Draft Fermanagh and Omagh District Council Biodiversity Strategy and Action Plan

2022 – 2027

Fermanagh & Omagh
District Council

Comhairle Ceantair
Fhear Manach agus na hÓmaí

Front cover image: artwork by Catherine Swan

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Executive Summary

1.0 Executive Summary

This document sets out Fermanagh and Omagh District Council's Biodiversity Strategy and Action Plan from 2022 - 2027. It explores the **unique biodiversity** of the District, the biodiversity crisis that is unfolding worldwide, and the practical steps the Council can take to restore biodiversity locally. This will help us to move towards the UN's shared vision of **'living in harmony with nature by 2050'**.

Our District is renowned for its beautiful scenery and wild open landscapes of hills, lakes, rivers, caves, woodlands and bogs. This diverse mosaic is home to a vast array of priority and protected habitats and species.

Biodiversity is fundamental to both planet and people. In addition to being important, biodiversity also provides a host of services and functions that bring value to our lives. Biodiversity is under increasing threat at a global, regional and local level. Urban development, invasive non-native species, intensive agricultural practices and climate change are just some of the drivers of biodiversity loss in Northern Ireland.

The Council acknowledges the role of its partners within the Biodiversity Steering Group and their commitment to working in partnership to protect and enhance local biodiversity. This approach has served our District well, through the implementation of Local Biodiversity Action Plans (LBAPs) and will continue to be a feature of our work going forward. The complexity and scale of the challenges we face will require commitment from many stakeholders, extending well beyond the remit of the Steering Group. Central to this will be a role for residents and visitors of our District to contribute positively to local biodiversity.

Fermanagh and Omagh District Council seeks to champion and promote biodiversity and be an exemplar of good practice across our operations.

Our aims are simple:

- **Protect and enhance biodiversity on Council managed estate**
- **Increase awareness and action for local biodiversity in the District**
- **Work in partnership with others to deliver biodiversity action in the District.**

Through the delivery of seven thematic action plans based on evidenced needs, the Council will contribute to the wider outcomes linked to principles contained within the legislation, which places a legal duty and responsibility on Council to act, namely:

- Protection of biodiversity
- Maintenance of biodiversity
- Enhancing biodiversity
- Restoring biodiversity
- Promoting the understanding of biodiversity.

> *"To restore stability to our planet, we must restore its biodiversity, the very thing that we've removed. It's the only way out of this crisis that we have created. We must re-wild the world."*
>
> *David Attenborough, Life on our Planet, 2020*

This Strategy does not sit in isolation. It has synergy and complementarity with several key strategic commitments made by the Council. By taking action to deliver on the aims of the Biodiversity Strategy, progress is made towards improving the environment; taking positive action in mitigating against and adapting to climate change; promoting and supporting health and well-being through protecting and enhancing our natural assets in a sustainable way and therefore, developing the tourism potential of the District.

2.0

Biodiversity – An Introduction

2.0 Biodiversity - An Introduction

Biodiversity encompasses the whole variety of life on Earth. It includes all species of plants, fungi, animals, their genetic variation and the complex ecosystems of which they are part. It is not restricted to rare or threatened species, but includes the whole of the natural world, from the commonplace to the critically endangered (DAERA, 2021). Fermanagh and Omagh District Council (FODC) supports a wide range of ecosystems, from those relatively undisturbed in character to ecosystems intensively managed and modified by humans, such as agricultural land and urban areas.

Biodiversity is fundamental to both planet and people. In addition to its key importance, biodiversity also provides a host of services and functions that bring value to our lives, including:

- Provision of food, water, timber and fibre **(provisioning services)**.
- Helping to regulate climate change, floods, disease, waste and water quality **(regulating services)**.
- Providing recreational, aesthetic and cultural benefits **(cultural services).**
- Supporting soil formation, pollination, photosynthesis, and nutrient cycling **(supporting services)**.

These free **Ecosystem Services** are often taken for granted and are simply defined in the UK National Ecosystem Assessment.

> *"Ecosystem services are the benefits provided by ecosystems that contribute to making human life both possible and worth living"*
> *(UK National Ecosystem Assessment, 2011)*[1]

The concept of valuing biodiversity through the ecosystem services it provides, emphasises its importance to economic, social and environmental sectors of society. The finite nature of biodiversity means that its resources must be used and managed in a sustainable way. This makes biodiversity a vital indicator of the success of sustainable development.

Ecosystem Services Diagram
by UK National Ecosystem Assessment.

[1] UK National Ecosystem Assessment (2011) *The UK National Ecosystem Assessment: Synthesis of the Key Findings*. UNEP-WCMC, Cambridge.

3.0

Delivering on Our Existing Commitments

3.0 Delivering on Our Existing Commitments

The Biodiversity Strategy does not sit in isolation. It has been developed to meet existing commitments within key Council Strategies and is fundamental to the delivery of key priorities and high-level outcomes for the District. A summary is provided below which highlights the significant role and importance of this Strategy.

Biodiversity is weaved throughout both the Corporate and Community Plan as standalone actions and as part of more holistic actions to address additional issues such as mental health and well-being, access to the countryside and a green recovery.

Fermanagh and Omagh 2030

The Biodiversity Strategy will help contribute to the vision of our Community Plan which is of, 'a welcoming, shared and inclusive Fermanagh and Omagh, where people and places are healthy, safe, connected and prosperous, and where our **outstanding natural, built and cultural heritage is cherished and sustainably managed.'**

There are many links and crossovers for biodiversity action in the Community Plan, but in its current phase, biodiversity action relates directly to the following actions:

- Working in partnership with communities to build environmental awareness and activities
- Promote the protection and enhancement of biodiversity and raise awareness of the value of our natural environment

The Council's Corporate Plan 2020 - 2024

"Our Vision for Fermanagh and Omagh is of a welcoming, shared and inclusive district, where people and places are healthy, safe, connected and prosperous; and where our outstanding natural, built and cultural heritage is cherished and sustainably managed".

Specific outcomes include:

Outcome 1: Our people are healthy and well – physically, mentally and emotionally

Outcome 3: Our communities are inclusive, safe, resilient and empowered

Outcome 6: Our outstanding and culturally rich environment is cherished, sustainably managed and appropriately accessible

- **Action 23: Commit to a Climate Change Agenda which will reduce our carbon emissions through:**
  - Sustainable management of the Council's estates and assets
  - Enhancement and promotion of biodiversity

3.0 Delivering on Our Existing Commitments

- **Action 24: Conserve and promote the natural, built and cultural heritage of our district:**
  - Development and delivery of a Heritage Action Plan.

Performance Improvement Plan

- The Council's Performance Improvement Plan outlines five **Improvement Priorities** which will be the focus of its improvement activity over the 2020-24 Council term. Three of these have direct relevance to this Biodiversity Strategy, namely:
- Positive Climate Action.
- Promoting and Supporting Health and Well-being.

- Developing Our Tourism Potential.

Local Development Plan 2030

The Local Development Plan (LDP) sets out the spatial strategy for the future planning and sustainable development of the District until 2030. Sustainable development is at the heart of the LDP, with the natural environment and biodiversity a key element of this.

Locally, our natural environment contributes towards our growing tourism market, economic development and the associated health benefits it affords. The objectives and policies of the LDP seek to protect, conserve, enhance, restore and halt the loss of biodiversity and habitats.

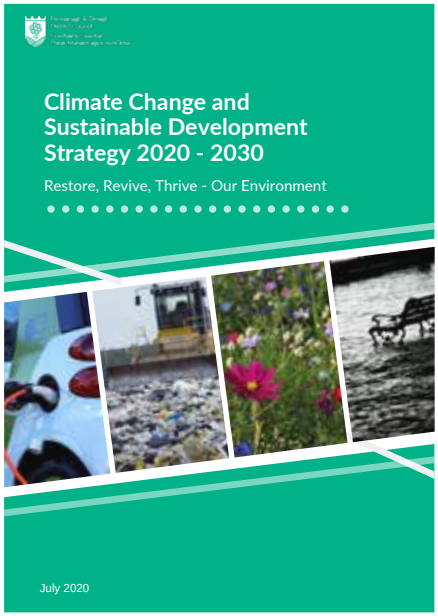
Policies in the LDP which seek to protect open spaces will help to develop and enhance biodiversity. This ensures the protection and provision of green and blue infrastructure within towns and villages with links to the surrounding countryside. Natural open spaces provide opportunities for recreation, assist in flood management and help improve biodiversity in and around settlements.

Climate Change and Sustainable Development Strategy 2020-2030 and Climate Change and Sustainable Development Action Plan 2021-2024

The Climate Change and Sustainable Development Strategy and Climate Change and Sustainable Development Action Plan 2021 – 2024 have set out the practical steps the Council can take over the coming years to minimise the impacts of climate change, but also suggests ways we can counter the severity of the Climate Emergency. The Strategy sets out how the Council will work towards the achievement of the United Nations' 17 Global Sustainable Development Goals by moving closer to building an inclusive, sustainable and resilient future for our people, our environment and our economy. This includes a range of actions to mitigate climate change impacts through carbon sequestration and to help

3.0 Delivering on Our Existing Commitments

in building biodiversity resilience, covering action areas such as tree planting and tree care, bog protection and restoration, habitat management and restoration, and education. These themes in the Climate Change and Sustainable Development Action Plan will cross over into actions emerging from this Biodiversity Strategy and help to deliver local actions for UN Sustainable Development Goals No. 14 *Life below water*, No. 15 *Life on land and others.*



In addition to the aforementioned documents, the Biodiversity Strategy also complements the work of the Council's Estates Strategy (2020 - 2030), Cuilcagh Lakelands UNESCO Global Geopark Development Plan 2022 – 2032, the Council's Play Park Strategy 2021 – 2030 (principle no. 6 and 8) and the forthcoming Council Visitor Experience Development Plan.

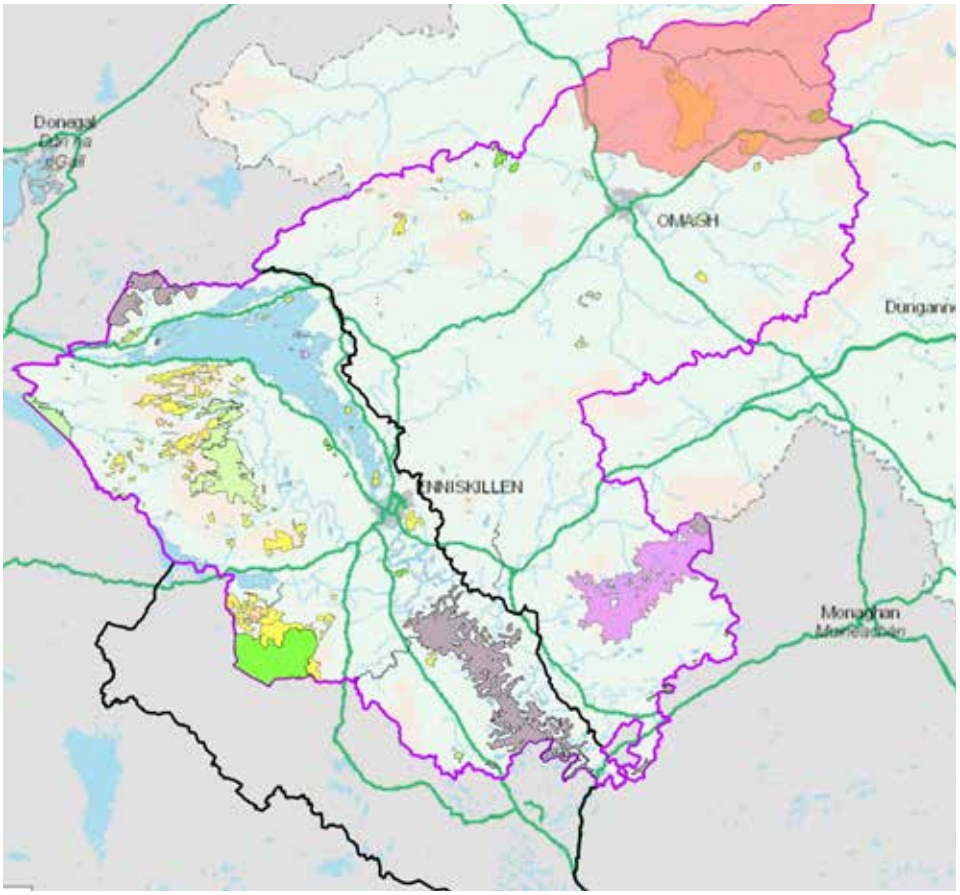
4.0

Our District's Biodiversity – At a Glance

4.0 Our District's Biodiversity – At a Glance

The Fermanagh and Omagh District is renowned for its beautiful scenery and wild and open landscapes of hills, lakes, rivers, woodlands and bogs. This diverse mosaic of habitats is home to a vast array of priority and protected habitats and species, showcased in Figure 1. These numbers show just how important our District is in terms of biodiversity and in turn, the ecosystem services and natural benefits it provides us. However, the habitats and wildlife corridors in between these protected sites are equally important in supporting healthy, functioning ecosystems, rich in variety and abundant in wildlife. More detail on specific characteristics of the District is included in: **Appendix 1 Biodiversity in Fermanagh and Omagh.**

Figure 1: Map of protected sites and landscapes in the Council area.



- Cuilcagh Lakelands UNESCO Global Geopark
- Special Protected Areas
- Special Areas of Conservation
- National Nature Reserves
- Ramsar Sites
- Areas of Special Scientific Interest
- The Council Boundary
- Areas of Outstanding Natural Beauty

1 Area of Outstanding Natural Beauty (AONB)

3 Local Nature Reserves (LNR)

1 UNESCO Global Geopark

133 Areas of Special Scientific Interest (ASSI)

3 Special Protected Areas (SPA)

20 Special Areas of Conservation (SAC)

12 National Nature Reserves (NNR)

8 RAMSAR areas

4.0 Our District's Biodiversity – At a Glance

Our District boasts a rich array of natural habitats which are home to a range of diverse species.

Unique Geodiversity and Calcareous Habitat

Unique geodiversity (rocks, landforms and processes) including notable calcareous habitats and karst (limestone) formations dominate the Cuilcagh Lakelands UNESCO Global Geopark.

Famous Rivers and Lakes

Notable examples include (but not limited to) Lough Erne, Owenkillew River, River Strule, Erne River, Lough Melvin, Murrins NNR, Killyfole, Gortin Lakes and Loughmacrory.

Urban Gardens

Examples such as our urban & rural gardens, public parks and open space & school grounds.

Our Diverse Grasslands

Notable examples include lowland meadows, purple moor grass, rush pastures and roadside verges.

Precious Bogs & Heath

Notable examples of Lowland Raised Bog include Black Bog (SAC), Fairywater Bogs (SAC), Moninea; Blanket Bog in Bessy Bell, Sperrins, Pettigo Plateau & Cuilcagh Mountain; Upland Heathland in Mullaghcarn, Brougher Mountain, Slieve Beagh and Cuilcagh.

Woodlands

Notable examples include oak woodland (e.g. Drumlea), wet woodland (e.g. fringes around Castle Caldwell Forest, Castle Archdale Country Park), parkland (e.g. Castle Coole), ashwoods (e.g. Hanging Rock, coniferous forests throughout the district and many species rich hedgerows.

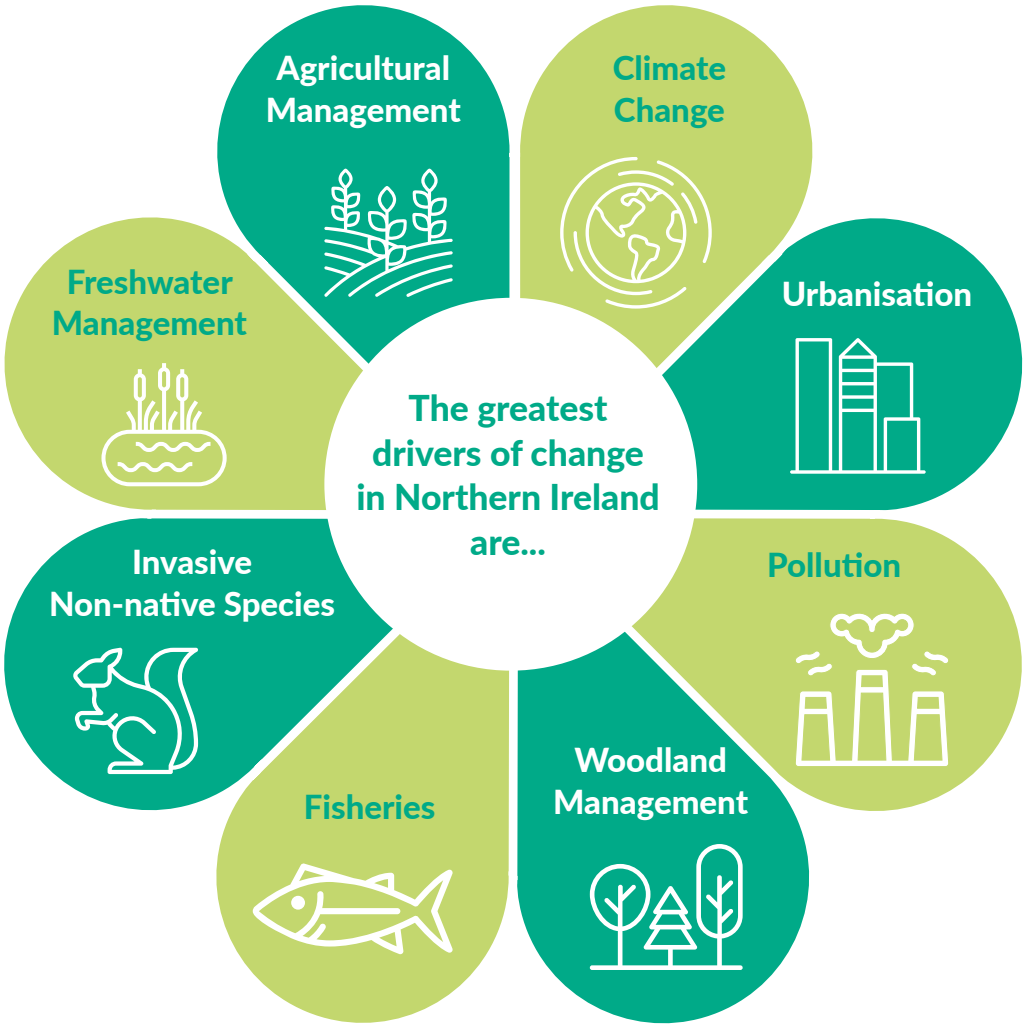
5.0

The Biodiversity Crisis

5.0 The Biodiversity Crisis

Whilst our District is host to many unique, common and important habitats and species, they are continually under threat and have suffered declines, just as biodiversity has suffered regionally and worldwide. There are several issues that are acknowledged as key drivers of biodiversity loss.

The biggest threat to biodiversity at a global, regional and local scale, is the loss of natural habitats and fragmentation of existing habitat. Since the 1950s, 41,000 hectares of countryside in Northern Ireland has been lost to urban development, with an unquantified loss of biodiversity. Pressures associated with intensive agriculture have had major impacts on habitats and species, with over 70% of the number of habitats of EU interest reported to be negatively impacted by agriculture (State of Nature 2019, 2019).



Drivers of Biodiversity Change in Northern Ireland based on State of Nature 2019 Report.

5.0 The Biodiversity Crisis - Globally and Locally

Non-native species are a significant threat to biodiversity and our local economy. Invasive species within the Fermanagh and Omagh District include Zebra Mussel, Japanese Knotweed, Giant Hogweed, Rhododendron, Himalayan Balsam, and diseases such as Ash Dieback; a fungal disease introduced on imported trees, which is having a devastating impact on native ash trees throughout the UK and Ireland.

OVER

1,200

OF THE 31,500 SPECIES IN IRELAND ARE NON-NATIVE

IN 2013, THE ESTIMATED COST OF THESE TO THE ENVIRONMENT WAS

£207 MILLION

PER YEAR

There is strong evidence that climate change is already affecting UK biodiversity and research indicates that this is happening at a faster rate than ever before. Some habitats are particularly vulnerable to climate change; the risks are clearest for montane habitats (increased temperature), wetlands (changes in water availability) and coastal habitats (sea level rise). Impacts are expected to increase in magnitude as climate change worsens.

According to the UK government's own review of its progress towards its biodiversity goals, 14 out of 42 biodiversity indicators show a long-term decline, including continued deterioration of the UK habitats and species of European importance, as well as a decline in priority species. The State of Nature 2019 report has revealed that 41% of UK species studied have declined, 26% have increased and 33% show little change since 1970. Furthermore, the State of Nature 2019 report found that populations of the UK's most important wildlife have fallen by 60% over the last 50 years.

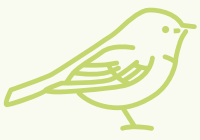
CLIMATE CHANGE IS HAVING AN INCREASING IMPACT ON NATURE IN THE UK

40% of moth decline is due to climate change.

60% of aphid increase is due to climate change.

The UK's kittiwake population has declined by 70% since 1986 as climate change has reduced the availability of sandeels, a key food source in breeding season.

Migratory birds are arriving and laying eggs earlier.



Swallows are arriving in the UK 15 days earlier and breeding 11 days earlier than they did in the 1960s.

Great tits lay their eggs on average 11 days earlier than they did in 1968.

5.0 The Biodiversity Crisis - Globally and Locally

Wild animal populations have fallen by more than two-thirds since 1970 and have continued to decline since 2010. Whilst some species groups have made positive improvements in recent years, most are still declining and show no signs of population recovery.

Examples of worrying trends can be seen in declining populations of indicator species groups. An abundance indicator based on nine butterfly species has decreased by 43% since 2006. Additionally, an indicator of average abundance in 36 wintering waterbird species has declined by 25% since 1988, and by 24% over the past 10 years (State of Nature 2019, 2019).

6.1 Consequences of Inaction

On the current path, biodiversity and ecosystem services will continue to decline. The decline of biodiversity will risk the achievement of the Sustainable Development Goals (SDGs).

"In 'business as usual' scenarios, this trend is projected to continue until 2050 and beyond, due to the increasing impacts of land and sea use change, overexploitation, climate change, pollution and invasive alien species. These pressures are in turn being driven by current unsustainable patterns of production and consumption, population growth and technological developments. The projected decline in biodiversity will affect all people, but it will have a particularly detrimental effect on indigenous peoples and local communities, and the world's poor and vulnerable, given their reliance on biodiversity for their wellbeing."

(Global Biodiversity Outlook, 2022)[2]

NORTHERN IRELAND'S BIODIVERSITY IS DECLINING

11% of 2,450 species assessed are threatened with extinction from the island of Ireland

Since 1970...
More species in the UK have seen their populations decrease than increase:

41%	33%	36%
HAVE DECREASED	LITTLE CHANGE	HAVE INCREASED

We have seen big changes in where the UK's wildlife is found:

27%	52%	21%
FOUND IN FEWER PLACES	LITTLE CHANGE	FOUND IN MORE PLACES

[2] Secretariat of the Convention on Biological Diversity (2020) *Global Biodiversity Outlook 5 – Summary for Policy Makers*. Montréal

6.0

Biodiversity: It's Our Duty & Our Responsibility

6.0 Biodiversity: It's Our Duty & Our Responsibility

In 2011, the Wildlife and Natural Environment Act (WANE)[3] in Northern Ireland came into force, amending the Wildlife Order (NI) 1985 and introducing new species to protected lists. The WANE Act also tightened controls on invasive species and increased penalties for wildlife crime. The Act included a significant change for public bodies with the introduction of a new Biodiversity Duty for all public bodies.

"It is the duty of every public body, in exercising any functions, to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions."

Wildlife and Natural Environment Act (NI) 2011

What's involved?

The aim of the duty is to raise the profile and visibility of biodiversity and to make it an integral part of policy and decision making. Public bodies, including councils, must consider the following five areas:

- Protection of biodiversity
- Maintenance of biodiversity
- Enhancing biodiversity
- Restoring biodiversity
- Promoting the understanding of biodiversity both within and outside the organisation

These 5 areas will guide our action and become the 5 Governing Principles of our Biodiversity Strategy and Action Plan.

"To restore stability to our planet, we must restore its biodiversity, the very thing that we've removed. It's the only way out of this crisis that we have created. We must re-wild the world."

David Attenborough, Life on our Planet, 2020

7.1 Other Legislation

Whist many of the Council's actions for biodiversity have been delivered to help meet the above legislative requirement, our work also impacts on other key obligations, namely:

- The Wildlife Order (NI) 1985, as amended by the Wildlife and Natural Environment Act (NI) 2011 (WANE Act)
- The Conservation (Natural Habitats etc.) Regulations (NI) 1995, amended in 2012
- The Nature Conservation and Amenity Lands Order (NI) 1985, amended in 1989
- The Environment Order (NI) 2002
- The Invasive Alien Species (Enforcement and Permitting) Order (NI) 2019

7.2 Responsibility for Delivery

Our approach to action for biodiversity in the District depends on partnership working and collaboration internally in Council and externally with stakeholders and the community. Fermanagh and Omagh District Council has worked alongside partners within the Biodiversity Steering Group, local communities and neighbouring Councils in developing and delivering actions within the Local Biodiversity Action Plans (LBAPs), to promote, protect and improve biodiversity within the District.

The scale and complexity of the prevailing global issues impacting biodiversity mean that the Council alone cannot do everything that is needed. The Council recognises and depends on the critical role played by statutory partners, community and voluntary organisations, and residents, in protecting and

[3]Legislation.gov.uk (2011) Wildlife and Natural Environment Act (Northern Ireland) 2011. http://www.legislation.gov.uk/nia/2011/15/contents. Accessed 27/08/2021.

6.0 Biodiversity: It's Our Duty & Our Responsibility

enhancing biodiversity within the District. It is important that all sectors accept responsibility for ensuring that action for biodiversity is integrated fully into their work.

The Council can continue to provide **leadership and direction**, acting as an exemplar of good practice. The Council will seek to embed best practice across all of its operations, ensuring that we play our part in enhancing local biodiversity in everything we do. We already collaborate internally by working across all relevant departments on key service areas and as such have an internal officer working group e.g. Biodiversity Team, Parks Team, Cuilcagh Lakelands UNESCO Global Geopark.

The Council acknowledges the contribution and commitment of each of our partners. Each have made great strides in their respective work for biodiversity and further information about the Steering Group's work and other organisations can be found via the links provided in **Appendix 3 - Finding out more about Biodiversity Action in Northern Ireland.**

7.3 Our Biodiversity Story So Far

The previous LBAP covering the 2016-20 period outlined over 100 actions divided across Habitat and Species Action Plans, collectively aiming to:

- Help conserve and enhance local habitats and species
- Raise awareness and knowledge of local biodiversity
- Involve local people and develop partnerships in the delivery of the Fermanagh and Omagh Local Biodiversity Action Plan

The delivery of the Fermanagh and Omagh LBAP saw many practical actions for habitats and species on Council estate as well as a significant rise in awareness and engagement. Highlights include new woodland planting, meadow management, habitat and species surveys, red squirrel conservation, protection and mitigation for bat roosts, mitigation for smooth newts and invasive species control.

A full summary of Biodiversity Actions and Best Practice achieved to date are displayed in **Appendix 2 – Our Biodiversity Story so far.**

A section from the Fermanagh and Omagh Local Biodiversity Action Plan 2016 -2020.

https://www.fermanaghomagh.com/app/uploads/2016/07/Fermanagh-and-Omagh-Local-Biodiversity-Map.pdf

7.0

Global and National Commitments to Biodiversity

7.0 Global and National Commitments to Biodiversity

There are various international and national commitments to biodiversity, and some are highlighted below. The Council will work to ensure that this Strategy is reviewed while considering any new or additional recommendations arising from such commitments, as and when required to do so.

INTERNATIONAL

COP15

The Convention of Parties for CBD (COP15) Part 1 met virtually in October 2021 and is scheduled to meet in person in spring 2022 at Kunming, China, at which bold and challenging global targets and milestones will be launched. This post-2020 global biodiversity framework will set out an ambitious plan to implement broad-based action to bring about a transformation in society's relationship with biodiversity, ensuring that by 2050 the shared vision of 'living in harmony with nature' is fulfilled.

COP26

The COP26 summit brings parties together to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change.

Some of the major goals of COP26:

- Secure global net zero by mid-century and keep 1.5 degrees warming within reach.
- Adapt to protect communities and natural habitats from climate change.
- Mobilise finance so that developed countries contribute at least $100bn in climate finance per year by 2020.

NATIONAL – UK AND EUROPE

Nature Positive 2030 Report

Five statutory nature conservation bodies of the UK have come together to identify how the UK can succeed in achieving these commitments along with ensuring that nature recovery plays its critical role in achieving net zero. 'Becoming Nature Positive by 2030 means reversing the current decline of biodiverstiy so that ecosystem restoration is underway and species are increasing in abundance and fewer are threatened with extinction. This is a critical step on the way to recovering nature by 2050' (Nature Positive 2030 Evidence Report, 2021).

2030 EU Biodiversity Strategy

The biodiversity strategy aims to put Europe's biodiversity on the path to recovery by 2030 for the benefit of people, climate and the planet.

7.0 Global and National Commitments to Biodiversity

REGIONAL

Pending Biodiversity Strategy for NI 2022 +

A review of the Biodiversity Strategy for NI to 2020 has been complete and consultation on a new strategy for NI is anticipated in 2022 in conjunction with COP15 and reflecting the Nature Positive 2030 report.

Other Key Strategies including NI Climate Change Bill, NI Environment Bill, Draft NI Peatland Strategy and NI IAS Strategy.

8.0

A Positive Plan for Biodiversity – Our Next Steps

8.0 A Positive Plan for Biodiversity – Our Next Steps

The Council requires a plan which is realistic, achievable and measurable. We are one of many stakeholders involved in efforts to protect and enhance biodiversity. Each will play an important role to deliver better outcomes for biodiversity. The Council recognises its obligations and responsibility to contribute positively and, as such, has developed a series of plans which aim to:

- **Protect and enhance biodiversity on Council managed estate**
- **Increase awareness and action for local biodiversity in the District**
- **Work in partnership with others to deliver biodiversity action in the District.**

The Council manages approximately 112 hectares of green space across the District. This natural capital provides spaces for people and biodiversity as well as acting as a carbon sink, removing approximately 400 tonnes of CO2 per year, based on average benchmarks for carbon sequestration from municipal green space. This carbon capture capability can be increased through appropriate habitat management and innovative thinking, such as planting the right trees in the right places or changing how we manage our grass cutting regime.

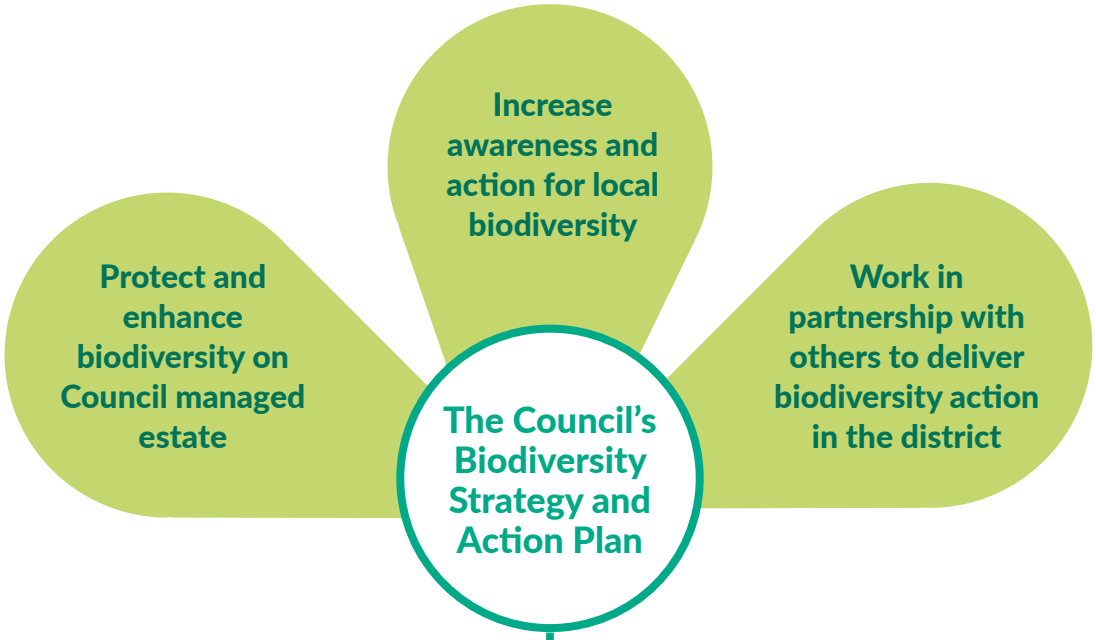
These open space assets are included in our portfolio of over 850 individual property assets that the Council manages and maintains. This also includes 130+ play and amenity areas, 35 playing fields/multi-use games areas, 10 community centres, 2 theatres, 4 leisure centres, 50+ public convenience facilities, 5 cemeteries as well as assets reflecting the rural heritage of the district including caves, castles, islands, loughs, jetties, bridges, forests and an extensive walkways network.

Using the Framework for Biodiversity Action, this **Biodiversity Strategy and Action Plan** will focus action in the next 5 years through 7 key themes. The Council aims to deliver on the core principles of the Biodiversity Duty, utilising these as our **Biodiversity Strategy Outcomes**. The scope we have to protect, manage and, where possible, restore is within the Council managed estate but there is further potential to work in partnership beyond our managed estate and using this asset to promote and raise awareness of the importance of 'living in harmony with nature' and meeting our Biodiversity commitments.

The following sections provide more detail on the seven themes that form part of the Biodiversity Strategy. This includes some context on each area, an overview of work already undertaken and Council's intentions going forward to help deliver on the aims of the Biodiversity Strategy.


© Kate Carrothers

8.0 A Positive Plan for Biodiversity – Our Next Steps



THEMES

- Pollinators
- Trees and Woodlands
- Pesticide Reduction
- Invasive Alien Species
- Education and Outreach
- Projects and Partnership
- Governance, Implementation and Resourcing

OUTCOMES

- Protection of biodiversity
- Maintenance of biodiversity
- Enhancing biodiversity
- Restoring biodiversity
- Promoting the understanding of biodiversity

Figure 3: Themes, Outcomes and Principles of the The Council's Biodiversity Strategy and Action Plan

8.1 Theme 1: Pollinators

Pollinating insects such as bumblebees, solitary bees, hoverflies and other insects, play a vital role in our environment, ensuring that many crops and wild plants can produce fruit and set seed. People depend on pollinators and the important **ecosystem services** they provide. However, our pollinators are in decline with almost one third of the 99 different types of bees on the island of Ireland, threatened with extinction. Pollinators require flowering habitats like wildflower meadows, hedgerows, woodlands and agricultural areas to survive. Habitat loss, fragmentation, degradation, decline in wildflowers, pesticides, pests and diseases, have resulted in a decline in pollinators, resulting in biodiversity and economic loss. **The annual value of pollinators is at least €53 million in the Republic of Ireland and £603 million in the UK.**

The Council has been undertaking a significant amount of positive work for pollinators such as our annual 'Trees for Bees' programme, delivering annual pollinator workshops with schools, and continuing commitment to the "Don't Mow, Let It Grow" initiative. This initiative has allowed 35 Council sites to be managed as meadows and many more informal sites have been created across the district on roadside verges in partnership with the Department for Infrastructure.

The Council are formal partners in the All-Ireland Pollinator Plan; a shared plan of action that aims to help pollinators survive and thrive. The Council also supports the wide range of work being undertaken by the Pollinator Monitoring and Research Partnership (PMRP), who aim to establish how insect pollinator populations are changing.

The Council will continue to work in partnership to deliver action for pollinators, rolling out annually the Don't Mow, Let it Grow programme, continuing to deliver pollinator workshops and training for schools and communities and engaging with the wider public through pollinator initiatives and advice giving.

To find out more about pollinators, actions you can take in your garden, farm or community, and plans to support biodiversity, visit **www.pollinators.ie and ukpoms.org.uk**.

All Ireland Pollinator Plan 2021-2025

8.2 Theme 2: Trees and Woodlands

Trees are essential as they provide many services for people, wildlife, the environment, and are often taken for granted. These **Ecosystem Services** range from carbon sequestration, producing oxygen, providing homes and food for wildlife, flood alleviation, soil stability and improvement, producing fruit, inspiring people, providing natural play areas and more.

Despite the many services that trees provide, our landscape is still one of the least wooded regions in Europe.

"Northern Ireland ranks badly as one of the least-wooded regions in Europe, with just 8% woodland cover compared with the European average of 37%. In addition, almost 60% of our woodland is in the form of recent conifer plantations."

(Woodland Trust, 2021).[4]

A tree displaying all the services they provide.
Copyright - https://rootsforthefuture.co.uk/

As humans have settled over the years, we have cleared trees for harvesting and to create farmland. But worsening climate change and the biodiversity crisis in the last 40 years has led to a realisation of the need to replant and allow natural regeneration to occur. Without interference, the landscape would naturally rewild itself to achieve its natural climax vegetation of native woodland. This would halt and reverse the devastating impacts on biodiversity that woodland and tree loss has caused to date.

Right Tree, Right Place, Right Reason.

The Council has been working in partnership to plant trees, native woodlands and native hedgerows for several years on Council managed land and, where possible, with community groups and schools. The Council has also consistently replanted larger standard trees as replacements when required. Since 2019, we have also planted over 200 heritage apple trees in partnership with schools and the Lough Erne Landscape Partnership, through the Trees for Bees initiative.

Fermanagh and Omagh District Council has already committed to additional tree planting through the Climate Change and Sustainable Development Strategy and the following key action:

'Develop a Tree Plan to increase tree cover on council-owned land, using appropriate species to store carbon, support nature, improve soils and water quality, and aid flood protection and urban design.'

[4] Woodland Trust (2021) *Our Work in Northern Ireland*. https://www.woodlandtrust.org.uk/about-us/where-we-work/northern-ireland/. Accessed 31/08/2021.

8.2 Theme 2: Trees and Woodlands

Furthermore, it is our aim to assist in protecting, increasing and maintaining native woodland and tree cover in our District, through partnership working, promotion of woodland creation schemes to landowners and the farming community, protecting existing woodlands and Ancient Woodland Sites on our estate, and raising awareness to others. We are currently and will continue to work with organisations such as the Woodland Trust, to identify sites in our District that are appropriate for native tree planting, availing from schemes such as the 'More Woods More Good' scheme and where possible, Department of Agriculture, Environment and Rural Affairs (DAERA) woodland grants.

The Cuilcagh Lakelands UNESCO Global Geopark will have an additional role to play given their long established and on-going partnership with Forest Service NI and will continue to work in partnership to promote the sustainable management of all Global Geopark sites including woodland creation, protect existing woodlands and Ancient Woodland sites, and education and awareness raising.

We will follow the **Right Tree in the Right Place** principle, evaluating each site and situation to determine the most appropriate tree species to be planted for biodiversity, amenity and climate action reasons. We will also seek to ensure other priority and important habitats such as species rich grassland, peatlands and heathlands are not used for new woodland planting in Council estate.

Ecclesville Demesne

Council is embarking in 2022 with a plan to gradually change coniferous forest at Ecclesville Demesne, Fintona, to mainly native deciduous woodland, whilst protecting existing natural heritage features in the Demesne including the raths, mature and veteran trees, ancient woodland and protected species. This scheme, when complete, will add significantly to our native tree planting efforts and help to meet our commitments to Nature Positive 2030 and Climate Action.

Ash Dieback

Chalara dieback of ash, also known as Chalara or ash dieback, is a disease of ash trees caused by a fungus called *Hymenoscyphus fraxineus*. It is now widespread and causing many ash trees to lose their leaves and eventually die. Landowners including Council now have a responsibility to monitor ash trees on land they manage for potential heightened health and safety implications that dead or dying trees can pose, especially those positioned close to or near roads and public spaces.

It is not known yet what the full impact of Ash Dieback will be in Northern Ireland. Evidence from continental Europe suggests that older, mature ash trees can survive infection and continue to provide their landscape and wildlife benefits for some time. The best hope for the long-term future of Northern Ireland's ash trees lies in identifying the genetic factors which enable some ash trees to tolerate or resist infection and using these to breed new generations of tolerant ash trees for the future. Scientists (including Agri-Food and Biosciences Institute) and regulators (e.g. DAERA) are working closely to screen indigenous ash trees for tolerance to the pathogen to help create and maintain diverse and resilient woodlands in the future.

8.3 Theme 3: Pesticide Reduction

Pesticides are chemicals that may be used to control organisms such as fungi, bacteria, insects, plant diseases or weeds, among others. Pesticides can be categorised into insecticides and herbicides, which are specifically used to target and control certain species. Their use has been a longstanding option used by public bodies and many landowners. However, in recent times, Council has begun to review its use and the impacts pesticides have on our environment. The Council currently uses glyphosate-based herbicides for the targeted control of weeds in public areas, such as streets, paths and cemeteries. Other types of herbicide are used for the control of moss on play parks and weeds on sports pitches.

The Council has identified the need for action on protecting our soils, insects and wider biodiversity through our progress in action for pollinators. Whilst the desire and need is clear to reduce pesticide use (where possible) on Council managed estate, the challenge is to find alternative ways of managing weed control successfully and viably. Many alternative treatments for weed control are available. Research has shown only some alternatives may provide acceptable results in line with current service levels. A switch to any of these may incur significant additional costs, not only in the purchase of equipment and additional fuel costs, but also through human resources, as some applications require significant additional time.

The Council is currently collating data to measure the reduction of pesticide use across our estate. Research is ongoing as we search for the best measures to reduce pesticide use. We have identified the need to continue to control weeds in key priority areas, but we also recognise the importance of developing an Integrated Pesticide Control Management Plan (IPCMP).

The IPCMP, in combination with GIS mapping, will identify areas that need to be managed sensitively. It will also allow us to identify opportunity areas for a changed approach (such as in our Green Flag Parks, Grange Park and Broadmeadow, where no chemicals are used), select locations where a change in approach can be trialled, and identify problem areas where weed control is challenging. The IPCMP will also address the need to design out weed control through appropriate infrastructure design and manage the public's perception of 'well kept' areas, versus the need to leave areas wild for the benefit of pollinators and biodiversity.

Pesticide-free Zone section from the All Ireland Pollinator Plan 2021- 2025

Control of Invasive Alien Species

Where invasive alien species are identified for management, pesticides (likely glyphosate based) may still be required. A treatment plan will be developed for each case identified. The application of glyphosate pesticides on invasive species will be targeted and managed to avoid cross contamination on other vegetation and surfaces.

8.4 Theme 4: Invasive Alien Species

Invasive alien species (IAS) are defined as harmful non-native species whose introduction or spread threatens the environment, economy, or society, including human health. After habitat destruction, IAS are the second biggest threat to biodiversity. Once established, IAS are extremely difficult to control and costly to eradicate, and their ecological effects are often irreversible. A report on the economic impact of invasive species published in 2013 showed the then current estimate of the annual cost of invasive species to the Irish economy was approximately £161 million and an estimate of the annual cost of invasive species to the Northern Ireland economy was £46.5 million (Kelly et al, 2013).[5]

The challenge of dealing with the spread and impact of IAS is well recognised as a key threat to biodiversity loss, which will only be exacerbated by climate change, unless intervention is successful.

Legal Position

The Council and any landowner is legally obliged to **prevent the spread** of key IAS on its land under The Wildlife Order (NI) 1985. Article 15 of this legislation confirms that it is an offence to cause to grow in the wild, any species of plant listed under Schedule 9, part II of the order. This includes Japanese Knotweed, Giant Hogweed and Himalayan Balsam. Article 15 also confirms that it is an offence to introduce, or allow to escape into the wild, any of the above species.

Wildlife and Natural Environment (WANE) Act (NI) 2011 - amendments to the Wildlife Order 1985 - details the relevant methods of prosecution for breaches of the 1985 order. It also includes the Biodiversity Duty,

"It is the duty of every public body, in exercising any functions, to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions."

The Council and any landowners are legally obliged to **put in place management measures** for 66 Widely Spread Species through The Invasive Alien Species (Enforcement and Permitting) Order (NI) 2019. This recent legislation (brought into force on the 1st December 2019) delivers stronger sanctions for introduction and control of IAS. A list of these Widely Spread 'Species of Union Concern,' can be found on the DAERA website[6] with more information on each species and their distribution on **www.invasivespeciesireland.com**

The Council have been surveying IAS on Council managed estate, recording and mapping IAS through GIS, managing and controlling key species such as Japanese Knotweed and Giant Hogweed and raising awareness of IAS through in-house training and public awareness campaigns. We have worked in partnership with Lough Erne Landscape Partnership through funding from the National Lottery Heritage, to produce and distribute over 5000 IAS ID swatch cards and have delivered Lantra Award IAS training to multiple stakeholders. Council will continue to follow and implement the legislative requirements as they evolve and increase our efforts to engage widely to help reduce the impact Invasive Alien Species are having on our native biodiversity.

[5] Kelly, J., Tosh, D., Dale, K., & Jackson, A. (2013) *The economic cost of invasive and non-native species in Ireland and Northern Ireland.* A report prepared for the Northern Ireland Environment Agency and National Parks and Wildlife Service as part of Invasive Species Ireland. [6] Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk) (2021) **EU Invasive alien species. https://www.daera-ni.gov.uk/articles/eu-invasive-alien-species**. Accessed 31/08/2021.

8.5 Theme 5: Education and Outreach

Delivering a pollinator workshop at a local primary school.

Connecting people to nature is key to the delivery of the the Council's Biodiversity Strategy and Action Plan and wider biodiversity targets nationally and internationally. Learning about local wildlife and gaining skills in conservation empowers people to work together to act and getting a wide range of people involved will help foster a fundamental understanding of why action is required to benefit current and future generations.

"Education is essential for the sustainable and equitable use of biodiversity and its conservation. It is also crucial for mainstreaming biodiversity…Lack of awareness of biodiversity and its importance is common, with biodiversity sometimes perceived as a resource to be exploited, for example through unsustainable logging or poaching of wild animals. Communication on biodiversity is a crucial issue that must be addressed to achieve the objectives of the SDGs and the CBD ."[7]

(UNESCO, 2021)

Biodiversity Education at Schools

The Council already delivers biodiversity education to local schools through the Council's Biodiversity team, by Cuilcagh Lakelands UNESCO Global Geopark staff and by the Marble Arch Caves team.

The service offered to schools by the Council Biodiversity Team is seasonal and the number of sessions delivered annually is dependent on staff availability. However, in a normal year, Council delivers workshops on pollinators, autumn and hibernation, and winter wildlife to over 60 schools and 1000+ pupils.

The Cuilcagh Lakelands UNESCO Global Geopark and **Marble Arch Caves** staff provide a range of formal education opportunities and initiatives for school children and young people throughout the year focusing on a range of environmental issues, including biodiversity and geodiversity.

[7] UNESCO (2021) UNESCO's Commitment to Biodiversity: Education and Awareness. https://en.unesco.org/themes/biodiversity/education. Accessed 12/10/2021

8.5 Theme 5: Education and Outreach

The Council Biodiversity Team help schools achieve their Green Flag award in the **Eco-Schools programme**, coordinated by Keep NI Beautiful, through bespoke advice, site visits, workshops and signposting to materials and resources they require to use the topics Biodiversity and Outdoor Learning towards their award. We aim to continue to work closely with Keep NI Beautiful and their local Field Officer to strengthen our links and deliver an excellent environmental education service for the District's schools and communities.

"No one will protect what they don't care about; and no one will care about what they have never experienced."

Sir David Attenborough

Forest Schools

The Biodiversity Team began coordinating the Forest Schools programme in partnership with Lough Erne Landscape Partnership and Cuilcagh Lakelands UNESCO Global Geopark in 2020 and have delivered this through the Northern Ireland Forest School Association to over 20 schools so far, reaching over 400 pupils directly. The Council plan to continue rolling our outdoor based learning programmes to groups in the District as we recognise the important role this has in connecting people with nature.

Biodiversity outreach – events, training and awareness raising

The Council through the Biodiversity Team, Cuilcagh Lakelands UNESCO Global Geopark and Marble Arch Caves, already hosts and coordinates biodiversity themed events, training and activities for the public and community groups. From annual events like red squirrel awareness days, bat nights and Big Garden Bird Watch to seasonal interests like the Big Butterfly Count and general nature walks, biodiversity education for the public is available in the District. We aim to continue and improve this essential service to increase awareness, understanding and appreciation of the environment.

8.5 Theme 5: Education and Outreach

Citizen Science & Research

"Citizen science" is defined as **"scientific work undertaken by members of the general public,"** often in collaboration with or under the direction of professional scientists and scientific institutions. The Council and the Cuilcagh Lakelands UNESCO Global Geopark staff champion various citizen science initiatives throughout the year, enabling schools and communities to take part or by signposting and alerting the public of these easy and interesting to do activities, often in their garden or local area. We will continue to support and encourage people to become Citizen Scientists through facilitating training and volunteering, by raising awareness of these schemes through social media and by taking part in these schemes by recording wildlife on Council land and sites. Cuilcagh Lakelands UNESCO Global Geopark staff, also actively facilitate, engage and promote environmental research at all levels within the Global Geopark area.

8.5 Theme 5: Education and Outreach

Communication

Communication about biodiversity to the wider public through websites, social media, local newspapers, interpretation onsite and online and via newsletters is central to the key outcome 'promoting biodiversity' of the Biodiversity Duty and cross cutting throughout all of our Biodiversity Action Themes. Information on biodiversity in the District and how people can engage and help locally is already readily available on the Council, Global Geopark and partner websites, throughout social media platforms and periodically through Council newsletters such as InFO. More efforts are needed to promote Nature Positive messages to the wider public in collaboration with championing Climate Action through the Council's implementation of the the Council's Climate Change and Sustainable Development Action Plan.

8.6 Theme 6: Projects and Partnerships

Fermanagh and Omagh District Council has worked alongside partners within the Biodiversity Steering Group, local communities and neighbouring Councils in developing and delivering actions within the Local Biodiversity Action Plans (LBAPs), to promote, protect and improve biodiversity within the District. This partnership approach is essential to continue with our collaborative efforts for biodiversity action in the District.

Whilst our key themes or areas of work have been identified in the previous 5 themes, many other projects, programmes and actions have taken place and are ongoing that help to protect, enhance, restore or promote biodiversity. To this end, our approach to projects and partnerships will cover these additional actions we aim to deliver, recognise the ongoing potential that comes from partnership working and allow for aspirational action through exploration of new and innovative approaches. These partnerships are also being utilised to help deliver many of the environment commitments in our Fermanagh and Omagh Community Plan.

Surveying and Mapping

Key to protecting what valuable biodiversity we have on Council managed estate, is surveying and mapping it. We aim to complete a comprehensive suite of habitat surveys across Council managed estate, prioritising first our most important spaces for wildlife, following with surveying natural heritage features throughout. As with the process for implementing a capital works programme, where we first need to know what is there in order to protect it, the same applies to the development of Park Management Plans on the remainder of our estate.

An example of surveying on Council managed estate.

Council Capital Works Investment and Play Park Strategy Implementation

With Council commitment to significant investment through our Capital Works Programme and Play Park Strategy, it is essential we follow all existing and new legislation on wildlife protection to protect biodiversity as a priority on our estate and, where possible, enhance and restore biodiversity with the resources available to meet the Biodiversity Duty.

8.6 Theme 6: Projects and Partnerships

Park Management Plans

Council is developing Park Management Plans for key parks across the District which will support our commitment to obtaining and maintaining Green Flag status in several parks including The Grange Park, Omagh and Broadmeadow, Enniskillen. An essential element of Park Management Plans will be to identify existing habitats and species that require protection and management and to also seek out opportunities to enhance, restore and promote biodiversity, to meet the Biodiversity Duty.

Protecting Peatlands

As recognised in this Strategy, peatlands are an important priority habitat in Fermanagh and Omagh and represent a significant portion of valuable peatlands for Northern Ireland. Through this Strategy and the Council's Climate Change and Sustainable Development Action Plan, the Council aims to protect and restore, where possible, peatlands and degraded soils on Council estate or in, partnership, across the District. Existing projects which are making early strides to lead the way in peatland restoration is the joint initiative with Collaboration Action Natura Network (http://thecannproject.org). It includes 6 sites in the the Council area and works closely alongside the Global Geopark on peatland restoration at Cuilcagh Anierin Mountain.


© Ulster Wildlife

We aim to eliminate the use of peat produce for growing shrubs and flowers and replace with Peat Free alternatives by 2024, as guided by national policy. As part of our ongoing biodiversity awareness raising we will continue to encourage people to use peat-free compost or to make their own compost, complementing our drive to reduce food waste.

Local Nature Reserves (LNR's)

Local Nature Reserves are areas set aside for biodiversity and where people can enjoy wildlife. They are an impressive natural resource, making an important contribution to biodiversity. Local authorities have the sole power to declare Local Nature Reserves in Northern Ireland through the Nature Conservation and Amenity Lands Order (NI) 1985, amended in 1989. There are so far 3 LNR's in the District; Killyfole LNR, An Creagan Bog LNR and Tully Castle LNR. Each require a resource to manage and promote, and Council can have a role to play in this through assistance in their declaration, guidance in its management if required and in some cases where they are on Council managed estate, responsibility for management and in all cases, promotion of LNR's to the wider public.

Nature Recovery Networks

Nature Recovery Networks (NRN) or ecological networks is simply a vision of a network of spaces of areas identified as important for wildlife, and where potential exists to either restore or create habitats, and intentionally linking them up. Since September 2020, with generous funding from the National Heritage Lottery Fund, Ulster Wildlife has been working in partnership with RSPB NI, National Trust and Woodland Trust on a project to build capacity to deliver NRNs in Northern Ireland. With assistance from key stakeholders, including

8.6 Theme 6: Projects and Partnerships

the Council, the project will be producing the first set of National NRN maps for Northern Ireland and advocating to the central and local government and other stakeholders for the adoption of this landscape-scale approach towards looking after our environment, where these maps can strategically direct investment where it will make the biggest impact for wildlife and humans alike (Ulster Wildlife, 2021).[8]

The Council aims to explore this partnership and the concept of NRN, seeking out opportunities to incorporate this landscape-scale thinking into our own maintenance and restoration of Council managed estate.

Action for Flagship Species

In previous Local Biodiversity Action Plans, key species of importance or uniqueness to the the Council area were highlighted and action plans created specifically for these. However, very often a key organisation or NGO have a lead role in the conservation of these key species and the direct responsibility for this lies outside of the Councils reach. We propose to relook at this model and in partnership with the Biodiversity Steering Group, and post completion of the 2022 Biodiversity Audit of the District, annually select Flagship Species or Habitats for celebration through one-off awareness raising campaigns or plans of action to bring to the fore the importance, uniqueness, rareness or beauty of these selected species and habitats.

[8] Ulster Wildlife (2021) Nature Recovery Networks. https://www.ulsterwildlife.org/nature-recovery-networks. Accessed 12/20/2021.

8.7 Theme 7: Governance, Implementation and Resourcing

Council recognises the need to ensure a consistent and robust approach to governance, implementation and resourcing to deliver on its legal duties and responsibilities and the ambition set out with this document, namely;

- Protection of biodiversity
- Maintenance of biodiversity
- Enhancing biodiversity
- Restoring biodiversity
- Promoting the understanding of biodiversity.

This is a cross-cutting theme that will be embedded within, and aligned to, other Council strategies, systems, structures and processes. SMART (Specific, Measurable, Achievable, Realistic, Time bound) targets for Biodiversity Strategy and Action Plan will align with outcomes and objectives identified in other documents such as our Corporate Plan, the Fermanagh and Omagh Community Plan and the Climate Change and Sustainable Development Strategy. Development of these targets will enable Council to track, monitor and report performance through established structures. This scrutiny and challenge will ensure a focus on continuous improvement and efficient and effective deployment of resources. Council recognises the regional and global context for Biodiversity and will review and update the Strategy and Action Plans as appropriate in response to changes and challenges in that wider strategic and legislative environment.

9.0
Appendices

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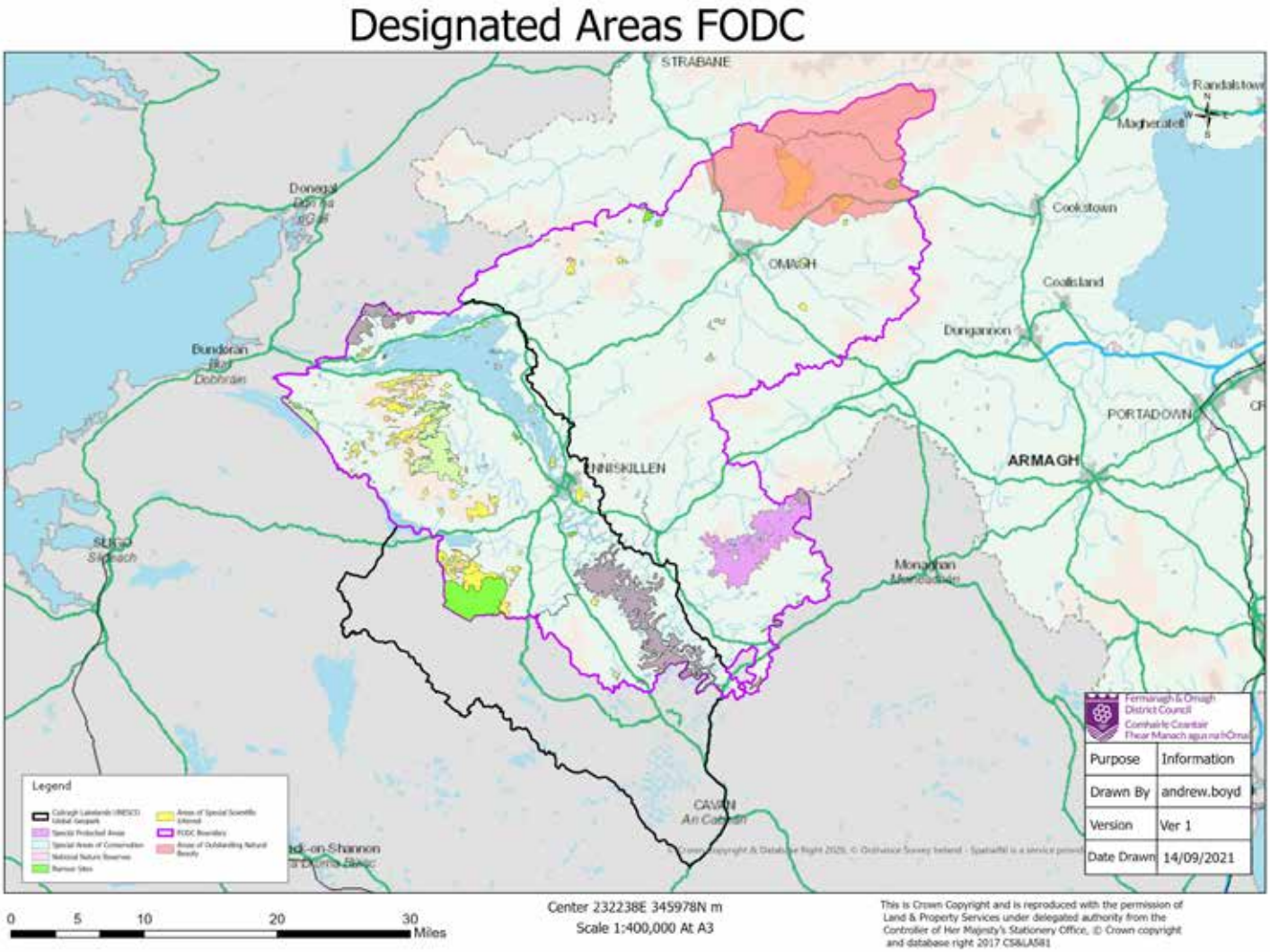
Appendix 1 – Biodiversity in Fermanagh and Omagh

The Fermanagh and Omagh District is renowned for its beautiful scenery and wild and open landscapes of hills, lakes, rivers, woodlands and bogs. This diverse mosaic is home to a vast array of priority and protected habitats and species, showcased by high numbers of protected areas: 1 Area of Outstanding Natural Beauty (Sperrins AONB), 1 Global UNESCO Geopark (Cuilcagh Lakelands), 12 National Nature Reserves (NNR), 3 Local Nature Reserves (LNR), 8 RAMSAR areas, 20 Special Areas of Conservation (SAC), 3 Special Protected Areas (SPA) and 133 Areas of Special Scientific Interest (ASSI).



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These numbers show just how important our District is in terms of biodiversity, and in turn, the ecosystem services we benefit from. The habitats and wildlife corridors between these protected sites are equally important in supporting healthy, functioning ecosystems, rich and abundant in a wide variety of wildlife.

Wetlands

Wetlands are a widespread and important feature within the Fermanagh and Omagh landscape. The Fermanagh Lakelands are known for their biodiverse, scenic and recreational value. The Lakelands are central to the character of the area and form much of the landscape. The diversity of the habitats and species found across the Council area, owe much to the presence of these lakes, as 11 NI priority habitats are associated with wetlands. The reedbeds, muddy banks, their associated flood plains and wet meadows, provide a host of invaluable transition zone opportunities for wildlife, including plants, insects and wildfowl. Wet woodlands frequently fringe the Lakeland shores, offering more habitat opportunities to other groups of wildlife, such as mammals. Wetlands are perhaps the most under threat, due to their sensitivities to drainage, water pollution and infilling.

Lakes and Ponds

There are many wonderful examples of loughs in our Council area, such as the infamous Upper and Lower Lough Erne, unique Lough Melvin, the Seven Sister cluster at The Murrins and the many smaller loughs dotted around Fermanagh and Omagh. There are also Local Nature Reserves (LNR), such as Killyfole, Gortin Lakes and Loughmacrory. Lough Erne is particularly important for wildfowl, including species such as the tufted duck, great crested grebe and mute swan. In winter, populations of whooper swan and goldeneye arrive to avoid the harsher climates of northern latitudes. Breeding waders and a unique Sandwich tern colony also thrive on some islands within Lower Lough Erne. Forty of Lough Erne's islands are managed by the RSPB for their benefit. The pollan, Northern Ireland's only native species of whitefish, is found in Lower Lough Erne, which is one of only a few locations on the island of Ireland. Lough Melvin is particularly noteworthy, as there are three races of brown trout present: namely, sonaghan, gillaroo and ferox. Arctic charr are also found in these waters, representing Northern Ireland's only location for this species.

Rivers and Streams

From mammals to birds and insects to plants, rivers and streams provide vital resources for all wildlife. The smallest stream will have huge importance for localised biodiversity and a cumulative importance for the catchment area, as each tributary feeds larger rivers downstream. Fermanagh and Omagh's rivers are important for many species, including the European protected otter, freshwater pearl mussel, Atlantic salmon, native brown trout and white-clawed crayfish. Notable rivers that occur in the area include the Cladagh River, Erne River, Sillees River, Colebrooke River, the River Strule, Owenreagh River and Owenkillew River. Scrub patches and strips of woodland often follow river corridors, as do belts of wildflower meadows, further enhancing the value of catchment and riverbank areas.

Calcareous Habitats

The Council area hosts a significant quantity of Northern Ireland's calcareous habitat. The underlying carboniferous limestone of the Fermanagh area gives rise to several interesting and notable habitat types, many of which are only found in this area. The rarity of these calcareous habitats, along with their significant contribution to biodiversity, means they are afforded protection through statutory designation. The Cuilcagh Lakelands UNESCO GlobalGeopark is an excellent network of wildlife sites across the Fermanagh area and beyond, that showcases not just calcareous

habitats like caves and limestone pavements, but bogs, forests, lakes and more.

Geodiversity

Geodiversity can be described as the variety of rocks and minerals, landforms, soils and geological process. Geodiversity makes the link between people, landscape and their culture and is one of an area's most important natural resources. Geodiversity has not only shaped the natural and built environment, but its influence on our historical and cultural heritage, biodiversity, and its positive impacts on the economy and the environment as well as on our health and well-being means that it provides essential benefits for society.

An understanding of our past geological processes is critical in gaining a better understanding of the world today, as well as helping to predict what may happen in the future. These processes continue to shape the world we live in and make a significant contribution to sustainable development Northern Ireland's geodiversity tells the story of nearly 1 billion years of geological history of a journey that began deep in the southern hemisphere before slowly moving northwards over time to the current position on the globe. A vast array of environments and climates, with dramatic sea-level changes, erosion and deposition, changing continents and oceans, mountain building, volcanic activity and icy wastelands, all make up the pages of this long and multifaceted story book that has led to the diversity of Northern Ireland's landscapes. The Geodiversity of our District tells a similar story and this is most well narrated, interpreted and celebrated at the many sites, in Counties Fermanagh and Cavan within the Cuilcagh Lakelands UNESCO Global Geopark.

Bogs and Heath

Bogs and heath continue to be one of the most characteristic features of the Council area. There are three distinctive types of peatland ecosystems, namely: lowland raised bog, blanket bog and fens, and two heathland types in our area; upland heathland and montane heath. They were historically viewed as vast desolate places that were used for afforestation (conifer plantations), sheep grazing and peat cutting. However, in recent years, the importance of bogs and heath for biodiversity, their value as carbon sinks, and their key feature in flood alleviation systems; has been widely recognised.

Bogs are also an intrinsic part of our cultural heritage and have harboured some of our most significant archaeological finds over the decades, from treasure hoards and bog bodies to ancient track ways and ritual monuments.

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Lowland Raised Bog

Lowland raised bogs occur in low-lying areas, usually in river valleys, old lake basins or between drumlins, and are largely fed by rainfall. The acidic, waterlogged, oxygen-deficient conditions found in bogs, mean only a specialised range of plants and animals can live there. Key plant species typically found are Sphagnum mosses, sundews, cranberry, lichens and cotton grasses. Lowland raised bogs also support a distinctive range of animals including breeding waders, skylark and a variety of invertebrates. From Black Bog Special Area of Conservation (SAC), Fairywater Bogs SAC, Tonnagh Beg Bog and Deroran Bog in the Omagh area, to Tattynamona and Moninea in Fermanagh, we have a significant resource of protected sites across the Council District.

Blanket Bog

Blanket bogs are found on higher ground as a layer of peat and vegetation covering the hillsides like a blanket. Within Fermanagh and Omagh, wide expanses of blanket bog are found to the north at Bessy Bell and in the Sperrins. Also, to the west around Lough Bradan, Pigeon Top, Pettigo Plateau, and in the south west, Cuilcagh Mountain. Again, blanket bog often occurs as a mosaic with other habitats, such as heathland, and on lower slopes with purple moorgrass, rush pasture and fens. Important plant and animal species found on blanket bogs include Sphagnum mosses, sundew, hare's tail cotton grass, tall bog-sedge, green hairstreak butterfly, golden plover, skylark and Irish hare.

Upland Heathland

Upland heathland often forms in a mosaic with other habitats including blanket bog and acid grasslands. This means that upland heath can be very rich in species diversity. Typical species include bell heather, ling heather, many macro moths, Irish hare, hen harrier, red grouse and skylark, among many others. In the Fermanagh and Omagh area, there are notable populations of hen harrier, red grouse and lower plants, such as mosses and liverworts. The rare argent moth, sable moth and sword grass moth, have also been recorded here. The main areas of upland heath are restricted to the upper slopes of Mullaghcarn, Bessy Bell, Glenlark, Brougher Montain, Slieve Beagh, Cuilcagh, and Correl Glen NNR within Lough Navar.

Grassland and Roadside Verges

Grasslands are naturally diverse ecosystems, and many different types of grassland can be found in the District, including lowland meadows, calcareous grassland, coastal and floodplain grazing marsh, lowland dry acid grassland, purple moor-grass, rush pasture and roadside verges. Whilst most of our biodiverse grasslands have been lost to modern farming practices, development etc., a significant proportion of what remains occurs in West Fermanagh and South Tyrone (currently highlighted by an Ulster Wildlife project, 'Saving our Magnificent Meadows'). Outside of these meadows, roadside verges have inadvertently become a refuge for grassland habitats. Low nutrient levels, minimum disturbance and/or limestone substrates have contributed to their development as a habitat for wildflowers and invertebrates.

Lowland Meadow

Lowland meadows, or hay meadows, have all but disappeared in Northern Ireland with some remnant fields still found in Fermanagh and a few south of Omagh. These meadows are important habitats for many wildflowers, such

as meadow vetchling, yellow rattle, the rare blue-eyed grass and a wide diversity of other grasses, which in turn, support butterflies and bees. This seed source and long grass habitat was once home to the corncrake and other ground nesting birds. However, the decline in quantity and quality of lowland meadow habitat has contributed to their disappearance. Yet, lowland meadows continue to be important for breeding waders.

Purple Moor-grass and Rush Pasture

This is a complex wet grassland, composed of many types of grass, such as quaking grass, sedges and rushes, like carnation sedge, as well as flowering plants like wild angelica. Purple moor-grass is always present in the mix. Purple moor-grass and rush pasture often occur as a patchwork with other habitat types, such as fens, floodplains, grazing marsh and lowland raised bog, which increases their value for biodiversity. You will see rush pasture habitat throughout Fermanagh, typically in field corners, wet hollows, and as parts of other habitats. The best quality pastures are protected, which includes Moneendogue ASSI. The marsh fritillary butterfly is reliant on good pastures where devil's bit scabious is present, as this is the only food plant of the butterfly. Our District is vitally important for this European protected species.

Roadside Verges

Roadside verges extend the value of hedgerows and adjacent farmland by acting as wildlife corridors between fields. When they are rich with grasses, such as sweet vernal grass, and wildflowers such as bird's foot trefoil and ox-eye daisies, they add to the overall biodiversity value of the countryside. Roadside verges can provide seed heads for birds, nectar plants for butterflies and bees, and natural coverage for many insects, mammals and birds. Rural roadside verges in Fermanagh are of particular interest, as the rare blue-eyed grass and dingy skipper butterfly, both Priority Species in Northern Ireland, have been recorded here.

Woodlands and Hedges

Woodland is the climax vegetation for our area, meaning that if most habitats were left to progress with no interference from humans, some form of woodland would develop. However, as humans have settled over the years, many of our woodlands have been cleared for harvesting and to create farmland. Today, Northern Ireland is one of the least wooded areas in Europe, with only 1% of land under native tree cover.

Coniferous Forests

There are an estimated 37,500 hectares of woodlands in the Council area. Coniferous forests, which represent 60% of the total woodland area, are normally found in the upland areas and consist largely of non-native species such as Sitka spruce, Norway spruce, Lodgepole pine and larch. They play a significant role in the conservation of various priority species, such as the red squirrel and hen harrier. Key examples of coniferous woods include Lough Navar, Ely Lodge Forest, Castle Caldwell Forest, Gortin Glen Forest Park and An Creagan Forest.

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Oak Woodland

Oak woodlands are mainly dominated by oak trees, but they also contain a diverse mix of other native tree species, such as downy birch, hazel, holly and rowan. Their understorey and ground flora are normally quite diverse, with common plants including bluebells, wood anemone, bramble, ferns, lichens, mosses, liverworts, and not forgetting the important fungi.

Most of Fermanagh and Omagh's important oak woods, including Drumlea and Mullan Woods, Owenkillew and Glenelly Woods, Largalinny and Florencecourt, are all protected as ASSI's. However, many other pockets of important woodland exist throughout the District and are often associated with river corridors. Upper Lough Erne – Crom ASSI is a 'Mecca' for wildlife and showcases a wide range of habitats, including oak woodland. It is the perfect place to visit in the hope of catching a glimpse of the wonderful purple hairstreak butterfly, a cheeky red squirrel, and any one of the eight species of bat that occur in NI. Even the more common, but rarely sighted, pine marten or otter may be spotted here.

Wet Woodland

Wet woodland is normally located around lake shores, streams, or on wet flushes where the soils are poorly drained or waterlogged. Typically, wet woodlands are dominated by willow, alder or downy birch, which are highly water tolerant. The high humidity in wet woodlands also favours the growth of a variety of mosses and liverworts. Wet woodlands in the Fermanagh area are important for the rare alder buckthorn, which in turn, supports the regionally rare dark umber and brown scallop moths. Good examples of wet woodland are present in Castle Caldwell Forest, Castle Archdale Country Park and on the shores of Lower Lough Erne.

Parkland

Parklands are important types of woodland characterised by veteran or mature trees, both native and non-native, as well as deciduous and coniferous, which are surrounded by grassland pasture. They are normally associated with grand old houses or demesnes such as Ecclesville Demesne in Fintona, and the National Trust's Castle Coole, Crom Estate and Florence Court. Parklands support a wide variety of species, including rare lichen species, many beetles, bugs, insects, and numerous

birds, such as song thrush and bullfinch. Other NI priority species that can be found in our parklands include red squirrel, many of the bat species and the spotted flycatcher.

Ash Woods

These habitats are distinguished by the dominance of ash trees in the woodland canopy, although other species such as oak and downy birch are also sometimes present. Mixed ash woods are renowned for the diverse range of plants present at ground level, including bluebell, primrose and wood anemone. As ash woods usually occur on base-rich soils, they are concentrated in the west of Fermanagh. Key woods include Hanging Rock and Rossaa NNR, Marble Arch Nature Reserve and Cladagh Glen.


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Hedgerows

Hedgerows are defined as linear boundaries composed of planted shrubs, which are vital wildlife corridors within our fragmented landscape. A species-rich hedgerow should contain six or more woody species on average, within a 30-metre length. If the hedge has less than this, but has a rich ground flora of grasses and wildflowers such as primrose, common dog-violet etc., then it can still be classified as species-rich. Hedgerows resemble woodlands in their basic structure of trees with an understorey. They are very important for the movement of birds and animals from one pocket of woodland to another, providing much needed refuge throughout the countryside. Hedgerows are vital habitats for wildlife, including plants such as primrose and herb Robert; birds such as the dunnock and yellowhammer; mammals such as bats, and many types of insects, such as butterflies and bumblebees.

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Urban

Urban habitats are vitally important for a wide range of wildlife and serve to introduce people to biodiversity. Most people first encounter wildlife in their back gardens, at the local park or on local golf courses! From ladybirds to hedgehogs, blue tits to song thrushes, and even bats, our urban habitats are a refuge and a much-needed feeding ground for many native species.

Gardens

Gardens are where most people first experience wildlife. Whether it is a ladybird, a bumblebee or a robin, gardens are essential feeding points and homes for lots of wildlife. Both urban and rural gardens have equal importance in improving the biodiversity value of their surroundings. A row of town gardens with small trees, nectar rich flowers and bird feeders, will support many insects and garden birds in an otherwise sterile environment. Likewise, in the countryside, a larger garden with a wildlife pond, mature trees and many flowering plants, will supplement adjacent farmland habitat and provide extra food and shelter during the colder winter months.

Public Parks and Open Space

Public parks, government land and open spaces provide an opportunity for biodiversity to flourish in urban areas that would otherwise struggle to support wildlife. Typical species may also be found in gardens. In contrast, different management regimes often used in larger spaces have led to new and improved habitats to be created, including mini-woodlands, meadows and ponds. Urban habitats have a special importance for biodiversity, as it is where people and wildlife co-exist and where people are encouraged to relax and enjoy nature.

School Grounds

School grounds have the potential to be a biodiversity hotspot and valuable educational resource. Outdoor classrooms are perfect places for children to explore and learn from nature. Easy wildlife projects include planting hedges and native trees, creating a butterfly garden, making insect hotels, bird boxes and bug boxes, as well as surveying what wildlife already makes the school grounds their home.

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Appendix 2 - Our Biodiversity Story so far...

The Fermanagh and Omagh Local Biodiversity Action Plan (LBAP) 2016 – 2020 was launched in spring 2016. The Plan was developed in partnership with the Fermanagh and Omagh Biodiversity Steering Group.

Fermanagh and Omagh LBAP outlined a plan of action to:

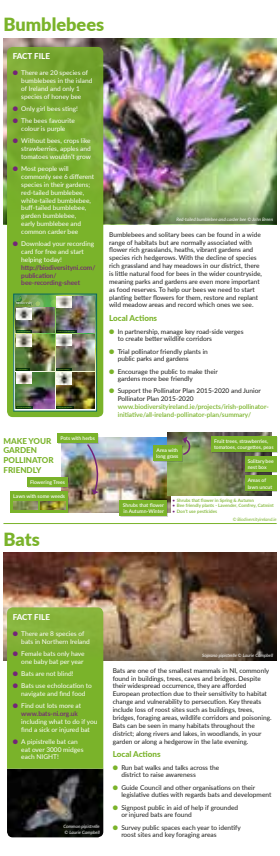
- Help conserve and enhance local habitats and species.
- Raise awareness and knowledge of local biodiversity.
- Involve local people and develop partnerships in the delivery of the Fermanagh and Omagh Local Biodiversity Action Plan.

Whist many actions by the Council for biodiversity have been delivered to help achieve the implementation of the LBAP, many are also carried out to meet the needs of various wildlife legislation. This includes the Biodiversity Duty, a primary piece of legislation governing Biodiversity in Northern Ireland through the Wildlife and Natural Environment Act 2011 (WANE Act):

> *"It is the duty of every public body, in exercising any functions, to further the conservation of biodiversity so far as is consistent with the proper exercise of those functions."*

Public bodies, when undertaking their functions, must take into account the following five areas:

- The protection of biodiversity
- The maintenance of biodiversity
- Enhancing biodiversity
- Restoring biodiversity
- Promoting the understanding of biodiversity both within and outside the organisation.



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Protecting Biodiversity

Deliver Biodiversity Duty and comply with legislation

- Delivered training on WANE Act and Duty to relevant staff.
- Carried out and commissioned ecological surveys including Biodiversity Checklists, nesting bird surveys, bat roost potential surveys, bat activity surveys, red squirrel surveys, otter surveys and more, to inform our wide range of capital works programmes and ongoing maintenance schedule.
- Carried out Habitats Regulation Assessments (HRA's) for projects and plans as required by Conservation (Natural Habitats etc.) Regulations (Northern Ireland) 1999.
- Projects including Grange Car Park lighting scheme, Sloughan Glen ASSI path works, Gortin Glen Forest Park, Ballinamallard Mill Race improvements, Necarne Castle stabilisation works and Ecclesville Pond management.

Implement The Council's Invasive Alien Species (IAS) policy IAS legislation

- Delivered training and provision of resources to horticulture and maintenance staff in the recognition and management of the most common IAS species.
- Created and updated IAS map database annually.
- Created and delivered treatment plans for key IAS on Council estate annually.
- Provided advice and signposted public when requested on IAS legislation and management.

Delivering the Lough Erne Landscape Partnership IAS project. The following has been delivered to date, via this LELP funded project:

- IAS awareness and management training delivered to 268 people over 6 events (2020 events cancelled due to COVID).
- Over 5000 IAS ID booklets and leaflets created.
- Over 8 key IAS sites managed annually.

Action for Pollinators

The Council has adopted the 'Don't Mow Let It Grow!' initiative created by the Causeway Coast and Glens Borough Council. This initiative is following on from the successful 'Saving Our Magnificent Meadows' scheme and has achieved the following to date:

- A formal maintenance programme where native grasses and wildflowers are encouraged to grow through a change in cutting times across 35 sites. This has amounted to 40 Ha on Council land, which includes mapping of sites using GIS and placement of 'Don't Mow' signage.
- Liaison with DfI Roads on the signage and cutting regimes which impact key roadside verges across the District.
- Setting up of an internal working group on pesticide reduction across Council land.

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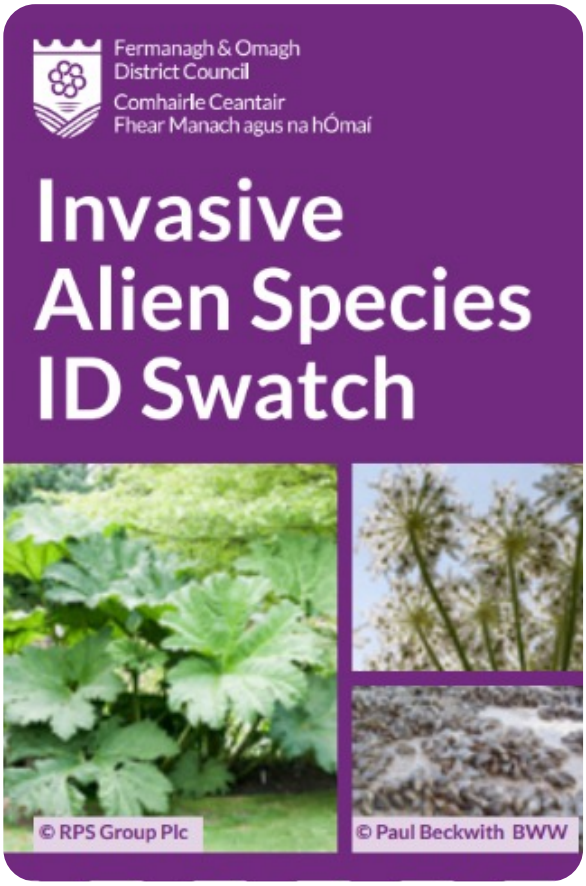
Racecourse Lough meadow cutting.



IAS ID Swatch Card.

Don't Mow Let it Grow sign in a meadow.

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Maintaining, Enhancing and Restoring Biodiversity

Action for Pollinators

Land Management

Through 'Don't Mow Let It Grow':

- The purchase of a grass cutting machine suitable for long grass cut and lift.
- Liaison with DfI Roads on signage and cutting regimes at key roadside verges.
- Setting up of internal working group on pesticide reduction across Council land.

Outreach and influencing

- In 2020, over 5000 packets of wildflower seeds freely given to the public.
- 200 packets have been distributed to schools through workshops, gifts and prizes.
- As part of the seasonal workshops for schools, pollinator workshops are delivered to 400 children annually.
- Over 120 heritage apple trees planted through 'Trees for Bees.'

Woodland and Tree planting and management

The Council has been working in partnership to plant trees and woodlands for several years on Council land and where possible, with community groups and schools.

Since 2017, over **7000** trees have been planted, of which 120 are heritage apple trees for the 'Trees for Bees' initiative. Through DAERA, we plan to apply for and plant new native woodlands in 2021-2022. As land is identified and deemed suitable, more tree planting will be planned annually.

Applications for funding to support biodiversity

Funded projects applied for and delivered across many themes since 2016 include:

- Invasive Alien Species project though LELP and Heritage Fund (£19.8k).
- Sloughan Glen ASSI path works through NIEA Challenge Fund (£28k).
- Waterways Ireland Heritage Fund (£1600).
- 'Beelicious' from Heritage Fund (£7k), delivering land management changes and training for key sites.
- Forthill Park Tree Trail, interpretation, and planting.
- Enniskillen Workhouse heritage education on bats and swifts.

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Promoting The Understanding of Biodiversity

Biodiversity education in schools

Biodiversity Team School Visits

40 school visits delivering biodiversity sessions to 1000 pupils, including Autumn-watch, Birdwatch and Trees for Bees. Trees for Bees art competition successful with 580 entries from 23 schools across the District.

Forest Schools

The Biodiversity Team coordinated the Forest Schools programme in partnership with LELP and Cuilcagh Lakelands Geopark throughout 2020. The programme has been delivered through the NI Forest School Association to 10 schools in Spring 2021, with another 10 schools being delivered in Autumn 2021, reaching over 400 pupils. Each school receives:

- 6-week NIFSA led course through the programme and 4 practical sessions with the children.
- Teacher gains accredited Forest School Leader award to keep the project sustainable.
- Free Forest School Kit Bag.
- Forest School Award Plaque and certificate.

Biodiversity outreach and community support

Events

Normally, the Biodiversity Team coordinate or attend at least 6 Biodiversity themed events annually.
In 2019-2020

- Bat Ambulance training.
- Bumblebee survey sessions.
- Wildflower planting at the Grange and Racecourse Lough.
- Bug house building at Omagh Library.
- Forage walk at Devenish Partnership Nature Reserve.
- Pollinator stand at Omagh and Fermanagh Shows.
- Hats off to Forthill, July (IAS and pollinators theme).
- Foraging at Gortin Glens.
- Community Group walk at Castle Archdale Country Park.
- Litter Pick at Hillview Woodland.
- Red Squirrel Event at Gortin Glens.

Communities

- Assist annually with development of 'Ulster in Bloom' and implement of Green Flag awards.
- Continue to support community groups with biodiversity projects through onsite advice.

Biodiversity Communication

Interpretation Panels

Collated content and organised the production of interpretation panels at key sites:

- Omagh Riverside Walk
- Sloughan Glen
- Forthill Park
- Grange Park

Assisted in providing text and images for Council and Community panels:

- Enniskillen Wide Awake Way
- Carrickmore RDP
- Ederney RDP
- Gortin Glen Forest Park

Social media and press releases

Pre-COVID-19, seasonal citizen science and national days were celebrated through social media and press releases. As outreach work moved online, the content levels are much higher. From Backyard Biodiversity content to Bitesize posts, as well as videos of local wildlife and 'Did You Know' quizzes, from 1st April 2020 to current, there have been over 80 biodiversity related posts reaching over **430,000** people.

The Council's Info Magazine

Biodiversity Team contribute annually to the info magazine and to other Council newsletters.

Forthill Park Tree Trail

A new tree trail is available at Forthill Park, accompanied by a workbook freely available to schools and visitors.

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Appendix 3 – Finding out more about Biodiversity

If you would like to find out more about biodiversity, please visit the websites listed below or contact the organisation. Websites should redirect you, but if they don't, please contact the new department for details.

- An Creagan Visitor Centre - **www.an-creagan.com/biodiversity.aspx**
- Biodiversity in Northern Ireland - **www.biodiversityni.com**
- Botanical Survey for British Isles – **www.bsbi.org.uk**
- British Trust for Ornithology - **www.bto.org**
- Butterfly Conservation - **www.butterfly-conservation.org**
- Centre for Environmental Data and Recording (CEDaR) – **www.nmni.com/cedar**
- Cuilcagh Lakelands Geopark – **www.cuilcaghlakelands.org**
- Ecoschools - **http://www.eco-schoolsni.org/**
- Fermanagh Red Squirrel Group – **www.fermanaghredsquirrelgroup.com**
- Keep NI Beautiful - **www.keepnorthernirelandbeautiful.org**
- Habitas - **www.habitas.org.uk**
- Lough's Agency - **www.loughs-agency.org**
- Lough Erne Landscape Partnership – **www.lelp.org.uk & find on Facebook and Twitter.**
- Lough Erne Wildfowlers Council – **www.lewc.org.uk**
- Marble Arch Caves - **www.marblearchcaves.co.uk**
- National Biodiversity Data Centre - **http://www.biodiversityireland.ie/**
- National Trust - **www.nationaltrust.org.uk**
- Northern Ireland Bat Group - **www.bats-ni.org.uk**
- Northern Ireland Environment Link - **www.nienvironmentlink.org**
- Northern Ireland Fungus Group - **www.nifg.org.uk/**
- Royal Society for the Protection of Birds - **www.rspb.org.uk**
- Saving Our Magnificent Meadows - **http://www.magnificentmeadows.org.uk/**
- The Conservation Volunteers - **www.tcv.org.uk**
- Ulster Wildlife - **www.ulsterwildlife.org**
- Walk NI – **www.walkni.com**
- Waterways Ireland - **http://www.waterwaysireland.org/**
- Woodland Trust **- www.woodlandtrust.org.uk**

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Appendix 4 – Glossary and Bibliography

Glossary:

Biodiversity – The variety of plant and animal life in the world or within a habitat.

Calcareous – Containing calcium carbonate, lime or being 'chalky.'

Carbon sequestration – A natural or artificial process by which carbon dioxide is removed from the atmosphere and stored in solid or liquid form, such as in peat bogs.

Climate change – A change in global or regional climate patterns attributed largely to the increased levels of atmospheric carbon dioxide produced by using fossil fuels.

Coniferous – A tree that bears cones and needle-like or scale-like leaves that are typically evergreen.

Conservation – The preservation, protection or restoration of the natural environment and of wildlife.

Deciduous – Broadleaved trees and shrubs which shed their leaves seasonally, usually in autumn.

Ecosystem – A biological community of interacting organisms and their physical environment.

Ecosystem services – The benefits provided by ecosystems that contribute to making human life both possible and worth living.

Endangered – A species at high risk of becoming extinct in the near future.

Finite – Being limited in size or extent, i.e. will run out if not managed sustainably.

Flagship species – In conservation biology, a flagship species is a species chosen to raise support for biodiversity conservation in a given place or social context.

Geodiversity – The natural range or diversity of geological features (rocks, minerals, fossils, structures), geomorphological features (landforms and processes), soil and water that compose and shape the physical landscape.

Habitat – The natural home or environment of an animal, plant or other organism, containing the resources, physical and biotic factors that support the survival and reproduction of a particular species.

Invasive species – A non-native species of plant or animal that does or is likely to cause economic or environmental harm to human, animal or plant health.

Net zero – A state in which the greenhouse gases going into the atmosphere are balanced by the greenhouse gases removed from the atmosphere. By achieving net zero, we can stop climate change.

Photosynthesis – The process by which green plants and some other organisms use sunlight to synthesize nutrients from carbon dioxide and water. Photosynthesis in plants generally involves the green pigment chlorophyll and generates oxygen as a by-product.

Pollination – The transfer of pollen from an anther of a plant to the stigma of a plant, later enabling fertilisation and the production of seeds, most often by an animal or by wind.

Priority species – Any animal species that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan (UK BAP).

Restoration – The action of returning something to its former owner, place or condition.

Rewilding – Conservation efforts aimed at restoring and protecting natural processes and wilderness areas. This may include providing connectivity between important habitats and protecting or reintroducing apex predators and keystone species.

Sustainability – Avoidance of the depletion of natural resources in order to maintain ecological balance and preserve resources for future generations.

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