

COMHAIRLE CONTAE C H E A T H A R L A C H

CARLOW COUNTY COUNCIL



COUNTY CARLOW BIODIVERSITY ACTION PLAN 2023-2025

TO FURTHER IMPROVE OUR UNDERSTANDING OF COUNTY CARLOW'S BIODIVERSITY AND TAKE ACTIONS FOR ITS CONSERVATION AND RESTORATION

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Introduction:

County Carlow has an impressive assemblage of rare and protected plants and animals that make their home in the county's equally impressive network of habitats, from Ardristan Fen and Ballymoon Esker, to Drummin Bog and Clashganny Forest.

While the county is better known for its agricultural landscape, with an extensive network of low and tightly managed hedgerows (approximately 10,000km in length) surrounding tillage fields and pastures, it is the interconnected network of rivers and their riparian zones that have had the greatest influence on the Carlow landscape. These ecological corridors are the county's most important features from a biodiversity perspective, with the hedgerow network providing further connectivity throughout the landscape.



The River Barrow catchment connects to the Blackstairs Mountain range via the River Mountain and River Aughavaud. The Blackstairs Mountains then connect to the River Slaney catchment via the River Clody. Moving beyond the county boundary, these ecological connections extend to the Wicklow Mountains in the north-east and the Slieve Bloom Mountains in the north-west. This level of ecological connectivity between five internationally important and designated sites is rare. The communities across County Carlow, both urban and rural, are rightfully proud of their local biodiversity, and there is a desire to turn that pride into action that conserves what is most important, to enhance or rehabilitate where they can, to adopt community policies that safeguards biodiversity for future generations, and to improve awareness and understanding in order to join the global movement to halt biodiversity loss.

The County Carlow Biodiversity Action Plan is informed by, and supports the local implementation of, national and international legislation and policy. Its preparation is an objective of the Carlow County Development Plan 2022-2028. The latter sets out the statutory framework governing the conservation of biodiversity in Carlow. These policies and objectives are not replicated herein. Instead, this Plan focuses on their implementation through support of community efforts, and by coordinating a concerted effort across all relevant stakeholders.

Biodiversity – What it is & Why it is important:

Biodiversity is the shortened name for biological diversity, and it is used to refer to the variety of all living things in a particular place. However, it is important to remember that biodiversity is much more than just the number of different plants or animals, and is best understood when broken down to its four separate levels as follows:

- **1. Species Diversity:** refers to the number of different types of plants, animals, fungi, bacteria and other living organisms, both wild and domesticated.
- **2.** Genetic Diversity: refers to the unique DNA which an individual plant or animal possesses. Genetic diversity is essential for populations of different species to remain healthy and functional.
- **3.** Habitat Diversity: refers to the 'home' of different species, and provides its specific requirements in terms of food, shelter and a means of reproduction.
- 4. Ecosystems Diversity: refers to the relationships between different species, their habitats, food-webs, and their local non-living environment (geology, hydrology and micro-climate).

Ecosystem diversity is the most important of these, as it recognises that a species, or a habitat, does not exist independently of its surroundings. Therefore, in order to protect an individual species or habitat, appropriate conservation measures must be extended to the

community and physical environment in which it exists. As such, in the context of biodiversity conservation, it is vital that ecosystems diversity is understood, promoted and protected.



The conservation of biodiversity forms part of the United Nation's Sustainable Development Goals. In a perfect world, biodiversity would be protected for its own sake, but in the real world, biodiversity is generally distilled into the services it can provide for society. These services can be broken down into regulating services, provisioning services, supporting services, and cultural services, and they have become increasingly recognised and valued as a result of our increasing awareness of climate change and biodiversity loss, and the impacts these are having both globally and locally.

- 1. Provisioning Services: Drinking Water, Food, Medicine, Clothing Textiles, Shelter Materials (timber, stone), Fuels.
- **2. Regulating Services:** Water Flow (flood management and drainage), Water Purification, Air Quality, Pollination, Organic Matter Decomposition, Carbon Storage.
- 3. Supporting Services: Soil Creation, Nutrient Cycling, Photosynthesis, Water Cycle.
- 4. Cultural Services: Folklore and Heritage, Religious and Spiritual, Artistic and Aesthetic, Knowledge and Social Relationships.





The Diversity of County Carlow's Habitats & Species

The diversity of Carlow's habitats and species reflect the varied geology, landforms (mountains to river valleys), soils and land uses across the county, with limestone bedrock towards the west, granite towards the east, shale and sandstone around Old Leighlin, and pockets of schist and sandstone between Clonegal and Myshall.

In the north-east of the county, between Rathvilly, Hacketstown and Tullow, the tributaries of the River Slaney catchment are important spawning and nursery habitats for salmon, while their riparian zones support otters and kingfishers. In between these, the landscape is dotted by gorse-covered hilltops and bluebell-filled oak woodlands, with pockets of semi-natural wet grasslands adding further colour.

Moving south, from Myshall down to Drummond, the landscape is dominated by the Blackstairs mountain range, with large expanses of blanket bog, dry heath and wet heath, along with pockets of rock and scree, dry-humid acid grassland, fen, scrub and several different types of woodland, including bog and wet woodlands. The area is home to pine martens, hares, stoats, and red squirrel, along with kestrel, merlin, peregrine falcon, and of course, the red grouse.



Carlow's western boundary, from St Mullins up to Muine Bheag, is dominated by the River Barrow catchment, with pockets of alluvial (riparian) woodlands and tall herb communities supporting important food webs, with midges and mosquitoes feeding damselflies and dragonflies, which in turn are prey for bats and birds. Similar to the River Slaney, the tributaries of the Barrow are ecologically richer than the main channel as a consequence of navigational works.

The River Barrow floods at a number of locations each winter, including the stretch between Cloydagh and Powerstown. The flooded lands attract nationally important numbers of lapwing and large wintering flocks of golden plover, as well as smaller numbers of curlew green sandpipers. Further north-west, as the land rises back towards Bilboa, blanket bog, semi-natural grasslands and forestry abound, with buzzards scanning the area for something to catch, the rare and protected marsh fritillary butterfly fluttering between devil's-bit scabious plants, and other rarities, such as the blue fleabane flower and orchids, popping up where old quarries have created niche habitats.

The River Burrin flows through the centre of the county, flanked by a patchwork of arable and pasture fields, some of which are wet or unimproved and species rich, with low hedgerows that provide important nesting habitat for a range of birds, shelter for hedgehogs and rabbits, and feeding corridors for bats, despite the tight management of many Carlow hedgerows restricting their ecological potential.



All across Carlow, there are hidden habitats in the corners of farmlands and parklands, including small ponds, marshes, wet grasslands, fens and bogs. Small groves of trees, some of them wet, are more visible on the landscape, as are individual mature trees. All of these habitats combine to give Carlow a rich wildlife assemblage that the people of Carlow can be proud of, including ivy broomrape found near Borris, bee orchids found near Muine Bheag, and six rare lichens found in Carlow's ancient woodlands (Clongrennan Wood, Toberbride Wood, and Drummond Wood).



In addition to these, there are many historic parks and gardens throughout Carlow, which support unique collections of biodiversity. The walled gardens at Ducketts Grove, surrounded by flat and intensively managed farmland, are an oasis for foraging butterflies, moths, bumblebees, and many other insects and birds, while the veteran woodland outside the gardens supports whole ecosystems, with fungi, beetles and other invertebrates finding all they need in the decaying wood.

The mature mixed-broadleaved woodlands at Oak Park Forest Park are home to an extensive collection of ferns, mosses and woodland flora, while the lakes and islands provide food and shelter for swans, ducks and other water birds. Further south-east, the sensitive balance of formal and informal planting at Altamont Gardens, with its arboretum, lake, and old oak and hazel woodlands, is yet another haven for wildlife.

Old buildings, bridges and other structures, of which there are many throughout Carlow, are also important for biodiversity. Modern building designs have reduced the nesting sites available for birds like the barn owl and swift. Bats, such as pipistrelles and Leisler's bat, often roost in attic spaces, whereas Daubenton's bats roost in the crevices under bridges (they feed along the surface of rivers), along with birds such as dippers and grey wagtails.

Historic graveyards can be particularly important biodiversity refuges, with their grassland areas, which are likely to have never been fertilised, harbouring a diverse seed bank. Their stone walls, church ruins and gravestones can also support rare plants, and in particular, ferns, mosses and lichens.

The Natura 2000 Network in County Carlow:

The European Union Habitats Directive and the European Union Birds Directive provide for the establishment of the Natura 2000 Network – a network of sites across Europe, of the highest biodiversity importance for rare and threatened habitats and species. There are two types of Natura 2000 Sites in Ireland, namely Special Areas of Conservation (SAC) and Special Protection Areas (SPA). The latter are designated for birds and their wetland habitats. There are currently no SPAs in Carlow.



There are three Special Areas of Conservation (SACs) in Carlow, namely the River Barrow and River Nore SAC (Site Code 002162) in the west, the Slaney River Valley SAC (Site Code 000781) in the north-east, and the Blackstairs Mountains SAC (Site Code 000770) in the south-east.

Connectivity between Natura 2000 Sites is particularly significant, and as outlined earlier, the river network in Carlow connects the three SACs to each other, and to SACs further afield. However, it should also be noted, due to historical navigational and angling changes to the main river channels, many of the tributaries outside of the SAC boundary, are of higher ecological value, particularly as spawning grounds for many fish species. A brief overview is set out below, with further reading available on the National Parks and Wildlife Service's website.



The River Barrow and River Nore SAC extends upstream as far as the Slieve Bloom Mountains in County Laois, and downstream, where the two rivers meet at Ringwood, until it reaches the tidal waters and estuary at Creadun Head in Waterford. In Carlow the main tributary rivers and streams within the SAC include the Mountain, Aughnabrisky, Ballyroughan Little, Pollmounty and Aughnavaud.

Within the Carlow section of the SAC, there are good examples of floating river vegetation and tall herbs at Muine Bheag, and alluvial woodlands at Drummond Wood, Clogheristick Wood, and Borris Demesne, while dry heath occurs in pockets along the steep sides of the Barrow valley tributaries in the foothills of the Blackstairs Mountains. Otter, several fish species, white-clawed crayfish, freshwater pearl mussel and the tiny Desmoulin's whorl snail are also found in these tributaries.

The Slaney River Valley SAC extends upstream as far as the Wicklow Mountains, and downstream to the estuary at Ferrycarrig; and Wexford Harbour. In Carlow the main tributary rivers and streams within the SAC include the Clody, Derry and Derreen. The River Dereen is important for the freshwater pearl mussel containing a significant population of this endangered species, while the upper Slaney and tributary headwaters are also very important for salmon spawning. Patches of old oak woodlands are found throughout the Carlow section of SAC, including Johnstown North and Ballynoe.

The Blackstairs Mountains SAC runs in a north-east/south-west direction for approximately 22 km, and includes six peaks of over 520 m. The range has a core of granite, and on the Carlow side, erosion has cut deeply into the dome exposing successive layers of granite and giving a steeply stepped slope. Dry heath is extensive at the site, with the higher, steeper

slopes covered by a dense carpet of heather, bilberry and mosses. Wet heath also occurs in a mosaic with dry heath, particularly towards the base of some of the steeper slopes.



Natural Heritage Areas in County Carlow:

Under the Wildlife Act 1976 (as amended), Natural Heritage Areas (NHAs) are designated sites of national importance for habitats, species, and geological interest. As this legislation predated the EU Habitats Directive, many NHAs overlap with SACs and SPAs. Sites that have been identified as being of national importance for habitats, species, and geological interest, but are not yet designated as NHAs, are known as proposed Natural Heritage Areas (pNHAs). There are eight such sites in County Carlow, namely:

- Slaney River Valley pNHA (Site Code 000781)
- Blackstairs Mountains pNHA (Site Code 000770)
- Ardristan Fen pNHA (Site Code 000788)
- Baggots Wood pNHA (Site Code 000792)
- Ballymoon Esker pNHA (Site Code 000797)
- Cloghristick Wood pNHA (Site Code 000806)
- Johns Hill pNHA (Site Code 000808)
- Oak Park pNHA (Site Code 000810)

A brief overview is set out below, with further reading available on the National Parks and Wildlife Service's website.



Ardristan Fen pNHA contains calcareous fen, a rare habitat in Carlow, however, the area of interest has been greatly reduced by land reclamation. Part of the remaining fen at Ardristan is covered by wet woodland consisting mostly of alder and birch.

Baggots Wood pNHA is a small woodland on the lower slopes of gently undulating farmland on a tributary of the Douglas River. Part of the woodland is classed as old oak woodland, and bluebells are abundant in the field layer.



Ballymoon Esker pNHA is a long hill of sand and gravel, which stretches from just south of Dunlecky Crossroads to Ballymoon Castle. Sand has been quarried at frequent intervals along the structure of the esker and only the northernmost section, which supports pine trees, is intact. This site is also of geomorphological interest given its distance from the larger esker systems of the midlands. Calcareous grassland covers much of the esker, and at the southern end it contains several rare plant species, two of which are legally protected under the Flora Protection Order, namely Green-winged Orchid and Basil Thyme.

Clogheristick Wood pNHA is a medium sized area of mixed broadleaved woodland on the slopes above the River Barrow at Milford, with wet willow woodland along the bottom of the slope by the riverbank. The wet woodland contains alder in the canopy, grey willow, crack-willow and purple willow, with a field layer containing water-cress, wild angelica and lesser celandine. Further up the slope, drier woodland is dominated by ash and beech with an understorey of wych elm, holly and hazel. Bluebells are abundant in the field layer here.

Johns Hill pNHA is a small area of bog, which supports the rare and protected Bog Orchid. Bog Orchid grows in wet, acid spongy bogs, usually in tufts of bog moss (*Sphagnum* spp.), and typically occurs in association with other bog species, including carnation sedge and round-leaved sundew.

Oak Park pNHA is a shallow artificial pond, the largest area of still water in the county, surrounded by woodlands, which was part of a large demesne wood planted in the 1700s. There are eight small islands bearing coniferous and deciduous trees within the lake. Much of the open water has been colonised by common reed, bulrush and reed sweet-grass, and attracts a variety of breeding birds, like the little grebe and water rail, as well as winter visitors, like the golden plover and lapwing. The scarce myxomycete fungus has been recorded from the woodland.



Main threats to County Carlow's Biodiversity:

Lack of Knowledge & Understanding: In Ireland, many plants and insects look very similar, or almost identical, like the Small Blue butterfly and the Common Blue butterfly, which are both found in Carlow. However, one is very rare and the other is not, and knowing the difference is critical to understanding their conservation value. Similarly, there are alder and ash trees found throughout the county, but where they occur on wet ground along the River Barrow, they form part of the rare and protected alluvial woodland habitat. Understanding why and how to manage such habitats is particularly important for decision-makers who have an influence in biodiversity conservation, and there is a need to further strengthen the knowledge base in Carlow, through surveys of habitats and species, encouraging surveyors to strengthen their identification skills, increasing awareness among landowners and the general public, and ensuring decision makers have access to all available information.

Burning/ Wildfires: Burning of upland areas has traditionally been used by farmers as a way to encourage new growth and prevent areas from becoming overgrown. The practice, though it may have some limited agricultural benefits, also has significant negative impacts in terms of ecological damage, in addition to impacts on air quality, human health, climate change, and potential property damage. In recent years, there has been a spate of wildfires on the Blackstairs Mountains, which have required considerable resources from firefighting crews to control. The Blackstairs Farming Futures Project, as part of a broader High Nature Value farming approach, aims to address this issue.

Inappropriate Hedgerow Management: When hedgerows were first created across Carlow, they were typically the only form of stock-proof fencing available. They were often much

wider, higher, and species-rich, as management was largely done by hand in the absence of hedge-cutters, and they were more valuable from an agricultural perspective, as a source of natural pest control in the absence of chemical pesticides. Some of these hedgerows still remain in Carlow, associated with ancient townland boundaries and archaeological features. However, advancements in agricultural technology led to the introduction of poor management practices and a tendency toward over-maintenance and neatness, some of which continue in many areas today despite the availability of best practice guidance. As a result, a large proportion of the 10,000km of hedgerows in Carlow today are far from optimum from a biodiversity perspective.

Barriers to fish migration: The River Barrow, River Slaney and their tributaries, have been significantly altered to facilitate navigation and angling, which has resulted in many weirs, dams and poorly designed river crossings. These structures prevent free upstream migration of fish species such as Salmon, Trout, Eel, Shad and Lamprey, effectively resulting in the loss of spawning habitat upstream. Additionally, these barriers cause delays in the migration of fish, which can result in increased predation by animals or a greater potential for poaching. The spread of disease can become an issue where large numbers of fish are confined in a small area downstream of a barrier. This has significant implications for the populations of fish species concerned and contravenes the legal obligation under the WFD to protect the ecological status of river catchments and channels.

Water Volume, Flow & Pollution: Carlow has many streams and rivers with good water quality status, but in recent decades, point and diffuse sources of pollution, including domestic, commercial, agricultural, forestry and recreational sources, have led to the deterioration of water quality in several of Carlow's waterways. Aquatic creatures, like the protected freshwater pearl mussel found in the Dereen River and in streams on the Blackstairs mountains, are exceptionally sensitive to changes in the oxygen and nutrient composition of water, and even slight increases in pollution can lead to their loss.

Small pollution increases can also lead to significant changes in the entire invertebrate assemblages of streams, impacting on the wider food-chain. Changes in water volume and flow can also lead to changes in oxygen and nutrient composition. Historical river realignment, notable in the Burren River, has impacted both the river habitat and it's floodplains/surface runoff catchment. Predicted reductions in river water volume (approximately 25% in the River Slaney) as a result of climate change, coupled with projected population increases and water demands, is of particular concern.

Invasive Species: Invasive (non-native) species pose a threat to local biodiversity as they outcompete native species for space and food. The spread of invasive species is regarded as one of the most significant threats to biodiversity throughout the world. They also significantly impact many of the ecosystem services which will be required in climate change adaptation and mitigation, such as flood management along waterways, e.g. Himalayan balsam exposes bare riverbanks during winter. In Carlow, there are over twenty recorded Invasive Species, both terrestrial and aquatic. Aquatic invasive species, both plants and animals, are often spread when recreational crafts are moved around inland waterways without proper washing and care. This is easily avoided by checking the crafts to ensure that they are not transporting invasive species. Care is also required when designing/creating Sustainable Urban Drainage Systems (SUDS), that invasive and non-native species are not spread via hydrological connectivity.

Plantation forestry: The compact layout (to improve timber quality) of many forestry plantations means that light is blocked out, and this subsequently prevents a ground layer from developing. Of greater concern, however, is that many of these plantations have been sited on blanket bogs and associated habitats, such as in parts of the Blackstairs Mountains, which is counterproductive from a conservation perspective and significantly influences local hydrology and the potential for carbon sequestration. Related to this, coniferous plantations often lead to nitrification of local streams, as does the practice of fertilizer use in these areas, negatively impacting species such as the freshwater pearl mussel. It should be recognised however, that forestry, when sited, planted and managed correctly, can significantly contribute to local biodiversity.

Population Increase: The population of Carlow is projected to increase significantly over the coming years. This will impact biodiversity in a number of ways, including increased pressure on rivers to provide water and the management of wastewater, reduced air quality in expanding urban areas, and increased human-nature interactions leading to disturbance of sensitive species. It will also lead to increased development pressure, particularly in the areas surrounding the county's main towns and villages, including residential, recreational, infrastructural, commercial and public service developments. However, to address this, the Carlow County Development Plan 2022 – 2028 sets out the necessary Development Management Standards to ensure that biodiversity conservation is appropriately considered as part of the broader sustainable development of the county.

Climate Change: There is an interdependent relationship between biodiversity and climate change. Biodiversity plays a significant role in removing carbon dioxide (one of the main greenhouse gases) from the atmosphere through photosynthesis, but activities such as deforestation prevent this from occurring, while activities such as the drainage of wetlands can actually release more carbon into the atmosphere. Globally, the rate of biodiversity loss has been inextricably linked to the rate of climate change, and it is increasingly acknowledged that the most effective solutions to climate change mitigation and adaptation, are nature-based solutions, including the reversal of many developments, e.g. rewetting of bogs. Biodiversity conservation, through the implementation of this Biodiversity Action Plan, will be at the core of Carlow's Climate Action Plan.

Vision:

To further improve our understanding of County Carlow's biodiversity and take actions for its conservation and restoration.

Objectives & Actions:



OBJECTIVE 1: Ensure Alignment With National Biodiversity Policy And Appropriate Resourcing For Implementation

ACTIONS

- 1.1 Apply for project funding to implement the actions of Ireland's 4th National Biodiversity Action Plan as they relate to County Carlow, and the actions outlined below, from the funding streams identified by the 4th National Biodiversity Action Plan, and any other funding streams that become available during the lifetime of the Plan.
- **1.2** To ensure that Carlow County Council's existing resources, including supports to communities and schools, contribute towards the actions below as appropriate.
- **1.3** Strengthen partnerships between stakeholders (statutory agencies and non-statutory bodies) to ensure sharing of biodiversity data, and where appropriate, pooling of resources to effect biodiversity conservation and restoration.
- **1.4** Ensure all actions comply with legislative and policy requirements, as set out in the Carlow County Development Plan 2022-2028 and relevant legislation.





OBJECTIVE 2: To Map And Conserve What Is Valuable

ACTIONS

- **2.1** To collate existing data, identify gaps, and map Annex habitats (EU Habitats Directive), semi-natural habitats, and biodiversity hotspots in County Carlow.
 - **2.1.1** Prioritize non-SAC areas which are not routinely monitored by NPWS or afforded the same level of protection as designated sites.
 - **2.1.2** Map the existing data which was received from Carlow-based ecologists and agencies as part of the BAP consultation process.
 - **2.1.3** Identify priority locations for survey or re-survey work and apply for project funding for same.
- **2.2** To survey and map Carlow wetlands.
 - **2.2.1** Ground-truth the 114 potential wetland sites identified by desktop survey as part of the Map of Irish Wetlands.
- **2.3** To survey sites with historical records for protected and rare plants.
 - 2.3.1 Request data on extant sites from the National Parks & Wildlife Service, the National Biodiversity Data Centre, and the Botanical Society of Britain and Ireland, and resurvey to assess current status.
- **2.4** To identify and map culturally significant trees and ancient hedgerows.
 - **2.4.1** Assess current status of trees from the Heritage Trees of Ireland database.
 - **2.4.2** Collate existing data on ancient hedgerows in Carlow.
- **2.5** To improve knowledge of the distribution of protected and iconic Carlow wildlife, including otters, hedgehogs, and raptors.
 - **2.5.1** Initial focus on Barn Owls in County Carlow.
 - **2.5.2** Design and implement citizen science hedgehog survey.
 - **2.5.3** Develop project scope for otter survey and human disturbance index study.
- **2.6** To use the above data to inform management guidelines as appropriate and disseminate to relevant landowners.



OBJECTIVE 3: To Restore Where Possible

ACTIONS

- **3.1** To support initiatives under the Water Framework Directive that contribute to the restoration of ecology in water bodies, and the Blue Dot Catchments Programme.
 - **3.1.1** To assess the potential for removing/altering disused weirs, to facilitate fish migration, as identified by Inland Fisheries Ireland.
 - **3.1.2** To support or lead initiatives, including litter clean-ups, invasive species management, and riparian habitat management.
- **3.2** To identify opportunities to restore species-poor hedgerows into species-rich hedgerows.
 - **3.2.1** Develop a 'Flowering Hedgerows' policy and guidance for County Carlow.

3.3 To control Invasive Species across Carlow.

- **3.3.1** Assess current status of Invasive Species at previously recorded sites.
- **3.3.2** Develop and implement control protocols for Carlow County Council staff managing high priority Invasive Species in Carlow.





OBJECTIVE 4: To Enhance Where Possible

ACTIONS

- **4.1** To identify opportunities for habitat creation in areas of low biodiversity across Carlow.
 - **4.1.1** Identify potential sites, and initiate proposals, within Carlow County Council managed lands.
 - **4.1.2** Identify potential sites, and initiate proposals, within institutional lands in Carlow.
 - **4.1.3** To encourage habitat creation as a primary function of SUDS, as opposed to a by-product of water management.
- **4.2** To facilitate schools and communities to deliver pollinator and other biodiversity initiatives.
 - **4.2.1** Provide advice and guidance as appropriate, including guidance on improving nesting sites for swifts, sand martins and bats.
 - **4.2.2** Raise awareness of appropriate funding calls.
 - **4.2.3** Encourage the development of a 'Biodiversity Corridor of Gardens.'
- **4.3** To support development and implementation of existing and future local BAPs.
- **4.4** To identify opportunities to pilot the Hare's Corner project on farms in Carlow.
 - **4.4.1** Promote the Hare's Corner project through farming groups (a traditional practice, linked to superstitions around the Irish Hare, of leaving field corners to go wild, as a refuge for wildlife).
 - **4.4.2** Identify potential participants.



OBJECTIVE 5: To Adopt Biodiversity Friendly Policies

ACTIONS

- 5.1 To roll out low mow/ no mow areas in all town centres in County Carlow.
 - **5.1.1** Adopt Low Mow/No Mow as a Council policy, with associated management specifications.
 - 5.1.2 Map green spaces in Carlow where this policy will be applied.
- **5.2** To implement the 'right tree, right place' approach to tree planting by Carlow County Council.
 - **5.2.1** Adopt Right Tree, Right Place as a Council policy, with associated management specifications.
- 5.3 To implement a pesticide reduction strategy within Carlow County Council.
 - 5.3.1 Identify and trial alternatives to pesticides
 - **5.3.2** Develop and implement a communications campaign for the public that encourages a higher level of tolerance for "weeds" in a pesticide-free environment.

5.4 To replace all public lighting in Carlow with bat/wildlife friendly lighting.



OBJECTIVE 6: To Improve The Understanding Of Stakeholder's Roles In Biodiversity Conservation.

ACTIONS

6.1 To develop an awareness programme that:

- **6.1.1** Focuses on Carlow's rare/ high conservation-value biodiversity rather than common/ easily accessible biodiversity (as identified under Objective 2 above).
- **6.1.2** Highlights the challenges faced by biodiversity and explains how our individual behaviours can influence local biodiversity.
- **6.1.3** Demonstrates the pro's and con's of popular biodiversity initiatives, and how they are likely to look in the environment.
- **6.1.4** Highlights actions that individuals, communities and other stakeholders can take to support local biodiversity.
- **6.2** To roll out the above awareness programme for the following groups:
 - All council staff and councillors
 - Community groups, through the Public Participation Network
 - Businesses
 - Farming Groups, including identification of Farming for Nature Ambassadors
 - Schools (all levels)



OBJECTIVE 7: To Strengthen Existing, And Develop New, Partnerships To Deliver The Above Actions

ACTIONS

- **7.1** To ensure Biodiversity is appropriately represented on the Carlow Heritage Forum and Climate Action Team.
- **7.2** To maximise the use of existing fora, e.g. Public Participation Network and Strategic Policy Committees, for two-way communication on biodiversity issues in County Carlow.
- **7.3** To work with stakeholder groups in the Blackstairs Mountains, Drummin Bog, and other biodiversity sites, to ensure the actions above complement their conservation efforts.
- **7.4** To identify an appropriate structure for a Carlow Biodiversity Forum, in liaison with the Heritage Council and the Biodiversity Officer Network Programme, to support the role of a Carlow Biodiversity Officer. Carlow County Council will act immediately to appoint a Biodiversity Officer, upon receipt of funding and sanction from the relevant Government Department.



