



# BIODIVERSITY PLAN

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October 2023



# 1 TII Biodiversity Plan

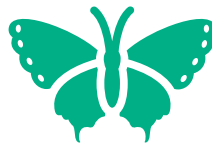


## 1.1 What is biodiversity

The technical term for all life on earth, 'biodiversity', is a measure of the variety of species, habitats and ecosystems on earth, ranging in scale from microorganisms to the Amazon rainforest. Healthy ecosystems, the complex interaction of living creatures and the physical environment, are essential to support processes that support life on earth. Healthy ecosystems clean our water, purify our air, maintain our soil, regulate the climate, recycle nutrients and provide us with food. The loss of animals, plants or microorganisms within an ecosystem could affect their ability to provide these 'ecosystem services'. Some species, sometimes referred to as 'keystone species' are so important that without them ecosystems could cease to function altogether e.g. pollinating bees. Biodiversity also contributes to our economy and health and wellbeing e.g. through access to parks and green spaces for recreation.

## 1.2 Why do we need a biodiversity plan?

The world is in the midst of a Biodiversity Crisis. It is estimated that global wildlife populations have fallen by as much as 60% in the last four decades<sup>1</sup>. Declines are attributable to a range of factors including changes in land and sea use, over exploitation, pollution, and the spread of invasive alien species. Ireland is not immune to these negative trends with 85% of European Union (EU) protected habitats and 32% of EU protected species classified as being in unfavourable status<sup>2</sup>. Furthermore, reliable population trends for most species in Ireland, particularly those not protected by EU legislation, are unknown.



An Rannas Caidéil,  
Oidhreacht agus Gastracht  
Department of Culture,  
Heritage and the Gaeltacht

The Status of EU Protected  
Habitats and Species in Ireland  
2019

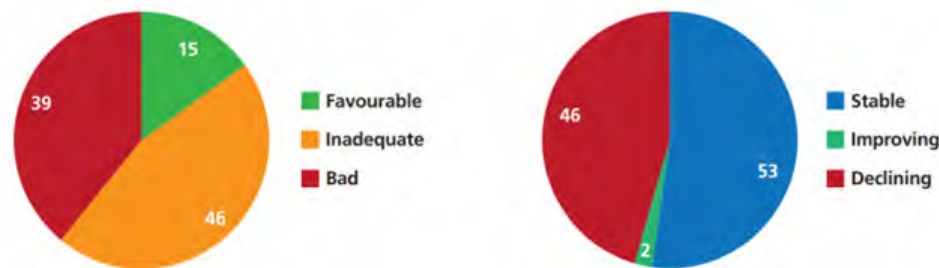


At an international level, biodiversity policy commitments developed by the United Nations (UN) and EU seeks to reverse and restore global biodiversity. The EU's Biodiversity Strategy 2030 sets out a comprehensive package of commitments and actions required by all Member States, including Ireland, to halt and reverse the Biodiversity Crisis. These policies are in turn reflected at a national and local level in Ireland's Climate Action Plan, 4<sup>th</sup> Biodiversity Action Plan (draft), and local authority Biodiversity Action Plans. The national Biodiversity Action Plan, and an increasing number of local Biodiversity Action Plans, include commitments that developments, including infrastructure, should achieve no net loss of biodiversity.

TII, as a state agency provider of transport infrastructure, recognises the potential for our operations to impact biodiversity. Such impacts could result from the development of new projects or legacy and ongoing impacts associated with existing infrastructure. Potential impacts include loss of habitats, fragmentation of habitats and associated effects on species that rely on these habitats to survive and thrive. TII acknowledges the challenges associated with developing and maintaining linear infrastructure within the framework of sustainable development.

Furthermore, a biodiversity plan is also required as we can no longer rely on compliance with European and national biodiversity related legislation, e.g. the protection of certain sites, habitats and species, to halt or reverse the biodiversity crisis. TII recognises that a proactive approach, with clear objectives, is required that harnesses national and international policy and emerging approaches to addressing biodiversity loss.

Figure 1: Overall status and trends for EU protected habitats (from NPWS)



<sup>1</sup> UN Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating' - United Nations Sustainable Development

<sup>2</sup> NPWS\_2019\_Vol1\_Summary\_Article17.pdf



### 1.3 What are we currently doing?

TII's Sustainability Implementation Plan sets out a high-level strategy for embedding our sustainability principles into plans, programmes and projects with specific outcomes for environmental enhancement, including biodiversity, included in the plan. Aligned to this, TII's Environmental Strategy details an environmental sustainability delivery framework for the development of projects and identifies the following key focus areas and future vision for biodiversity.

TII plays an active role in ensuring compliance with national and international biodiversity related legislation through the development of standards and guidance documents. These documents, on subjects including biodiversity impact assessment and protected species survey methodology, ensure that our projects adhere to the most up to date best practice standards. To inform these standard and guidance documents TII participates in international research partnerships, identifies information gaps and commissions research projects. Recent or ongoing topics include identifying and addressing the impacts of major road developments on breeding barn owl populations and the sustainable management of earthworks as a means of rehabilitating degraded peatlands

### 1.4 TII's vision for biodiversity

***“Transport Infrastructure Ireland will contribute to the recovery of biodiversity at a local and national level while developing and maintaining a safe and reliable transport infrastructure network”***



Extract from TII's Sustainability Implementation Plan



Biodiversity Related Standards and Guidance



## 1.5 Policy Areas

TII's biodiversity plan will deliver on the following key policy areas while developing and maintaining a safe and reliable transport network for Ireland:







## 1.6 How will we achieve this?

Objectives and actions to achieve TII biodiversity plan were developed with cognisance of existing objectives and actions stipulated in national, sectoral and TII policy and action plan documents. Actions under each objective were assigned to short-, medium- or long-term timescales based on the anticipated programme of development and implementation.

Five overarching objectives and associated actions to deliver on TII biodiversity plan are detailed below.



Image: Grass verges mown for biodiversity, N81 Wicklow



Image: Wildflower meadow on a roundabout at junction 16 of the M7 in Portlaoise - Photo credit Brian Gaynor

### OBJECTIVES

1

**Increase biodiversity capacity, resources, collaboration and capability**

2

**Develop and update biodiversity standard and technical documents**

3

**Support research, monitoring and data sharing**

4

**Embrace biodiversity accounting methodologies and strive for net gain**

5

**Focus on the key biodiversity issues**

### 1.6.1 Objective 1 - Increase biodiversity capacity, resources, collaboration and capability

The successful delivery of TII Biodiversity Policy is largely dependent by the availability of suitably skilled and experienced staff. This objective primarily relates to staff directly employed by TII but also concerns all additional personnel involved in the delivery and management of projects, including consultants, other government

agencies, local authorities and community groups. This objective closely aligns with Outcome 1A of the 4<sup>th</sup> NBAP (draft):

Image: Luas Stop landscape managed for biodiversity, Kilmacud

1

#### 'Biodiversity capacity and resources have increased at all levels of Government'

##### Short Term

- 1.1 Implement a review of biodiversity related staff resource requirements across all TII operations including wider key stakeholders (e.g. local authorities)
- 1.2 Biodiversity resourcing requirements identified for all projects at an early stage with specialist biodiversity input incorporated at the planning and environmental, and design stages as standard
- 1.3 Introductory biodiversity training developed and rolled out across all technical disciplines in TII and wider key stakeholders
- 1.4 Drive industry wide standards in biodiversity survey and assessment by ensuring project teams comprise suitability qualified personnel

##### Medium Term

- 1.5 Targeted recruitment of biodiversity specialists during the early planning phases of major projects
- 1.6 Development of a specific biodiversity role in TII with oversight of the management and maintenance of the existing network and future projects
- 1.7 Engage with local authorities to determine biodiversity staff requirements and support required to deliver TII projects
- 1.8 Establish a TII Biodiversity Working Group to be chaired by a nominated Biodiversity Officer. The working group will have representatives from each sector of TII operations with the ultimate aim of delivering the objectives of this Biodiversity Plan
- 1.9 Develop community links, including with local authorities, national and local biodiversity groups, and landowners, to encourage engagement with TII biodiversity plan and assistance implementing specific actions

##### Long Term

- 1.10 Increase in the number and expertise of biodiversity specialists, and knowledge of non-specialists, involved in the delivery of projects across all TII departments.
- 1.11 Increased collaboration of TII's biodiversity specialists across government departments, government agencies and local authorities.

## 1.6.2 Objective 2 – Develop and update biodiversity standard and technical documents

As the approving authority for national roads and greenways TII is ultimately responsible for the successful delivery and operation of national roads and greenways. TII achieves this, in part, through the production of standard documents (in respect of national roads) and overarching detailed technical documents.

This objective mirrors that detailed as part of TII's Environmental Vision for the Future in TII's Environmental Strategy:

**Image:** Common spotted orchid on a roundabout at Junction 16 of the M7 in Portlaoise - Photo credit Brian Gaynor

2

**'Ensure a more robust implementation of best practice, by continually updating environmental standards'**

### Short Term

- 2.1 All new or updated Standard and Technical documents will be developed with consideration of potential implications for biodiversity, regardless of technical discipline
- 2.2 Develop a new Biodiversity Impact Assessment Standard Document
- 2.3 Develop a biodiversity checklist for all scales of project
- 2.4 Biodiversity to be a key consideration in the development of other environmental Standard and Technical documents particularly those pertaining to Population and Human Health, Water, Air, Landscape and Climate
- 2.5 Standards and Technical Documents will be developed based on existing national and international research and standards, supported by TII funded research where appropriate.

### Medium Term

- 2.6 Develop Biodiversity Standard Documents for the Construction and Commissioning phase of projects, under the Environment stream
- 2.7 Development of topic specific Standard and Technical Documents to support the overarching Biodiversity Impact Assessment and Construction and Commissioning documents e.g., digital data management, surveying habitats using remote sensing methods, the role of the environmental/ecological clerk of works on projects and monitoring of the effectiveness of mitigation measures

### Long Term

- 2.8 Develop a Strategic Biodiversity Action Plan for the operation, asset management and maintenance for the entire TII network



### 1.6.3 Objective 3 – Support research, monitoring and data sharing

Biodiversity related research informs the creation of new standard documents and monitoring of biodiversity interventions is vital in establishing the efficacy of these measures. A huge volume of biodiversity data is collected through TII operations, and such data can support biodiversity initiatives undertaken by TII and partner stakeholders.

Image: Five-spot Burnet moth at junction 16 of the M7 at Portlaoise - Photo credit Brian Gaynor

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#### A commitment to research is embedded throughout TII Environmental Strategy

##### Short Term

- 3.1 Commitment to submit all biodiversity records to the National Biodiversity Data Centre
- 3.2 Undertake a review to identify key biodiversity research priorities relevant to TII operations
- 3.3 Continue to lead and develop international research initiatives through participation on the Conference of European Directors of Roads Environmental Working Group
- 3.4 Continue to provide funding and/or technical support for biodiversity related research projects
- 3.5 Contribute, if required, to the Department of Transport's Annual Review of NBAP Works to date
- 3.6 Evaluate all new projects for their potential to contribute to biodiversity research

##### Medium Term

- 3.7 Monitor and report on the effectiveness of mitigation measures and other biodiversity interventions for all new projects, even if measures are unsuccessful
- 3.8 Undertake biennial TII biodiversity reporting to report on progress with the Biodiversity Plan
- 3.9 Standardise the collection of digital Biodiversity data for all new projects
- 3.10 Promote monitoring and data sharing within TII by the establishment of a Biodiversity Working Group to be attended by representatives from all sectors of TII operations (see action 1.8)

##### Long Term

- 3.11 External publication of findings from TII research, including from data gathered during biodiversity impacts assessments or monitoring schemes



#### 1.6.4 Objective 4 – Embrace biodiversity accounting methodologies and strive for net gain

Biodiversity Net Gain (BNG) is an approach to development, and/or land management, that aims to leave the natural environment in a measurably better state than it was beforehand. Adopting a BNG approach can account for biodiversity losses not fully covered by legal and planning systems. The United Kingdom, principally England, have driven the development of biodiversity metrics to quantify biodiversity loss/gain from developments. In response to BNG commitments detailed in Dublin City Council's Biodiversity Action Plan a BNG approach was adopted on the Finglas Luas Project in 2022. While it is reasonably assumed that achieving

a net gain in biodiversity will also enhance a range of wider ecosystem services interventions will be developed with cognisance of wider ecosystem service benefits and targeted based on national, regional and /or local priorities.

Image: Dual use 'green' overbridge on the M17/M18 Motorway Project

4

#### Embrace biodiversity accounting methodologies and strive for net gain

##### Short Term

4.1 Develop a biodiversity accounting metric to implement on all new projects and track progress on project specific biodiversity enhancements

##### Medium Term

4.2 Strive to achieve no net loss of biodiversity on all new projects by 2025

4.3 Investigate the synergistic benefits of achieving BNG on wider ecosystem services to highlight wider benefits and address the potential weaknesses in the adopted approach

4.3 Establish the biodiversity baseline of the entire TII network using the biodiversity accounting metric

##### Long Term

4.5 Strive to achieve a net gain for biodiversity on all new projects by 2030

### 1.6.5 Objective 5 – Focus on the key biodiversity issues

Our biodiversity policy focuses on key areas where the greatest benefits to biodiversity could be achieved through targeted interventions. Actions under this objective will help implement these policies and contribute to the recovery of biodiversity generally.

**Image:** Short flowering meadow on a roundabout at junction 16 of the M7 in Portlaoise - Photo credit Brian Gaynor

5

#### Focus on the key biodiversity issues

##### Short Term

**5.1** Implement actions detailed for TII in the All Ireland Pollinator Plan guidance document 'Pollinator -Friendly Management of Transport Corridors'

**5.2** Review of habitats/species identified as being subject to threats from the 'Development and Operation of Transport Systems', as detailed in The Status of EU Protected Habitats and Species in Ireland. Threats include habitat degradation, fragmentation and collision mortality.

##### Medium Term

**5.3** Mandate detailed investigation of potential impacts of habitat fragmentation at a landscape scale for all new projects, including detailed understanding of existing baseline conditions at a landscape scale.

**5.4** Identification and classification of key wildlife corridors of relevance to the existing transport network

##### Long Term

**5.5** Eradicate, control and prevent the spread of Invasive Alien Species on new projects and the existing network

**5.6** Identification and mitigation, where feasible, of priority species collision hotspots on the existing road network

**5.7** Address legacy impacts on biodiversity through the implementation of targeted research, mitigation and, where applicable, compensation, such as those identified in Actions 2.9, 3.2, 4.4, 5.3 and 5.6





## 1.7 Summary

This Biodiversity Plan was devised in response to unprecedented pressure on Ireland's biodiversity amid a global biodiversity crisis and the increasing challenges to decarbonise our economy. Biodiversity policy areas were developed to build upon existing TII, national and international policy and devised to focus on key biodiversity issues associated with the development and maintenance of linear transport infrastructure. Actions undertaken to implement this biodiversity plan will ensure that new projects ultimately provide a net gain for biodiversity and legacy biodiversity issues associated with the existing network are adequately addressed.







Ionad Ghnó Gheata na Páirce,  
Stráid Gheata na Páirce,  
Baile Átha Cliath 8, D08 DK10, Éire



Parkgate Business Centre,  
Parkgate Street,  
Dublin 8, D08 DK10, Ireland



+353 (01) 646 3600



+353 (01) 646 3601



[www.tii.ie](http://www.tii.ie)



[info@tii.ie](mailto:info@tii.ie)

