, as set out in the Third Schedule of the European Communities (Birds and Habitats) Regulations 2011 (S.I. 477/2011), and in the EU Regulations 1143/2014 on the Prevention and Management of the Introduction and Spread of Invasive Alien Species.

Invasive alien species can negatively impact on native species, transform habitats and threaten whole ecosystems, causing serious problems to the environment and the economy. In certain cases, they may pose a threat to human safety. There is potential for the spread of invasive species during excavation and construction works. Such species may also be introduced into the environment by spreading from private gardens, boat users, horticulture etc. Japanese Knotweed, Giant Hogweed and Himalayan Balsam are well-known examples.

Invasive species policies

It is the policy of Sligo County Council to:

- P-INV-1** Prevent and control the spread of invasive plant and animal species within the county.
- P-INV-2** Require all development proposals to address the presence of invasive alien species on proposed development sites and (if necessary) require applicants to prepare and submit an Invasive Species Management Plan, in compliance with the provisions of the European Communities (Birds and Natural Habitats) Regulations 2011-2015.
- P-INV-3** Promote best practice in the control of invasive species when carrying out statutory functions of the County Council in association with relevant bodies, including TII, the Department of Transport and the Department of Rural and Community Development.

Invasive species – objective

It is an objective of Sligo County Council to:

- O-INV-1** Undertake studies through the County Heritage Plan and County Biodiversity Plan to quantify the extent of selected invasive species (Japanese Knotweed, Giant Hogweed and Himalayan Balsam) within the Plan area, with recommendations of priority species for control or eradication, the degree of threat posed, and the resources required for effective management.

24.4 Geological heritage sites

To date, sites of geological interest have not been comprehensively covered by the existing nature conservation designations. The DHLGH and the Geological Survey of Ireland (GSI) are drawing up a list of sites of geological interest that will be proposed as Natural Heritage Areas.

In the interim, Sligo County Council has listed in this Plan the geological features of national and local importance occurring in the County, with the objective of maintaining their conservation value. The list was produced in consultation with the GSI and is included in **Appendix F** of this Plan.

Sites of geological interest – objective

It is an objective of Sligo County Council to:

- O-SGI-1** Protect from inappropriate development, and maintain the character, integrity and conservation value of those features or areas of geological interest that are listed in this Plan or that may be proposed by the DHLGH and/or the GSI in the lifetime of this Plan.

24.5 Inland waters – lakes, rivers, streams, groundwater

The rivers and streams, lakes, wetlands and groundwater occurring within the Plan area are home to a variety of habitats and species. Lough Gill, Lough Arrow, Lough Talt, the lakes Gara, Easky and Templehouse, together with the rivers Owenmore, Unshin, Moy and Easky, are the main water bodies in County Sligo. The banks of rivers and streams (riparian zones) are particularly important, as they contain a range of habitats and species which are different from the surrounding landscape. Riparian zones function as ecological corridors and “stepping stones” that enable species to move from place to place. Groundwater is important for supplying water and maintaining wetlands and river flows in dry periods.

Rivers and streams should be maintained in an open, semi-natural condition, wherever possible. Their corridors and valleys should be protected and maintained for their biodiversity, landscape and flood protection value. This should be achieved by strictly controlling development in river/stream corridors and valleys and by implementing sustainable drainage systems for commercial and residential developments. Groundwater resources should be protected and managed in a sustainable manner.

Riparian zones

Riparian zones are particularly vulnerable to damage from inappropriate development. While this Plan does not prohibit development in a riparian zone, developments taking place in such zones must ensure the protection of these vulnerable areas.

A key watercourse protection measure is the set-aside of sufficient land along the river margin or corridor:

- for larger river channels (over 10 m), the recommended width of the core riparian zone (CRZ) is 35-60 m (18-30 m on each side of the river) and may be larger where flood plains adjoin the riparian zone;
- for smaller channels (under 10 m), a core riparian zone (CRZ) of 20 m or greater (minimum 10 m on each side of the river) is recommended. The determined width should be tailored to the specific site, river reach or lakeshore characteristics and their associated habitats.
- for salmonid rivers, the core riparian zone should be a minimum of 25 m on each side of the river.

It is important that the buffer zone is large enough to protect the ecological integrity of the river (including emergent vegetation) and the riparian zone (bankside vegetation including trees), taking into account the historical use of the area. In identifying the Core Riparian Zone along a watercourse, regard will be had to the following criteria:

- provision of bed and bank stability;
- protection of water quality;
- maintenance of viability of riparian vegetation;
- provision of continuity and connectivity along the riparian zone;
- integration with floodplain processes;
- management of edge effects at riparian/urban interface;
- protection of natural values within channels.

Inland waters policies

It is the policy of Sligo County Council to:

- P-INW-1** Protect rivers, streams and other water courses and their associated Core Riparian Zones (CRZs) from inappropriate development and maintain them in an open state, capable of providing suitable habitats for fauna and flora. Structures (e.g., bridges) crossing fisheries waters shall be clear-span and shall be designed and built in consultation with Inland Fisheries Ireland.
- P-INW-2** Protect and enhance biodiversity richness by protecting rivers, stream corridors and valleys by reserving land along their banks for ecological corridors, maintaining them free from inappropriate development and discouraging culverting or realignment.
- P-INW-3** Ensure that all proposed greenfield residential and commercial developments use sustainable drainage systems (SUDS) in accordance with best current practice, ensuring protection of the integrity of wetland sites in the adjoining area, including their hydrological regime.
- P-INW-4** Ensure that floodplains and wetlands within the Plan area are retained for their biodiversity and flood protection value.
- P-INW-5** Ensure that proposed developments do not adversely affect groundwater resources and groundwater-dependent habitats and species.

Inland waters objectives

It is an objective of Sligo County Council to:

- O-INW-1** Consult with prescribed bodies prior to undertaking, approving or authorising any works or development that may impact on rivers, streams and watercourses.
- O-INW-2** Require that runoff from a developed area does not result in deterioration of downstream watercourses or habitats, and that pollution generated by a development is treated within the development area prior to discharge to local watercourses.

24.6 Water quality

24.6.1 Water Framework Directive (WFD)

The Water Framework Directive (EC/2000/60/EC) is the principal piece of EU legislation relating to the protection of surface water, groundwater, tidal and coastal water quality in Ireland. Under the provisions of the WFD, surface water quality can be categorized into five status classifications: *high*, *good*, *moderate*, *poor*, and *bad*.

The Directive places an obligation on local authorities and other public bodies to achieve the *good status* classification of all watercourses and prevent existing *good* and *high status* surface waters from deteriorating. Existing *moderate*, *poor* and *bad status* waters must be improved to at least *good status* within the timescales detailed in the Directive.

Based on the most recent water quality monitoring data, all groundwater within the functional area of Sligo County Council is currently classified at **good** status. However, there are a number of surface water bodies that need to be improved to good/high status in order to satisfy the requirements of the Directive.

In terms of river water quality in County Sligo and based on monitoring carried out for the period 2016-2021, 18% of rivers are classified at **high** status, 48% are at **good** status, 23% are at **moderate** status and 11% are classified at **poor** status.

Among the County's lakes, 15% are classified at **high** status, 38% are at **good** status, 31% at **moderate** status, with 8% classified at **poor** and 8% at **bad** status. **[PA-72]**

24.6.2 River Basin Management Plan (RBMP)

The WFD is being implemented in Ireland through the River Basin Management Plan. At the time of writing, the third-cycle RBMP (covering the period 2022-2027) was under preparation.

The RBMP 2018-2021 adopted the following priorities:

- ensure full compliance with relevant EU legislation.
- prevent deterioration in water quality.
- meet the objectives for designated protected areas (such as designated bathing areas, drinking waters, designated shellfish, SACs etc.)
- protect high-status waters.
- implement targeted actions and pilot schemes in focused sub-catchments.

The CDP policies relating to the protection of water quality have been drafted in accordance with the measures detailed in the most recent National River Basin Management Plan and may be reviewed, if necessary, after the publication of the third-cycle RBMP.

The main sources of water pollution are agriculture, wastewater treatment plant discharges, forestry, industrial discharges, and effluent discharges from un-serviced developments. It is the role of Sligo County Council to control developments and activities, through planning policies and through the enforcement of national water quality legislation, to ensure that water quality is not adversely affected.

24.6.3 Quality of estuarine and coastal waters

Sligo County Council must ensure that planning and development policies take due account of the provisions of the WFD and water quality protection measures detailed in the National River Basin District Management Plan [PA-73] in order to maintain the existing water quality status in estuarine and coastal waters.

The principal estuarine, transitional, and coastal waters which may be impacted by the plan include Sligo, Drumcliffe and Ballysadare Bays and their respective estuaries. Killala Bay also borders the western perimeter of County Sligo.

The EPA data for the monitoring period 2016-2021 indicate that the Garavogue, Moy, and Ballysadare Estuaries are classified at **moderate** status, Easky Estuary is classified at Good Status, while Drumcliffe does not have an assigned status at the present time.

Sligo Bay is currently classified at **moderate** status, while Killala Bay and Donegal Bay Southern are classified at good status and **high** status respectively.

In general terms, 17% of transitional waters are classified at **good** status, 50% at **moderate** status and 33% do not have an official status assigned at the present time. In terms of coastal water quality, 33% of waters are classified at **high** status, and 67% are classified at **moderate** status. [PA-73]

Drumcliff Bay and Sligo Bay are designated as shellfish waters in accordance with the European Communities (Quality of Shellfish Waters) Regulations 2006 (implemented as S.I. No. 268 of 2006), but policies for the protection of shellfish waters are now incorporated into the RBMP.

24.6.4 River water quality

The ongoing national water quality monitoring programme (for rivers, lakes, groundwater, transitional waters and coastal waters) is undertaken jointly by the EPA and local authorities with additional input from a range of other state agencies. The EPA sampling programme is generally carried out over a three-year cycle with associated publication of updated water quality status information.

The Environmental protection Agency is the designated body under national water policy regulations for assigning water quality status to waters. [PA-74] The most recent EPA published data on river water quality in County Sligo relates to the period 2016 -2021. The report indicates that extensive areas of river water in the County are either of **good** or **moderate** status. There are also a significant number of **high**-status water bodies in the county. The EPA has highlighted the importance of retaining existing high status water bodies on a national basis.

There are two designated salmonid rivers in the County: the Moy and the Owengarve. Sligo County Council will strictly control development and activities in the catchments of rivers in order to protect these waters from pollution.

24.6.5 Lake water quality

Lough Gill, Lough Easky, Lough Talt, and Lough Gara are particularly important in terms of public water supply. In addition, Lough Arrow is used as a raw water source in a number of Group Water Schemes serving a wide rural hinterland. These five lakes are targeted for particular attention under the national surface water monitoring programme.

Based on 2016-2021 monitoring data, Glencar Lake, Lough Arrow, Lough Easkey and Lough Talt are classified at good status. Lough Gara, Clooncleigha Lough, Lough Labe, and Lough Dargan are classified at moderate status, while Templehouse Lake and Lough Gill are classified at **bad** status and poor status respectively. [PA-75]

A significant improvement in water quality is required within time frames specified in the Water Framework Directive. Sligo County Council will continue to control development and activities in the catchments of all lakes in order to protect and maintain existing water quality and improve water quality in lake systems that are currently not achieving the requirements of the WFD.

Table 24.1 Status of WFD-monitored lakes in County Sligo [PA-76]

Lake	2016-2021 physio-chemical status	2016-2021 ecological status
Arrow	good	good
Easky	high	good
Gara	moderate	moderate
Gill	good	poor
Kilsellagh	high	good
Talt	high	good
Templehouse	moderate	bad

Source: EDEN (EPA’s Environmental Data Exchange Network, <https://wfd.edenireland.ie/data>)

24.6.6 Groundwater quality

Groundwater is an important natural resource which supplies water for drinking, for industry, for agriculture and helps maintain wetlands and river flows through dry periods.

Discharges to groundwater are subject to the European Communities (EC) Environmental Objectives (Groundwater) Regulations, which were transposed into Irish Law as Statutory Instrument No. 9 of 2010 (S.I. No. 9 of 2010). Under Regulation 4 of the Groundwater Regulations, a duty is placed on public authorities to promote compliance with the requirements of the regulations and to take all reasonable steps to prevent or limit the input of pollutants into groundwater and prevent the deterioration of the status of all bodies of groundwater. Further amendments to the above regulations have been made under S.I. no. 389 of 2011, S.I. no. 149 of 2012 and S.I. no. 366 of 2016 [PA-77].

A practical and effective means of protecting groundwater and preventing pollution is through the use of the **Sligo Groundwater Protection Scheme** which was prepared in 2009 by the Geological Survey Ireland (GSI). The scheme provides a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater.

In the most recent groundwater assessment issued by the Environmental Protection Agency, based on data recorded during the period 2016-2021, all groundwater within County Sligo is classified at **good** status, which must be protected and maintained by the Council [PA-77]

24.6.7 Blue Dot Catchments Programme

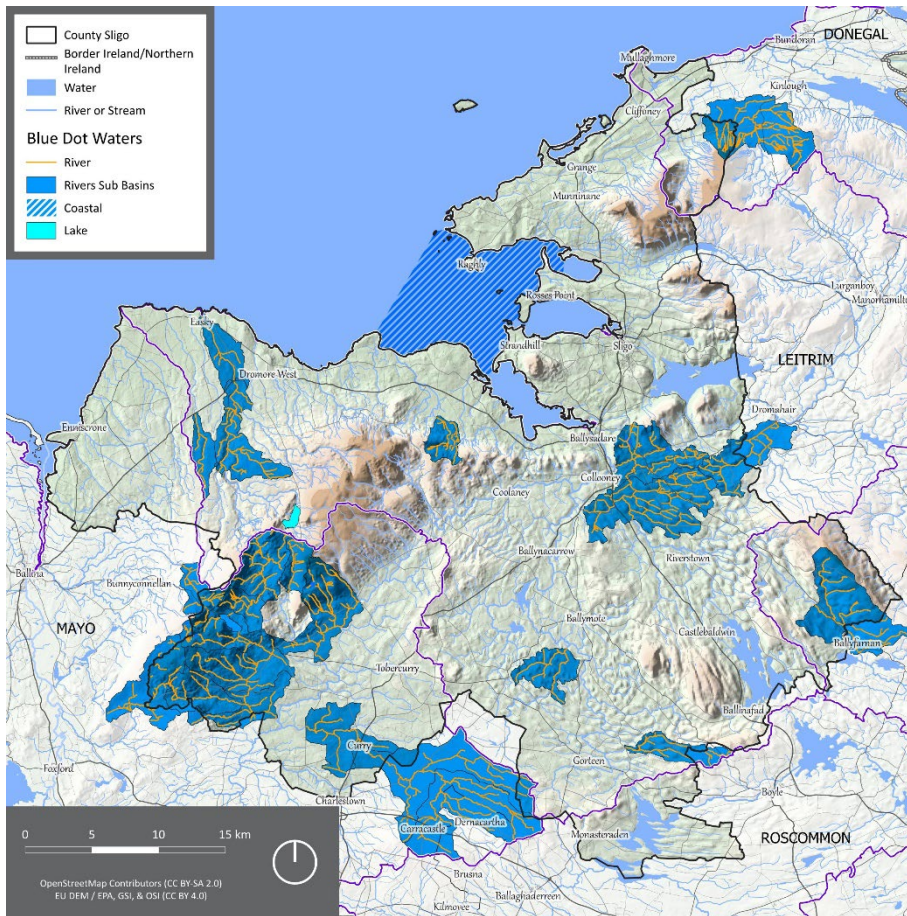
One of the key measures of the RBMP 2018-2021 and in the National River Basin Management Plan 2022-2027 [PA-78] is the setting up of the Blue Dot Catchments Programme to address the decline in **high** status water bodies. This is meant to ensure that high-status waters are prioritised for the implementation of supporting measures and for available funding.

Blue Dots are rivers, lakes, estuarine and coastal waters of the best quality, mostly unpolluted and closest to what their natural condition should be. Often, Blue Dot waters have a greater diversity of species that are sensitive to pollution. They can serve as an “ark” where sensitive species survive during pollution events and can then recolonise the affected water bodies after pollution has been removed.

There are 22 Blue Dot water bodies in County Sligo (see Fig. 24.A). Forestry, agriculture and a range of other human activities have a great impact on these water bodies. The preservation of the **high** status of the Blue Dots critically depends on the actions of those living and working in the respective catchments.

The Blue Dot Catchments Programme is directed by a National Steering Group and requires the cooperation of local authorities, Catchment Groups, River Trusts, Tidy Towns and others. The experience of the Community Water Officers working in the Local Authority Waters Programme (LAWPRO) is an invaluable resource for the programme. The County Council will assist and support the programme as part of its WFD/RBMP obligation to protect and restore water quality.

Fig 24.A Blue Dot catchments in County Sligo



Water quality policies

It is the policy of Sligo County Council to:

- P-WQ-1** Support the implementation of the EU Water Framework Directive, National River Basin Management Plan and Blue Dot Catchment Programme, to ensure protection and improvement of all waters in the County.
- P-WQ-2** Promote compliance with environmental standards and objectives established for surface and groundwater bodies under the Water Framework Directive (WFD).
Applications for development must demonstrate that such proposed development would not adversely affect the ability of any water body to meet its objectives under the Water Framework Directive, individually (as a result of the proposed development) or cumulatively (in combination with other developments). Evidence to this effect may include correspondence from Uisce Eireann.
- P-WQ-3** Protect the quality of estuarine and coastal waters by controlling land-based discharges to these areas.
- P-WQ-4** Prohibit any development which is likely to lead to the deterioration of **the status of any water body (water quality)**. **[PA-71]**
- P-WQ-5** Ensure that all development proposals have regard to the Sligo Groundwater Protection Scheme, in order to protect groundwater resources and groundwater-dependent habitats and species.
- P-WQ-6** Strictly limit and control new development in or near the catchment areas of water bodies, particularly salmonid rivers and those that are the source of the following drinking water supplies:
- | | |
|-------------------------------|-------------------------------|
| ◆ Lough Gill | ◆ Lough Easky |
| ◆ Lough Arrow | ◆ Gortnaleck and Lyle streams |
| ◆ Kilsellagh Source catchment | ◆ Riverstown Source Catchment |
| ◆ Lough Talt | ◆ GWS source catchments |

Water quality objectives

It is an objective of Sligo County Council to:

- O-WQ-1** Continue to monitor, audit, and review the environmental status with regard to the water quality of rivers, lakes, estuarine and coastal waters.
- O-WQ-2** Protect, maintain, or improve water quality to the status set out in the national RBMP. All discharges to water bodies shall be licensed in accordance with the provisions of the Local Government (Water pollution) Acts 1977 & 1990.
- O-WQ-3** Implement the Programme of Measures detailed in the national RBMP.
- O-WQ-4** Ensure compliance with the relevant objectives and measures that will be set out in the Groundwater Protection Scheme for County Sligo.