



comhairle chontae na mí
meath county council

Draft

Meath Biodiversity Action Plan

2025 – 2030

July 2025

DRAFT



An Chomhairle Oidhreachta
The Heritage Council

“From the world’s great rainforests to small parks and gardens, from the blue whale to microscopic fungi, biodiversity is the extraordinary variety of life on Earth. We humans are part of, and fully dependent on, this web of life: it gives us the food we eat, filters the water we drink, and supplies the air we breathe. Nature is as important for our mental and physical wellbeing as it is for our society’s ability to cope with global change, health threats and disasters.

We need nature in our lives.”

EU Biodiversity Strategy for 2030

Table of Contents

Table of Contents	3
Foreword	5
Message from Meath County Council	5
Message from The Heritage Council	6
Acknowledgements.....	7
Executive Summary.....	8
1. Introduction	9
1.1. What is biodiversity?	10
1.2. Why is biodiversity important?	11
1.3. Role of the Meath Biodiversity Action Plan	13
2. How was the Meath Biodiversity Action Plan 2025 – 2030 developed?	14
2.1. Heritage Council guidelines	14
2.2. Development Stages.....	15
2.3. Biodiversity Working Group.....	15
2.4. Pre-draft Public Consultation	18
2.5. County Meath Biodiversity Audit	20
3. Policy Context.....	22
4. Nature in County Meath.....	33
4.1 County Meath's Coastline	33
4.2 County Meath's Countryside	35
4.3 County Meath's Urban Areas	39
5. Our legal responsibilities regarding the protection of biodiversity	40
6. Biodiversity decline.....	44
7. Meath in 2030 – A Nature Positive Trajectory.....	47
8. Biodiversity Actions	48
Objective 1: Reaching a deeper spatial understanding of nature in Meath	49
Objective 2: Leading the way - policy, planning and practice	51
Objective 3: Action for biodiversity	63
Objective 4: Research and monitoring	66
Objective 5: Raising awareness and appreciation of biodiversity	68
9. What happens next?	70
Reporting and Monitoring of the Plan's Progress.....	70
10. What you can do to help.....	71

Bibliography	72
Appendices.....	74
Appendix I: Illustrative Maps of Meath Biodiversity	74
Appendix II: County Meath Biodiversity Audit 2024 Recommended Priority Actions	79
Appendix III: NBAP Actions relevant to local authorities	81
Appendix IV: Revised National Planning Framework National Planning Objectives (NPOs) which relate to the actions of local authorities pertaining to biodiversity	85
Appendix V: Regional Spatial and Economic Strategy Regional Priority Objectives (RPOs) which relate to the actions of local authorities pertaining to biodiversity	87
Appendix VI: Designated Sites and Habitats in County Meath	89
Appendix VII: National status of each Annex I habitat found within County Meath based on 2019 Article 17 reporting by NPWS.....	91
Appendix VIII: Irish Wetland Bird Survey (IWeBS) trend data for the Boyne Estuary and Nanny Estuary sites.....	92
Appendix IX: Table of species currently or previously listed on the Flora (Protection) Order (FPO) which have been recorded in Co. Meath.....	94
Appendix X: Table of Actions, Timescale, Action Owner, Possible Partners & Pre-existing Policy/Plan Alignment.....	95
Appendix XI: List of abbreviations	117

Foreword

Message from Meath County Council

To be added.

DRAFT

Message from The Heritage Council

To be added.

DRAFT

Acknowledgements

Meath County Council and the Biodiversity Working Group of the Meath Heritage Forum wish to acknowledge the support of The Heritage Council in the preparation of Meath Biodiversity Action Plan 2025-2030, through its part-funding of and support for the Biodiversity Officer Programme and the provision of annual funding for the development and implementation of the Meath Biodiversity Action Plan.

We would like to pay a particular tribute to all those who took part in the consultation process.

Meath County Council and the Biodiversity Working Group of the Meath Heritage Forum would also like to extend its thanks to Megan O'Connor, Clerical Officer, Mary Duff, Staff Officer and Mary McCarthy, Staff Officer of Meath County Council, for their administrative support in the development of this plan.

The Biodiversity Working Group of the Meath Heritage Forum deserve particular praise. Their willingness to contribute and offer their guidance in the development of the Meath Biodiversity Action Plan is exemplary and was gratefully received.

Finally, we would like to thank the Senior Management Team of Meath County Council, the Development Management and Forward Planning Strategic Policy Committee and the Elected Members of Meath County Council for all their support.

The development of this plan and final document was funded by the Heritage Council, Creative Ireland and Meath County Council.

Designed:

Translated:

Photographs:

Printed:

© Meath County Council 2025

Executive Summary

The Meath Biodiversity Action Plan 2025 – 2030 recognises and celebrates the rich diversity and importance of Meath's natural heritage. It acknowledges the essential role of nature in our society as a cornerstone to our health and well-being, as an integral element of our economy and as a safeguard for younger generations facing significant environmental challenges into the future.

Despite the important role biodiversity plays in everyday life, there is a serious concern for biodiversity in Meath, Ireland and throughout the world. Too often, local habitats are lost or subject to degradation leading to a silent decline of nature. The main drivers of biodiversity loss in Meath, as in other counties in Ireland, are habitat loss and fragmentation due to activities such as nutrient pollution of both aquatic and terrestrial environments from urban waste water and agricultural sources, drainage of wetlands, land conversion, re-seeding and sub-optimum grazing practices, loss or mis-management of hedgerows, development pressures such as the construction and use of residential, commercial, industrial, transport and recreational infrastructure, light pollution, river drainage, river barriers such as dams and weirs, invasive alien species and the emergence and spread of diseases that affect native flora and fauna. Climate change is also expected to play a far more important role in the coming years.

The challenge for Meath is to prosper in such a way which protects biodiversity and builds ecological resilience for future generations. Thus, one of the primary purposes of this plan is to focus the efforts of Meath County Council and other local partners to respond to the escalating ecological crisis and climate emergency whilst supporting sustainable development in the county.

The Meath Biodiversity Action Plan serves as a framework for furthering the protection, conservation, management and promotion of Meath's biodiversity over the next 6 years and beyond. It outlines the vision for the plan and briefly describes the collaborative process used to develop it, highlighting the partnership approach taken.

The actions of the plan are organised under 5 broad strategic objectives:

- Reaching a deeper spatial understanding of nature in Meath
- Leading the way – policy, planning and practice
- Action for biodiversity
- Research and monitoring
- Raising awareness and appreciation of biodiversity

The implementation of the plan will be guided by the Biodiversity Working Group of the County Meath Heritage Forum providing key expertise and oversight. The Meath Biodiversity Action Plan will be delivered through a series of annual work programmes which will be subject to available funding and resources.

Annual reports will be prepared by the Biodiversity Officer on progress relating to the implementation of the Biodiversity Action Plan and achieving the targets set out in the plan.

1. Introduction

The Meath Biodiversity Action Plan 2025 – 2030 is a framework document setting out the ambition and work programme of Meath County Council for the next 6 years. Implementation of the actions listed in this plan enables the Council to set a nature positive trajectory that will help the organisation to deliver on its obligations to biodiversity and our local environment in Meath.

This is the third Local Authority Biodiversity Action Plan for Meath, with previous plans developed and launched in conjunction with the Meath Heritage Forum in 2008 and 2015 respectively.

This plan is written in line with the 4th National Biodiversity Action Plan 2023 – 2030 and ensures that both the Wildlife Amendment Act 2023, the Heritage Act 1995 and other relevant national and regional biodiversity and heritage policies are translated into local action in a coordinated and effective way.

The action plan was developed under the guidance of The Heritage Council, an independent statutory body which supports the Local Authority Biodiversity Officer Programme nationally. Actions were carefully considered in the context of the Meath County Development Plan 2021 – 2027 and other relevant local and regional plans such as the Meath Climate Action Plan 2024 – 2029, the Eastern and Midlands Regional Spatial and Economic Strategy 2019 – 2031 as well as the revised National Planning Framework.

The Meath Biodiversity Action Plan 2025 – 2030 places biodiversity conservation as a fundamental pillar for achieving broader sustainable development in Meath and contributing to the global Sustainable Development Goals. It recognises that a healthy and resilient natural environment is essential for social, economic, and environmental well-being, which are at the heart of the 2030 Agenda.

Development of the Biodiversity Action plan was supported by the provision of guidance and advice from the Biodiversity Working Group of the County Meath Heritage Forum. The establishment of the Biodiversity Working Group brought together a range of stakeholders with in-depth knowledge and expertise in a wide range of subjects from ecology, environmental assessment, biological recording and conservation of nature to agriculture, economics, planning and policy. Additionally, representatives from across Meath County Council participated in the process to help shape the actions and objectives of the plan.

The public consultation submissions made by individuals, groups, organisations and agencies during the pre-draft public consultation phases were clear, impassioned and insightful, and played a critical role in deciding how to shape the objectives and actions.

We are all responsible for the health and wellbeing of our natural environment. The Meath Biodiversity Action Plan challenges us all; planners, architects, landscape architects, engineers, politicians, developers, business owners and local communities, to get involved in protecting and restoring nature in whatever way we can.

By acting together, we can make a real difference. We will play our part in the achievement of both national and international objectives for biodiversity, continue to protect our natural heritage, develop County Meath sustainably and ensure we hand over a richer natural environment to the next generation.

1.1. What is biodiversity?

Biodiversity describes the variety of life on Earth – the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world.

People often use the phrases “biodiversity” and “nature” interchangeably. Nature is all life on Earth, together with the living systems of which it is a part, for example geology, water and climate. Biodiversity, meaning biological diversity, describes the variety of life forms on Earth.

Biodiversity is not restricted to rare or threatened species but includes the whole of the natural world from the commonplace to the critically endangered. It includes the plants and animals familiar to all of us in the places where we live or work, wherever that may be.

There are three principal levels of biodiversity:

Genetic diversity is diversity of individuals within a species, or what makes one Hawthorn tree from Ireland different from another Hawthorn tree somewhere in Europe, or one person different to another person. Genetics is the science of genes and how traits are passed on from one generation to the next.

Species diversity is the variation between species, such as between a sessile oak tree, a red squirrel, a common blue butterfly and a brown trout. A biological species is a group of organisms that can reproduce with one another in nature and produce fertile offspring. Humans are a species too.

Habitat diversity can be described as the variety of different habitats and ecosystems that species create and inhabit, such as grasslands, woodlands or wetlands such as raised bogs, marsh or lowland river floodplains. ‘Habitat’ refers to the home or environment of an animal, plant or other organism.



Figure 1. Clockwise from top-left: Buff-tailed bumblebee queen foraging on dandelion; Common Spotted-Orchid; Brown trout parr; Red Kite. Image credit: Ben Malone & Tony Hisgett (Red Kite).

1.2. Why is biodiversity important?

Biodiversity provides the essential building blocks of ecosystems and the habitats that species live within. Ecosystems are thus dependent on biodiversity – from the smallest microbes, insects and complex communities of plants to the largest mammals, and their interactions, which together make up the web of life.

Although it is often not appreciated, healthy functioning ecosystems are pivotal to the prosperity and resilience of our communities and society at large. Humans are part of the web of life and entirely dependent on it. The many and varied benefits that society derives from natural ecosystems are normally referred to as ecosystem services. For example:

- Many habitats clean the air, capture pollutants, produce oxygen and absorb and store carbon dioxide (e.g. mineral soils, peat soils, wood and even the ocean around us).
- In the face of an ever-changing climate, healthy ecosystems such as our wetlands and woodlands, among others, are important for reducing the risk and severity of flooding and can lessen the impact of drought by regulating a slower flow of water through our river catchments vital for drinking water supplies and supporting healthy fisheries, both critical to the local economy.
- Healthy soil ecosystems, which themselves are dependent on their above ground plant communities, underpin the production of food. Additionally, ecosystems that maintain and support thriving populations of pollinators mean society can grow food such as rapeseed oil, peas, beans, apples and soft fruits.
- More time spent outdoors in nature has been proven to have major health benefits such as lower risk of chronic disease and improved mental health and well-being.
- Despite progressions in modern pharma, biodiversity remains an important source of inspiration for research and ingredients for modern and traditional medicines respectively.

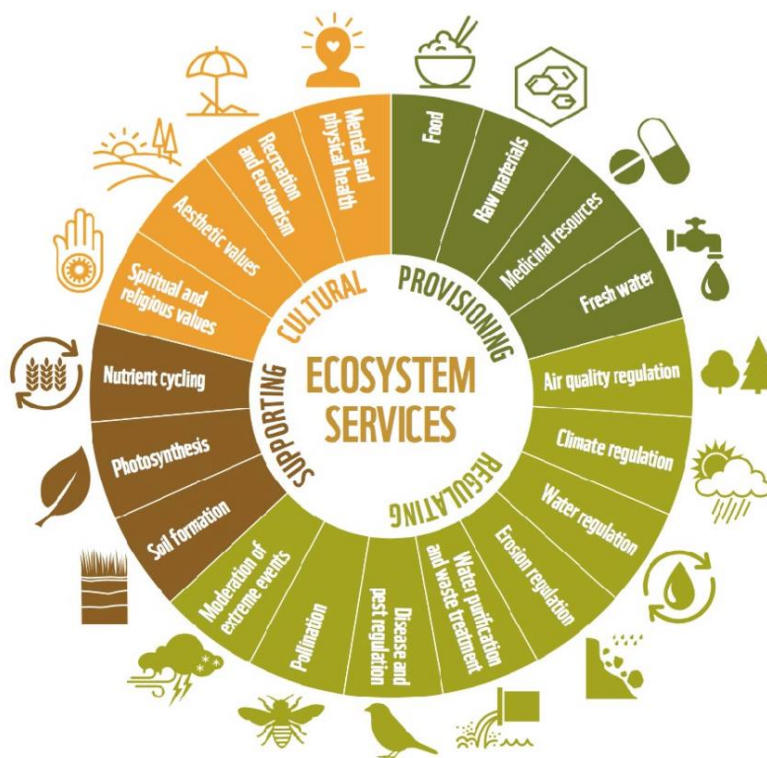


Figure 2. Categories of ecosystem services. Reproduced from WWF 2016 © WWF 2016

Efforts have been made in Ireland over the last decade to quantify and measure ecosystem service provision. By assessing and valuing the known benefits of ecosystem services we can demonstrate how the loss of biodiversity affects our economy, society and future development opportunities and how the cost of conserving biodiversity and healthy ecosystems often outweighs the costs of neglect and restoration.

In 2016, the National Parks and Wildlife Service completed a short project focusing on a National Ecosystem and Ecosystem Services mapping pilot for a suite of prioritised services based on available data. Selected ecosystem services modelled included land temporarily storing water, areas of land promoting good water quality, vegetation carbon and soil carbon among others (www.npws.ie, 2025).

More recently, the Central Statistics Office (CSO) has been working to compile Ireland's national ecosystem service accounts as part of the CSO Frontier Series, initially focusing on ecosystem services such as flood control and crop pollination. Other ecosystem accounts have also been developed, primarily ecosystem extent accounts and ecosystem condition accounts (www.cso.ie, 2025).

Aside from the many benefits conferred on society by biodiversity, we must also consider that fact that nature has an intrinsic value and a right to exist as well.

Concerted efforts to protect, restore and promote biodiversity should be morally just for this reason alone.

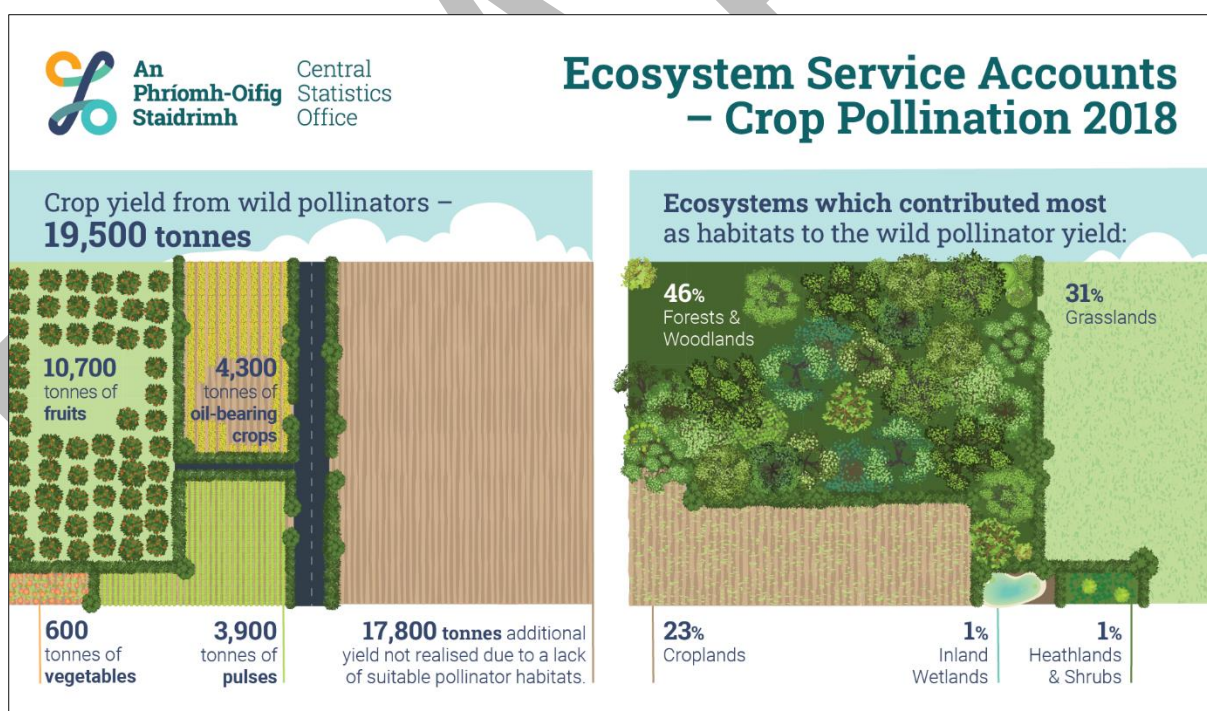


Figure 3. Ecosystem Service Accounts - Crop Pollination 2018 (www.cso.ie, 2025)

1.3. Role of the Meath Biodiversity Action Plan

A Local Authority Biodiversity Action Plan like what has been produced for Meath is designed to provide a structured approach to biodiversity conservation at the local authority level. It outlines the objectives, strategies, and actions needed to protect and enhance biodiversity within a specific local authority area.

Such plans are developed in the context of both national and international biodiversity commitments as well as regional and local policies, priorities and local consultation and are aligned with existing environmental policies and legislation.

A Local Authority Biodiversity Action Plan provides the context for the local authority to work with and support local communities, agencies, NGOs and landowners to develop projects to record and conserve their local biodiversity within a regional and national context.

While the specific vision and objectives of each Local Authority Biodiversity Action Plan are decided upon locally, all plans by and large should aim to record, conserve, restore and promote biodiversity, and to increase awareness, understanding and appreciation of it among the people of the area.



Figure 4. Enthusiasts join a night-time walk to learn about nocturnal biodiversity and in particular, bats. Events such as these serve as excellent opportunities to engage the local community and encourage a new wave of nature advocates, naturalists and citizen scientists alike.

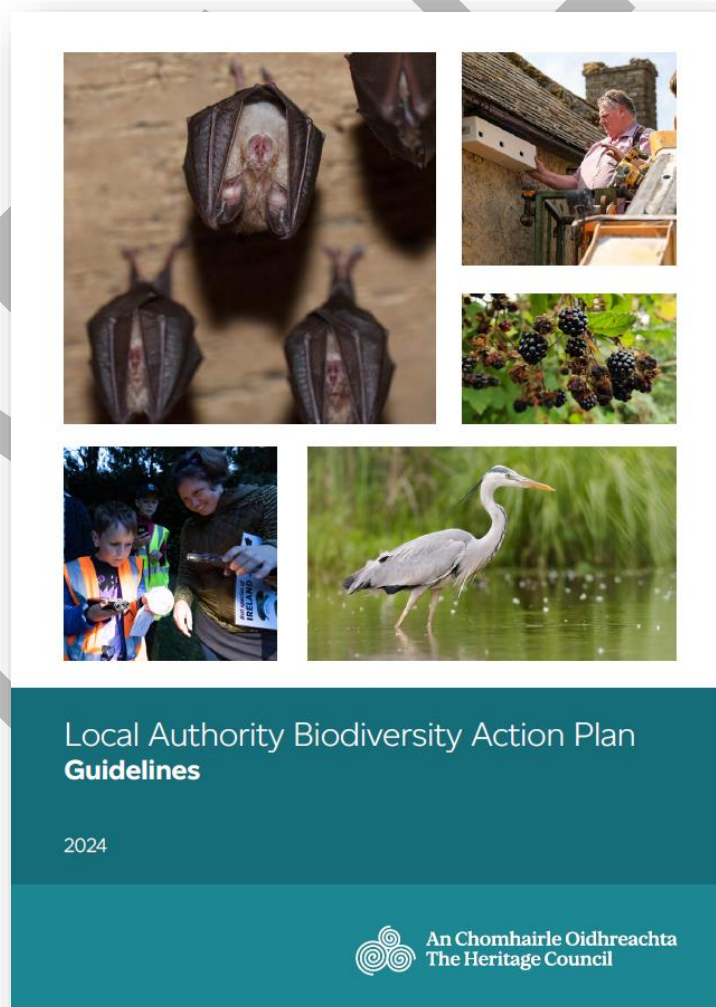
2. How was the Meath Biodiversity Action Plan 2025 – 2030 developed?

2.1. Heritage Council guidelines

The Local Authority Biodiversity Officer Programme is a Heritage Council Initiative. In addition to supporting the programme financially, The Heritage Council takes an active role in providing training and development opportunities for Biodiversity Officers and developing guidance for important parts of the programme.

This role is recognised in the 4th National Biodiversity Action Plan 2023 - 2030. The Heritage Council was identified as the lead organisation with responsibility for the development of updated guidelines for the production of Local Authority Biodiversity Action Plans and their integration with City and County Development Plans.

The *Local Authority Biodiversity Action Plan Guidelines* were published in 2024 and used to inform development of the Meath Biodiversity Action Plan. These guidelines are available to download and view from the website of The Heritage Council.



2.2. Development Stages

Preparation

Secure agreement of the Management Team and establish a Biodiversity Working Group. Gather background data and identify gaps.

Vision and Objectives

Agree the broad aims of the Biodiversity Action Plan with the Biodiversity Working Group.

Public Engagement

Pre-draft public consultation: produce a discussion paper, hold meetings, and invite submissions.

Plan Development

Identify issues and needs, agree objectives and actions, and prepare a draft plan, liaising with colleagues and the Working Group. AA and SEA Screening.

Plan Review

Present the draft plan to the Management Team and SPC for comment.

Public Review

Public consultation on draft plan: make the plan available online and through libraries and hold meetings.

Plan Approval

Revise the draft plan and present it to senior management, the appropriate SPC(s) and full Council for approval.

Publication

Publish and launch the new Biodiversity Action Plan.

2.3. Biodiversity Working Group

The establishment of a Biodiversity Working Group is a pivotal step in the development and implementation of a Local Authority Biodiversity Action Plan. In County Meath, the Biodiversity Working Group operates under the umbrella of the Meath Heritage Forum. The primary role of the working group is to provide guidance and expertise throughout the planning, implementation, monitoring and review phases of the biodiversity action plan.

Responsibilities include reviewing existing biodiversity data, identifying key conservation priorities, recommending strategies and actions, and monitoring the progress of the Biodiversity Action Plan's implementation. The working group also serves as a liaison between the Local Authority and various key stakeholders, ensuring that the plan is both comprehensive and community backed.

Effort has been made to pull together a broad representative group, with membership drawn from the following sectors:

- Landowners and farming representatives
- Community and voluntary groups

- Local heritage and biodiversity organisations or groups
- Local government officials
- Local Elected Representatives
- Local development and business
- State agencies of relevance to biodiversity conservation

Table 1. Biodiversity Working Group Members

Ben Malone	Meath County Council
Loreto Guinan	Meath County Council
Wendy Bagnall	Meath County Council
Emmet Conboy	Meath County Council
Peter Olwell	Meath County Council
Bernadine Carry	Meath County Council
Aaron Smith	Meath County Council
Michelle Goodwin	Meath County Council
CLlr Noel French	Elected Member
CLlr Alan Tobin	Elected Member
CLlr David Gilroy	Elected Member
CLlr. Paddy Meade	Elected Member
Cathal Flood	Local Authority Waters Programme
Michael Gunn	Public Participation Network
Eimear Clowry Delaney	Public Participation Network
Terry Cassidy	Birdwatch Ireland Meath Branch
Dermot Ward	Irish Farmer's Association
Aidan Gray	An Taisce Clean Coasts
Goska Wilkowska	Boyne Rivers Trust
Niamh Roche	Bat Conservation Ireland
Kate Flood	Community Wetlands Forum
Ciara Rock	National Parks and Wildlife Service
Dónal Mitchell	National Parks and Wildlife Service
Noel McGloin	Inland Fisheries Ireland
Edward Egan	Teagasc

Ciaran O'Kelly	Boyne Catchment Angling Association
Pat Moran	Ecologist
Robbie Meehan	Geologist
Margaret Norton	Botanical Society of Britain and Ireland
Donna Mullen	Green Foundation Ireland
Arthur Preston	Boyne Valley Flavours

In the absence of primary members on occasion, the contribution of substitute nominees from various organisations has been welcomed to ensure representation from as many of the stakeholders as possible. Meath County Council and the Biodiversity Working Group of the Meath Heritage Forum are particularly grateful for the contributions made by Eimear Reilly and Annina Niskanen of Meath County Council, as well as Liane Costello of An Taisce, Clean Coasts.

Over time, Biodiversity Working Group members may change roles, move to other organisations or drop from the Biodiversity Working Group due to professional or personal commitments. In these instances, alternative nominees will be welcomed onto the Biodiversity Working Group when necessary.



Figure 5. Members of the newly established Meath Biodiversity Working Group. Image credit: Ben Malone.



Figure 6. Members of the Meath Biodiversity Working Group discuss grassland management plans at the Commons of Lloyd.

2.4. Pre-draft Public Consultation

A pre-draft public consultation on the Meath Biodiversity Action Plan commenced on 15th April 2024 and ran until Monday 27th May 2024, overlapping with National Biodiversity Week. Delivering this initial phase of public participation in the development of the plan was a critical objective in the process, allowing for the identification of local issues and needs. A discussion paper was produced to help set the context for public involvement in the development of a new plan and included some background on the biodiversity of the county.

Members of the public and stakeholders could participate in the consultation and share their views in the following ways:

- By attending one of a number of pre-draft consultation drop-in information sessions
- By completing an online questionnaire
- By submitting written feedback to the Biodiversity Officer

Radio ads, radio interviews, print media ads and print media press releases were all used to promote the consultation.

6 in-person consultation information sessions were facilitated along with an online session. A further 5 events/meetings were organised with local interested fora and groups. Events organised and held during National Biodiversity Week in 2024 were also used as platforms to promote the consultation and share the survey questionnaire. In total, 8 events were hosted by Meath County Council and a further 6 were supported by the Biodiversity Officer.

The total number of submissions received in the pre-draft public consultation was 162.

Statistics

Communications

Radio ads	45
Radio interviews	3
Print media ads	4
Press releases	2
MCC Website Pages	2
MCC Social Media Posts	40
Mailing list circulars	5

Events

Number of in-person pre-draft public consultation walk-in information sessions	6
Number of online pre-draft public consultation information sessions	1
Number of partner-led pre-draft public consultation events/meetings	5
Number of National Biodiversity Week events hosted by MCC	8
Number of National Biodiversity Week events supported by MCC	6
Total number of people directly engaged in-person (estimate)	348

Submissions

Number of responses via <i>Consult.ie</i>	140
Number of responses received via post & by email	22
Total number of submissions received in the pre-draft public consultation	162

Pre-draft public consultation responses

The pre-draft public consultation sought views from members of the public on what people felt should be the priority objectives of the plan; what people felt are the main challenges impacting biodiversity in Meath; and what Meath County Council can and should be doing to resolve these challenges.

The consultation questionnaire was bookended by questions on what actions respondents are currently undertaking for biodiversity and what changes they have seen in nature over their lifetime.

The pre-draft public consultation was delivered with support and funding from both Meath County Council and the Heritage Council.

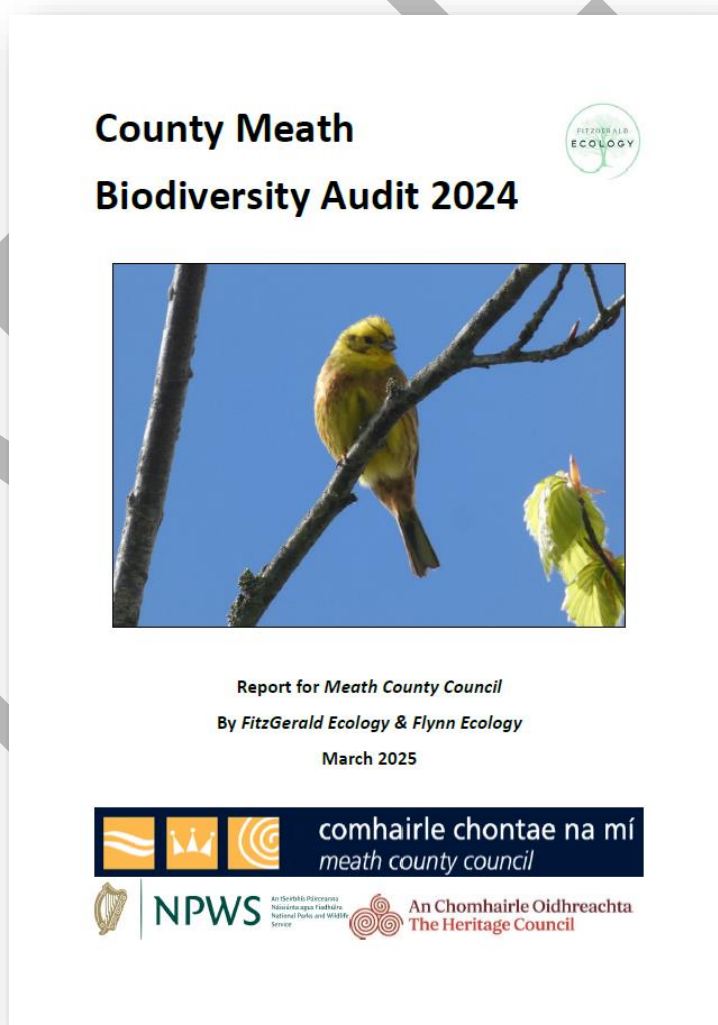
2.5. County Meath Biodiversity Audit

In July 2024, Meath County Council commissioned a high-level biodiversity audit for County Meath. This project was enabled with funding support provided by Heritage Council through the Local Biodiversity Action Plan Scheme and the National Parks and Wildlife Service through the Local Biodiversity Action Fund.

The requirement for such an audit was identified by the Heritage Council's *Local Authority Biodiversity Action Plan Guidelines 2024*, which pointed to the need for an analysis of existing data when embarking on the development of a Local Authority Biodiversity Action Plan.

The aims of the study were as follows:

1. Identify the current distribution of biodiversity in the county, focusing on rare, threatened and protected species. Important habitats were also a focus.
2. Identify and discuss historical trends in biodiversity including current drivers of decline.
3. Identify opportunities for conservation, including priority actions in the short-, medium- and long-term in the county.
4. Highlight relevant data gaps. These include taxonomic and spatial knowledge gaps.



An overview of designated sites and habitats in Meath precedes a review of individual animal and plant groups in the report. The checklists of Nelson et al. (2019) and the relevant existing Irish Red Lists for particular taxonomic groups guided this search.

Nelson *et al.* (2019) provided checklists for the following animal and plant groups:

- Plants
 - Flowering Plants (Angiosperms)
 - Ferns and Fern-allies (Pteridophytes)
 - Hornworts and Liverworts
 - Mosses
 - Algae
 - Lichens
- Vertebrates
 - Mammals
 - Birds
 - Reptiles
 - Amphibians
 - Freshwater Fish
 - Cartilaginous Fish (Sharks, skates, rays and chimaeras)
- Insects
 - Bees (Hymenoptera, Apoidea)
 - Butterflies (Lepidoptera)
 - Damselflies and Dragonflies (Odonata)
 - Macro-moths (Lepidoptera)
 - Mayflies (Ephemeroptera)
 - Stoneflies (Plecoptera)
 - Water beetles (Aquatic Coleoptera)
- Invertebrates (other than insects)
 - Crayfish
 - Non-marine Mollusca

A key output of the Biodiversity Audit was to identify priority actions for Meath County Council to take in the short, medium and long-term. The list of proposed priority actions is summarised in Appendix II.

The project outputs included a summary report as well as mapping data compatible with GIS. Results of audit were presented to the Biodiversity Working Group of the Meath Heritage Forum in March 2025. The *County Meath Biodiversity Audit Report 2024* report is available to download from the Meath County Council website.

3. Policy Context

The Meath Biodiversity Action Plan 2025-2030 outlines the strategic priorities of Meath County Council, developed in collaboration with state agencies, non-governmental organisations, community representatives and the broader public, to implement a comprehensive biodiversity work programme.

This initiative builds upon a series of important policy advancements that have enabled the creation of ambitious and effective local authority Biodiversity Action Plans, allowing for more meaningful impact on our shared goals and targets for the protection and conservation of nature.

Earth Summit Rio de Janeiro

The Meath Biodiversity Action Plan is a direct result of a process initiated at the Earth Summit in Rio de Janeiro in 1992.

At this summit, world leaders recognised that human activities are changing and destroying the natural environment at an ever-increasing rate and action was needed to halt the loss of biodiversity. The outcome of this summit was the UN Convention on Biological Diversity, which has now been signed by over 170 countries, including Ireland.

United Nations Sustainable Development Goals

The 2030 Agenda was adopted by all 193 United Nations member states in 2015. It is a “plan of action for people, planet and prosperity” and provides an internationally agreed framework to balance the economic, social and environmental aspects of sustainable development. The Framework is made up of 17 Sustainable Development Goals (SDG’s) and 169 targets with the overall objective of achieving a more sustainable, prosperous and peaceful future for all.

Ireland’s National Implementation Plan for the Sustainable Development Goals 2018-2020 acknowledged that local government “has a crucial role to play in translating national policies into tangible practical actions that can help to concretise the SDG objectives into our individual and communities” behaviours and goals.” Ireland’s next National Implementation Plan for the Sustainable Development Goals 2022-2024 under Strategic Objective 2 focused on integration of the SDG’s in “Local Authority work to better support the localisation of the SDGs” and incorporate specific actions to do so which include:

- i. Showcasing, sharing and building on existing initiatives
- ii. Capacity building and awareness raising
- iii. Embedding the SDGs in Governance and reporting frameworks
- iv. Incorporating the SDGs within local planning frameworks
- v. Community Engagement

Furthermore, local authorities are recognised as one of Agenda 2030’s nine ‘Major Groups’, which play a crucial role in sustainable development. Agenda 2030 also highlights the role of local authorities and communities in sustainable urban development.

The actions and objectives of the Meath Biodiversity Action Plan support several key goals:

SDG 15: Life on Land: This is a primary focus, with actions aimed at protecting, restoring, and promoting the sustainable use of terrestrial ecosystems, managing halting and reversing land degradation, and halting biodiversity loss.

SDG 6: Clean Water and Sanitation: Actions to protect and restore water ecosystems contribute to ensuring the availability and sustainable management of water resources.

SDG 13: Climate Action: Recognizing the close link between biodiversity and climate change, the Plan includes actions that can contribute to climate change mitigation and adaptation by enhancing ecosystem resilience.

SDG 12: Responsible Consumption and Production: Measures promoting sustainable use of natural resources and reducing waste can contribute to this goal.

SDG 11: Sustainable Cities and Communities: By valuing and integrating nature into planning and decision-making, the Plan can contribute to making human settlements more sustainable.

SDG 17: Partnerships for the Goals: The Plan highlights the importance of collaboration across different sectors and stakeholders, aligning with efforts to foster partnerships for achieving the SDGs.

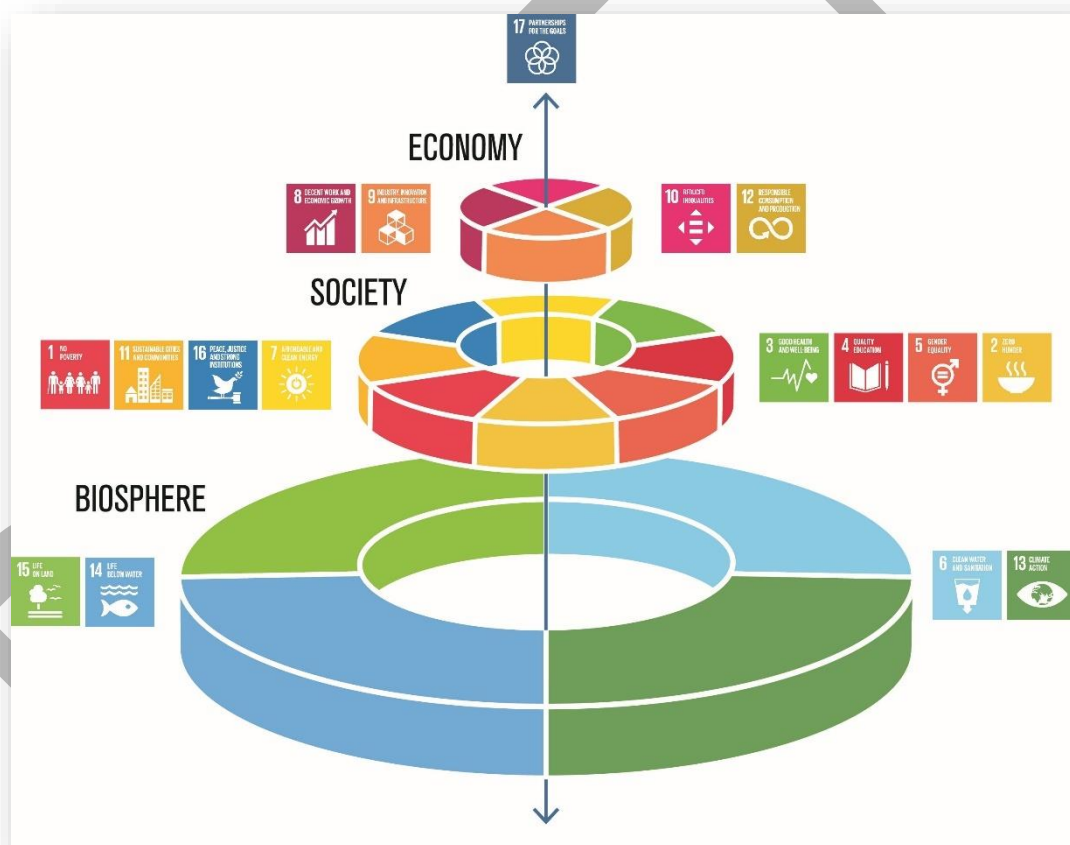


Figure 7. The illustration describes how economies and societies should be seen as embedded parts of the biosphere. This vision is a move away from the current sectorial approach where social, economic, and ecological development are seen as separate parts. Credit: Azote for Stockholm Resilience Centre, Stockholm University CC BY-ND 3.0.

The Kunming Montreal Global Biodiversity Framework

In 2022, the United Nations Biodiversity Conference (COP15) adopted a landmark agreement to guide global action on nature through to 2030. The Global Biodiversity Framework aims to address biodiversity loss, restore ecosystems and protect indigenous rights.

The plan includes concrete measures to halt and reverse nature loss, including protecting 30% of the planet and restoring 30% of degraded ecosystems by 2030.

EU Biodiversity Strategy 2030 – Bringing nature back into our lives

The EU Biodiversity Strategy for 2030 was launched in May 2020 to provide targets for all member states within the European Union to address the biodiversity crisis.

“We need nature in our lives” is a central message, recognising the crucial link between human well-being and healthy ecosystems.

The commitments proposed in this strategy pave the way for ambitious and necessary changes - changes that will ensure the wellbeing and economic prosperity of present and future generations in a healthy environment. The strategy provides for the establishment of protected areas on at least 30% of the land and 30% of the seas of Europe and aspires to the restoration of degraded ecosystems both on land and at sea.

In addition, in order to have a truly coherent and resilient Nature Network, it will be important to set up ecological corridors to prevent genetic isolation, allow for species migration, and maintain and enhance healthy ecosystems. In this context, investments in green and blue infrastructure and cooperation across borders among Member States should be promoted and supported.



Figure 8. Wood white butterfly nectaring on red clover.

The strategy requires greater efforts to restore freshwater ecosystems and the natural functions of rivers in order to achieve the objectives of the Water Framework Directive. To help make this a reality, at least 25,000 km of rivers are to be restored into free-flowing rivers by 2030 through the removal of barriers and the restoration of floodplains and wetlands. Nutrient losses to rivers and wetlands from farmland are to be reduced by at least 50%, by reducing fertiliser use by at least 20% while also ensuring that there is no deterioration in soil fertility.

To bring nature back to cities and reward community action, the Commission calls on European cities of at least 20,000 inhabitants to develop ambitious Urban Nature Plans. These should include measures to create biodiverse and accessible urban forests, parks and gardens; urban farms; green roofs and walls; treelined streets; urban meadows; and urban hedges.

The promotion of healthy ecosystems, green infrastructure and nature-based solutions should be systematically integrated into urban planning, including in public spaces, infrastructure, and the design of buildings and their surroundings. Protecting and restoring nature will need more than compliance with regulations alone. It will require action by citizens, businesses, social

partners and the research and knowledge community, as well as strong partnerships in Meath at local, regional, national and European levels.

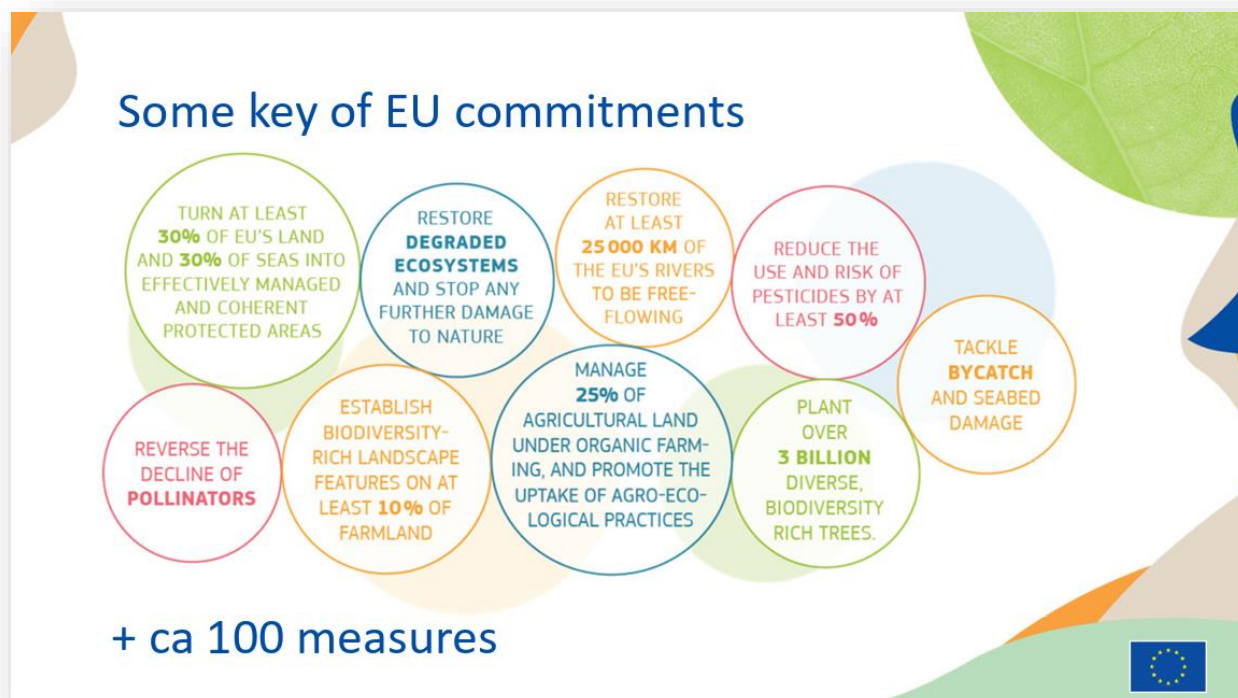


Figure 9. Some of the key EU Commitments made in the EU Biodiversity Strategy for 2030. Source: <https://programme2014-20.interreg-central.eu/Content.Node/SALUTE4CE/2-SALUTE4CE-Final-project-webinar-Benjamin-Caspar.pdf>

EU Nature Restoration Law

While EU environmental policies have in the past focused on protecting nature, the Nature Restoration Law aims to address nature sites that have already been degraded and restore them back to a healthy condition. This new regulation legally binds EU Member States to restore at least 20% of the EU's land and sea areas by 2030 and all ecosystems in need of restoration by 2050. The proposed target builds on the international commitment and obligations of the EU and its Member States as parties to the global Convention on Biological Diversity.

Regarding specific habitats covered by the new Law, Member States are required to restore 30% of habitats, including forests, grasslands, wetlands, rivers, lakes and coral beds from poor to good condition by 2030. This target will increase to 60% of those habitats by 2040, and 90% by 2050.

The Nature Restoration Law specifically addresses pollinators, enshrining new rules that aim to reverse pollinator decline and increase populations by 2030. Moreover, the Law includes provisions on the protection of species associated with agricultural ecosystems such as grassland butterflies and farmland birds. Under the regulation, Member States are required to enhance the carbon stock in mineral soils and increase high-diversity landscape features on agricultural land (such as hedgerows, flower strips, fallow land, ponds and fruit trees). Regarding forestation, the Nature Restoration Law tasks Member States with increasing the amount of tree cover in urban spaces and contributing to the planting of at least three billion trees by 2030 at the EU level.

The Cost and Benefits of Nature Restoration

The cost of restoring ecosystems will be significant considering the large areas over which restoration is needed. But the benefits are expected to be far greater.

According to the impact assessment carried out for the preparation of the Nature Restoration Regulation, the monetary value of the benefits derived from restoration are likely to be average 8–10 times greater than the initial investment costs, and this is consistent across all types of ecosystems.

The costs of not taking any action is also significantly higher. Another important consideration is that, typically, the cost of nature-based solutions is very often significantly lower than the cost of technical infrastructure solutions. For instance, reconnecting a river to its floodplains to absorb excess flood water is usually much cheaper than building a concrete storm basin further upstream.

EU countries are expected to submit National Restoration Plans to the Commission within two years of the Regulation coming into force (so by mid-2026), showing how they will deliver on the targets. Ireland's revised National Planning Framework includes a National Policy Objective for local planning authorities to support the preparation and implementation of the National Restoration Plan.

The State will also be required to monitor and report on Ireland's progress. By 2033, the Commission will review the application of the regulation and its impacts on the agricultural, fisheries and forestry sectors, as well as its wider socio-economic effects.

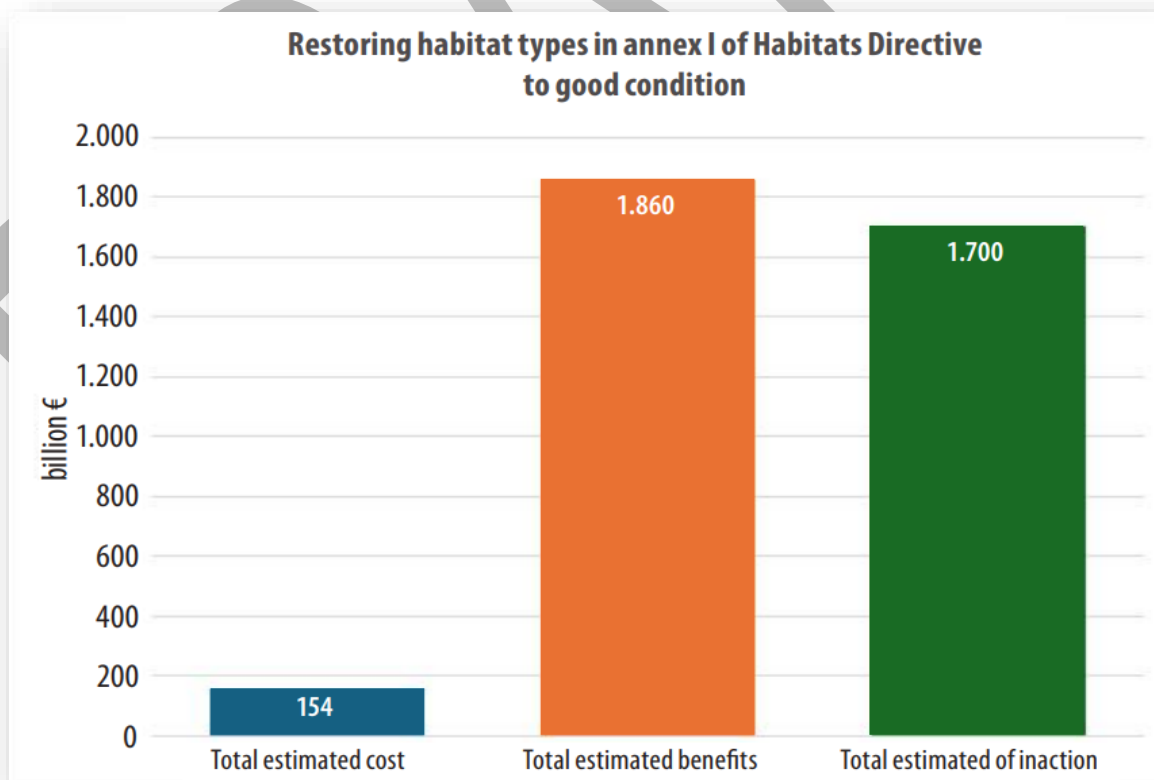
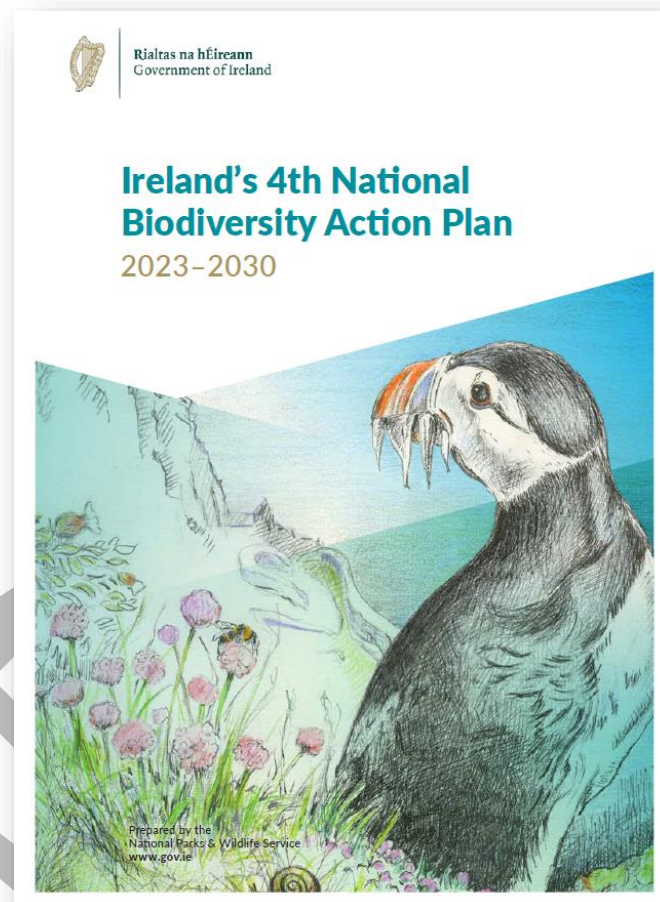


Figure 10. The costs and benefits of nature restoration. Source: European Commission: Directorate-General for Environment and Sundseth, K., *The nature restoration regulation*, Publications Office of the European Union, 2025, <https://data.europa.eu/doi/10.2779/5842922>

4th National Biodiversity Action Plan 2023 - 2030

The 4th National Biodiversity Plan was launched in March 2024, outlining 194 actions to be completed over a seven-year period, working together to improve biodiversity governance and stewardship, recognise and value the relationships between nature and people, enhance the scientific evidence base to inform our decisions, bolster public awareness and engagement with communities, citizen scientists and the private sector.



It aims to put more effort and investment into the protection, restoration and recovery of biodiversity and ecosystems across Ireland, embedding biodiversity considerations in decision-making and governance systems to achieve transformative change.

The plan is broken down into 5 objectives.

- Objective 1** Adopt a Whole-of-Government, Whole-of-Society Approach to Biodiversity
- Objective 2** Meet Urgent Conservation and Restoration Needs
- Objective 3** Secure Nature's Contribution to People
- Objective 4** Enhance the Evidence Base for Action on Biodiversity
- Objective 5** Strengthen Ireland's Contribution to International Biodiversity Initiatives

The Wildlife (Amendment) Act 2023 places the Plan on a statutory footing, meaning that for the first time in the history of the State, there is a legal requirement to have a National Biodiversity

Action Plan. There is also an obligation for listed public bodies, including Local Authorities, to have regard to the objectives and targets of the NBAP in the performance of their functions and to report on their progress.

Action IC6 of the 4th National Biodiversity Action Plan states that:

- *All Local Authorities will have a Biodiversity Action Plan adopted by the end of 2026 which is subject to regular review and revision processes in line with relevant guideline standards*

See Appendix III for a more comprehensive list of actions relevant to local authorities in the NBAP.

Ireland's Biodiversity Sectoral Climate Change Adaptation Plan

By the end of the century, climate change is likely to become one of the most significant drivers of biodiversity loss. Increases in temperature will change the timing of life cycle events and the distribution of species. Projected increases in the occurrence of extreme weather events, such as heat waves, droughts, floods and storms, may have devastating consequences for Ireland's habitats. All habitats will need to adapt to climate change, but already fragmented and isolated habitats and the species that depend on them are likely to be the most vulnerable.

Ireland's Biodiversity Sectoral Climate Change Adaptation Plan aims to protect biodiversity from the impacts of climate change and to conserve and manage ecosystems so that they deliver services that increase the adaptive capacity of people and biodiversity while also contributing to climate change mitigation.

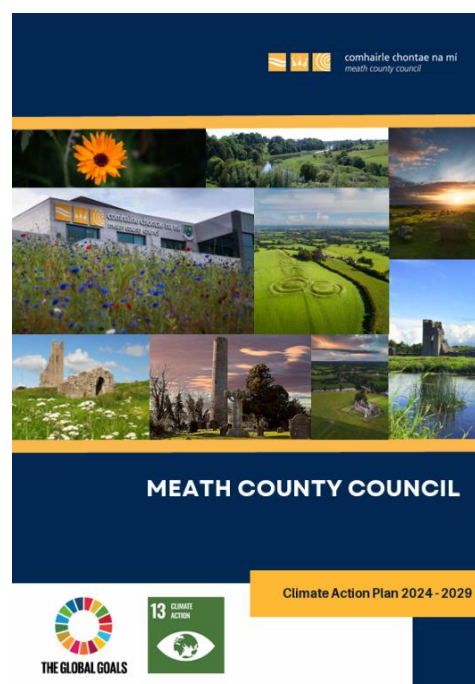
The Biodiversity Climate Change Sectoral Adaptation Plan includes 38 actions. Local Authorities have been identified as the project lead on Action 4.4 which states:

- *Co-design green spaces and wildlife refuges in cities and peri-urban areas with local communities to provide habitats for species under threat from climate change and to connect people to biodiversity.*

Climate Action and Low Carbon Development (Amendment) Bill 2021 & Meath Climate Change Action Plan 2024 - 2029

In 2021, the Government approved the final text of legislation to set Ireland on the path to net-Zero emissions no later than 2050, and to a 51% reduction in emissions by the end of this decade. The Bill states a "national climate objective" which is to support biodiversity. It includes a legal definition of biodiversity based on that of the Convention of Biological Diversity. In fulfilling their functions to achieve this objective, each Minister and the Government shall "have regard to the need to promote sustainable development and restore and protect biodiversity".

This Bill requires Local Authorities to prepare Climate Action Plans which will include both mitigation and adaptation measures and they should be updated every five years. The **Meath Climate Change Action Plan 2024 – 2029** address nature and biodiversity, stating the Council's aims to protect and conserve the



natural environment of County Meath. The plan recognises the importance of managing green infrastructure sustainably, supporting and expanding it where possible so that it can continue to harbour biodiversity and provide essential ecosystem services, such as the management of stormwater and flood risk, optimization of carbon storage, and opportunities for active travel and recreation which benefit the health and well-being of the people who live and work in Meath.

Actions are divided across five thematic areas including:

1. Governance & Leadership
2. Built Environment & Transport
3. Natural Environment & Green Infrastructure
4. Communities: Resilience & Transition
5. Sustainability & Resource Management

The Meath Biodiversity Action Plan 2025 - 2030 aligns with the Meath Climate Action Plan demonstrated by a number of actions integrated across both plans.

Revised National Planning Framework

The National Planning Framework (NPF) is the Government's high-level strategic plan for shaping the future growth and development of our country out to the year 2040. Having initially been published in 2018, a revised National Planning Framework was drafted in July 2024 and finalised in February 2025.

The framework is devised to guide public and private investment, to create and promote opportunities for our people, and to protect and enhance our environment - from our villages to our cities, and everything around and in between. The NPF recognises our key national environmental challenges, including the need to accelerate action on climate change, address health risks to drinking water, better treat urban wastewater, move from the existing linear economy to a circular economy, protect important and vulnerable habitats and species as well as diminishing wild countryside and deal with air quality problems in urban areas. It also emphasises the need to re-integrate nature back into our everyday lives through better planning, allowing biodiversity and communities to thrive in harmony as our population increases.

The NPF contains National Policy Objectives (NPOs) which relate to the actions of local authorities for biodiversity and helped to shape the resulting actions in this plan. You can find a list of these NPOs in Appendix IV.

Regional Spatial and Economic Strategy

The Eastern & Midland Regional Assembly (EMRA) prepared the Regional Spatial & Economic Strategy (RSES) (2019-2031), which also guides regional development and the Meath County Development Plan. The RSES identifies the region's challenges as the need to sustain economic growth whilst transitioning to a low carbon society. It also includes the requirement to align population growth with the location of homes and jobs, whilst creating healthy attractive places and an enhanced quality of life.

The RSES contains the Regional Policy Objectives (RPOs) which relate to the actions of local authorities for biodiversity, particularly in the chapters on biodiversity, green infrastructure, landscape and climate change.

You can find a list of these RPOs in Appendix V.

Meath County Development Plan 2021 - 2027

County Development Plans are strategic land-use plans prepared by local authorities in Ireland. They guide development and set out objectives for the sustainable development of an area. These plans are legally required to consider biodiversity and environmental protection, integrating policies for their conservation and enhancement within the county.

The Meath County Development Plan 2022 – 2027 sets out Meath County Council's policies and objectives for the proper planning and sustainable development of the County. Several chapters, to a varying degree, outline objectives and policies which help safeguard biodiversity at a local level. For example, Chapter 7 details the strategic aim of rural development, Chapter 8 details the strategic aims for Open Space and Recreation, while Chapter 9 outlines the Council's aims to conserve, sustainably manage and enhance the County's natural heritage and biodiversity and to promote understanding of and sustainable access to it.

Many of the existing objectives and policies set out in the County Development Plan provide a strong foundation for the protection and conservation of nature at a local level but a lack of expertise and resources across local government in Ireland has proved to be a significant factor in poor implementation and enforcement of same, leading to unnecessary losses of habitat in capital projects and development. Local authority biodiversity actions plans, with dedicated staff to implement actions deriving from these plans, can help to bridge these knowledge gaps and support local authorities to fulfil their obligations in developing sustainably into the future, in the face of our climate and biodiversity challenges.

Visit meath.ie if you wish to find further information about the Meath County Development Plan.



Other plans

Meath County Council recognises the importance of biodiversity in their **Corporate Plan 2024 - 2029** which provides the vision and strategic direction for Meath County Council with a supporting strategy to “manage and protect our heritage and biodiversity and promote the understanding, conservation and enjoyment of both.”

The **Meath County Local Economic and Community Plan 2023-2029** has as a goal of ensuring Meath is “a sustainable, eco-friendly County that is committed to climate action” and a Sustainable Community Objective “to protect, conserve and enhance the natural environment”.

Through the work of the Culture and Creativity Team within Meath County Council it is a strategic priority of the **Meath Culture and Creativity Strategy 2023-2027** 'to creatively engage with communities to record and communicate our natural, built and cultural heritage'.

The **All-Ireland Pollinator Plan**, of which Meath County Council is a supporting partner, provides a road map that aims to help bees, other pollinating insects and our wider biodiversity. It encourages a better way of managing our whole landscape to permanently support our struggling biodiversity.

It lists 186 actions spread across six objectives, these objectives are;

1. Make farmland pollinator friendly
2. Make public land pollinator friendly
3. Make private land pollinator friendly
4. Develop an All-Ireland Honeybee Strategy
5. Conserve rare pollinators
6. Strategic coordination of the Plan

While the All-Ireland Pollinator Plan is coordinated by the National Biodiversity Data Centre (NBDC) the responsibility of action delivery is shared out between the main partner organisations.



Figure 11. Common Carder foraging on bush vetch.

Meath County Council signed a framework agreement with the All-Ireland Pollinator Plan in 2019 to formalise the Council's long-term commitment to support pollinators in County Meath and subsequently reports annually to the National Biodiversity Data Centre on the Council's actions to protect pollinators. The Biodiversity Action Plan has been developed to incorporate actions to assist in fulfilling the objectives of the All-Ireland Pollinator Plan. Significantly more weight has been added to these objectives with the recent passing on the EU Nature Restoration Law which includes new rules that aim to reverse pollinator decline and increase populations by 2030.

The **Heritage Council Strategic Plan** advocates for conservation of our natural heritage while also encouraging vital new approaches as the impacts of climate change emerge. It stands on the front line of fighting the effects of climate change and the protection of biodiversity. The Heritage Council was instrumental in establishing a Biodiversity Officer Network, with Biodiversity Officers employed by Local Authorities in partnership with the Heritage Council under the auspices of the Biodiversity Officer Programme, which was initiated in 2023.

The Biodiversity Action Plan reflects the 6 strategic pillars of the Heritage Council Strategic Plan. These 6 pillars are;

1. Leadership and Stewardship
2. Climate Change and Biodiversity Loss

3. Research
4. Partnership
5. Communities
6. Education and Engagement

The Heritage Council supports the work of the Biodiversity Officer by providing professional training, provision of network supports and funding.



Figure 12. Ireland's local authority biodiversity officers at a Heritage Council facilitated training event in collaboration with the National Parks and Wildlife Service.

4. Nature in County Meath

“Meath (Midhe, middle [province]) is a grand county – large, fertile, well wooded, well populated.” Robert Lloyd Praeger, The Way That I Went, 1937

Whilst Praeger, Ireland’s preeminent naturalist of the early 20th century, found a rather simple and succinct way of describing the landscape and geodiversity of Meath, it is important to acknowledge and appreciate the county’s diverse environment and habitats, and their links with cultural and human history.

A list of some of County Meath’s broad habitat categories are described below.

4.1 County Meath’s Coastline

The coastline of Meath is a wonderful natural amenity resource for the people in the area. Whilst relatively short in length compared to many coastal counties in Ireland, Meath’s coastline is nevertheless home to a rich diversity of flora and fauna distributed throughout a wide range of habitats that make up county’s border with the Irish Sea such as the estuaries, dunes and beaches.

Estuaries

The River Boyne and River Nanny estuaries are significant features of County Meath’s coastline and its border with County Louth. Saltmarsh and intertidal flats flank both waterbodies as they flow towards the Irish Sea, providing critically important habitat for thousands of wintering birds in numbers of both international and national significance. Yet, these habitats remain under threat from issues such as nutrient enrichment, arising primarily from agricultural sources along with under-performing wastewater treatment infrastructure, and non-native invasive species such as Common Cord-grass (*Spartina anglica*). See Appendix VIII for population trend data pertaining to bird species monitored in Co. Meath’s estuaries in the Irish Wetland Bird Survey.



Figure 13. The River Nanny estuary, looking upstream on the outskirts of Laytown where the Nanny meets the sea.

Sandy beaches

Sandy beaches stretch the length of County Meath coastline, from Mornington in the north to Gormanston in the south. Indeed, a notable geological 'sandur' feature (a glacial outwash plain) dominates the southern end of the coastal stretch (Clarke et al., 2007). Whilst they provide an important recreational amenity, they are still valuable habitats in their own right. Birds such as Common Tern breed in places such as Gormanston, whilst Sandwich and Roseate terns have also been recorded here. The presence of people and dogs are an unfortunate and regular pressure, but those who frequent these beaches regularly will find delight in the birds such as Wagtail, Dunlin and Plovers running along the shore looking for insects in the rotting plant material washed up on the shore. Meath's beaches can also be littered with the shells of a plethora of marine molluscs, from species of clam to various whelks and mussels.

Sand dunes

County Meath's sand dune habitats are some of the richest in the county and some of the rarest at both a national and international level. These dune systems provide habitat for a variety of plant species, including Kidney Vetch, the food plant of the rare Small Blue butterfly, which has a significant population in the Mornington dunes. Other notable flora in the fixed dunes can include Bee Orchid, Pyramidal Orchid, Wild Thyme, and Wild Pansy. The dunes also support various fauna, including Skylarks, Meadow Pipits, and the Small Heath butterfly. Sand dunes by their nature are dynamic and fragile ecosystems susceptible to coastal erosion, which can be exacerbated by climate change, built infrastructure and recreational activities. The sand dune habitats of County Meath are unfortunately not immune to these pressures and under threat as a result.

Inshore waters

County Meath's inshore waters, though representing a relatively short stretch of Ireland's coastline, are ecologically significant and vital for biodiversity. While specific information on the full range of fish and marine mammal species present can vary, the area likely supports common inshore species. The estuary can act as a nursery area for some fish whilst the designated status of the Boyne and River Blackwater highlight the importance of the system for species like Salmon and River Lamprey, which migrate through these inshore waters. Otters are also associated with these aquatic habitats, while the seabed supports benthic communities, including shellfish and other invertebrates.



Figure 14. Sand dunes at Bettystown.

4.2 County Meath's Countryside

Rivers

Rivers flow through County Meath's historic landscapes, providing valuable habitat and wildlife corridor for freshwater and terrestrial species alike. They include the rivers of the Boyne catchment as well as the Nanny, Ward, Broadmeadow & Dee rivers, among others. Protected species such as the Atlantic Salmon, Otter, River Lamprey and Kingfisher are synonymous with Meath's rivers, particularly the Boyne and River Blackwater, yet these habitats also support wild trout, sea trout and coarse fish like roach, bream, pike, and gudgeon. The riverbanks are often dominated by communities of sedges and grasses. Areas of alkaline fen are fringed with Common Reed and Common Club-rush, supporting plants with limited distribution in Ireland like Marsh Orchid, Cowbane, and Frogbit. Pockets of alluvial woodlands along the Boyne's floodplain characterised by their own unique floral communities provide sheltered habitats for terrestrial and aquatic species alike. However physical modifications such as re-alignment, river straightening and the introduction of physical barriers such as weirs have resulted in significant and long-standing impacts on our rivers over the centuries. Arterial drainage schemes in more recent decades have further exacerbated these hydromorphological pressures while pollution from agriculture (e.g. nutrients, sediment) and wastewater discharges compound the significant threat to the ecological health of Meath's rivers.

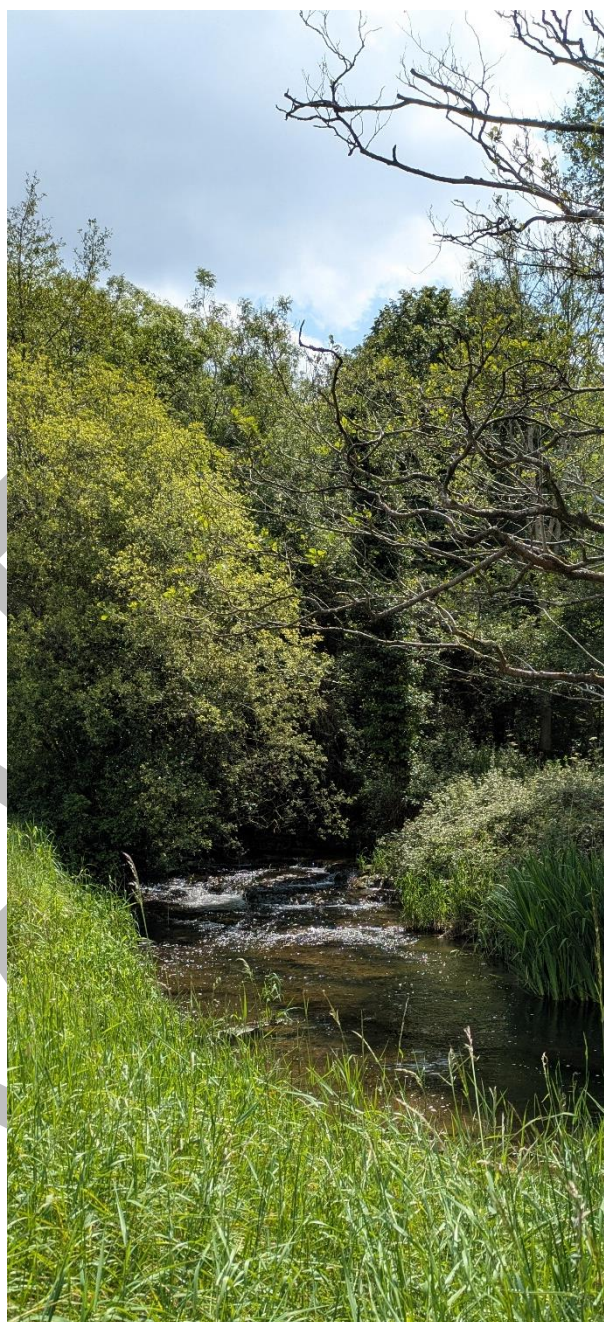


Figure 15. The River Skane

Wetlands

County Meath possesses a variety of wetland habitats that contribute significantly to its overall biodiversity. These wetlands range from bogs and fens to marshes, swamps, and wet woodlands, each supporting unique communities of plants and animals. Compass Informatics in association with Faith Wilson Ecological Consultant completed a Wetland and Coastal Survey of County Meath in 2010. This survey identified over 1700 potential wetland sites and of the few that have been looked at in-depth, the most recorded habitats were reed and large sedge swamps, mesotrophic lakes and rich fen and flush.

A few of the county's several small lakes on the Meath / Westmeath border are designated for nature conservation because they are hard-water marl lakes (e.g. Lough Bane and Lough Glass). Lough Sheelin is the largest lake in the area and located on the north-western boundary of the county. It is home to several important populations of birds and a valuable fishery. Wetlands such as fens, marsh and reed swamp are frequently associated with watercourses. Duleek Commons is an excellent example of a marsh in the floodplain of a tributary of the River Nanny.

Raised bogs, which were once historically extensive in Meath, can be found in several locations, primarily in the west of the county, but most are now degraded. In healthy bog ecosystems specialist bog flora such as heathers (*Calluna* and *Erica* species), Bog Cotton (*Eriophorum* species), and Sphagnum mosses thrive which provide valuable semi natural areas for local fauna such as Snipe, Cuckoo, Skylark and rare invertebrates such as the Large Heath butterfly.

Woodlands

Historically, County Meath would have been quite densely wooded. However, nowadays woodlands in Meath are not plentiful, and so those pockets of woodland that exist are even more valuable because of their scarcity.

Much of what we know about these habitats in Meath is described in a report produced Atkins for Meath County Council in 2010, namely the 'County Meath Tree, Woodland and Hedgerow Survey'. More recently, the Forests and Woodlands 2012-2022 Frontier Series was published in March 2024 and suggests County Meath has the lowest coverage of 'Forests and Woodland' as a percentage of the total county area at around 3.7% (www.cso.ie, 2024). This is considerably lower than the national forest cover percentage of 11.6% (www.cso.ie, 2025), primarily due to the prevalence of fertile farmland favouring agriculture.

Many woodlands in Meath are associated with old demesnes and were established by the landed classes of the 18th and 19th centuries. Beech, sycamore, ash and oak are some of the more dominant canopy trees. More natural woodlands of ash, oak, hazel, alder and willow can be found in small pockets.

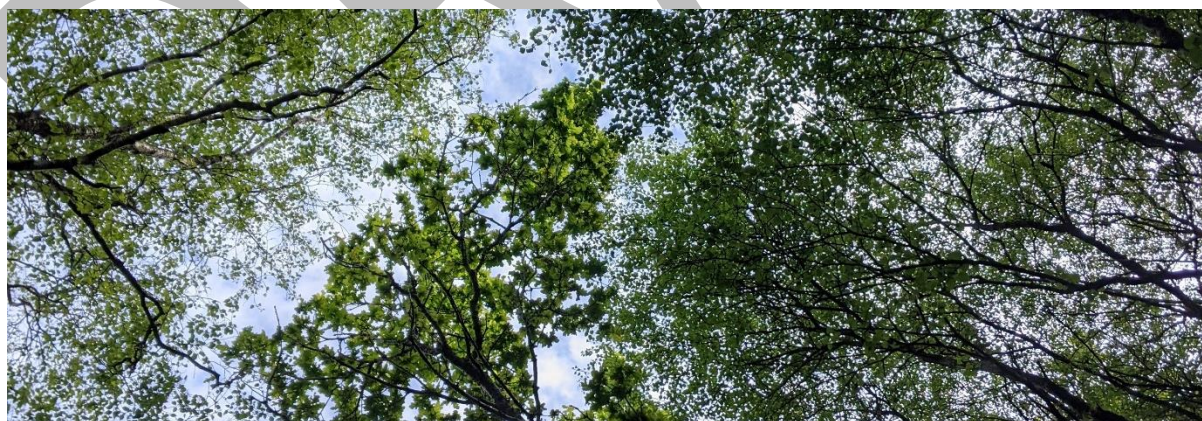


Figure 16. Woodland canopy.

Of great ecological interest are the gallery woodlands and wooded islets of the River Boyne and tributaries, as these woodlands are rare not only in Ireland, but throughout Europe. Conifer plantations are a relatively new addition to the Meath landscape and can be found in the grounds of large estates and also in areas of poorer agricultural land, such as drumlin country in the north of the county or on cutover raised bog. Bog woodland is also found in areas of

peatland and is typically dominated by birch, with a specific ground flora adapted to acidic and waterlogged conditions, as seen at Thomastown Bog or Girley Bog.

Unfortunately, invasive shrubs like cherry laurel impact many of County Meath's woodland habitats by outcompeting native plants and hindering tree regeneration by blocking all sunlight to the ground layer of the woodland. While some connectivity exists along the River Boyne, most woodlands are fragmented, highlighting the importance of hedgerows as ecological corridors. Surveys of the past by NPWS indicate the potential presence of long-established woodland sites (Perrin & Daly, 2010), though further investigation is needed for definitive "Ancient Woodland" classification.

Hedgerows

Hedgerows are vital linear ecosystems in County Meath, offering essential refuge and corridors for a diverse array of flora and fauna, including many species typically associated with woodlands. These dense lines of vegetation provide crucial food resources like berries, nuts, and nectar, alongside vital shelter from predators and harsh weather for small mammals such as hedgehogs, bats, and foxes, as well as a multitude of bird species, from wrens and robins to blackbirds and long-tailed tit. For instance, of the 110 species regularly recorded in the Countryside Bird Survey in Ireland during the breeding season, 55 use hedgerows. Of these, 35 nest in hedgerows over 1.4m high and 1.2m wide (Countryside Management Series 1: The Value of Hedgerows, 2004).

The sheltered leeward sides of hedgerows are particularly important for a rich variety of insects, including numerous butterflies and moths, which contribute significantly to pollination and form a key food source for other wildlife. As prominent features of the Meath landscape, hedgerows facilitate the movement and dispersal of wildlife between otherwise isolated habitats, thereby enhancing ecological connectivity across the region.



Figure 17. Hawthorn in flower.

Beyond their ecological significance, hedgerows are deeply ingrained in Meath's cultural and agricultural heritage, shaping the visual character of the countryside and providing essential ecosystem services such as natural flood management, carbon sequestration and shelter for livestock and crops.

The County Meath Tree, Woodland and Hedgerow Survey (2010) estimated that there are over 22,000 kilometres of hedgerow in the county which translates to an average length of 9.5 kilometres of hedgerow per square kilometre of land, which at the time was determined to be more than most counties in Ireland. Research published as part of the EPA Research Programme 2014–2020 in 2019 increased the estimation of total hedgerow length to 26,000 kilometres, but this was based on a far broader definition of hedgerows which is likely to lead to an over-estimation (Green et al., 2019).

In addition, most Meath hedgerows are old – over 80% are shown as field boundaries on maps from the 1840s, and many are likely to be much older than that and act as a significant ecological corridor.

Development on the margins of urban settlements such as our towns and villages has been and remains an ongoing pressure on hedgerows where hedgerow removal is often necessitated. Agricultural land restructuring has also resulted in the loss of hedgerows driven by the need for bigger field systems for larger machinery in tillage farming and the expansion of grazing land in dairy systems. Whilst the vast network of hedgerows that remain in the county remain an invaluable feature for wildlife, the form and structure of hedgerows in Meath compares unfavourably with neighbouring counties as a result of being long-term unmanaged, or in some cases being overly and inappropriately managed, thus underscoring the critical need for their continued protection and sustainable management to safeguard their invaluable biodiversity and ecosystem service contributions.

Arable land

Arable lands are a habitat found in County Meath and have been for many centuries. Once associated with a rich variety of 'weed' species, many have now disappeared or become less common. Some specialized arable plants persist in Meath's fields. These can include species like corn marigold, field poppy, cornflower, and various speedwells. Nevertheless, despite the changes that have taken place in arable systems over time, these farmlands in County Meath still hold significant potential for biodiversity when managed with nature in mind.

Healthy flowering margins provide crucial foraging habitat for bees, hoverflies, and other pollinating insects. A variety of other insects, including grasshoppers, crickets, and leafhoppers, can find refuge in areas where semi-natural vegetation is retained. Specialist farmland species like skylarks, yellowhammers, linnets, and grey partridges, once more common, can still be supported by arable farmland with appropriate management.

Grassland

The small fragments of semi-natural grasslands that persist in County Meath, often confined to field corners, road verges, and perhaps the odd unmanaged patch, represent a disproportionately high value for biodiversity compared to the vast swathes of improved agricultural grassland. These remnants are like living archives, holding a genetic reservoir of native grass and wildflower species that have adapted to local conditions over centuries.

Unlike the limited species composition of improved grasslands (typically a few high-yielding grasses like perennial ryegrass), semi-natural grasslands can support a remarkable array of native grasses (e.g., common bent, crested dog's-tail, sweet vernal-grass) and a vibrant tapestry of wildflowers (e.g., knapweed, bird's-foot trefoil, meadow buttercup, selfheal, lady's bedstraw, various orchids). Each of these plant species supports a unique community of associated insects and other invertebrates. However, different types of semi-natural grassland (e.g., calcareous grassland on limestone outcrops, acidic grassland on poorer soils, wet meadows along riverbanks) host distinct plant communities and their associated fauna, further contributing to overall landscape diversity.

The fact that semi-natural grasslands are a rarity in Meath, as highlighted by the Irish Semi-natural Grasslands Survey (2013), underscores the significant biodiversity loss the county has experienced due to agricultural intensification. The conversion of these species-rich habitats to species-poor improved grassland has had cascading effects throughout the ecosystem, impacting pollinators, farmland birds, soils and overall ecological health.



Figure 18. Floral rich semi-natural grassland on the outskirts of Navan.

4.3 County Meath's Urban Areas

While often overlooked, the towns and villages of County Meath play a role in supporting biodiversity by providing green spaces, connectivity, and resources for various species.

These areas harbour surprisingly valuable wildlife habitats, including gardens, parks, playing fields, churchyards, cemeteries, and brownfield sites. They can provide homes for a diverse range of creatures, from familiar birds like robins, blackbirds, sparrows, and wrens, to amphibians like frogs and newts, various butterflies and damselflies, numerous bee species, and even larger mammals such as foxes and badgers. The past decade has seen a growing number of initiatives to enhance urban areas for declining species like swifts, house sparrows, various bat species, and amphibians.

Looking ahead, large tracts of rural land fringing towns and villages are likely to be developed. A key design challenge will be integrating nature into these new developments. Successfully accommodating wildlife will not only benefit biodiversity but also provide crucial ecosystem services, along with health and economic advantages for residents.

5. Our legal responsibilities regarding the protection of biodiversity

While much of the wildlife species found in Meath are common and abundant in Ireland, some species and habitats are afforded legal protection under European and National wildlife legislation. This legislation has far reaching implications for the way the County Council and other statutory bodies operate. An overview of all protected sites is given in Appendices V.

The principal legislation relating to biodiversity in Ireland is as follows:

- EU Habitats Directive
- EU Birds Directive
- EU Water Framework Directive
- Wildlife Act
- Flora Protection Order, 2015
- Planning & Development Acts

EU Habitats and Bird Directives

The EU Habitats Directive is one of the most important pieces of nature conservation legislation in Europe. The aim of this Directive is to maintain and restore the favourable conservation status for habitats and species which are rare and threatened throughout Europe. Articles in the Habitats Directive provide the legislative means for EU Member States to designate, protect and manage core areas for habitat types listed in Annex I and species listed in Annex II of the Habitats Directive.

The designation of many sites in an Irish context can be traced back to an inventory originally compiled by An Foras Forbartha (Young, 1972). This inventory listed so-called 'Areas of Scientific Interest' (ASIs) in the county. The selection of ASIs were themselves often informed by the voluntary work of experienced naturalists, such as for botanically important sites.

The Habitats Directive also requires all Member States to establish a strict protection regime for species listed in Annex IV, both inside and outside Natura 2000 sites. Some of the most important annexed species in Meath include the otter and all bat species which occur in the county.

The EU Birds Directive requires all Member States to protect all wild bird species and protect and restore their habitats. For all wild bird species, EU Member States must preserve, maintain and re-establish birds habitats to ensure a sufficient diversity and area of habitats. For threatened bird species, Member States must classify Special Protection Areas (SPAs) for species and sub species listed in Annex I of the Birds Directive, as well as for other migratory birds, paying particular attention to the protection of wetlands of international importance. SPAs are protected areas that form an integral part of the Natura 2000 network which also includes SACs designated under the Habitats Directive.

Meath County Council has an international responsibility to protect SAC sites like the River Boyne and Blackwater, Mount Hevey Bog, and Rye Water Valley/Carton in order to safeguard habitats such as fens, bogs, and petrifying springs, and species like salmon and otter. Sites designated as SPAs such as the Boyne Estuary and River Nanny Estuary and Shore require rigorous protection as well, as they are crucial for bird species like Golden Plover and Black-tailed Godwit, and their estuarine and shoreline habitats.

It is important to note that the occurrence of protected habitats, flora and fauna species is not just confined to the protected nature conservation sites. Several habitats listed in Annex I of the

Habitats Directive occur on sites outside the SACs in County Meath. The same can be said for animal and plant species listed on Annex II and Annex IV of the Habitats Directive and bird species listed on Annex I of the Birds Directive. The County Council has an obligation to make sure that these species and their habitats are protected.

The countryside also supports large numbers of flora and fauna species which may not be rare or protected itself. Even so, they are all part of the interrelated, natural fabric of our countryside. Article 10 of the Habitats Directive seeks to provide for the maintenance and enhancement of these natural habitats in the wider landscape. It calls for land-use planning and development policies to “encourage the management of features of the landscape which are of major importance for wild fauna and flora”. Such features are defined as “those which by their linear and continuous structure (such as rivers and their banks or the traditional systems of marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species”.

EU Water Framework Directive

This Directive provides a framework for the protection and improvement of all our waterbodies - groundwater, rivers, estuaries and coastal waters with the aim of achieving ‘good’ status (both ecologically and chemically) by 2027.

Compliance with the Water Framework Directive (WFD) is to be achieved through River Basin Management Plans and a programme of measures. The Directive requires that River Basin Management Plans be prepared and renewed in six-year cycles.

The Water Action Plan 2024 is Ireland’s third River Basin Management Plan. The Water Action Plan sets out a roadmap to restore Ireland’s waterbodies to ‘good’ status or better and protect against further deterioration in the period from 2023 to 2027, through an integrated catchment management approach.

Key actions in the Plan include tighter controls on the use of fertilisers that impact water quality, a greater focus on compliance and enforcement with over 60 new staff at local level across the country, and a target of 4,500 farm inspections per year. In addition, continued investment in wastewater infrastructure will see Uisce Éireann investing a multi-billion Euro budget over the period 2025-2029 to reduce impacts on water quality, a new national River Barriers Mitigation Programme will ramp up efforts to remove river-blocks that impact on species like salmon and lamprey swimming upstream to spawn, and a review of arterial drainage requirements and the underpinning Arterial Drainage Act will be undertaken in the context of land use. The Farming for Water EIP (European Innovation Partnership) is a €60 million project within the broader Water Action Plan 2024, aimed at improving water quality in Ireland by supporting farmers in implementing specific measures to protect and restore water quality.

Ireland’s fourth River Basin Management Plan, the Water Action Plan 2028 – 2033 is expected to be published in December 2027.

Wildlife Acts

The Wildlife Acts (1976 to 2018), Wildlife (Amendment) Act, 2020 and most recent Wildlife (Amendment) Act, 2023, are Ireland’s primary national legislation for the protection of wild flora and fauna in Ireland.

Under the Wildlife Act, Natural Heritage Areas (NHAs) and Refuge for Fauna (RFF) are designated to conserve species and habitats of national importance. In Meath, this includes Jamestown Bog, Girley Bog, and Molerick Bog Natural Heritage Areas. There are currently no Refuge for Fauna designated in the county.

Proposed Natural Heritage Areas (pNHAs) lack statutory designation although these sites attract enhanced consideration during the planning process, nonetheless. A complete list of both NHAs and pNHAs is provided in Appendix V.

In January 2019 the Minister for Culture, Heritage and the Gaeltacht at the time, published notice of making Statutory Instrument (S.I. No. 602 of 2018) under section 16 of the Wildlife Act, thus establishing the first Nature Reserve in County Meath at Newcastle Lough. The reason for recognising the land as a nature reserve is the presence of lake, reed bed, wet grassland and woodland habitats and an associated diversity of flora and fauna. The objective for which the land is to be used or managed as a nature reserve is to maintain and enhance the diversity of the habitats and species on the land.

NHA's are not only designated for wildlife, but they also provide for statutory protection of important geological and geomorphological sites. Previous work carried out in Meath resulted in the completion of an audit of The Geological Heritage of Meath in 2007, which identified 28 sites of county geological importance. These sites will be designated in due course, as Natural Heritage Areas (NHAs), because of their geological interest from a national perspective. In the interim, the Council, through the County Development Plan, will protect and will maintain the geological heritage value of these sites. Any development proposals within or likely to have an impact on County Geological Sites may be referred to the GSI to seek their advice.

Flora Protection Order 2022

In accordance with Section 21 of the Wildlife Act 1976, the current list of plant species protected in Ireland is set out in the Flora Protection Order, 2022. Under the Flora Protection Order it is illegal to cut, uproot or damage the listed species in any way, or to offer them for sale. This prohibition extends to the taking or sale of seed. In addition, it is illegal to alter, damage or interfere in any way with their habitats. This protection applies wherever the plants are found and is not confined to sites designated for nature conservation. The Flora Protection Order 2022 includes 67 vascular plants, of which 8 are particularly relevant to Meath (see Appendix VIII).

Planning and Development Acts 2024

Local authorities have a central role and responsibility in protecting the natural environment. This is achieved by determining policies for its administrative area through the preparation of a Development Plan and for applying that policy, through planning control, in deciding on planning applications and enforcing planning decisions.

Meath County Council has a mandatory obligation to take biodiversity into account when drawing up or considering plans or proposals for development. This includes both statutorily protected nature conservation sites and the habitats and species in the wider countryside.

The County Development Plan includes various green infrastructure and biodiversity related objectives that seek to protect and enhance the ecological network, and the plant and animal species associated with it.



Figure 19. Special Areas of Conservation (SACs) (NPWS shapefile version: 15/05/2024) and Special Protection Areas (SPAs) (terrestrial and marine) (NPWS shapefile version: 15/05/2023 for terrestrial, 11/01/2024 for marine) in County Meath

6. Biodiversity decline

Put plainly by Ireland's State of the Environment Report (2024), when the variety of habitats, species, genetic resources or communities is reduced we lose nature and biodiversity. It is estimated that up to 1 million animal and plant species are now threatened with extinction, more than ever before in human history (IPBES, 2019). Globally, the loss of nature and biodiversity is higher than at any point in recent history and is continuing at an unprecedented rate, so much so that it could be considered that we are in the midst of a sixth global mass extinction event (IPBES, 2019; Finn et al., 2023). Human activities are the primary driver behind biodiversity loss (IPBES, 2019). Bar-On et al. (2018) estimate that humanity has resulted in the loss of 83% of wild animals since civilisation began.

The decline of biodiversity is reflected in Ireland too, so much so that in 2019 the Irish Government declared a Biodiversity Emergency. Listed below are some examples of biodiversity decline in Ireland:

1. Nationally, 85% of our EU-protected habitats are in unfavourable conditions, while 30% of our 60 EU-protected species are in unfavourable status (NPWS, 2019). See Appendix VI for further information relating to the national status of each Annex I habitat found within Co. Meath based on 2019 Article 17 reporting.
2. 26% of birds are on the Red List and considered to be of conservation concern (Gilbert, 2021)
3. Greater than 50% of native Irish plant species have declined in range and/or abundance when compared with historic records extending as far back as the 1950s (Stroh et al., 2023)
4. Nearly 33% of our semi-natural grasslands have been lost in the last decade (Martin, 2018)
5. Over 50% of Ireland's 100 bee species have seen substantial declines in numbers since 1980, with 30% of species threatened with extinction (Fitzpatrick, 2007)

In contrast to the above declines of Ireland's native flora and fauna, 80% of non-native species introduced to Ireland since the year 1500 have increased. Whilst most are benign, some have become invasive, such as Himalayan balsam, Japanese knotweed and rhododendron with negative impacts on native flora and fauna. There is also a significant growing threat associated with emergent diseases, examples of which include those diseases which have established in Ireland such as Ash Dieback, Fireblight and Crayfish Plague to name a few.

County Meath is not immune to the threats to nature and biodiversity. How we live in and use our land has significant implications for human life, our economy and our society, and it also has consequences for nature and biodiversity.



Wetlands

- In 2010, Meath County Council commissioned consultants to carry out a Wetland and Coastal Survey of County Meath.
- During the field survey and the documentation of sites from existing reports, almost every wetland identified had some degree of damage. Over-enrichment of wetlands by fertilisers was the most commonly observed issues, though threats to wetlands ranged from infilling of sites to drainage, invasive species and afforestation.



Grasslands

- Semi-natural grasslands are a rarity, relative to other areas of the country, as demonstrated by the Irish Semi-natural Grasslands Survey 2007-2012 (O'Neill, 2013).
- In the past, these grasslands would have been managed traditionally by cutting or light grazing, but these practices are now largely a thing of the past.
- Conversion to intensive forms of agriculture (e.g. ploughing, re-seeding, fertilising, overgrazing) would be the primary cause of their reduced distribution.



Woodlands

- Meath currently has the lowest percentage area of 'Forest and Woodland' cover in Ireland at 3.7%, (www.cso.ie, 2024).
- The tracts of semi-natural woodland observed in Meath are often competing against non-native invasive species and suffering from poor management or lack of management altogether. Extreme weather events such as storms, droughts are also problematic, along with emergent pests and disease.



Hedgerows

- The county has a rich resource of hedgerows as illustrated by the County Meath Tree, Woodland and Hedgerow Survey (2010).
- An inspection of 1840s six-inch Ordnance Survey maps shows that in some locations at least, a significant length of hedgerow has been removed at some period to increase field size.
- The majority of Meath hedgerows exhibit sub-optimal structure: 80% are either overgrown, relict or derelict, or remnant hedgerows.



Rivers

- 70% of the river waterbodies in Meath are not meeting their water quality objective (i.e. 'Good' ecological status)
- A small section of the Dee river catchment in the north of the county is the only stretch of river which is hanging on to its 'High' ecological status.
- The most significant issues for water quality in Meath's river catchments are nutrient pollution (i.e. excess phosphorus and nitrogen; phosphate fertiliser use doubled since 2012), and impacts on the physical condition of river channels.
- The source of these issues include agriculture, inadequate waste water infrastructure, arterial drainage, water abstraction and presence of river barriers such as weirs (Catchments.ie, 2016 - 2021).



Coastal

- Estuaries on the Meath coastline are suffering from moderate pollution, largely a result of excess nutrients originating from agriculture and waste water infrastructure (Catchments.ie, 2016 - 2021).
- The ecological health of our dune systems has deteriorated also which is largely attributable to recreational activities (NPWS, 2023).

In summary, the most significant impacts observed on many of our habitats in Meath include:

- Agriculture (e.g. nutrient enrichment, drainage and land conversion)
- Development (e.g. the construction and use of residential, commercial, industrial, transport and recreational infrastructure, including light pollution)
- Urban wastewater infrastructure
- River drainage & river barriers (Hydromorphology)
- Invasive alien species & emergent diseases

All the above are resulting in a decreasing availability of high-quality habitat for biodiversity, both locally and nationally (NPWS, 2019).

It is important to note that whilst climate change has not been mentioned in the above, it is fast becoming a very significant pressure and will affect biodiversity in Meath at scale through the occurrence of extreme weather events and an exacerbation of all other pressures.

Importantly, underpinning these drivers are our societal values and behaviours. Transforming these is crucial if we are to reverse the trends of loss (NPWS, 2024).

7. Meath in 2030 – A Nature Positive Trajectory

The significance of the challenge in addressing biodiversity loss and the changing climate is recognised. We need nature in our lives. This is widely accepted and the County Council, under the steer of central government and in collaboration with partners in both public and private sectors, have demonstrated their commitment to implementing the Biodiversity Action Plan by working with communities, farmers and landowners, state bodies, business and anyone in possession of similar values.

Projects stemming from delivery of the Biodiversity Action Plan ensure an evidence-based approach is embedded in spatial planning. Developers, architects, engineers and planners are equipped and supported to ensure “No net loss of biodiversity” and in many circumstances have helped to achieve biodiversity net gain in developments. Protection and retention of habitats is cornerstone to these efforts, but more widespread adoption and uptake of nature-based solutions proves to be critical, offering multiple benefits to local communities and therefore greater cost effectiveness in project delivery.

Open space management has become less intensive and pesticide use is measured, used only when necessary. People got used to the less manicured appearance of our open spaces and road verges and many residents made their gardens more wildlife friendly too. People are observing nature more, reaping the rewards of a greater connection with local flora and fauna at both an experiential and cultural level. A movement of citizen science in the county not only helps interested members of the public to tune into nature’s natural seasonal cycles and identify wildlife on their doorstep but also helps them to witness the changes occurring to our environment over time and helps to build an evidence base for local conservation action.

Through cultivation of partnerships and collaboration, farmers are encouraged to broaden their field margins, sensitively manage their hedgerows and focus on restoring soil health and nutrient cycles to make their farms more biodiversity friendly in the terrestrial and aquatic environments.

In all, it is envisaged Meath County Council has helped to facilitate and is playing an important role in ensuring a nature positive trajectory in Meath, securing benefits people, nature and climate, building resilience and mitigating against future threats such as climate change.

8. Biodiversity Actions

A total of 54 actions makes up the Meath Biodiversity Action Plan 2025 – 2030. The actions are based upon recommendations made during ecological studies, the proposals put forward by the Biodiversity Working Group of the Meath Heritage Forum, members of the public, various Council Departments and the objectives and actions laid out by pre-existing plans and policies at national, regional and local levels.

The actions of the plan are organised under 5 broad strategic objectives:

- Reaching a deeper spatial understanding of nature in Meath
- Leading the way – policy, planning and practice
- Action for biodiversity
- Research and monitoring
- Raising awareness and appreciation of biodiversity

All lower-order plans and projects supported by this plan (for example, site management plans, habitat management projects) shall be subject to Appropriate Assessment Screening, where necessary, in accordance with the requirements of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) or the Planning and Development Act 2000 (as amended), as the case may be.

All objectives and actions contained were chosen to align with the key priorities of the 4th National Biodiversity Action Plan 2023 – 2030. This ensures Meath County Council is playing its part in the All-of-Government approach to protect and conserve biodiversity.

Actions are listed below, along with their respective aim and the associated proposed output / indicator.

Appendix IX provides a list of the actions alongside an information on the rough timescale for implementation, the action owner, possible partners and what pre-existing policies and/or plans the action aligns with.

Objective 1: Reaching a deeper spatial understanding of nature in Meath

To protect many of our most precious species and habitats, it is essential to know where they occur. There are many sites throughout the County that host a range of plant and animal species or their habitats (including Annex I Habitats, Annex I Birds, Annex II and IV species, Flora (Protection) Order etc.), which are not designated for nature conservation but nonetheless their ecological value is of high importance in the county. These sites play a crucial role in supporting biodiversity at a local level. They offer essential ecosystem services to nearby communities and contribute to the overall ecological health of a region. Identifying, mapping and periodically monitoring these sites or specific species provides local authorities and key local stakeholders with the evidence base to protect and conserve biodiversity.

No.	Action	Aim	Proposed output / Indicator
1	Undertake a state of knowledge exercise of biodiversity in County Meath.	Collate all known information on local biodiversity in order to inform the development of a Biodiversity Action Plan and future projects.	Report completed every 5 years.
2	Undertake a countywide wetland resurvey and mapping project, building on the information garnered from the County Meath Wetlands and Coastal Habitats Survey (2010).	Compare findings with baseline information captured in County Meath Wetlands and Coastal Habitats Survey (2010) and implement recommended follow-up actions insofar as possible.	Resurvey complete. Detailed survey report complete.
3	Undertake a countywide resurvey and mapping project of Meath's trees, woodlands and hedgerows, building on the baseline information garnered from the County Meath Tree, Woodland and Hedgerow Survey (2010).	Compare findings with baseline information captured in County Meath Tree, Woodland and Hedgerow Survey (2010) and implement recommended follow-up actions insofar as possible.	Resurvey complete. Detailed survey report complete.
4	Undertake a countywide survey and mapping project of Meath's semi-natural grassland habitats.	Identify semi-natural grassland sites across county Meath, understand their distribution, and implement recommended follow-up actions insofar as possible.	Survey complete. Detailed survey report complete.
5	Using an evidence-based approach, create a detailed geodatabase 'Site Inventory' of	To provide a framework within which knowledge on County Meath's biodiversity	Site inventory created.

	designated and non-designated sites of high intrinsic biodiversity value within County Meath.	can be recorded, stored and used to inform nature conservation.	
6	Using an evidence-based approach, identify and map Locally Important Biodiversity Sites (LIBS) in County Meath, according to Heritage Council guidelines, to ensure their continued protection through existing or new policies in the County Development Plan	Understand the distribution of non-designated areas, sites, species and ecological networks of biodiversity value in Meath and endeavour to protect same through the implementation of planning controls and the promotion of sustainable land-use practices.	<p>Spatial information incorporated into Meath County Council mapping system(s).</p> <p>Clear policies for protection of LIBS integrated into the County Development Plan.</p>

Objective 2: Leading the way - policy, planning and practice

Actions under this objective represent many of the direct interventions that Meath County Council, throughout all sections of the local authority, will make to protect, conserve and support nature through new and focused projects, and during the day-to-day work of the local authority. Actions will be implemented that seek to raise awareness of elected members, senior management and staff, that showcase Meath County Council's commitment to biodiversity initiatives in the county and that demonstrate best practice. These actions align closely with the priority objectives laid out in the Revised National Planning Framework, the Regional Spatial and Economic Strategy, as well as policies and objectives contained within the Meath County Development Plan 2021 – 2027 and the Meath Corporate Plan 2024 – 2029.

No.	Action	Aim	Proposed output / Indicator
Leading the way in Policy			
7	Align the Meath County Development Plan, all area plans and the Meath Biodiversity Action Plan with the objectives of the National Biodiversity Action Plan, where relevant.	By 2030, the objectives of the National Biodiversity Action Plan, where relevant, are aligned with and integrated within the statutory land use plans of Meath County Council and with the Meath Biodiversity Action Plan 2025 - 2030.	Number of plans that align with the objectives of the NBAP.
8	Devise and support the implementation of good governance strategies to facilitate the integration of EU and national biodiversity legislation and policy requirements into Council plans, projects, and services, where relevant.	Meath County Council will operate in compliance with EU and national legislation and policy and encourage a whole-of-organisation approach to preventing further biodiversity loss.	<p>Formation of an Internal Cross-Departmental Biodiversity Working Group.</p> <p>Number of Internal Cross-Departmental Biodiversity Working Group meetings per annum.</p> <p>Creation of a biodiversity checklist for project managers.</p>

9	Support the implementation of the Birds and Habitats Directives in protecting, and where possible, in achieving an improvement in the conservation status of protected species and habitats in County Meath.	Achieve and maintain favourable conservation status for habitats and species in the Natura 2000 network.	Relevant projects supported.
---	--	--	------------------------------

10	Support the review and update of policies, objectives and development management standards in the Meath County Development Plan.	Integrate policies and objectives in the Meath County Development Plan that support the delivery of actions in the Meath Biodiversity Action Plan 2025 - 2030.	<p>Policies and objectives updated to support the following:</p> <ul style="list-style-type: none"> - No net loss of biodiversity through strategies, planning, mitigation measures, appropriate offsetting and/or investment in Blue-Green infrastructure. - Biodiversity measures and nature-based solutions are considered in new public and private projects and developments, where appropriate. - Alignment of plans and the design and delivery of public projects and private developments with Inland Fisheries Ireland's guideline document 'Planning for Watercourses in the Urban Environment'. - Minimisation of the impact of artificial lighting on nocturnal biodiversity.
----	--	--	--

11	Work with the relevant authorities to support the preparation of, and implement, Ireland's Nature Restoration Plan, when adopted, and where relevant for Meath County Council, to help achieve national restoration targets	Help Ireland to achieve its national nature restoration targets.	<p>Collaboration with partners.</p> <p>Actions undertaken to support implementation of the Nature Restoration Law.</p>
12	Identify locally important breeding sites in County Meath for select rare and threatened species, such as the Swift & Barn Owl, and ensure these are mapped and protected through inclusion of policies and objectives in the County Development Plan.	Protect rare and threatened fauna.	<p>Survey and mapping projects complete.</p> <p>Spatial information incorporated into Meath County Council mapping system(s).</p> <p>Clear policies for protection of select rare and threatened species integrated into the County Development Plan</p>
13	Promote a policy to ensure the purchase and use of native hedge and tree stock of local provenance where possible in plans and projects and avoid the use of species classified as 'invasive' such as Cherry Laurel.	Adhere to the principles of green procurement, reduce the risk of importing invasive alien species, emergent plant diseases and maintain the genetic integrity of native flora.	Projects/tenders with these requirements in place.

No.	Action	Aim	Proposed output / Indicator
Leading the way in Planning			
14	Provide a central place for all biodiversity data for decision-makers in Meath County Council.	Make biodiversity data more accessible to inform decision making and sustainable development.	Up-to-date spatial information incorporated into Meath County Council mapping system(s).
15	Develop and implement a Green Infrastructure Strategy in accordance international best practice and emerging national guidance.	Identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner in the Meath County Development Plan and relevant area plans, and have regard to ecosystem services and the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species.	Green Infrastructure Working Group established. Green Infrastructure Strategy for County Meath developed.

16	Support habitat retention and the integration of biodiversity measures into plans and the design and delivery of public projects and private developments, aiming for no net loss of biodiversity and biodiversity net gain where possible.	Protect and support nature, improve climate resilience and strive for sustainable development.	<p>Staff training delivered to build awareness of and share information on the principles of 'no net loss' and 'biodiversity net gain'.</p> <p>Development management standards updated as appropriate.</p> <p>Highlight a number of Meath County Council projects demonstrating no net loss of biodiversity.</p> <p>Highlight a number of Meath County Council projects demonstrating biodiversity net gain.</p>
17	Support the integration of nature-based solutions into plans and the design and delivery of public projects and private developments.	Protect and support nature, improve climate resilience and strive for sustainable development.	<p>Staff training delivered to support the integration and implementation of nature-based solutions in rural and urban plans, projects and private development.</p> <p>Development management standards updated as appropriate.</p> <p>Highlight a number of Meath County Council plans and projects that incorporate or support nature-based solutions.</p>

18	Align public projects and private developments with Inland Fisheries Ireland's guideline document 'Planning for Watercourses in the Urban Environment' and update development management standards as appropriate.	Protect County Meath's watercourses and their associated riparian zones in urban areas.	<p>Development management standards updated as appropriate.</p> <p>Number of Meath County Council projects demonstrating alignment with Inland Fisheries Ireland's guideline document 'Planning for Watercourses in the Urban Environment'.</p>
19	Apply appropriate lighting specifications and mitigation measures to new development, new projects, lighting upgrades and existing lighting stock, as appropriate, to minimise disturbance to local biodiversity.	Strive to ensure that artificial light is managed so wildlife is not disrupted within, nor displaced from, important habitat; and is able to undertake critical behaviours such as foraging, reproduction and dispersal.	<p>Public lighting policy and development management standards updated as appropriate.</p> <p>Number of Meath County Council projects demonstrating ecologically sensitive lighting design.</p>
20	Protect existing Swift nesting sites where possible, establish new sites in existing public and private properties; and request integration of artificial swift nest bricks & boxes in new development.	Maintain and increase the nesting opportunities for Swift in urban areas and address threats to Swifts from the renovation of old buildings and development.	<p>Existing known Swift nest sites mapped.</p> <p>Spatial information incorporated into Meath County Council mapping system(s).</p> <p>Number of public and private developments demonstrating integration of Swift bricks and Swift boxes.</p>

21	Develop and provide guidance on the management of biodiversity issues for developers in the planning process.	Protect and support nature, improve climate resilience and strive for sustainable development.	Guidance developed. Number of training engagements undertaken.
22	Pilot an Urban Nature Plan for Navan.	In line with the EU Restoration Law and Ireland's Biodiversity Sectoral Climate Adaptation Plan, prepare an Urban Nature Plan for Navan in partnership with the local community that commits to promoting and protecting biodiversity and urban nature.	Urban Nature Plan prepared for Navan.

No.	Action	Aim	Proposed output / Indicator
Leading the way in Practice			

23	Adopt and implement a pesticide reduction strategy within Meath County Council.	Reduce the use of chemical pesticides by 50% by 2030 for the betterment of local biodiversity and human health.	<p>Strategy document prepared and approved.</p> <p>Use of chemical pesticides by Meath County Council reduced by 50% by 2030.</p>
24	Develop a training programme for Meath County Council staff.	Build capacity within Meath County Council to deliver on the Objectives of the Meath Biodiversity Action Plan 2025 - 2030 by developing and delivering an annual training programme. Content will be devised to support staff with the integration of biodiversity into all Council plans, projects and services, where relevant.	<p>Training needs assessment complete.</p> <p>Annual training programme developed and delivered.</p> <p>Number of training engagements undertaken.</p>
25	Produce Biodiversity Best Practice Guidelines for staff across all sections of the local authority.	Build capacity within the local authority to lead, coordinate and promote biodiversity measures across all sections and support biodiversity proofing of plans, projects and services.	Meath County Council Biodiversity Best Practice Guidelines produced for staff.
26	Engage with neighbouring local authorities on biodiversity projects that require a landscape and/or catchment scale approach.	Collaborate with neighbouring local authorities and the relevant agencies to support the development of ecological networks and enhanced connectivity between protected sites whilst also addressing the need for management of alien invasive species and the conservation of native species.	<p>Number of meetings with neighbouring local authorities relating to cross-county projects.</p> <p>Projects supported and/or implemented with partners.</p>

27	Provide updates to the Meath Biodiversity Working Group on unauthorised developments impacting the integrity and ecological health of protected and Locally Important Biodiversity Sites, where possible.	Endeavour to protect local biodiversity through the implementation of planning controls and the promotion of sustainable land-use practices in a transparent manner.	Number of unauthorised developments updated upon.
28	Pilot a biodiversity inclusive design for a social housing estate, prioritising retention of pre-existing habitats and a number of other possible actions such as the regeneration of semi-natural grasslands, installation of blue/green roofs, green walls, wetland & pond SUDS, green carparking, nest boxes in facades and wildlife friendly shrubs and trees in open space.	To gain practical experience in the design, implementation and management of nature-based solutions within the local authority, as well as an understanding of effectiveness.	Demonstration site developed of a social housing site where biodiversity inclusive design has been applied.

29	Continue to deliver local authority led actions in relation to monitoring, protection and the restoration of ecological status of waterbodies in County Meath.	Support implementation of the Water Framework Directive, Water Action Plan 2024 and any subsequent plans thereafter.	<p>Number of inspections carried out annually as part of the National Agricultural Inspection Programme.</p> <p>Number of domestic wastewater inspections carried out annually as part of the Domestic Wastewater National Inspection Programme.</p> <p>Domestic wastewater awareness raising activities delivered.</p>
----	--	--	---

30	Implement the All-Ireland Pollinator Plan as part of Meath County Council's partnership agreement with the National Biodiversity Data Centre	To support and promote All-Ireland Pollinator Plan actions for Councils and monitor resulting changes.	<p>Identify at least 10 locations that are mown under a pollinator friendly regime (5 cut & lifts per year) on local authority owned lands.</p> <p>Create at least 5 meadows (one cut & lift per year) on local authority owned lands.</p> <p>Identify at least 10 flagship roadside verges that are managed to be pollinator friendly (one cut & lift per year).</p> <p>Number of roadside verges where a layered mowing approach has been applied.</p> <p>Number of Council pollinator-friendly actions completed and or ongoing.</p> <p>Actions logged on the 'Actions for Pollinators' on the mapping system.</p>
31	Develop biodiversity management plans for select open spaces / parks / greenways within local authority ownership, focusing initial pilots on Blackwater Park and the Boyne Valley to Lakelands Greenway.	Take opportunities to support local biodiversity on local authority owned lands and to give opportunities for the public to connect with nature in high amenity areas.	<p>Biodiversity Management Plan developed and adopted for Blackwater Park.</p> <p>Biodiversity Management Plan developed for the Boyne Valley to Lakelands Greenway.</p>

Objective 3: Action for biodiversity

Actions grouped under this objective commit to continued support for pre-existing biodiversity projects, as well initiatives viewed as important for protecting and conserving certain habitats and species or those aimed at furthering national, regional or local objectives for biodiversity. Partnerships maintained and those fostered within and outside the local authority, across a diverse range of organisations, community groups, landowners and individuals represent a key element of these actions, acknowledging that by pooling resources, knowledge and expertise, diverse stakeholders can achieve greater impact than any single entity alone.

No.	Action	Aim	Proposed output / Indicator
32	Where possible, support Inland Fisheries Ireland in the removal/alteration of disused weirs to facilitate migration.	To improve migration for salmon, trout, eel, and lamprey.	Project engaged in.
33	Where possible, work with relevant partners to protect and/or restore high ecological status waterbodies in County Meath and along its borders.	Support implementation of the Water Framework Directive, Water Action Plan 2024 and any subsequent plans thereafter.	Project(s) initiated.
34	Plant native woodland on appropriate local authority owned sites.	Support the Meath Climate Action Plan and Nature Restoration objectives of increased woodland cover.	Hectares of land planted. Number of trees planted per annum.

35	Facilitate the planting of groups of native trees within the boundary/built footprint of existing built-up areas.	Support the Meath Climate Action Plan and Nature Restoration objectives of increased woodland cover.	Number of trees planted per annum.
36	Assess the feasibility of developing a native tree nursery and outdoor classroom space on a local authority owned site with a view to rearing stock of local provenance that can supply local projects and initiatives.	Support efforts to reduce the risk of importing invasive alien species and emergent plant diseases, maintain the genetic integrity of native flora and help build capacity in County Meath to rear tree stock of local provenance.	Feasibility study completed. Potential sites for the establishment of a native tree nursery and outdoor classroom space identified.
37	Continue to implement biodiversity and habitat management measures recommended for Balrath Woods.	To support biodiversity and improve climate resilience of Balrath Woods.	Populations of target species are stable or increasing.
38	Continue and expand biodiversity-friendly grassland management practices which benefit biodiversity on the Commons of Lloyd and seek to implement similar practices on other public lands.	To support biodiversity and improve climate resilience of the Commons of Lloyd.	Populations of target species are stable or increasing.

39	Continue to work in partnership with relevant stakeholders on a suitable peatland site(s) to demonstrate best practice in sustainable peatland conservation, management and restoration techniques and to promote their heritage and educational value.	To manage, protect and raise awareness of peatland sites in County Meath.	The number of wetland conservation projects supported. Participate annually in World Wetlands Day.
40	Support the implementation of projects which promote the conservation of County Meath's coastal dune habitats.	To support biodiversity and improve climate resilience of County Meath's coastal dune habitats.	Number of projects supported relating to County Meath's Coastal dunes.
41	Support local communities with the creation and implementation of Community Biodiversity Action Plans.	To guide group efforts for nature conservation.	Annual number of actions implemented from Tidy towns Biodiversity plans.
42	Continue to deliver the Hare's Corner project	Provide support and assistance to farmers, private landowners and community groups to implement simple yet effective actions for biodiversity.	Number of Hare's Corner applicants supported. Number of Hare's Corner actions supported.
43	Continue to support Barn Owl conservation in County Meath in conjunction with partners.	Work with partners to recover the Barn Owl population of County Meath.	Training delivered for volunteer surveyors. Monitoring activity supported. Awareness raising campaign delivered on best practice rodenticide use and impacts of rodenticides on local biodiversity.

Objective 4: Research and monitoring

The challenge of halting biodiversity loss must be underpinned by sound science. Whilst actions under Objective 1 also contribute to the evidence base for protecting and conserving biodiversity in Meath, they primarily focus on identifying and assimilating knowledge of locally important sites by habitat type. Whereas actions under Objective 4 will aim to bolster the evidence base further in a targeted programme of survey activity on a site-by-site basis within and outside the local authority land holding, irrespective of primary habitat types. Meath County Council will also seek to identify new opportunities for improved ecosystem service provision in our river catchments, building resilience in a changing climate and deal with threats posed by invasive alien species which harm our local environment and risk human health. Efforts to build capacity in the local community to engage in citizen science activity will help track both positive and negative changes in our environment, helping to inform conservation action.

No.	Action	Aim	Proposed output / Indicator
44	Implement ecological surveys targeting NHAs, pNHAs and non-designated sites in County Meath, where possible.	Improve knowledge and understanding of the ecological health of select sites using habitat, flora and fauna surveys. The results of these surveys should be recorded in county Site Inventory.	Number of surveys completed.
45	Implement an annual programme of ecological surveys, climate change risk assessments and ecological conservation work, as necessary, on local authority owned lands.	Improve knowledge and understanding of the ecological health of local authority owned sites in order to inform ecological conservation action to restore and enhance natural systems for biodiversity and to increase resilience to climate change. The results of these surveys should be recorded in the county Site Inventory, where relevant.	Number of surveys completed. Number of risk assessments complete. Number of conservation projects per year.

46	Explore opportunities to progress river restoration measures, natural water retention measures and nature-based solutions for integrated catchment management (NbS-ICM) in appropriate locations in the Boyne catchment, where feasible and in collaboration with relevant stakeholders.	Engage with stakeholders taking account of: - previously undertaken analysis, including but not limited to the 'Integrated Framework for River Restoration and Nature-based Solutions for Integrated Catchment Management (NbS-ICM)' report prepared by RPS on behalf of the EPA. - Relevant actions in the Water Action Plan 2024 related to the Land Use Review and review of arterial drainage requirements and the underpinning Arterial Drainage Act.	Public body engagement. Identify locations in the Boyne catchment where river restoration could be progressed.
47	Consider projects that include the mapping, appropriate treatment and eradication where possible of Invasive Alien Species	To monitor, and where possible, deal with the threat posed by Invasive Alien Species to local biodiversity and the local economy in County Meath.	Key invasive species in County Meath identified and mapped. Annual programme of Invasive Alien Species management supported. Number of projects supported and/or delivered.
48	Support and encourage the volunteer network and local communities to carry out biological recording and citizen science projects.	Continue to build knowledge on local biodiversity, inform conservation action and use citizen science activities as a way to engage the public with nature and the outdoors to benefit mental health and wellbeing.	Naturalist Field Club for County Meath re-established and supported. Annual events programme delivered. Increase biological recording activity by 50% by 2030.

Objective 5: Raising awareness and appreciation of biodiversity

Educating people of all ages and demographics about biodiversity and the essential role it plays in our society and economy is fundamental to the success of the Meath Biodiversity Action Plan. The best way to learn about the natural environment is to be in it and through direct involvement in nature conservation projects. These actions will ensure Meath County Council continues to collaborate with and support community/voluntary groups, schools, as well interested farmers and landowners to engage in efforts that benefit nature on their lands and in their respective localities. Actions here include strategic communications, resource development and the provision of events and training.

No.	Action	Aim	Proposed output / Indicator
49	Develop and implement an outreach and engagement programme for the general public	To showcase and promote the county's biodiversity and facilitate active engagement through new and established annual event programmes.	<p>Outreach and engagement programme developed.</p> <p>Biodiversity content on Meath County Council website updated.</p> <p>Number of events/outings organised per year.</p> <p>Number of people and/or attendees engaged.</p>
50	Facilitate and support a landowner and land manager network for those interested in farming sustainably and managing space for nature in the countryside.	To support those managing our countryside and facilitate knowledge exchange amongst farmers and landowners.	The number of engagements with the farming and agricultural sector per annum.

51	Explore the use of demonstration farm(s) for biodiversity conservation e.g. hedgerow management, field margins, river management, soil improvement, Integrated pest management, nest boxes etc.	Set up a demonstration farm with a local farmer(s) showcasing best practice for biodiversity conservation and monitoring effectiveness of measures.	Demonstration farm(s) identified. Number of visits by interested farmers.
52	Produce Tree Planting and Management Guidelines for communities	Provide communities with the necessary guidance and support to undertake tree planting projects.	Guidelines complete
53	Continue to work with the Meath County Council Culture and Creativity Team to promote biodiversity through creative projects, and with support from the Creative Ireland programme.	To increase the appeal and accessibility of biodiversity outreach events in the community.	The number of projects and outreach events per annum incorporating music, visual art, film, performance art including dance, poetry, photography, etc.
54	Develop guidance and supports for schools and school teachers in County Meath relating to biodiversity.	To support biodiversity education in the education sector.	Collate information on pre-existing initiatives in Co. Meath and make available for schools on an annual basis. Generate a repository of educational supports relating to biodiversity including access to professional development for school staff to promote sustainable practices and build biodiversity awareness.

9. What happens next?

Reporting and Monitoring of the Plan's Progress

The progress of the Biodiversity Action Plan will be reported to the Council's Chief Executive and elected members through the monthly Chief Executive Report. An annual progress report will be prepared and presented to the Biodiversity Working Group, and various Strategic Policy Committees and summarised in Meath County Council's annual report.

The progress of the Biodiversity Action Plan will be included Meath County Council's annual submission under the Wildlife (Amendment) Act 2023 which requires all public bodies to submit an annual report on its performance of its commitment under the National Biodiversity Action Plan.

Meath County Council will be the coordinating body overseeing the implementation of Meath's Biodiversity Action Plan. The Biodiversity Officer shall be the coordinator of the Meath Biodiversity Working Group, with this group meeting four times a year and sharing one meeting with the Heritage Forum.

The Biodiversity Working Group opens up communications between the stakeholders and serve as a platform which facilitates collaboration, promotes best practice and builds awareness of biodiversity through networking and information-sharing. The group will promote the development of innovative and collaborative initiatives which restore, enhance and protect biodiversity. The group will bolster community participation through awareness raising, training and other relevant initiatives. Regular updates promoting biodiversity actions being undertaken will be issued to local media through the Biodiversity Working Group.

10. What you can do to help

Protecting and conserving biodiversity requires a Whole-of-Government and Whole-of-Society approach. Everybody can do something to help nature. Here are a few ideas you might like to try in your locality:

At home:

- Encourage native grassland species to flower in your lawn by reducing your mowing to once every 6 weeks, or even once a year. Ensure you remove and dispose of the clippings responsibly and try to avoid sowing wildflower seed unless you have collected it locally.
- If you have flower beds, pots and boxes, plant them up with a range of pollinator friendly plants and herbs which provide both colour and food for pollinators throughout the year. Night-flowering/scented blossoms will attract night-flying insects such as moths, which is also great for bats.
- Look for opportunities to create nesting opportunities for solitary bees – remove vegetation from a south or east facing soil bank and they will find it!
- Plant native trees grown from seed in Ireland or create a traditional orchard. Consider a native hedgerow if you need a vegetated border.
- Add a pond! It doesn't have to be large if you are constrained by space. Even a sunken bathtub or basin can create a habitat for wildlife.
- Participate in nature-based citizen science activities such as the Garden Bird Survey, Garden Butterfly Monitoring Scheme and the Flower Insect Timed Count. You don't need to be an experienced ecologist to participate in these surveys, so go and give it a try!

At work:

- Manage your grounds for wildlife - plant trees, hedgerows, colourful plants and build bird and bat boxes as these will attract a range of wildlife species.
- Sponsor a local nature conservation organisation in the delivery of their projects or in the running of an event.
- Organise a company nature conservation activity day or donate staff time to participate in practical nature conservation activities.

In the community:

- Get involved in local discourse. Let your local elected representatives know you care.
- Manage open space in residential areas and public spaces for nature. Partner with your neighbours, local Tidy Towns group or the local authority to make your community more pollinator friendly. Check out the self-assessment tool for communities supporting the All-Ireland Pollinator Plan and pollinators checklist to choose and prioritise actions that are suitable for your community.
- Take action for swifts! Work with the local authority and the local branch of Birdwatch Ireland to identify locations to erect nest boxes and caller systems for swifts.
- Become a member and volunteer with a local conservation organisation to help manage and support local habitats – your local meadow, woodland, river or coastal dunes may be in need of conservation action.

Bibliography

Bar-On, Y.M., et al., 2018. The biomass distribution on Earth. *Proceedings of the National Academy of Sciences* 115: 6506-6511. www.pnas.org/content/115/25/6506.

Clarke, A., Parkes, M. and Gatley, S. (2007). *The Geological Heritage of Meath: An audit of County Geological Sites in Meath*. Report for Geological Survey of Ireland.

Countryside Management Series 1: The Value of Hedgerows. (2004). 19 Sandymount Avenue, Dublin 4: Teagasc.

County Meath Wetlands and Coastal Habitats Survey. (2010). Report prepared for Meath County Council. Compass Informatics, Dublin.

Donlon, B., Cahalane, A. and Fanning, A. eds., (2024). *Ireland's State of the Environment Report 2024*. [online] www.epa.ie. PO Box 3000, Johnstown Castle, Co. Wexford, Ireland: Environmental Protection Agency. Available at: <https://www.epa.ie/publications/monitoring--assessment/assessment/state-of-the-environment/EPA-SOE-Report-2024-BOOK-LOWRES.pdf>.

Finn, C., et al., 2023. *Anthropocene defaunation through the diversity of population trends*. *Biological Reviews* 98: 1732-1748.

Fitzpatrick, U., et al., 2007. Rarity and decline in bumblebees – a test of causes and correlates in the Irish fauna. *Biological Conservation* 136: 185-194.

Gilbert, G., et al., 2021. Birds of conservation concern in Ireland 4: 2020-2026. *Irish Birds* 43: 1-22.

Green, S., Martin, S., Gharechelou, S., Cawkwell, F. and Black, K. (2019). *BRIAR: Biomass Retrieval in Ireland using Active Remote sensing*. PO Box 3000, Johnstown Castle, Co. Wexford, Ireland: Environmental Protection Agency.

IPBES, 2019. *Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services*. Díaz, S., et al. (eds). IPBES Secretariat, Bonn, Germany. doi.org/10.5281/zenodo.3553579

Irish Wetland Bird Survey (2024). *The Irish Wetland Bird Survey (I-WeBS) Site Peak Counts*. Available at: <https://c0amf055.caspio.com/dp/f4db30005dbe20614b404564be88>. Date accessed: 01/08/2024.

Martin, J. O. (2018). *The monitoring and assessment of three EU Habitats Directive Annex I grassland habitats*. Irish Wildlife Manuals, No. 102. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland. Retrieved from <https://www.npws.ie/sites/default/files/publications/pdf/IWM%20102%20Annex%201%20Grasslands.pdf>

NPWS, 2019. The Status of Protected EU Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished report. National Parks and Wildlife Service. https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf.

NPWS, 2024. Ireland's 4th National Biodiversity Action Plan 2023-2030. National Parks and Wildlife Service. www.npws.ie/legislation/national-biodiversity-action-plan

Npws.ie. (2024). *Ecosystem Services Web Map Viewer and Data Downloads | National Parks & Wildlife Service*. [online] Available at: <https://www.npws.ie/research-projects/ecosystems-services-mapping-and-assessment/ecosystem-services-web-map-viewer-and>

O'Neill, F.H., Martin, J.R., Devaney, F.M. & Perrin, P.M. (2013) *The Irish semi-natural grasslands survey 2007-2012*. Irish Wildlife Manuals, No. 78. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Ireland.

Perrin, P.M. & Daly, O.H. (2010) *A provisional inventory of ancient and long-established woodland in Ireland*. Irish Wildlife Manuals, No. 46. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

Smith, G.F., Delaney, E., O'Hora, K. and O'Donoghue, P. (2010) *County Meath Tree, Woodland and Hedgerow Survey*. Report prepared for Meath County Council. Atkins, Dublin.

Stroh, P.A., et al., 2023. *Plant Atlas 2020: Mapping Changes in the Distribution of the British and Irish Flora, Volumes 1 and 2*. Botanical Society of Britain and Ireland, Durham, UK.

www.cso.ie. (2024). *Key Findings Ecosystem Accounts – Forests and Woodlands 2012-2022 - Central Statistics Office*. [online] Available at: <https://www.cso.ie/en/releasesandpublications/fp/fp-eafaw/ecosystemaccountsforestsandwoodlands2012-2022/keyfindings/>.

www.cso.ie. (2025). *Ecosystem Accounts - CSO - Central Statistics Office*. [online] Available at: <https://www.cso.ie/en/statistics/ecosystemaccounts/>

www.cso.ie. (2025). *Ecosystem Service Accounts - Crop Pollination 2018 - Central Statistics Office*. [online] Available at: <https://www.cso.ie/en/releasesandpublications/fp/fp-esacp/ecosystemserviceaccounts-croppollination2018/>

www.cso.ie. (2025). *Land Use Environmental Indicators Ireland 2024 - Central Statistics Office*. [online] Available at: <https://www.cso.ie/en/releasesandpublications/ep/p-eii/environmentalindicatorsireland2024/landuse/>

Young, R. (1972). *A report on areas of scientific interest in County Meath*. An Foras Forbartha Teoranta, Dublin.

Appendices

Appendix I: Illustrative Maps of Meath Biodiversity

Below is presented a series of illustrative maps of Meath biodiversity produced by Fitzgerald Ecology and Flynn Ecology on behalf of MCC as part of the County Meath Biodiversity Audit. Note that the county boundary shapefile used is © Ordnance Survey Ireland, and the satellite imagery used is © Google Satellite.

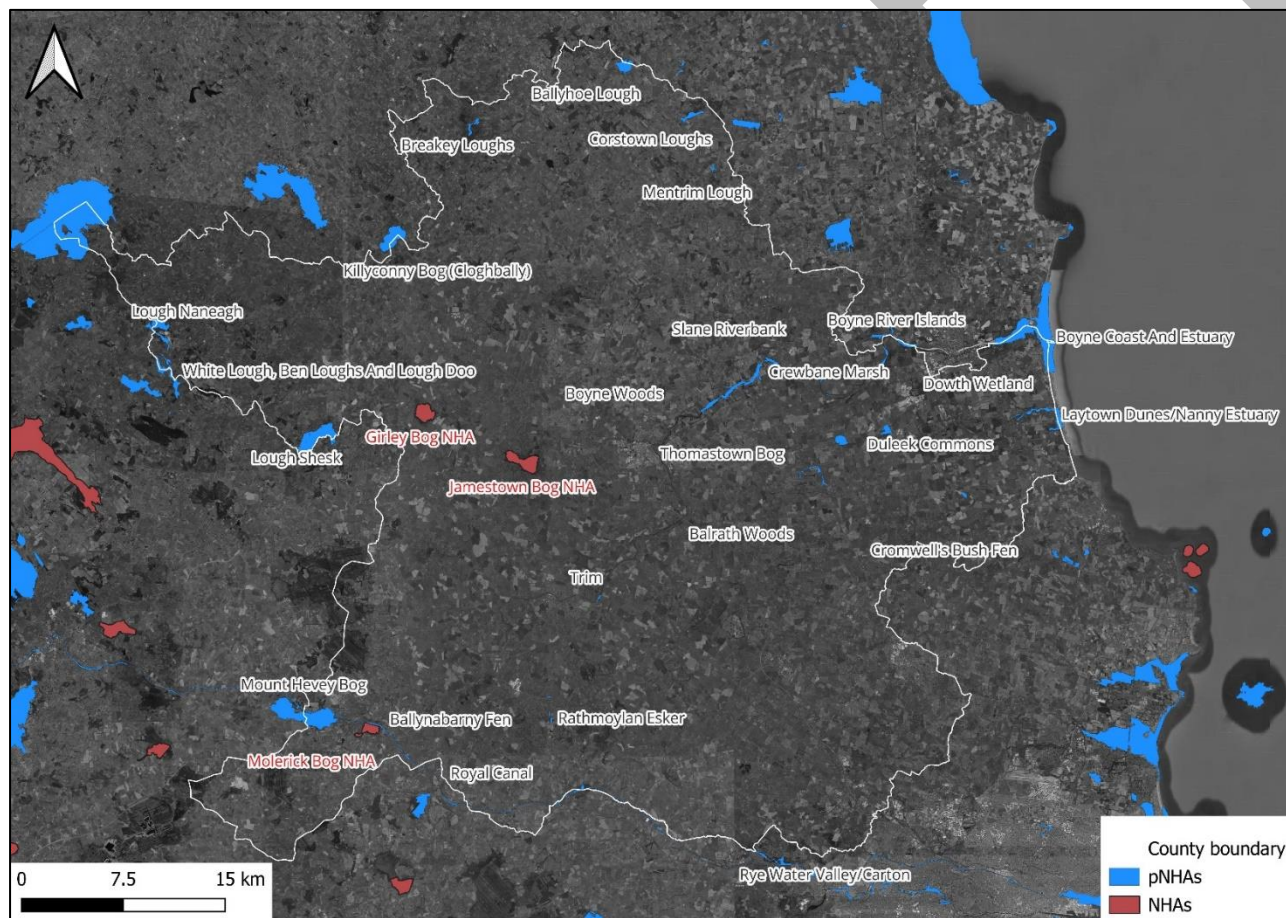


Figure 20. Natural Heritage Areas (NHAs) (NPWS shapefile version: 28/06/2019) and proposed Natural Heritage Areas (pNHAs) (NPWS shapefile version: 01/11/2015) in County Meath – note that Doolystown Bog (Site Code: 001577) is on the pNHA list but has been accidentally omitted from the pNHA shapefile from NPWS

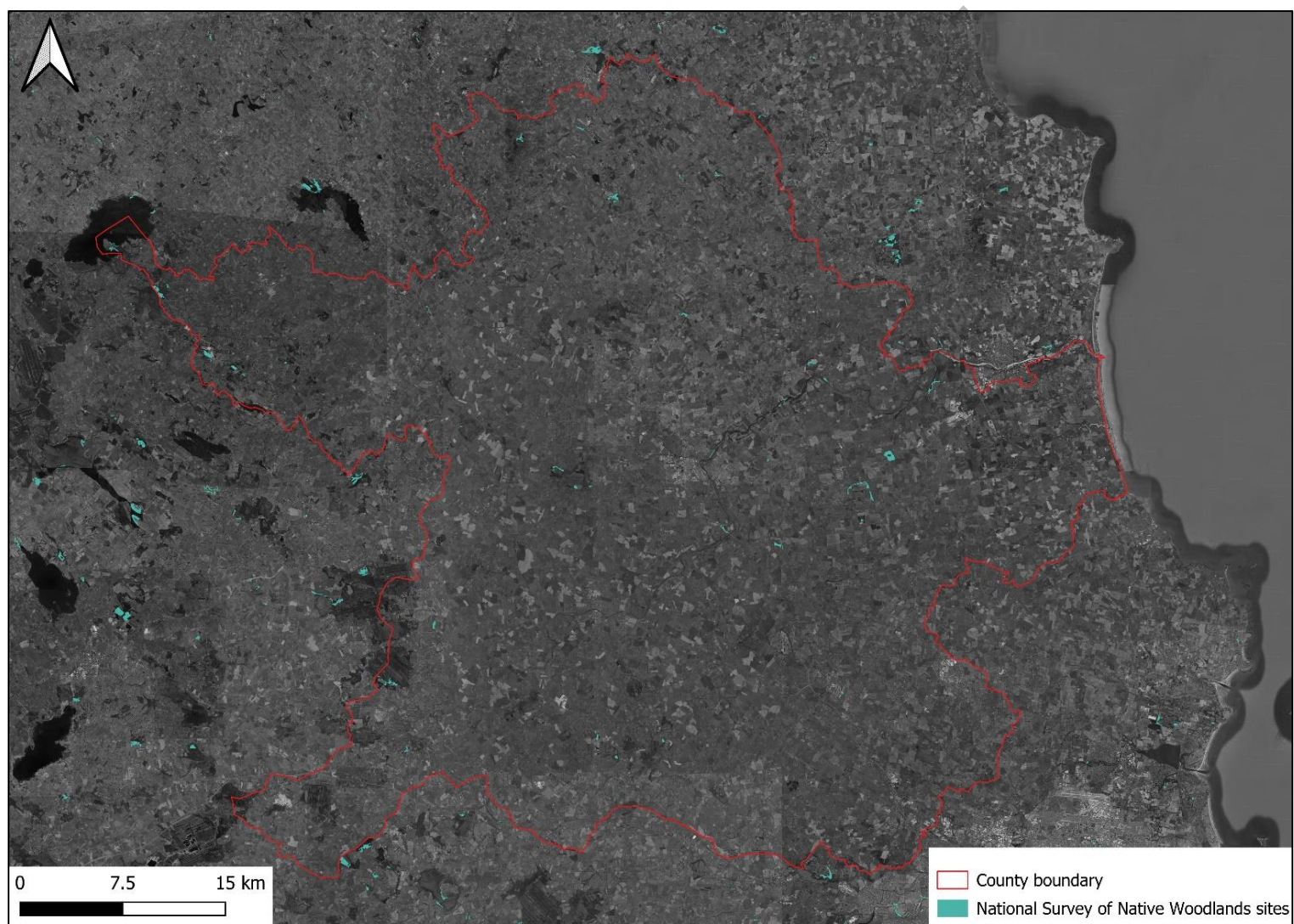


Figure 21. National Survey of Native Woodlands sites within Co. Meath

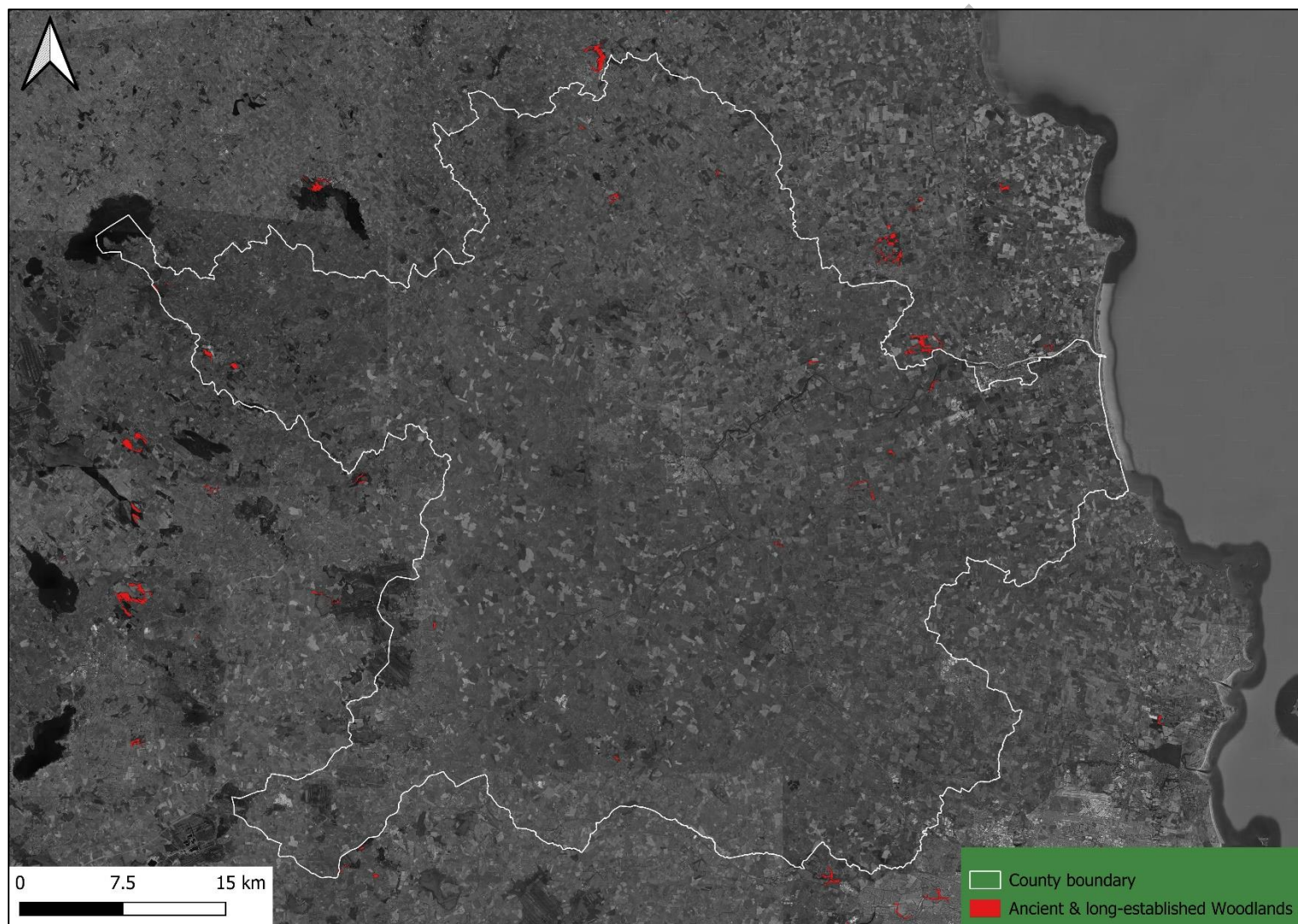


Figure 22. Ancient and long-established woodland sites within Co. Meath

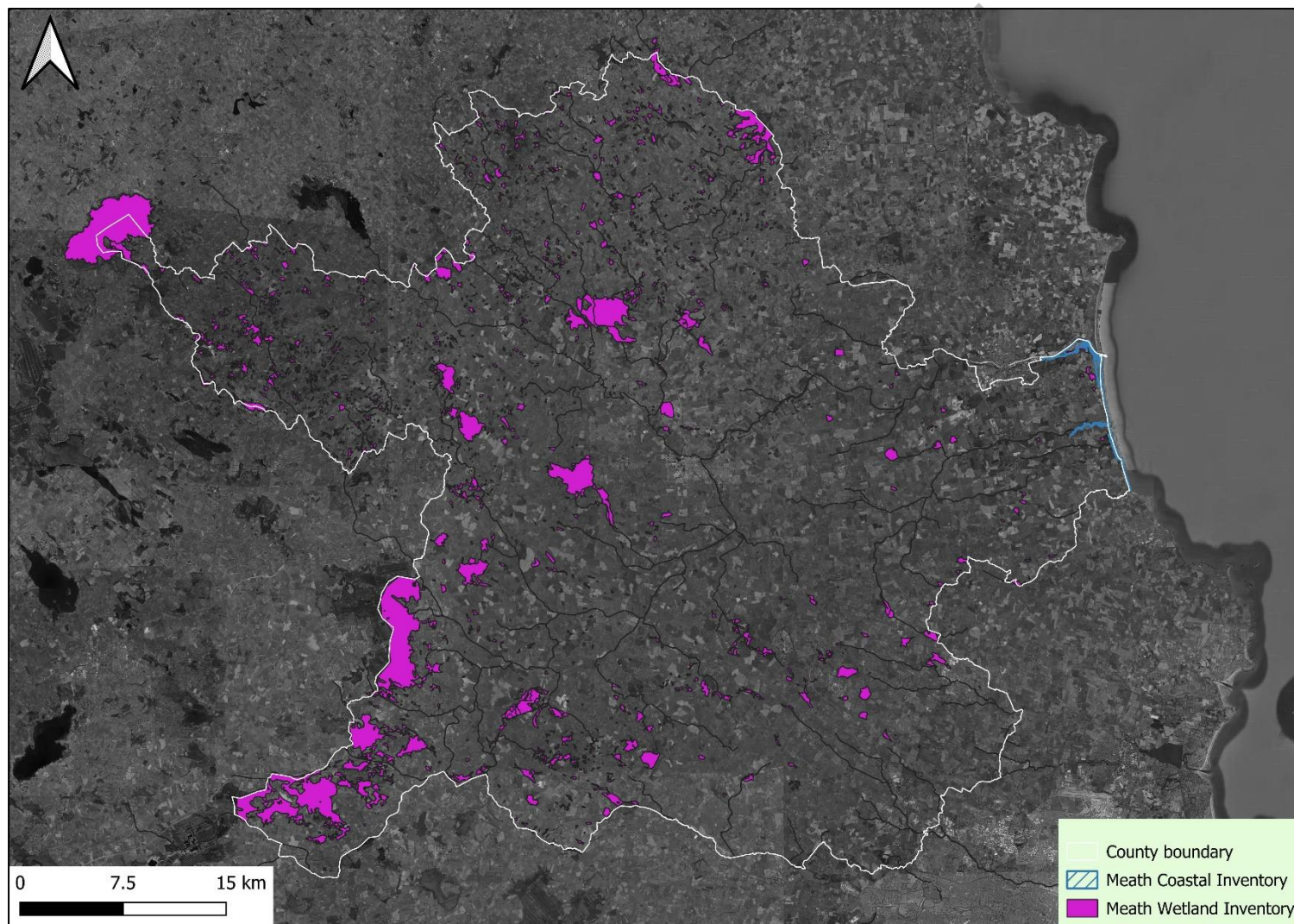


Figure 23. Wetland and Coastal inventory sites within Co. Meath

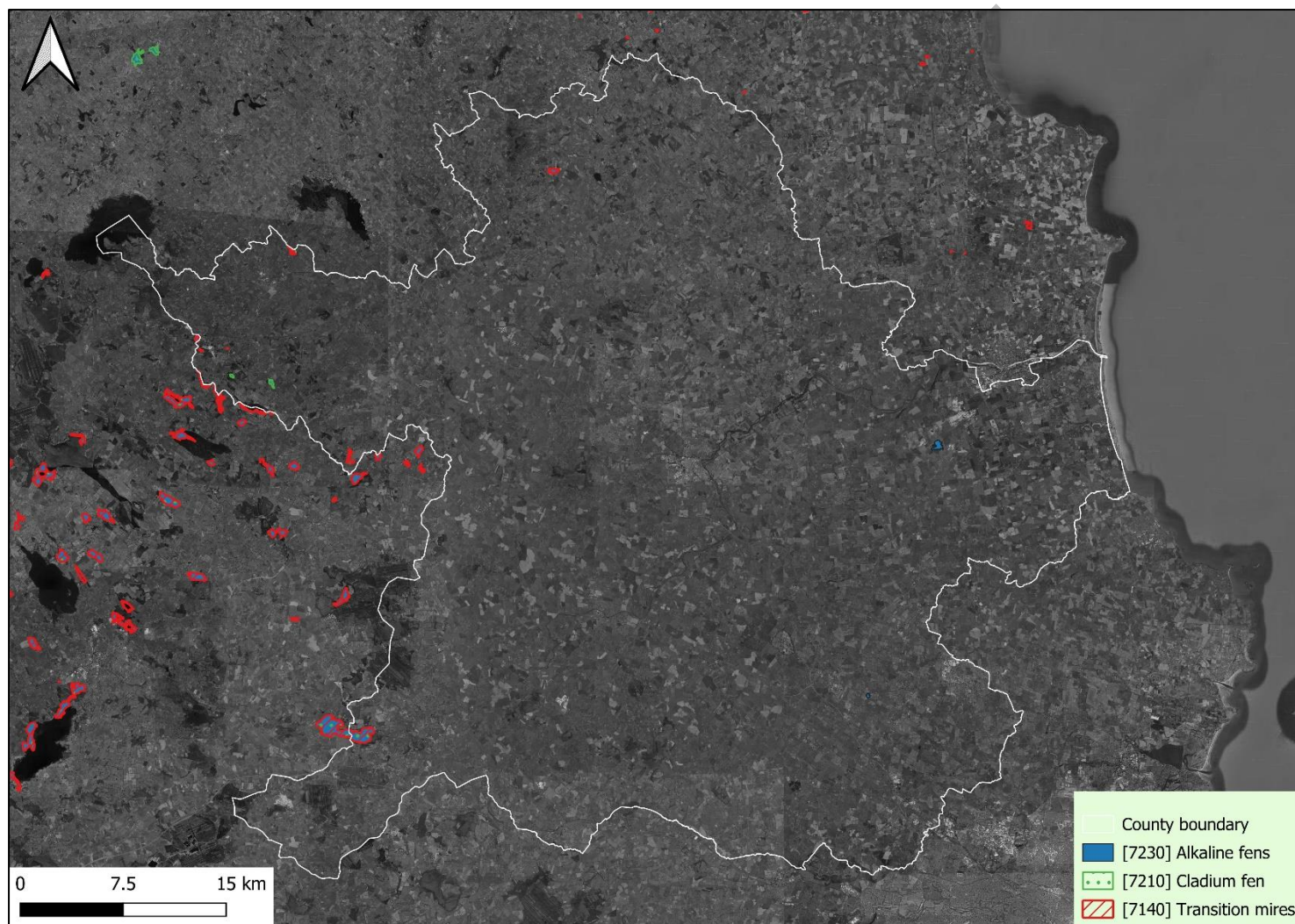


Figure 24. Fen sites within Co. Meath; fen habitat tends to be more prevalent in the west of the county near the border with Co. Westmeath – polygons are from National Parks and Wildlife Service website

Appendix II: County Meath Biodiversity Audit 2024

Recommended Priority Actions

Short-term Actions:

- 1) The findings of this Biodiversity Audit should be fully incorporated within the forthcoming Meath Biodiversity Action Plan 2025-2030, with inclusion of this report as an Appendix.
- 2) The GIS shapefiles generated in this Biodiversity Audit should be made available to Meath County Council staff. Use of these shapefiles should be made routine when assessing future planning applications, designing and developing projects and undertaking physical works within Co. Meath.
- 3) Create a detailed geodatabase 'Site Inventory', to ultimately include all designated and non-designated sites of biodiversity importance within County Meath. The development of such a Site Inventory will be an iterative process and this audit is a baseline from which such an inventory can be developed.
- 4) Work to identify Locally Important Biodiversity Sites (LIBS) in County Meath and ensure these are mapped and protected through inclusion of policies in the County Development Plan – these sites should focus particularly on those hosting regionally/nationally/internationally rare species, such as the vascular plant *Calamagrostis purpurea* (Scandinavian Small-reed) (see section 3.3 for discussion of this species), threatened bryophytes (see section 3.4), rare fauna, including invertebrate species, and rare habitats. It will be particularly important to highlight rare invertebrate species as key elements of the diversity of each site of interest, as invertebrates are all too rarely used to justify site designation.

Medium-term Actions:

- 1) Commission surveys of species and biological groups which are either entirely under-recorded in Co. Meath, or which are under-recorded in recent decades. Examples of the former include lichens, fungi, Diptera, and other invertebrate groups, whilst examples of the latter include bryophytes, water beetles and mayflies.
- 2) Commission ecological surveys of Meath Natura 2000 network sites in order to inform future Site-specific Conservation Objectives for their Qualifying Interests.

Long-term Actions:

- 1) Commission extensive ecological surveys of NHAs, pNHAs and non-designated sites in Co. Meath, to update our knowledge of these often under-studied sites – fieldwork should include habitat, flora and fauna surveys to attain a full context for the current state of these sites. The results of these surveys should be included for each site in the county Site Inventory.

- 2) Commission a Biodiversity Audit to focus on enhancing knowledge of habitats and species of county or regional importance in Meath, whilst also providing an update on threatened/rare/legally protected species. A biodiversity audit should be repeated (at a minimum) in the year before every new Biodiversity Action Plan is published.

DRAFT

Appendix III: NBAP Actions relevant to local authorities

Target	Number	Action
Objective 1: Adopt a Whole-of-Government, Whole-of-society Approach to Biodiversity		
By 2024, and in each year thereafter, relevant entities report on their progress against this Plan	1A4	Each entity responsible for actions within this Plan will provide an annual update on progress and contribute to an Interim and Final Review of the Plan
By 2024, cross departmental capacity and capability required to achieve biodiversity targets reviewed	1B3	All relevant Departments and Government Bodies will explore the biodiversity expertise and training requirements across government to ensure the appropriate expertise is available to implement this Plan
By the end of 2026, all Local Authorities will have a Biodiversity Action Plan in place	1C6	All Local Authorities will have a Biodiversity Action Plan adopted by the end of 2026 which is subject to regular review and revision processes in line with relevant guideline standards
By 2026, Ireland has mainstreamed the engagement of the public and stakeholders in biodiversity-related environmental policy implementation and the conservation of biodiversity	1D12	DAFM, DHLGH and other relevant stakeholders will build and enhance engagement with terrestrial, freshwater, coastal and marine stakeholders and the wider community to promote the benefits of biodiversity and ecosystem services, and the responsible, sustainable use of resources
Objective 2: Meet Urgent Conservation and Restoration Needs		
By 2030, in line with the EU Biodiversity Strategy, the use and risk of pesticides is reduced by 50% by 2030	2B6	DAFM, Local Authorities and other relevant stakeholders will implement existing and new measures to reduce chemical pesticide use, in line with the EU regulatory framework for pesticides
Continued support for native tree planting	2B11	DAFM will continue to promote and/or support native tree planting by Local Authorities and other State/semi-state bodies
By 2027, a diversified national and local native plant stock is available for tree and landscape planting schemes	2B12	Local Authorities, Transport Infrastructure Ireland (TII), NPWS and OPW will encourage a more reliable supply and use native species, varieties, and landraces from appropriate native sources in their landscaping works, where possible

By 2030, in line with the EU Biodiversity Strategy, the decline of pollinators is halted and reversed	2B13	NBDC with partners in Northern Ireland and other actors listed in the All-Ireland Pollinator Plan 2021-2025 will implement appropriate actions listed in the Plan and support farmland pollinator conservation activities post-2025
By 2025, nature-based solutions are contributing to national climate ambitions	2C7	To support the National Climate Objective of achieving a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy, DECC, DAFM, DHLGH, Local Authorities, and Climate Action Regional Offices will promote terrestrial nature-based solutions in national, regional, and local rural and urban programmes
By 2027, protection and restoration measures detailed in Ireland's third RBMP are implemented to ensure that our natural waters are sustainably managed, that freshwater resources are protected so that there is no further deterioration; and where required, Ireland's rivers, lakes and coastal water bodies are restored to at least good ecological status	2D1	Relevant bodies such as DHLGH, DAFM, Local Authorities and partners will deliver a RBMP to better protect, enhance and monitor the ecological status of water during the third cycle of the RBMP
By 2027, optimised benefits in flood risk management planning and drainage schemes are in place	2D5	OPW will work with relevant authorities to ensure that Flood Risk Management planning and associated Strategic Environmental Assessment (SEA), EIA and Appropriate Assessment (AA), minimises loss of biodiversity and ecosystem services through policies to promote more catchment-wide and non-structural flood risk management measures
By 2027, optimised benefits in flood risk management planning and drainage schemes are in place	2D7	The OPW, in coordination with other relevant stakeholders, will continue to enhance its knowledge and capacity with regards to Nature-based Solutions for Catchment Management (NBS-CM) and will assess the potential NBS-CM as part of the development of the future flood relief schemes

By 2030, 300 km of rivers are restored to a free-flowing state	2D21	DHLGH, Inland Fisheries Ireland, OPW and other relevant bodies will explore the restoration of 300 km or rivers to a free-flowing state
By 2027, implementation of a National Restoration Plan has begun	2F5	DHLGH and all stakeholders across Government, will put in place restoration measures as described in the National Restoration Plan, within the appropriate timeframes
By 2027, implementation of the National Restoration Plan is monitored	2F6	DHLGH and all stakeholders across Government, will monitor implementation of the National Restoration Plan
By 2030, IAS are controlled, managed, and where possible, eradicated within Protected Areas and effectively controlled in urban, peri-urban areas, the wider countryside and marine and coastal areas	2H4	NPWS in collaboration with all relevant stakeholders will resource and implement on-the-ground actions to control, manage and where possible and feasible, eradicate occurrences of invasive alien species, including the removal of stands of invasive species from Protected Areas and National Parks
By 2030, IAS are controlled, managed, and where possible, eradicated within Protected Areas and effectively controlled in urban, peri-urban areas, the wider countryside and marine and coastal areas	2H6	NPWS, NBDC and relevant partners will implement recommended measures arising from the 2021 EPA Report No. 368 Prevention, Control and Eradication of Invasive Alien Species
Objective 3: Secure Nature's Contribution to People		
By the end of 2027, the biocultural value of green and blue urban environments (GBUE) in all local authority areas is enhanced	3A3	Local Authorities will work to identify and respond to opportunities for enhancing the biocultural value of GBUE through appropriate design strategies, the use of visual and performing arts, and enhancing equity of access and promoting use of GBUE by community groups, and integrating cultural services in local biodiversity action plans
By 2030, shared responsibility for the conservation of biodiversity acted on	3C1	All Public Authorities and private sector bodies move towards no net loss of biodiversity through strategies, planning, mitigation measures, appropriate offsetting and/or investment in Blue-Green infrastructure

By 2030, the objectives of the NBAP, where relevant, are aligned with and integrated, within the statutory land use plans of the Regional Assemblies and Planning Authorities and within LBAPs	3C3	All Regional Spatial and Economic Strategies, City and County Development Plans, Local Area Plans and LBAP's shall be aligned with the objectives of the NBAP, where relevant
Objective 4: Enhance the Evidence Base for Action on Biodiversity		
By 2024, biodiversity monitoring programmes are sufficiently robust to detect changes over time and fulfil our national, regional and global reporting obligations	4C4	The contribution from citizen science to support biodiversity monitoring will be supported by all relevant organisations
Objective 5: Strengthen Ireland's Contribution to International Initiatives		
By 2025, the All-Island Pollinator Plan (AIPP) is supported	5A5	Relevant bodies will continue to support and utilise the All-Ireland Pollinator Plan

Appendix IV: Revised National Planning Framework National Planning Objectives (NPOs) which relate to the actions of local authorities pertaining to biodiversity

Number	National Planning Objective
NPO 66	The planning system will be responsive to our national environmental challenges and ensure that development occurs within environmental limits, having regard to the medium and longer-term requirements of all relevant environmental and climate legislation and the sustainable management of our natural capital.
NPO 77	Enhance water quality and resource management by: <ul style="list-style-type: none"> • Ensuring that River Basin Management Plan objectives are fully considered throughout the physical planning process. • Integrating sustainable water management solutions, such as Sustainable Urban Drainage (SUDS), non-porous surfacing and green roofs, and nature based solutions, to create safe places.
NPO 77	Promote sustainable development by ensuring flooding and flood risk management informs place-making by: <ul style="list-style-type: none"> • Avoiding inappropriate development in areas at risk of flooding that do not pass the Justification Test, in accordance with the Guidelines on the Planning System and Flood Risk Management; • Taking account of the potential impacts of climate change on flooding and flood risk, in line with national policy regarding climate adaptation.
NPO 79	Support the management of stormwater, rainwater and surface water flood and pollution risk through the use of nature-based solutions and sustainable drainage systems, including the retrofitting of existing environments to support nature based solutions.
NPO 80	Support the retrofitting of existing environments to cater for surface water run-off through the use of nature based solutions.
NPO 87	Integrated planning for Green and Blue Infrastructure will be incorporated into the preparation of statutory land use plans while maintaining ecosystem services and ecosystem functions and conserving and/or restoring biodiversity.
NPO 87	Identify and strengthen the value of greenbelts and green and blue spaces at regional, city and local scales, to enable enhanced connectivity to wider strategic networks and prevent coalescence of settlements and to allow for the long-term strategic expansion of urban areas. Promote and support an increase in the provision of green and blue spaces and tree canopy cover in settlements.
NPO 87	In line with the National Biodiversity Action Plan and European Union Nature Restoration Law, and best available scientific information, regional and local planning authorities shall support the preparation and implementation of the National Restoration Plan.

NPO 87	<p>In line with the National Biodiversity Action Plan; the conservation, enhancement, mitigation and restoration of biodiversity is to be supported by:</p> <ul style="list-style-type: none"> • Integrating policies and objectives for the protection and restoration of biodiversity, including the principles of the mitigation hierarchy of - avoid, minimise, restore and offset - of potential biodiversity impacts, in statutory land use plan. • Retention of existing habitats which are currently important for maintaining biodiversity (at local/regional/national/international levels), in the first instance, is preferable to replacement/restoration of habitats, in the interests of ensuring continuity of habitat provision and reduction of associated risks and costs.
NPO 87	<p>In line with the objectives of the National Biodiversity Action Plan, planning authorities should seek to address no net loss of biodiversity within their plan making functions.</p>
NPO 87	<p>Enhance the conservation status and improve the management of protected areas and protected species by:</p> <ul style="list-style-type: none"> • Implementing relevant EU Directives to protect Ireland's environment and wildlife and support the objectives of the National Biodiversity Action Plan; • Developing and utilising licensing and consent systems to facilitate sustainable activities within Natura 2000 sites; • Continued research, survey programmes and monitoring of habitats and species.
NPO 88	<p>Facilitate the protection and restoration of biodiversity [including in European sites and the habitats and species for which they are selected] through the preparation of national guidance in relation to Planning and Biodiversity to:</p> <ul style="list-style-type: none"> • Plan and manage for integration of biodiversity protection and restoration in future planning and development; • Ensure a consistent and strategic approach to biodiversity protection and restoration across planning authorities and administrative boundaries, and • Support the implementation of the National Biodiversity Action Plan (2023-2030) and the forthcoming National Restoration Plan.
NPO 92	<p>Ensure the alignment of planned growth with the efficient and sustainable use and development of water resources and water services infrastructure, in order to manage and conserve water resources in a manner that supports a healthy society, economic development requirements and a cleaner environment.</p>

Appendix V: Regional Spatial and Economic Strategy

Regional Priority Objectives (RPOs) which relate to the actions of local authorities pertaining to biodiversity

Number	Regional Priority Objective
RPO 7.9	Local authorities shall consider measures to minimise the harmful effects of light pollution in the future provision of outdoor lighting, including improving their approach to street lighting and ensuring that new developments are lit appropriately and to ensure that environmentally sensitive areas are protected.
RPO 7.10	Support the implementation of the Water Framework Directive in achieving and maintaining at least good environmental status for all water bodies in the Region and to ensure alignment between the core objectives of the Water Framework Directive and other relevant Directives, River Basin Management plans and local authority land use plans
RPO 7.11	For water bodies with 'high ecological status' objectives in the Region, local authorities shall incorporate measures for both their continued protection and to restore those water bodies that have fallen below high ecological status and areas 'At Risk' into the development of local planning policy and decision making any measures for the continued protection of areas with high ecological status in the Region and for mitigation of threats to waterbodies identified as 'At Risk' as part of a catchment based approach in consultation with the relevant agencies. This shall include recognition of the need to deliver efficient wastewater facilities with sufficient capacity and thus contribute to improved water quality in the Region
RPO 7.15	Local authorities shall take opportunities to enhance biodiversity and amenities and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned.
RPO 7.16	Support the implementation of the Habitats Directives in achieving an improvement in the conservation status of protected species and habitats in the Region and to ensure alignment between the core objectives of the EU Birds and Habitats Directives and local authority development plans.
RPO 7.17	Facilitate cross boundary co-ordination between local authorities and the relevant agencies in the Region to provide clear governance arrangements and coordination mechanisms to support the development of ecological networks and enhanced connectivity between protected sites whilst also addressing the need for management of alien invasive species and the conservation of native species.

RPO 7.21	Local authorities shall promote an Ecosystem Services Approach in the preparation of statutory land use plans.
RPO 7.22	Local authority development plan and local area plans, shall identify, protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner and should also have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species.
RPO 7.26	Support the development of guidance for assessment of proposed land zonings in order to achieve appropriate riparian setback distances that support the attainment of high ecological status for waterbodies, the conservation of biodiversity and good ecosystem health, and buffer zones from flood plains.

Appendix VI: Designated Sites and Habitats in County Meath

Table 2. Special Areas of Conservation (SACs) within Co. Meath

Site name	Site code
Killyconny Bog (Cloghbally)	000006
Rye Water Valley/Carton	001398
White Lough, Ben Loughs and Lough Doo	001810
Boyne Coast and Estuary	001957
Lough Bane and Lough Glass	002120
River Boyne and River Blackwater	002299
Moneybeg and Clareisland Bogs	002340
Girley (Drewstown) Bog	002203
Mount Hevey Bog	002342

Table 3. Special Protection Areas (SPAs) in Co. Meath

Site name	Site code
Lough Sheelin	004065
Boyne Estuary	004080
River Nanny Estuary and Shore	004158
River Boyne and River Blackwater	004232

Table 4. Natural Heritage Areas (NHAs) in Co. Meath

Site name	Site code
Jamestown Bog	001324
Girley Bog	001580
Molerick Bog	001582

Table 5. Proposed Natural Heritage Areas (pNHAs) in Co. Meath

Site name	Site code
Ballyhoe Lough	001594
Ballynabarny Fen	001573
Balrath Woods	001579
Boyne Coast and Estuary	001957
Boyne River Islands	001862
Boyne Woods	001592
Breaky Loughs	001558
Corstown Loughs	000552
Crewbane Marsh	000553
Cromwell's Bush Fen	001576
Dowth Wetland	001861
Doolystown Bog	001577
Duleek Commons	001578
Kilconny Bog (Cloghbally)	000006
Laytown Dunes/Nanny Estuary	000554
Lough Naneagh	001814

Lough Sheelin	000987
Lough Shesk	000556
Mentrim Lough	001587
Mount Hevey Bog	001584
Rathmolyon Esker	000557
Rossnaree Riverbank	001589
Royal Canal	002103
Rye Water Valley/Carton	001398
Slane Riverbank	001591
Thomastown Bog	001593
Trim Wetlands	001357
White Lough, Ben Loughs and Lough Doo	001810

Appendix VII: National status of each Annex I habitat found within County Meath based on 2019 Article 17 reporting by NPWS

Habitat	Habitat Code	Overall Status	Co. Meath SACs
Active raised bogs	7110	Bad	002342, 002340, 000006
Degraded raised bogs still capable of natural regeneration	7120	Bad	002343, 002203, 002340, 000006
Depressions on peat substrates of the <i>Rhynchosporion</i>	7150	Bad	002344, 002340
Alkaline fens	7230	Bad	002299
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)	91E0	Bad	002299
Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	3140	Bad	002120, 001810
Estuaries	1130	Inadequate	001957
Mudflats and sandflats not covered by seawater at low tide	1140	Inadequate	001957
Annual vegetation of drift lines	1210	Inadequate	001957
<i>Salicornia</i> and other annuals colonising mud and sand	1310	Favourable	001957
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)	1330	Inadequate	001957
Embryonic shifting dunes	2110	Inadequate	001957
Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)	2120	Inadequate	001957
Fixed coastal dunes with herbaceous vegetation (grey dunes)	2130	Bad	001957
Petrifying springs with tufa formation (Cratoneurion)	7220	Inadequate	001398

Appendix VIII: Irish Wetland Bird Survey (IWeBS) trend data for the Boyne Estuary and Nanny Estuary sites.

Species	Trend (%)			Long Term Trend
	Boyne Estuary - 5 Year	Boyne Estuary - 12 Year	Boyne Estuary - 23 Year	
Turnstone	-35.8	-74.9	-82.1	Large Decline
Lapwing	14.1	-43.2	-63.3	
Golden Plover	-36.2	-72.0	-61.4	
Ringed Plover	-63.5	-67.1	-58.9	
Grey Plover	-78.8	-71.1	-54.9	
Bar-tailed Godwit	-71.9	-15.9	-51.9	
Mallard	-47.4	-45.8	-45.5	Moderate Decline
Wigeon	-2.0	-6.5	-23.7	Intermediate Decline
Dunlin	-19.5	-34.8	-20.8	
Curlew	32.8	-18.2	-19.0	
Oystercatcher	-22.6	-37.4	-18.0	
Cormorant	17.6	-26.6	-0.8	Stable or Increasing
Redshank	4.3	-9.0	1.7	
Knot	52.8	-17.3	14.1	
Sanderling	-67.8	-63.9	16.9	
Shelduck	-10.7	-16.8	17.5	
Black-tailed Godwit	12.8	34.7	29.3	
Light-bellied Brent Goose	-35.7	-41.3	80.5	
Teal	-40.1	25.8	143.5	

Figure 25. IWeBS trend data for the Boyne Estuary. Only species with sufficient data are presented (Irish Wetland Bird Survey, 2024).

Species	Trend (%)			Long Term Trend
	Nanny Estuary & shore - 5 Year	Nanny Estuary & shore - 12 Year	Nanny Estuary & shore - 23 Year	
Golden Plover	-35.3	-75.7	-85.9	Large Decline
Cormorant	-32.1	-90.6	-81.1	
Bar-tailed Godwit	-71.6	-78.8	-75.9	
Grey Plover	-58.5	-80.1	-75.1	
Dunlin	-59.7	-51.2	-44.3	Moderate Decline
Turnstone	-50.0	-74.5	-43.6	
Sanderling	-75.3	-71.4	-29.5	
Lapwing	118.6	-11.3	-29.3	
Ringed Plover	-50.0	-68.3	-23.2	Intermediate Decline
Mallard	34.5	-35.1	-6.3	
Oystercatcher	32.3	-45.6	28.4	Stable or Increasing
Curlew	9.7	-32.0	47.8	
Knot	32.1	-75.2	76.2	
Light-bellied Brent Goose	-42.3	-48.6	133.3	
Redshank	-15.7	-26.3	311.8	
Teal	40.0	157.9	1533.3	
Black-tailed Godwit	27.4	116.1	1916.7	

Figure 26. IWeBS trend data for the Nanny Estuary. Only species with sufficient data are presented (Irish Wetland Bird Survey, 2024).

Appendix IX: Table of species currently or previously listed on the Flora (Protection) Order (FPO) which have been recorded in Co. Meath

Scientific name	Common name	FPO 2022	FPO 2015	FPO 1999	FPO 1987	FPO 1980
<i>Lathyrus palustris</i>	Marsh Pea					Yes
<i>Hypericum hirsutum</i>	Hairy St John's-wort	Yes	Yes	Yes	Yes	
<i>Scleranthus annuus</i>	Annual Knawel	Yes	Yes	Yes		
<i>Pyrola minor</i>	Common Wintergreen	Yes				
<i>Pyrola rotundifolia</i>	Round-leaved Wintergreen					Yes
<i>Betonica officinalis</i>	Betony	Yes	Yes		Yes	
<i>Galeopsis angustifolia</i>	Red Hemp-nettle	Yes	Yes	Yes	Yes	
<i>Salvia verbenaca</i>	Wild Clary					Yes
<i>Logfia minima</i>	Small Cudweed		Yes	Yes	Yes	
<i>Omalotheca sylvatica</i>	Heath Cudweed	Yes	Yes	Yes	Yes	
<i>Epipactis phyllanthos</i>	Green-flowered Helleborine					Yes
<i>Anacamptis morio</i>	Green-winged Orchid				Yes	
<i>Juncus compressus</i>	Round-fruited Rush	Yes				
<i>Hordeum secalinum</i>	Meadow Barley	Yes	Yes	Yes	Yes	

Appendix X: Table of Actions, Timescale, Action Owner, Possible Partners & Pre-existing Policy/Plan Alignment

Objective 1: Reaching a deeper spatial understanding of nature in Meath

No.	Action	Timescale	Action Owner	Possible Partners	Pre-existing Policy/Plan alignment
1	Undertake a state of knowledge exercise of biodiversity in County Meath.	Long term	MCC Biodiversity	NPWS NBDC BSBI	NBAP Action 1C6 Heritage Council - Local Authority Biodiversity Action Plan Guidelines Continuation of MBAP 2015 - 2020 Action 21
2	Undertake a countywide wetland resurvey and mapping project, building on the information garnered from the County Meath Wetlands and Coastal Habitats Survey (2010).	Short term	MCC Biodiversity	MCC Climate Action, Environment & Water Services NPWS NBDC BSBI Irish Ramsar Wetlands Committee	HD Article 10 NBAP Action 2C7 RSES RPO 7.15, 7.16, 7.21, 7.22, 7.23 NPF NPO 66, 79, 82, 83, 85 MCDP INF OBJ 23 MCDP HER POL 35 MCDP HER POL 47 MCDP HER POL 48 MCDP HER POL 50 MCDP HER POL 56 MCDP HER POL 58 MCDP HER POL 59 MCDP HER POL 60 Continuation of MBAP 2015 - 2020 Action 21

3	Undertake a countywide resurvey and mapping project of Meath's trees, woodlands and hedgerows, building on the baseline information garnered from the County Meath Tree, Woodland and Hedgerow Survey (2010).	Short term	MCC Biodiversity	MCC Climate Action, Environment & Water Services NPWS NBDC BSBI	HD Article 10 NBAP Action 2C7 RSES RPO 7.15, 7.16, 7.21, 7.22, 7.23 NPF NPO 66, 79, 82, 83, 85 MCDP DM OBJ 11 MCDP DM POL 9 MCDP HER POL 35 MCDP HER POL 40 MCDP HER POL 56 MCDP HER POL 58 MCDP HER POL 59 MCDP HER POL 60 MCDP HER OBJ 36 MCDP HER OBJ 38 MCDP HER OBJ 60 MCDP RD OBJ 18 Continuation of MBAP 2015 - 2020 Action 21
4	Undertake a countywide survey and mapping project of Meath's semi-natural grassland habitats.	Medium term	MCC Biodiversity	NPWS NBDC BSBI Farming Orgs	HD Article 10 NBAP Action 2C7 RSES RPO 7.15, 7.16, 7.21, 7.22, 7.23 NPF NPO 66, 79, 82, 83, 85 MCDP HER POL 35 MCDP HER POL 56 MCDP HER POL 58 MCDP HER POL 59 MCDP HER OBJ 60 Continuation of MBAP 2015 - 2020 Action 21

5	Using an evidence-based approach, create a detailed geodatabase 'Site Inventory' of designated and non-designated sites of high intrinsic biodiversity value within County Meath.	Short term	MCC Biodiversity MCC Information Systems	NPWS NBDC The Heritage Council BSBI	NPF NPO 66 Continuation of MBAP 2015 - 2020 Action 21
6	Using an evidence-based approach, identify and map Locally Important Biodiversity Sites (LIBS) in County Meath, according to Heritage Council guidelines, to ensure their continued protection through existing or new policies in the County Development Plan	Ongoing	MCC Biodiversity MCC Information Systems MCC Forward Planning	NPWS NBDC The Heritage Council BSBI Farming Orgs	HD Article 10 NBAP Action 2C7 NPF NPO 66 RSES RPO 7.15 MCDP HER POL 35 MCDP HER OBJ 60 Continuation of MBAP 2015 - 2020 Action 21 Heritage Council Policy and Guidelines for the Identification and Protection of Locally Important Biodiversity Sites

Objective 2: Leading the way - policy, planning and practice

No.	Action	Timescale	Action Owner	Possible Partners	Pre-existing Policy/Plan alignment
Leading the way in Policy					

7	Align the Meath County Development Plan, all area plans and the Meath Biodiversity Action Plan with the objectives of the National Biodiversity Action Plan, where relevant.	Ongoing	MCC Forward Planning MCC Biodiversity		NPF NPO 85 NBAP Action 3C3
8	Devise and support the implementation of good governance strategies to facilitate the integration of EU and national biodiversity legislation and policy requirements into Council plans, projects, and services, where relevant.	Short term	MCC Biodiversity	All MCC Sections	NPF NPO 66, 85 & 87 RSES RPO 7.16 MCDP HER POL 31 MCDP HER POL 32 MCDP HER POL 34 MCDP HER POL 44 MCDP HER OBJ 34 MCDP HER OBJ 35 MCDP RUR DEV SO 9 MCDP RD POL 53
9	Support the implementation of the Birds and Habitats Directives in protecting, and where possible, in achieving an improvement in the conservation status of protected species and habitats in County Meath.	Ongoing	MCC Biodiversity	All MCC Sections NPWS	NPF NPO 87 RSES RPO 7.16 IBSCAP Action 1.5

10	Support the review and update of policies, objectives and development management standards in the Meath County Development Plan.	Medium term	MCC Biodiversity MCC Forward Planning	NPWS IFI LAWPRO Bat Conservation Ireland Dark Skies Ireland	<p>MCDP HER POL 28</p> <p>NPF NPO 82 & 86 RSES RPO 7.22 & 7.23 NBAP Action 3C1</p> <p>NPF NPO 77, 80 & 82 RSES RPO 7.22 IBSCAP Action 4.1 NBAP Actions 2C7 & 2D1 WAP 2024 Action 3.5 & Urban Run-off 3 MCAP 2024 BET1 & NE3</p> <p>HD Article 10 RSES RPO 7.26 MCDP HER OBJ 60 MCDP INF OBJ 38</p> <p>RSES RPO 7.9 MCDP INF OBJ 74 MCDP 9.6.1 Access and Other Ancillary Works</p>
----	--	-------------	--	---	--

11	Work with the relevant authorities to support the preparation of, and implement, Ireland's Nature Restoration Plan, when adopted, and where relevant for Meath County Council, to help achieve national restoration targets	Ongoing	MCC Biodiversity	NPWS	NPF NPO 84
12	Identify locally important breeding sites in County Meath for select rare and threatened species, such as the Swift & Barn Owl, and ensure these are mapped and protected through inclusion of policies and objectives in the County Development Plan.	Ongoing	MCC Biodiversity MCC Information Systems MCC Forward Planning MCC Development Management	NPWS Birdwatch Ireland	BD Article 5 Wildlife Act 1976 Section 19 NPF NPO 87 MCDP DM OBJ 32
13	Promote a policy to ensure the purchase and use of native hedge and tree stock of local provenance where possible in plans and projects and avoid the use of species classified as 'invasive' such as Cherry Laurel.	Short term	MCC Biodiversity MCC Housing Capital Schemes MCC Transportation MCC Active Travel MCC Urban Regeneration MCC Development Management	MCC Climate Action, Environment & Water Services MCC Asset Management MCC Community Development Local Communities	NBAP 2B12 MCDP HER POL 44 AIPP MHS Theme 4

No.	Action	Timescale	Action Owner	Possible Partners	Pre-existing Policy/Plan alignment
Leading the way in Planning					
14	Provide a central place for all biodiversity data for decision-makers in Meath County Council.	Ongoing	MCC Information Systems MCC Biodiversity		Continuation of MBAP 2015 - 2020 Action 10 Meath County LECP 2023 - 2029 Action 1.1.8
15	Develop and implement a Green Infrastructure Strategy in accordance international best practice and emerging national guidance.	Medium term	MCC Forward Planning MCC Biodiversity	MCC Climate Action, Environment & Water Services MCC Heritage & Conservation MCC Transportation MCC Community Development MCC Active Travel MCC Urban Regeneration MCC Rural Regeneration & Town Centre First MCC Development Management	NPF NPO 82 & 83 RSES RPO 7.21 & 7.22 IBSCAP Action 3.3 MCDP Section 11.5.10 MCDP INF OBJ 23 MCDP HER POL 55 MCDP HER POL 56 MCDP HER OB 58 MCDP HER OB 59 MCDP HER OB 60

16	Support habitat retention and the integration of biodiversity measures into plans and the design and delivery of public projects and private developments, aiming for no net loss of biodiversity and biodiversity net gain where possible.	Ongoing	MCC Forward Planning MCC Development Management MCC Transportation MCC Housing Capital Schemes MCC Urban Regeneration & Active Travel MCC Rural Regeneration & Town Centre First MCC Asset Management	MCC Biodiversity MCC Climate Action, Environment & Water Services MCC Community Development	NPF NPO 66, 85 & 86 NBAP Action 3C1 MCAP Action BET1 MCDP DM POL 9 MCDP DM OBJ 11 MCDP HER POL 28 MCDP HER POL 37 MCDP HER POL 39 MCDP HER POL 40 MCDP RD OBJ 9 MCDP RD OBJ 10 MCDP 9.6.1 Access and Other Ancillary Works
17	Support the integration of nature-based solutions into plans and the design and delivery of public projects and private developments.	Ongoing	MCC Forward Planning MCC Development Management MCC Transportation MCC Housing Capital Schemes MCC Urban Regeneration & Active Travel MCC Rural Regeneration & Town Centre First MCC Asset Management	MCC Biodiversity MCC Climate Action, Environment & Water Services MCC Community Development	WFD NPF NPO 77, 79 & 80 RSES RPO 7.12 IBSCAP Action 4.1 NBAP Actions 2C7 & 2D1 WAP 2024 Action 3.5 & Urban Run-off 3 MCAP 2024 BET1 & NE3 MCDP INF OBJ 26 & 27

18	Align public projects and private developments with Inland Fisheries Ireland's guideline document 'Planning for Watercourses in the Urban Environment' and update development management standards as appropriate.	Ongoing	MCC Forward Planning MCC Development Management MCC Transportation MCC Housing Capital Schemes MCC Urban Regeneration & Active Travel MCC Rural Regeneration & Town Centre First MCC Asset Management	MCC Biodiversity MCC Climate Action, Environment & Water Services MCC Community Development	WFD HD Article 10 MCDP INF POL 33 MCDP INF OBJ 38 MCDP HER OBJ 60
19	Apply appropriate lighting specifications and mitigation measures to new development, new projects, lighting upgrades and existing lighting stock, as appropriate, to minimise disturbance to local biodiversity.	Ongoing	MCC Forward Planning MCC Development Management MCC Transportation MCC Housing Capital Schemes MCC Urban Regeneration & Active Travel MCC Rural Regeneration & Town Centre First MCC Asset Management MCC Community Development	MCC Biodiversity MCC Climate Action, Environment & Water Services Communities Bat Conservation Ireland Dark Skies Ireland eNGOs Local Communities	HD Article 10 HD Article 12 RSES RPO 7.9 MCDP HER OBJ 60 MCDP 9.6.1 Access and Other Ancillary Works

20	Protect existing Swift nesting sites where possible, establish new sites in existing public and private properties; and request integration of artificial swift nest bricks & boxes in new development.	Ongoing	MCC Development Management MCC Facilities	MCC Housing Capital Schemes Schools Birdwatch Ireland Local Communities	BD Article 5 Wildlife Act 1976 Section 19 NPF NPO 87 MCDP DM OBJ 32
21	Develop and provide guidance on the management of biodiversity issues for developers in the planning process.	Medium term	MCC Biodiversity MCC Development Management	NPWS IFI NBDC eNGOs	NPF NPO 66 & 85 IBSCAP Action 3.3 & 3.4 MCAP Action BET1 MCDP DM POL 9 MCDP DM OBJ 11 MCDP HER POL 28 MCDP HER POL 37 MCDP HER POL 39 MCDP HER POL 40 MCDP RD OBJ 9 MCDP RD OBJ 10 MCDP 9.6.1 Access and Other Ancillary Works
22	Pilot an Urban Nature Plan for Navan.	Long term	MCC Forward Planning MCC Biodiversity MCC Climate Action, Environment & Water Services MCC Transportation MCC Urban Regeneration & Active Travel MCC Rural	MCC Community Development Navan 2030 Local Communities	EU NRL IBSCAP Action 4.4

			Regeneration & Town Centre First		
--	--	--	----------------------------------	--	--

No.	Action	Timescale	Action Owner	Possible Partners	Pre-existing Policy/Plan alignment
Leading the way in Practice					
23	Adopt and implement a pesticide reduction strategy within Meath County Council.	Short term	MCC Transportation MCC Facilities MCC Development Management MCC Urban Regeneration & Active Travel MCC Climate Action, Environment & Water Services	MCC Biodiversity NBDC eNGOs Local Communities	EU NRL NBAP 2B6 AIPP MCDP HER OB 34 Continuation of MBAP 2015 - 2020 Action 26

24	Develop a training programme for Meath County Council staff.	Ongoing	MCC Human Resources, Learning & Development MCC Biodiversity All MCC Sections	Heritage Council NPWS LASNTG eNGOs	Continuation of MBAP 2015 - 2020 Action 23
25	Produce Biodiversity Best Practice Guidelines for staff across all sections of the local authority.	Ongoing	MCC Biodiversity	All MCC Sections	Joint Committee on Environment and Climate Action Report on Biodiversity 2022: Recommendation 54 & 63
26	Engage with neighbouring local authorities on biodiversity projects that require a landscape and/or catchment scale approach.	Ongoing	MCC Biodiversity MCC Climate Action, Environment & Water Services	Neighbouring Local Authorities LAWPRO NPWS IFI	RSES RPO 7.17
27	Provide updates to the Meath Biodiversity Working Group on unauthorised developments impacting the integrity and ecological health of protected and Locally Important Biodiversity Sites, where possible.	Ongoing	MCC Biodiversity MCC Planning Enforcement		

28	Pilot a biodiversity inclusive design for a social housing estate, prioritising retention of pre-existing habitats and a number of other possible actions such as the regeneration of semi-natural grasslands, installation of blue/green roofs, green walls, wetland & pond SUDS, green carparking, nest boxes in facades and wildlife friendly shrubs and trees in open space.	Long term	MCC Housing Capital Schemes	MCC Biodiversity MCC Development Management MCC Transportation MCC Climate Action, Environment & Water Services	NPF NPO 66, NPO 77, 79, 85 & 86 RSES RPO 7.12 IBSCAP Action 3.3 & 4.1 NBAP Actions 2C7 & 2D1 WAP 2024 Action 3.5 & Urban Run-off 3 MCAP Action BET1 & NE3 MCDP DM POL 9 MCDP DM OBJ 11 MCDP HER POL 28 MCDP HER POL 37 MCDP HER POL 39 MCDP HER POL 40 MCDP RD OBJ 9 MCDP RD OBJ 10 MCDP 9.6.1 Access and Other Ancillary Works
29	Continue to deliver local authority led actions in relation to monitoring, protection and the restoration of ecological status of waterbodies in County Meath.	Ongoing	MCC Climate Action, Environment & Water Services	MCC Forward Planning MCC Development Management MCC Biodiversity LAWPRO	WFD HD Article 10 NPF NPO 77 RSES RPO 7.10 & 7.11 NBAP Action 2D1 WAP 2024 Agri 2 WAP DWW3 & DWW4 MCDP INF OBJ 13 MCDP INF POL 14 MCDP INF POL 15 MCDP INF POL 32 MCDP INF OBJ 29 MCDP INF OBJ 38

					MCDP RD POL 53 MCDP HER OBJ 60
30	Implement the All-Ireland Pollinator Plan as part of Meath County Council's partnership agreement with the National Biodiversity Data Centre	Ongoing	MCC Biodiversity MCC Transportation MCC Facilities MCC Development Management MCC Urban Regeneration & Active Travel MCC Climate Action, Environment & Water Services	OPW NPWS NBDC	EU NRL MCDP HER OB 32 MHS Theme 4 AIPP

31	Develop biodiversity management plans for select open spaces / parks / greenways within local authority ownership, focusing initial pilots on Blackwater Park and the Boyne Valley to Lakelands Greenway.	Long term	MCC Transportation MCC Community Development MCC Urban Regeneration & Active Travel	MCC Biodiversity	EU NRL RSES RPO 7.15 MCAP (Action NE4) MCDP HER OB 32 MHS Theme 4 AIPP
----	---	-----------	---	------------------	---

Objective 3: Action for biodiversity

No.	Action	Timescale	Action Owner	Possible Partners	Pre-existing Policy/Plan alignment
32	Where possible, support Inland Fisheries Ireland in the removal/alteration of disused weirs to facilitate migration.	Ongoing	MCC Biodiversity	LAWPRO Local angling clubs Boyne Rivers Trust	EU NRL HD Article 10 MCDP HER OBJ 60
33	Where possible, work with relevant partners to protect and/or restore high ecological status waterbodies in County Meath and along its borders.	Short term	MCC Climate Action, Environment & Water Services MCC Biodiversity LAWPRO Blue Dot Catchments Programme Steering Group Teagasc	Landowners Farmers Westmeath County Council Boyne Rivers Trust Oriel River Catchments and Coastal Association Local Communities	WAP 2024 Action 5.5 RSES RPO 7.11

34	Plant native woodland on appropriate local authority owned sites.	Ongoing	MCC Climate Action, Environment & Water Services MCC Assets MCC Biodiversity	MCC Transportation MCC Urban Regeneration & Active Travel MCC Rural Regeneration & Town Centre First DAFM	EU NRL MCAP Action NE4
35	Facilitate the planting of groups of native trees within the boundary/built footprint of existing built-up areas.	Ongoing	MCC Climate Action, Environment & Water Services MCC Assets MCC Biodiversity MCC Transportation	MCC Urban Regeneration & Active Travel MCC Rural Regeneration & Town Centre First	EU NRL NPF NPO 83 MCAP Action NE11
36	Assess the feasibility of developing a native tree nursery and outdoor classroom space on a local authority owned site with a view to rearing stock of local provenance that can supply local projects and initiatives.	Medium term	MCC Climate Action, Environment & Water Services MCC Assets MCC Biodiversity	MCC Transportation Meath Partnership NBDC NPWS IFI LAWPRO Meath Partnership Boyne Rivers Trust Community Groups	EU NRL NBAP 2B12 AIPP MCAP Action NE11
37	Continue to implement biodiversity and habitat management measures recommended for Balrath Woods.	Ongoing	MCC Biodiversity MCC Transportation Tree Council of Ireland Balrath Woods Preservation Group Balrath Woods Steering Committee	MCC Climate Action, Environment & Water Services	MCDP HER OBJ 37

38	Continue and expand biodiversity-friendly grassland management practices which benefit biodiversity on the Commons of Lloyd and seek to implement similar practices on other public lands.	Ongoing	MCC Biodiversity MCC Assets MCC Transportation	NPWS NMS Farmers Community Groups	EU NRL MCDP HER OB 32 MHS Strategic Theme 4 AIPP
39	Continue to work in partnership with relevant stakeholders on a suitable peatland site(s) to demonstrate best practice in sustainable peatland conservation, management and restoration techniques and to promote their heritage and educational value.	Ongoing	MCC Biodiversity MCC Heritage & Conservation	MCC Climate Action, Environment & Water Services NPWS Coillte Bord na Móna LAWPRO Irish Peatland Conservation Council eNGOs Landowners Community Groups	NBAP Action 2C7 MCDP HER OB 45 MCDP HER POL 39 Meath County LECP 2023 - 2029 Action 1.1.7
40	Support the implementation of projects which promote the conservation of County Meath's coastal dune habitats.	Ongoing	MCC Climate Action, Environment & Water Services MCC Biodiversity MCC Transportation	Coastwatch Clean Coasts CARO Community Groups	NPF NPO 87 RSES RPO 7.16 IBSCAP Action 1.8
41	Support local communities with the creation and implementation of Community Biodiversity Action Plans.	Ongoing	MCC Biodiversity	Meath Partnership Community Groups	Continuation of MBAP 2015 - 2020 Action 16 MHS Theme 4

42	Continue to deliver the Hare's Corner project	Ongoing	MCC Biodiversity	Farmers Landowners Community Groups	IBSCAP Action 1.5
43	Continue to support Barn Owl conservation in County Meath in conjunction with partners.	Ongoing	Birdwatch Ireland MCC Biodiversity	MCC Development Management MCC Transportation MCC Facilities Irish Raptor Study Group eNGOs Farmers Landowners Local Communities	BD Article 5 Wildlife Act 1976 Section 19 NPF NPO 87

Objective 4: Research and monitoring

No.	Action	Timescale	Action Owner	Possible Partners	Pre-existing Policy/Plan alignment
44	Implement ecological surveys targeting NHAs, pNHAs and non-designated sites in County Meath, where possible.	Ongoing	MCC Biodiversity NPWS	NBDC BSBI eNGOs	NPF NPO 87

45	Implement an annual programme of ecological surveys, climate change risk assessments and ecological conservation work, as necessary, on local authority owned lands.	Ongoing	MCC Biodiversity MCC Climate Action, Environment & Water Services	NPWS NBDC BSBI eNGOs	IBSCAP Action 1.2 IBSCAP Action 3.2 MHS Theme 4 MCAP Action NE2
46	Explore opportunities to progress river restoration measures, natural water retention measures and nature-based solutions for integrated catchment management (NbS-ICM) in appropriate locations in the Boyne catchment, where feasible and in collaboration with relevant stakeholders.	Medium term	MCC Biodiversity MCC Climate Action, Environment & Water Services	NPWS EPA OPW IFI LAWPRO ASSAP DAFM Bord na Móna Neighbouring local authorities Farming Orgs eNGOs	RSES RPO 7.16 IBSCAP Action 1.2, 1.5, 4.1 NBAP Actions 2C7 & 2D1 WAP 2024 Hymo 9 MCDP INF OBJ 23 See also Table 3-1 NWRM Overview and Recommendations for Use in Ireland Version no. 2 (2020)

47	Consider projects that include the mapping, appropriate treatment and eradication where possible of Invasive Alien Species	Ongoing	MCC Biodiversity MCC Transportation	NPWS IFI OPW LAWPRO eNGOs Local Communities	IBSCAP Action 1.6 WAP Invasive 5 RSES RPO 7.17 Continuation of MBAP 2015 - 2020 Action 5
48	Support and encourage the volunteer network and local communities to carry out biological recording and citizen science projects.	Ongoing	MCC Biodiversity	NBDC Healthy Ireland eNGOs Local Communities	IBSCAP Action 4.3 MHS Strategic Theme 2

Objective 5: Raising awareness and appreciation of biodiversity

No.	Action	Timescale	Action Owner	Possible Partners	Pre-existing Policy/Plan alignment
-----	--------	-----------	--------------	-------------------	------------------------------------

49	Develop and implement an outreach and engagement programme for the general public	Ongoing	MCC Biodiversity MCC Corporate Affairs & Governance MCC Library, Arts & Culture MCC Community Development	NPWS NBDC Meath Partnership eNGOs Local Communities	MCDP HER POL 29 Continuation of MBAP 2015 - 2020 Action 20
50	Facilitate and support a landowner and land manager network for those interested in farming sustainably and managing space for nature in the countryside.	Ongoing	MCC Biodiversity MCC Economic Development & Tourism	Teagasc LAWPRO Meath Partnership Farming Orgs Farmers Landowners Land tenants Boyne Rivers Trust Birdwatch Ireland eNGOs	Continuation of MBAP 2015 - 2020 Action 6 Meath County LECP 2023 - 2029 Action 1.1.6 MCDP HER POL 29 MCAP 2024 SR5
51	Explore the use of demonstration farm(s) for biodiversity conservation e.g. hedgerow management, field margins, river management, soil improvement, Integrated pest management, nest boxes etc.	Long term	MCC Biodiversity Economic Development & Tourism Farming Groups Farmers	Teagasc Farming for Nature National Organic Training Skillnet eNGOs Farmers Landowners	Continuation of MBAP 2015 - 2020 Action 2 Meath County LECP 2023 - 2029 Action 1.1.6 MCDP HER POL 29 MCAP 2024 SR5

52	Produce Tree Planting and Management Guidelines for communities	Medium term	MCC Climate Action, Environment & Water Services MCC Biodiversity MCC Community Development	eNGOs Local Communities	EU NRL MCDP HER POL 29 MCDP HER OBJ 36 MCAP Action NE11
53	Continue to work with the Meath County Council Culture and Creativity Team to promote biodiversity through creative projects, and with support from the Creative Ireland programme.	Ongoing	MCC Biodiversity MCC Library, Arts & Culture	MCC Heritage & Conservation	MCDP HER POL 29 MHS Theme 5
54	Develop guidance and supports for schools and school teachers in County Meath relating to biodiversity.	Ongoing	MCC Biodiversity MCC Climate Action, Environment & Water Services MCC Library, Arts & Culture	Navan Education Centre	WAP 2024 Action 7.1 AIPP MCDP HER POL 29

Appendix XI: List of abbreviations

AA – Appropriate Assessment

AIPP – All-Ireland Pollinator Plan

BD – EU Bird's Directive

BSBI – Botanical Society of Britain and Ireland

DAFM – Department of Agriculture, Food and the Marine

DECC – Department of Environment, Climate and Communications

DHLGH – Department of Housing, Local Government and Heritage

DWW – Domestic Wastewater

EIA – Environmental Impact Assessment

EPA – Environmental Protection Agency

EU – European Commission

FPO – Flora Protection Order

GBUE – Green Blue Urban Environment

HD – EU Habitats Directive

IBSCAP – Ireland's Biodiversity Sectoral Climate Adaptation Plan

IFI – Inland Fisheries Ireland

IPBES – Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services

LAP – Local Area Plan

LAWPRO – Local Authority Waters Programme

LBAP – Local Biodiversity Action Plan

LECP – Local Economic and Community Plan

LIBS – Locally Important Biodiversity Sites

MBAP – Meath Biodiversity Action Plan

MCAP – Meath Climate Action Plan

MCC – Meath County Council

MCDP – Meath County Development Plan

MHS – Meath Heritage Strategy

NBAP – National Biodiversity Action Plan

NBDC – National Biodiversity Data Centre

NBS-CM – Nature-based Solutions for Catchment Management

NHA – Natural Heritage Area

NPF – National Planning Framework

NPF – National Planning Framework

NPO – National Priority Objective

NPWS – National Parks and Wildlife Service

NRL – Nature Restoration Law

NWRM – Natural Water Retention Measures

OPW – Office of Public Works

pNHA – Proposed Natural Heritage Area

RBMP – River Basin Management Plan

RPO – Regional Priority Objective

RSES – Regional Spatial and Economic Strategy

SAC – Special Area of Conservation

SEA – Strategic Environmental Assessment

SPA – Special Protection Area

TII – Transport Infrastructure Ireland

WAP – Water Action Plan

WFD – Water Framework Directive