



White Hill Wind Farm Electricity
Substation & Electricity Line

Environmental Impact Assessment Report

Annex 5.4: County Development Plan Extracts

White Hill Wind Limited

Galetech Energy Services

Clondargan, Stradone, Co. Cavan Ireland

Telephone +353 (0)49 555 5050

www.galetechenergyservices.com



CHAPTER 10

NATURAL AND BUILT HERITAGE

Chapter 10 Natural and Built Heritage

Aim: To protect, conserve, manage and enhance the natural and built heritage features of the County, to ensure the survival of their intrinsic value for future generations and to ensure they contribute to the future sustainable development of the County.

10.0 Introduction

Heritage is integral to the identity of County Carlow, providing it with a sense of place, character, and distinctiveness, reflecting the life and culture of its people and comprising a tangible representation of the County's past.

In terms of natural heritage, the County supports a range of diverse habitats and species, including mountains, rivers, canals, woodlands, wetlands, grasslands, eskers and hedgerows, all integral to the image of Carlow, providing varied landscapes, and valued physical, social and economic benefits to those living and visiting here.

Carlow is a county with an exceptionally rich spiritual and ecclesiastical heritage, featuring a number of sites of national significance. These include the monastic site at St. Mullins, the medieval Cathedral at Old Leighlin, the eighteenth-century Carlow College, St. Patrick's and the nineteenth-century Catholic Cathedral in Carlow Town, as well as the idyllic Adelaide Memorial Chapel at Myshall.

The County's transport heritage includes a range of eighteenth-century canal structures along the Barrow Navigation, and impressive nineteenth century railway architecture such as the Borris Viaduct.

The significance of Carlow's agricultural production also contributed to substantial farm holdings and large country houses, as well as to a range of farm and stable buildings, and notable mills and warehouses.

The County's rich archaeological heritage ranges from megalithic tombs (e.g. Brownshill Dolmen, Haroldstown Dolmen), to early ecclesiastical enclosures, medieval earthworks and buildings, to rock art in South Carlow and industrial archaeology.

10.1 Policy Context

The key legislative and policy context for natural and built heritage that informed this chapter of the Plan includes (inter alia):

- European Birds Directive (Council Directive 79/409/EEC)
- European Union Natural Habitats Directive (European Directive 92/43/EEC)
- The Wildlife Act 1976 (as amended)
- European (Birds and Natural Habitats) Regulations (2011)
- National Monuments Act 1930 (as amended)
- Planning and Development Act 2000 (as amended)
- Appropriate Assessment of Plans and Projects in Ireland – Guidelines for Planning Authorities 2009
- National Biodiversity Action Plan 2017-2021
- National Inventory of Architectural Heritage
- Architectural Heritage Protection Guidelines for Planning Authorities (DoEHLG 2011).

10.2 Natural Heritage

Natural heritage refers to the natural rather than the man-made features of the county, being the sum total of elements of biodiversity such as plants, animals, birds and their habitats, and the physical and geological formations in the landscape such as rivers and mountains.

The rich and varied natural heritage of County Carlow includes a number of habitats, species and areas of natural interest that are designated for conservation under both European and National Legislation. Protecting and enhancing this natural heritage provides many benefits, including fertile soils, food, and clean water, as well as providing opportunities for economic growth, tourism, and recreation.

At a European level, the European Birds Directive (Council Directive 79/409/EEC) and the European Union Natural Habitats Directive (European Directive 92/43/EEC), also known as the Habitats Directive, underpins biodiversity and conservation. In Ireland the Wildlife Act 1976 (as amended) is the principal national legislation providing for the protection of wildlife and the control of some activities that may adversely affect wildlife.

The Habitats Directive was transposed into Irish law through the European (Birds and Natural Habitats) Regulations (2011). It sets out various procedures and obligations in relation to nature conservation management, primarily aimed at maintaining favourable conservation status for habitats and species that are considered to be at risk.

Sites designated for protection in County Carlow include Special Areas of Conservation (SACs) and proposed Natural Heritage Areas (pNHAs). The Council has a statutory obligation to conserve and protect these designated habitats, species and areas of

natural interest. However, it is also important that the protection of natural heritage is not limited only to designated sites, as they too can also host a diverse and rich variety of protected and vulnerable habitats and species.

The EU Biodiversity Strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030 and contains specific actions and commitments.

The *National Biodiversity Action Plan 2017-2021*, Ireland's third such plan, sets out actions to be undertaken by government, civil and private sectors to achieve a 'Vision for Biodiversity'. It includes 119 targets that are underpinned by 7 strategic objectives. The objectives provide the framework for the national approach to biodiversity

Further information on natural heritage and a protected sites map viewer, can be accessed at www.npws.ie

General: Natural Heritage - Policies

It is the policy of the Council to:

NH P1: Protect, manage and enhance the natural heritage, biodiversity, landscape and environment of County Carlow in recognition of its importance as a non-renewable resource, a unique identifier, and as a natural resource asset.

NH P2: Ensure, as far as is practicable, that development does not adversely impact on wildlife habitats and species, and that biodiversity is conserved for the benefit of future generations in the interests of sustainability. This will include moving towards no net loss of

biodiversity from plans adopted by and projects granted permission/authorised by the Council.

NH P3: Support and co-operate with statutory authorities such as the National Parks and Wildlife Service (NPWS) and others on measures to manage designated nature conservation sites in order to achieve their conservation objectives. Specific regard shall be had to conservation objectives and conservation management plans where they exist for designated nature conservation sites.

NH P4: Promote increased understanding and awareness of the natural heritage and biodiversity of the county.

NH P5: Recognise that nature conservation is not just confined to designated sites and acknowledge the need to protect non-designated biodiversity, habitats and species not otherwise protected by legislation.

NH P6: Protect and enhance the natural environment of County Carlow and recognise the important role of the natural heritage through its diversity, quality and integrity, in terms of enhancing the image of the County and contributing to quality of life, economic growth, tourism and recreation.

NH P7: Promote development for recreation and educational purposes that does not conflict with maintaining the favourable conservation status of designated natural heritage sites, including the achievement of their conservation objectives.

NH P8: Promote, protect and enhance sustainable and appropriate access to the natural heritage of the county.

NH P9: To promote the carrying out of ecological/habitat assessments to inform the layout and design of development proposals and ensure they integrate the protection and enhancement of biodiversity and landscape features wherever possible, by minimising adverse impacts on existing habitats (whether designated or not) and by including mitigation and/or compensation measures, as appropriate.

General Natural Heritage - Objectives

It is an objective of the Council to:

NHO 1: Implement relevant actions from the National Biodiversity Action Plan 2017-2021 (and any superseding plan) and to prepare a County Heritage Plan and Biodiversity Action Plan during the lifetime of this County Development Plan in accordance with RPO 126 in the RSES, to ensure the protection and appreciation of heritage and nature at local level including recognition of rich biodiversity of designation of existing special areas of conservation i.e. Blackstairs Mountains, Slaney River Valley and River Barrow and River Nore SAC.

10.3 NATURA 2000 Sites

The European Union Birds Directive (1979) and the European Union Natural Habitats Directive (1992) provides for the establishment of the Natura 2000 network of sites of highest biodiversity importance for rare and threatened habitats and species. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), also known as

‘European Sites’, collectively form part of the Natura 2000 network of sites across Europe. These European Sites are legally protected under the Habitats Directive and the European (Birds and Natural Habitats) Regulations (2011).

Development within the County, which can intensify the demand for land, has the potential to have a detrimental effect on the integrity of European Sites. It is a requirement of the Planning and Development Act 2000 (as amended) that the County Development Plan incorporates objectives for the conservation and protection of European Sites.

When making a decision in relation to a plan or a project, the Planning Authority must have regard to European Sites. Under the Habitats Directive, a plan or project with potential to have a likely significant effect on a European Site, either individually or in combination with other plans or projects, must be assessed by the Planning Authority through a process known as ‘Appropriate Assessment’, unless they are directly connected with or necessary to the management of the European Site.

The key steps in the Appropriate Assessment process include Stage 1 Screening, which establishes whether a plan or project could have a significant effect on a European Site. Where potential effects on a European Site have been identified a Stage 2 Appropriate Assessment is required, that includes the preparation of a Natura Impact Statement to assist in the decision-making process. A plan or project can only be consented to where the Planning Authority is satisfied that they would not adversely affect the integrity of a European Site. However, notwithstanding a finding of negative implications for a European Site, the Habitats Directive (Article 6(4)) also includes provisions for the carrying out of plans or projects where it has been

determined that there are imperative reasons of overriding public interest to do so.

There is a total of three Natura 2000 sites in County Carlow (See Table 10.1 and <https://www.npws.ie/maps-and-data>).

Site Code	Site Name
002162	River Barrow and River Nore SAC
000781	Slaney River Valley SAC
000770	Blackstairs Mountains SAC

Table 10.1: Natura 2000 sites

Natura 2000 Sites - Policies

It is the policy of the Council to:

- NS P1: Support the conservation and enhancement of Natura 2000 Sites, and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.
- NS P2: Screening for Appropriate Assessment and if required Appropriate Assessment is undertaken for all plans to be adopted and projects to be granted permission/authorised by the Council. Where likely significant effects have been identified in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site, either individually or in combination with other plans or projects, ensure appropriate assessment, in accordance with Article 6(3) of the Habitats Directive. The Council shall only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned, unless the plan or

project is subject to the provisions of Article 6(4) of the Habitats Directive.

NS P3: Consider impacts within a plan or project's zone of influence, which may include Natura 2000 sites outside the County, when assessing whether a plan or project is likely to have significant effects on Natura 2000 sites.

NS P4: Maintain or restore the favourable conservation status of County's Natura 2000 sites qualifying interest habitats and species.

Natura 2000 Sites - Objectives

It is an objective of the Council to:

NS O1: Strictly protect areas designated or proposed to be designated as Natura 2000 sites, including any areas that may be proposed for designation or designated during the period of this Plan.

10.4 Natural Heritage Areas (NHAs)

Natural Heritage Areas (NHAs) are designated sites of national importance for habitats, species, and for geological interest. Under the Wildlife Act 1976 (as amended), NHAs are legally protected from damage from the date they are formally proposed for designation. The designation of NHAs is the responsibility of the National Parks and Wildlife Service (NPWS), who are the Heritage Division of the Department of Housing, Local Government and Heritage.

Sites that have been identified but not yet designated as NHAs, are known as proposed Natural Heritage Areas (pNHAs). There is a total of eight proposed Natural Heritage Areas (pNHAs) in County Carlow (Table 10.2 and Map 10.2 refer). Proposed Natural Heritage Areas were published on a non-

statutory basis in 1995 and are sites of significance for wildlife and habitats but have not since been statutorily proposed or designated.

Site Code	Site Name
000770	Blackstairs Mountains
000781	Slaney River Valley
000788	Ardristan Fen
000792	Baggots Wood
000797	Ballymoon Esker
000806	Cloghrick Wood
000808	Johns Hill
000810	Oak Park

Table 10.2: Proposed Natural Heritage Areas

Natural Heritage Areas - Policies

It is the policy of the Council to:

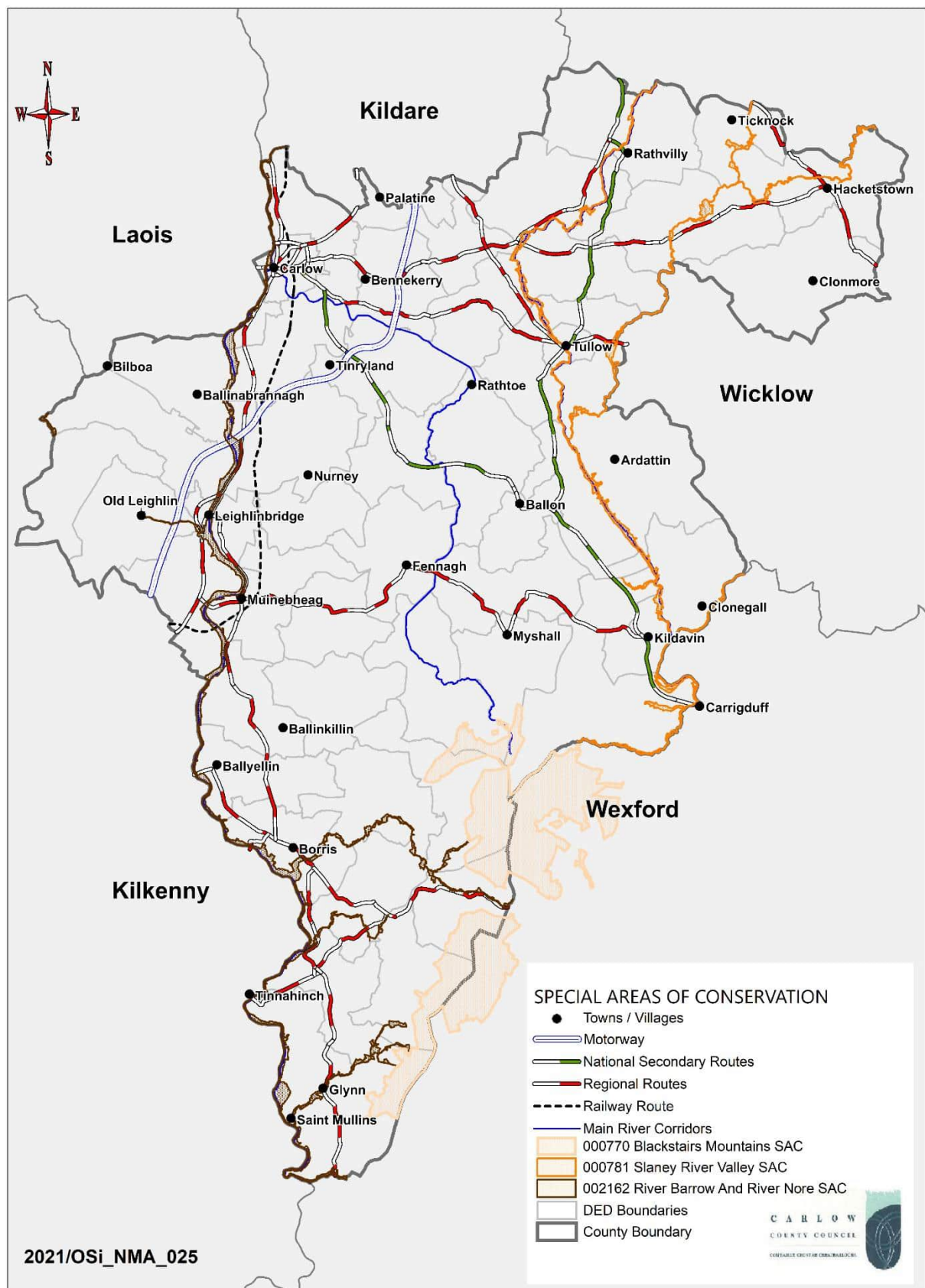
NHA P1: Contribute towards the protection, from significant adverse effects, of the ecological integrity and the visual, recreational, environmental and amenity value of the County's proposed Natural Heritage Areas (pNHAs) and associated habitats, including any designated Natural Heritage Areas (NHAs) during the lifetime of this Plan.

NHA P2: Ensure that development proposals within or adjacent to a proposed Natural Heritage Area (pNHA) or Natural Heritage Area (NHA) are designed and sited to minimise significant impacts on the biodiversity (including net loss) and ecological, geological and landscape value of the site, particularly plant and animal species listed under the Wildlife Act 1976 (as amended), the Habitats Directive and the Birds Directive, including their habitats.

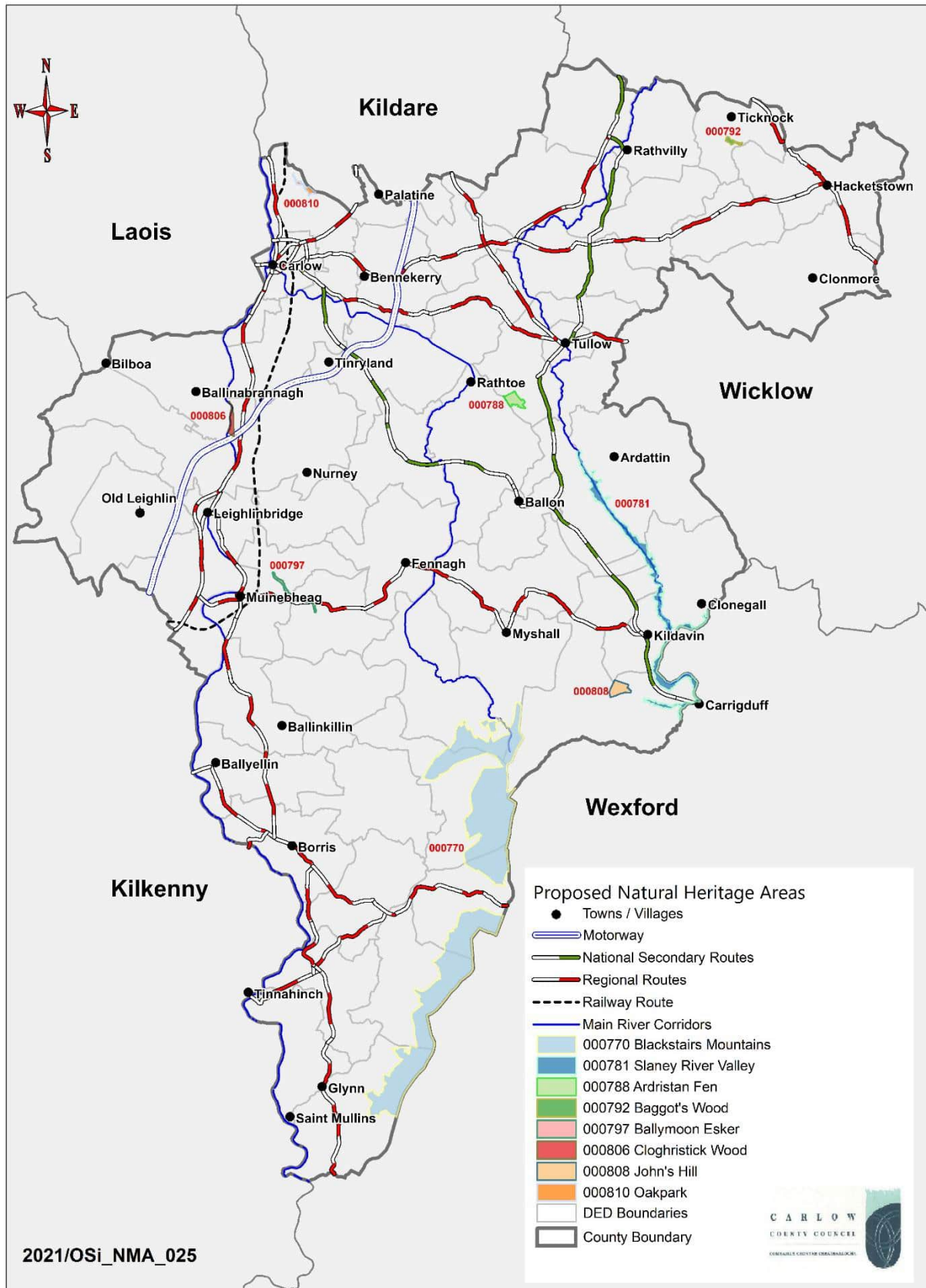
NHA P3: Restrict development within a proposed Natural Heritage Area (pNHA) or Natural Heritage Area (NHA)

to development that is directly related to the area's amenity potential or development that is required for the conservation management of these sites, subject to the protection and enhancement of natural heritage and visual amenities including biodiversity and landscapes.

NHA P4: To consult with the National Parks and Wildlife Service (NPWS) and other appropriate prescribed bodies when assessing development proposals affecting proposed Natural Heritage Areas (pNHAs) and Natural Heritage Areas (NHA).



Map 10.1: Special Areas of Conservation (SACs)



Map 10.2: Proposed Natural Heritage Areas (pNHAs)

10.5 Non-Designated Areas, Habitats and Species

There are wildlife habitats in County Carlow that are important on a county and local basis, acting as stepping stones in a wider ecological network. These wildlife habitats can include rivers and riverbanks, ponds, wetlands, peatlands, small woods and hedgerows, which are essential to the migration, dispersal and genetic exchange of wild species. Article 10 of the Habitats Directive states that Member States shall endeavour in their land use planning and development policies, to encourage the management of features of the landscape which are of major importance for wild flora and fauna.

The protection of habitats and species in County Carlow is not confined to areas designated for nature conservation, such as Natura 2000 sites or Natural Heritage Areas (NHAs). The protection afforded by law to certain plant, animal, and bird species also applies wherever they are found. This includes animals and birds listed in the Wildlife Act 1976 (as amended), the Birds Directive 1979, and the Habitats Directive 1992, as well as plant species listed in the Flora (Protection) Order 2015 (or other such Orders). The Council recognises that certain plant, animal and bird species are becoming rare and threatened.

The assessment of potential impacts on biodiversity in non-designated areas (and in areas designated for nature conservation) can be facilitated through the preparation of Ecological Impact Assessment (EcIA). Where development proposals are not subject to Environmental Impact Assessment (EIA) or Appropriate Assessment (AA), potential impacts on biodiversity can be best assessed through EcIA. An EcIA will be required for any

development proposal likely to have a significant impact on rare and threatened species including species protected by law and their habitats. The Chartered Institute of Ecology and Environmental Management (CIEEM) published '*Guidelines for Ecological Impact Assessment in the UK and Ireland (2018)*', which can be accessed at www.cieem.net.

Strict protection under the Habitats Directive applies to the species listed in Annex IV of that Directive, including plant and animal species. Annex IV includes all bat species and the European Otter. Where Annex IV species are present, measures to avoid damage and disturbance to them must be taken into account in the formulation of proposals for development. Where the risk of damage or disturbance is unavoidable, an application for a derogation licence may be made to the Minister for Housing, Local Government and Heritage under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 to 2021. It must outline all the alternative solutions considered and indicate which of the reasons listed in the legislation cover the application and also include all suggested mitigation measures. The Council will fulfil its duties in relation to the strict protection afforded to species listed in Annex IV of the Habitats Directive and associated national derogation licencing requirements.

Non-designated areas and habitats and species - Policies

It is the policy of the Council to:

ND P1: Conserve the existing flora, fauna and wildlife habitats in the County, including rare and threatened plant, animal and bird species, through the

preservation of ecological corridors and ecological networks.

ND P2: Ensure that development does not have a significant adverse effect on rare and threatened species, their breeding places, resting places, habitat or environment, as applicable, including those protected under the Wildlife Acts 1976 to 2021, the Birds Directive (2009/147/EC), the Habitats Directive (92/43/EEC) and including plant species listed on the Flora (Protection) Order 2015 (S.I. No. 356 of 2015).

ND P3: Require the submission of an Ecological Impact Assessment, where deemed necessary, for any development proposal likely to have a significant impact on existing flora, fauna and wildlife habitats, including rare and threatened plant, animal and bird species.

ND P4: Ensure that, where evidence exists of species that are protected under the Wildlife Act 1976 (as amended), the Bird Directive 1979, and the Habitats Directive 1992, appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment. In the event of a proposed development impact on a site known to be a breeding or resting site of species listed in the Habitats Regulations or the Wildlife Act 1976 (as amended) a derogation licence, issued by the Department of Housing, Local Government and Heritage, may be required.

ND P5: Consult with the National Parks and Wildlife Service (NPWS) and take account of any licensing requirements

when undertaking, approving and authorising development which is likely to affect plant, animal or bird species protected by law.

ND P6: Ensure that the management of the Council's open spaces and parks is pollinator-friendly and provides more opportunities for biodiversity, supporting the objectives of the National Pollinator Plan 2021-2025. Where it is used, herbicide should be certified and applied as per the manufacturer's instructions.

ND P7: Support the implementation of the All Ireland Pollinator Plan 2021-2025 and to incorporate actions as appropriate into a Biodiversity Plan for County Carlow providing more opportunities for biodiversity in accordance with RPO 128.

ND P8: That biodiversity data generated during the lifetime of this Development Plan for the preparation of environmental assessment reports, shall be made available to the National Biodiversity Data Centre (NBDC).

10.6 Woodlands, Trees and Hedgerows

Woodlands, trees and hedgerows are an important natural and landscape asset in County Carlow. They inform the landscape character of the county and enhance the movement of wildlife through it, providing a biodiversity function in the provision of food, habitat, and shelter in exposed areas.

Woodlands, trees and hedgerows also provide wider environmental benefits, functioning as pollution filters and carbon sinks. There are several notable woodlands throughout the County, such as at Altamont, Ballintemple, Oak Park and Clogrennan.

Trees, either individually as specimen trees or in groups, make a positive contribution to the County's landscape and townscapes. They soften the line of buildings, provide scale to streets, contribute to a sense of place, and act as wildlife habitats and corridors. Trees also filter out noise, dust and pollution, and can contribute to the prevention of flooding by retaining moisture. The retention of trees should be considered at the design stage of any development proposal.

Hedgerows constitute an important natural and historic resource, given their contribution to the landscape quality, their importance as wildlife habitats and ecological corridors, and their historical significance as townland and field boundaries. When planting new hedgerows, species indigenous to the area should be used. In general, the following categories of hedgerows are worthy of protection:

- Ancient hedgerow (field systems dating prior to the mid-17th century).
- Townland boundaries.
- Hedgerows that have a farming, landscape, or cultural function.
- Hedgerows incorporating archaeological features.
- Hedgerows adjacent to roads, green lanes, tracks, and wooded ground.
- Banks and ditches that may have the above characteristics.

Woodland, Trees and Hedgerows - Policies

It is the policy of the Council to:

WT P1: Protect and manage existing woodlands, trees and hedgerow which are of amenity or biodiversity value and/or contribute to landscape character and ensure that proper provision is made for their

consideration, protection and management when undertaking, approving or authorising development.

WT P2: Ensure that hedgerow removal to facilitate development is kept to an absolute minimum and, where unavoidable, a requirement for mitigation planting will be required comprising a hedge of similar length and species composition to the original, established as close as is practicable to the original and where possible linking in to existing adjacent hedges. Native plants of a local provenance should be used for any such planting.

WT P3: Adhere to the provisions of the Wildlife Act 1976 (as amended) in prohibiting the cutting of hedges during the bird nesting season (1st March to 31st August), except in certain legally defined circumstances.

WT P4: Encourage the protection of historic hedgerows or significant hedgerows which serve to link habitat areas to each other and the surrounding countryside.

WT P5: Recognise the biodiversity and archaeological importance of townland boundaries, including hedgerows, and promote their protection and retention.

WT P6: Protect individual or groups of trees which are important for environmental, recreational, historical, biodiversity and/or aesthetic reasons or by reason of contribution to sense of place, and to

discourage the felling of mature trees to facilitate development.

WT P7: To contribute towards the protection where possible of the trees which are considered to be an important component of demesne landscapes.

WT P8: Ensure a Tree Management Plan is provided so as existing tree planting is adequately protected during development and incorporated into the layout and design of new developments.

Woodland, Trees and Hedgerows - Objectives

It is an objective of the Council to:

WT O1: Promote the Native Woodland and Neighbourwood schemes and other initiatives that aim to establish and enhance woodlands for recreational and wildlife benefits.

10.7 Inland Waters and Riparian Zones

The network of inland water systems in the County, including rivers, streams and groundwater, are home to a variety of habitats and species, and contribute significantly to the character and amenity of the County, supporting tourism, recreation and the quality of life for those living and visiting here. These inland waters also fulfil an important function as ecological corridors, for fish and wildlife movement, connecting related habitats and designated sites and enabling the movement of species from place to place. Watercourses may also be of significance in terms of a town's traditional and social history.

The River Barrow and the River Slaney are the main water bodies in the County. The River

Barrow has its source in the Slieve Bloom Mountains and at 192km in length from its source to the sea, is Ireland's second longest river. The source of the River Slaney is the Lugnaquilla Mountain (western Wicklow Mountains), from where it flows for a distance of 117.5km before entering the sea at Wexford Harbour. Both rivers, including their riparian zones, as well as some of their tributaries, are particularly important for the habitats and species they support, and have been afforded protection as Special Areas of Conservation (SACs).

Maintaining inland waters such as rivers and streams in an open, semi-natural condition can provide effective measures to protect and maintain biodiversity, while also helping to manage fluvial and pluvial flooding.

A riparian zone is a vegetated area near a watercourse, which helps shade and partially protect it from the impact of adjacent land uses. It is both discrete in ecological and geographical entity, with flora and fauna that is often distinctly different from those found in neighbouring areas. The riparian zone is the point of contact between the land (i.e. the terrestrial ecosystem) and the freshwater body (i.e. the aquatic ecosystem) and plays a key role in protecting/improving water quality in watercourses, thus providing environmental benefits.

Inland Waters and Riparian Zones - Policies

It is the policy of the Council to:

IW P1: Protect the biodiversity of rivers, streams and other watercourses, to maintain them in an open state, to discourage culverting or realignment, and where possible, uncover existing culverts and restore the watercourses

to acceptable ecological standards and for the passage of fish.

IW P2: Ensure that the County's watercourses are retained for their biodiversity and flood protection values and to conserve and enhance where possible, the wildlife habitats of the County's rivers, streams and riparian zones, including those which occur outside of designated areas, in order to provide a network of habitats and biodiversity corridors throughout the County.

IW P3: Control the encroachment of development on watercourses and riparian zones and provide for protection measures to watercourses and their banks, including but not limited to: the prevention of pollution of the watercourse, the protection of the river bank from erosion, the retention and/or provision of wildlife corridors and the protection from light spill in sensitive locations, including during construction of permitted development.

IW P4: Require the submission of an Ecological Impact Assessment, where deemed necessary (and where necessary an Appropriate Assessment where in relation to Natura 2000 sites), including bat and otter surveys, for development proposals along rivers, streams and canal corridors and areas of ecological importance.

IW P5: Maintain a biodiversity protection (buffer) zone of not less than 10 metres from the top bank of all watercourses in the County, with the full extent of the protection zone to be determined on a case by case basis

by the Planning Authority, based on site specific characteristics and sensitivities and consultation with Inland Fisheries Ireland.

IW P6: Ensure that lighting proposals along water courses, rivers, streams and canal corridors, are not in conflict with bat species, and to ensure that expert advice is sought on such lighting proposals in order to mitigate the impacts of lighting on bats and other species.

IW P7: Require that runoff from a development area will not result in deterioration of downstream watercourses or habitats, and that pollution generated by a development is treated within the developed area prior to discharge to local watercourses.

IW P8: Ensure the protection, improvement or restoration of riverine floodplains and to promote strategic measures to accommodate flooding at appropriate locations, to protect ground and surface water quality and build resilience to climate change.

IW P9: Ensure that development proposals do not adversely affect groundwater resources and groundwater dependent habitats and species.

IW P10: Consult with Inland Fisheries Ireland, as appropriate, in relation to any works or development that could have potential impacts on watercourses, aquatic habitats, species, and associated riparian habitats, and to take full account of any Guidance documents issued by Inland Fisheries Ireland in this regard,

including ‘*Planning for Watercourses in the Urban Environment, A Guide to the Protection of Watercourses through the use of Buffer Zones, Sustainable Drainage Systems, Instream Rehabilitation, Climate/Flood Risk and Recreational Planning*’ (2020).

IW P11: Promote the use of watercourses for the pursuit of angling, through working with Inland Fisheries Ireland to improve water quality, to improve fish stocks and to provide safe access to fishing, where appropriate, taking full account of the requirements of the Habitats Directive and other relevant legislation.

IW P12: Promote the natural, historical and amenity value of the County’s watercourses, including public access where feasible and appropriate, in partnership with the National Parks and Wildlife Services, Waterways Ireland, Inland Fisheries Ireland, and other relevant stakeholders, while maintaining the watercourses free from inappropriate development.

10.8 Wetlands

The term wetland refers to an area of land that is saturated with water, either permanently or seasonally, and where the water table is at or near surface level. They can include watercourses and water bodies, as well as freshwater springs, reed beds, marshes, fens, bogs and wet woodlands.

Wetlands tend to have a high biodiversity value, hosting a variety of habitats and species specifically adapted to coping with wet conditions. In addition to biodiversity, wetlands can fulfil a number of equally

important functions, they can provide open space and recreational opportunities, improve water quality by removing and sequestering pollutants, maintain water tables, provide natural floodwater storage, and can contribute to reducing the effects of climate change by acting as carbon storage.

Increased land reclamation and land drainage works can cause significant change to the natural hydraulic patterns of wetlands. This can have implications for their habitat value, species diversity, and how they contribute to flood alleviation, water quality etc.

At an international level, wetlands are protected by the Ramsar Convention, an intergovernmental treaty established in 1971 by UNESCO. Ireland is a signatory of this convention and currently has 45 wetland sites listed (see www.ramsar.org). There are currently no Ramsar Sites in the County.

The ecological importance of wetland habitats has been recognised by the European Union, with several wetland types listed under Annex I of the EU Habitats Directive. Two protected areas in the County that include wetlands are the River Barrow and River Nore SAC and the Slaney River Valley SAC. However, while many protected areas include wetlands, most wetland areas occur outside of protected sites.

The Council will Implement the relevant parts of the Planning and Development (Amendment) (No. 2) Regulations 2011 and the European Communities (Amendment to Planning and Development) Regulations 2011, which require planning permission to be applied for where the area impacted by works relating to the drainage or reclamation of a wetland which exceeds 0.1 hectares or where such works may have a significant effect on the environment. Such applications for

permission would need to be supported by an Appropriate Assessment where necessary. Further information on wetlands can be accessed at www.npws.ie, www.wetlandssurveysireland.com, and www.irishwetlands.ie. The Irish Ramsar Wetland Committee (IRWC), which was set up in 2010 by the then Department of the Environment, Heritage and Local Government, prepared the *'Irish Wetlands Types – An Identification Guide and Field Survey Manual'* (EPA, 2018 (see www.epa.ie)).

In 2011 the Department of Environment, Community and Local Government also published Draft *'Guidelines for Planning Authorities on Drainage and Reclamation of Wetlands'*.

Wetlands - Policies

It is the policy of the Council to:

- WT P1: Protect, manage, and enhance wetlands in the County, and resist development that would remove, fragment, or degrade wetlands.
- WT P2: Protect the biodiversity and flood protection value of wetlands and floodplains in the County.
- WT P3: Ensure that ecological impact assessment is carried out, where appropriate, for development proposals involving, drainage, reclamation, or infill of wetland areas.
- WT P4: To promote voluntary construction of new wet lands where deemed in accordance with proper planning and environmental considerations and where same maybe facilitated by ecological schemes.

Wetlands - Objectives

It is an objective of the Council to:

- IW O1: Carry out a Wetlands Survey of the County during the lifetime of this Plan.

10.9 Geological Heritage

Geological heritage has influenced the landscapes, soils, and habitats of the County, as well as economic activities such as quarrying. The significant occurrence and availability of granite and limestone in the physical landscape is evident in its abundant historic use in buildings throughout the County, and in features of local cultural interest such as stone walls, stone fences (The Carlow Fence), limekilns etc.

An audit of the County's geological heritage was carried out in 2004 in partnership with Carlow County Council and the Irish Geological Heritage Programme in the Geological Survey of Ireland (GSI). The report that resulted identified a list of 6 County Geological Sites (CGS) of local geological or geomorphological interest. Some of these CGSs that are of national significance, may in the future be proposed as geological National Heritage Areas (NHAs) by the GSI and the National Parks and Wildlife Service. These CGSs play an important part in Carlow's natural heritage and landscape and require protection and preservation from potential over development, pollution, and illegal dumping. The 6 County Geological Sites (CGS) in the County are identified on <https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx>. In addition to their information on geological heritage, the Geological Survey of Ireland also produces a wide range of other publicly available maps and datasets ranging from bedrock and quaternary geology, to geotechnical, minerals,

geophysics, geochemistry and geohazards. These maps and datasets are also accessible through the web link included in the foregoing.

County Geological Sites

Aclare

A number of fields with surface boulders at their margins, overlying the proven deposit below ground. The pegmatites are associated with the intrusion of the Leinster Granite approximately 400 million years ago.

Ballyellin Quarry

A large working quarry with Carboniferous Limestone, includes a 15m solution pipe 15m+ deep, with clays and round quartz gravel probably derived from Tertiary weathering of the Leinster Granite.

Bannagagole Quarry

A very large and deep working quarry with Carboniferous Limestone of the Ballyadams Formation, from the Viséan Series of the Lower Carboniferous.

Ballymoon Esker

An esker ridge of glacial sands and gravels which comprises of a long ridge of water sorted glacial sand and gravel.

Quarry, Clonmelsh

A large working quarry with extensive overburden of glacial till comprising of Carboniferous Limestone.

Clogrennane Quarry

A large and deep working quarry comprising of Carboniferous Limestone; the youngest formation in the region, with an unconformity between it and the younger shales overlying the limestone.

Geological Heritage - Policies

It is the policy of the Council to:

GH P1: Protect and enhance the geological and geomorphological heritage of the County.

GH P2: Protect from inappropriate development the list of County Geological Sites (CGS) included in this Plan.

GH P3: Consult with the Geological Survey of Ireland on development proposals which are likely to impact on County Geological Sites or involve significant ground excavations.

Geological Heritage - Objectives

It an objective of the Council to:

GH O1: Protect geological Natural Heritage Areas (NHAs) as they become designated during the lifetime of this Plan.

10.10 Invasive Alien Species

Invasive non-native (or alien) plant and animal species are a significant threat to national, regional and local biodiversity. The spread of invasive species is a growing problem (see www.invasivespeciesireland.com for further information), and invasive plant and animal species such as Himalayan Balsam, Giant Hogweed, Japanese Knotweed and Zebra Mussel occur in County Carlow. Prohibitions are in place at a European level on the introduction or dispersal of invasive species, as set out in the EC (Birds and Natural Habitats) Regulations, 2011 – 2015. At a national level support to address the threat of invasive species is included in the National Biodiversity Action Plan.

Invasive Alien Species - Policies

It is the policy of the Council to:

- IS P1: Prevent the spread of invasive alien species in the County, and to require landowners and developers to adhere to best practice guidance in relation to the containment and control of invasive alien species, including
- *Invasive Species Ireland guidelines (see www.invasivespeciesireland.com)*
 - TII (2020) The Management of Invasive Alien Plant Species on National Roads – Standard GE-ENV-01104
<https://www.tiipublications.ie/library/GE-ENV-01104-01.pdf>
 - TII (2020) The Management of Invasive Alien Plant Species on National Roads – Technical Guidance
<https://www.tiipublications.ie/library/GE-ENV-01105-01.pdf>
- IS P2: To require, as appropriate, development proposals to address the presence or absence of invasive alien species, and to require the preparation of an Invasive Species Management Plan for their eradication and/or containment and control where identified on a site or in the vicinity of a site, in accordance with the requirements of the European Communities (Birds and Natural Habitats) Regulations 2011-2015.
- IS P3: Prohibit invasive alien plant species from inclusion in landscape design proposals and to require the use of native local plant species.

Invasive Alien Species - Objectives

It an objective of the Council to:

- IS O1: Prepare an Invasive Alien Species Management Strategy, in conjunction with a Hedge and Road Verge Maintenance Strategy, during the lifetime of this Plan.
- IS O2: To raise awareness of the potential threat of invasive alien species in the County, and to inform the public of appropriate management measures for the prevention, containment, and control of invasive alien species.
- IS O3: Undertake a programme of mapping of invasive alien species in the County and initiate control programs with relevant stakeholders and landowners on the prevention, containment and control of invasive alien species.



Kilkenny County Council
Comhairle Chontae Chill Chainnigh



Kilkenny City and County Development Plan

Volume 1 County

2021-2027



9 Heritage, Culture and the Arts

Strategic Aim: To seek the protection and sustainable management of the arts, culture and heritage of Kilkenny for the benefit of current and future generations; to encourage the collection of knowledge to inform its protection; and to promote access to, awareness of and enjoyment of Heritage, Arts and Culture, to further develop the infrastructure and actively support engagement with communities. throughout Kilkenny.

9.1 Introduction

County Kilkenny has a rich and varied built, natural and cultural heritage resource. Landscapes, rivers, woodlands, hedgerows, geology, plants and animals are all part of our natural heritage. Archaeological sites and many other buildings and structures such as houses, shops, churches, bridges and mills are features of our built heritage. Our cultural heritage includes aspects of heritage such as traditions, practices, knowledge and skills, which are an expression of our culture.

Kilkenny's heritage is that which makes the county unique, what gives it its special character and its 'sense of place'. Heritage has many values including economic, social, environmental and cultural¹. It is vital for the health, well-being and quality of life of communities. It is a valuable economic resource. It underpins Kilkenny's tourism and agricultural sectors, and brings significant economic benefits to the county and its residents. Protecting and enhancing our heritage is vital to the health, well-being and quality of life of our communities. County Kilkenny's heritage plays a key role in planning for climate change in the county. It will be affected by changes in climate, and it also has the capacity to be part of our climate adaptation and resilience strategies.

The *National Heritage Plan* and the *National Biodiversity Action Plan* recognise the key role that local authorities, and locally-led action, plays in heritage awareness and management. A key element of both plans is an enhanced role for local authorities in heritage management, to be given effect through the preparation and implementation of County Heritage Plans and Biodiversity Action Plans. The County Kilkenny Heritage Plan and County Kilkenny Biodiversity Plan are incorporated in the *Kilkenny County Council Cultural Strategy 2018-2022*².

Under this remit the Council will support the implementation of the *National Heritage Plan* (Heritage 2030, in preparation) and the *National Biodiversity Action Plan 2017-2021* (and subsequent plans). It will seek the protection and sustainable management of the heritage of County Kilkenny for the benefit of current and future generations. Through its policies and actions, the Council will promote increased awareness of the heritage of the county.

¹ Ecorys and Fitzpatrick and Associates, *Valuing Heritage: Scoping Study. A report to Kildare, Kilkenny and Meath County and Cork City Councils*, 2015

² Kilkenny County Council, *Cultural Strategy 2018 - 2022*

The Council will support the implementation of the *National Heritage Plan* and *National Biodiversity Action Plan*. The Council will prepare and implement, in partnership with the Kilkenny Heritage Forum and all relevant stakeholders, a County Heritage Plan and County Biodiversity Action Plan. The Council will also support the implementation of key legislation and national and local policies, programmes and plans which identify, protect and promote Kilkenny's heritage³.

It is the aim of the Council to develop and support programmes which encourage active participation in identifying, recording, protecting, communicating and enjoying Kilkenny's heritage⁴.

9.2 Natural Heritage and Biodiversity

Natural heritage, also referred to as biodiversity, includes the variety of life around us. It comprises all plants and animals (including humans), fungi, algae and micro-organisms, the habitat where they live and their genetic diversity. It also includes the physical and geological foundation that forms landscapes.

Biodiversity is important because all of life depends on biodiversity for survival. Our biodiversity underpins important economic sectors such as agriculture, tourism and recreation and is a core component of the county's green infrastructure. Protection and wise use of the county's natural resources is necessary to achieve sustainable development. The Council will support the implementation of the *Biodiversity Climate Change Sectoral Adaptation Plan*⁵.

It is the aim of the Council to conserve, sustainably manage and enhance the County's natural heritage and biodiversity and to promote understanding of and sustainable access to it.

A number of areas in County Kilkenny have been identified as being of exceptional importance for biodiversity at a national and/or international level (See Table 9.1 and Figure 9.1). These areas are protected through national and European legislation. In addition, certain plant, animal and bird species found in the county are considered rare or vulnerable and are protected by Irish law.

The Council recognises the important role of the environment through diversity, quality, integrity and quality of life by promoting the protection, conservation and enhancement of the natural environment and will promote appropriate enhancement of the natural environment as an integral part of all development.

9.2.1 Protected habitats and species designated for nature conservation

9.2.1.1 European Sites (*Natura 2000*)

The EU Habitats Directive (92/43/EEC) and EU Birds Directive (2009/147/EC) provide for the conservation and protection of breeding and resting sites for rare and threatened species, and rare habitat types in a European context considered to be most in need of conservation. Such sites form

³ *ibid*

⁴ *ibid*

⁵ Department of Culture, Heritage and the Gaeltacht, *Biodiversity Climate Change Sectoral Adaptation Plan*, 2019

part of an EU network of ecologically important and protected sites known as Natura 2000 sites and comprise:

- **Special Areas of Conservation (SACs)** – these sites are selected for the conservation and protection of plant and animal species (other than birds) and habitats listed in Annex I and Annex II of the EU Habitats Directive (92/43/EEC) respectively.
- **Special Protection Areas (SPAs)** – these sites are selected for the conservation and protection of birds and their habitats designated under the EU Birds Directive 2009 (2009/147/EC) (first adopted in 1979) and transposed into Irish law by the Conservation of Wild Birds Regulations (SI 291 of 1985).

There are 8 Natura 2000 sites within the County (see Table 9.1 and Figure 9.1). The National Parks and Wildlife Service, Department of Housing, Local Government and Heritage identify, evaluate and propose sites for designation. The boundaries of protected areas may change and/or new sites may be proposed for designation during the lifetime of this Plan. Up-to-date information on boundaries and details of designated sites is available on the National Parks and Wildlife Service website (www.npws.ie).

As set out in Chapter 1, the Council will ensure that an Appropriate Assessment, in accordance with Articles 6(3) and Article 6(4) is carried out in respect of any plan or project not directly connected with or necessary to the management of the site, but likely to have a significant effect on a Natura 2000 site(s), either individually or in combination with other plans or projects, in view of the site's conservation objectives.

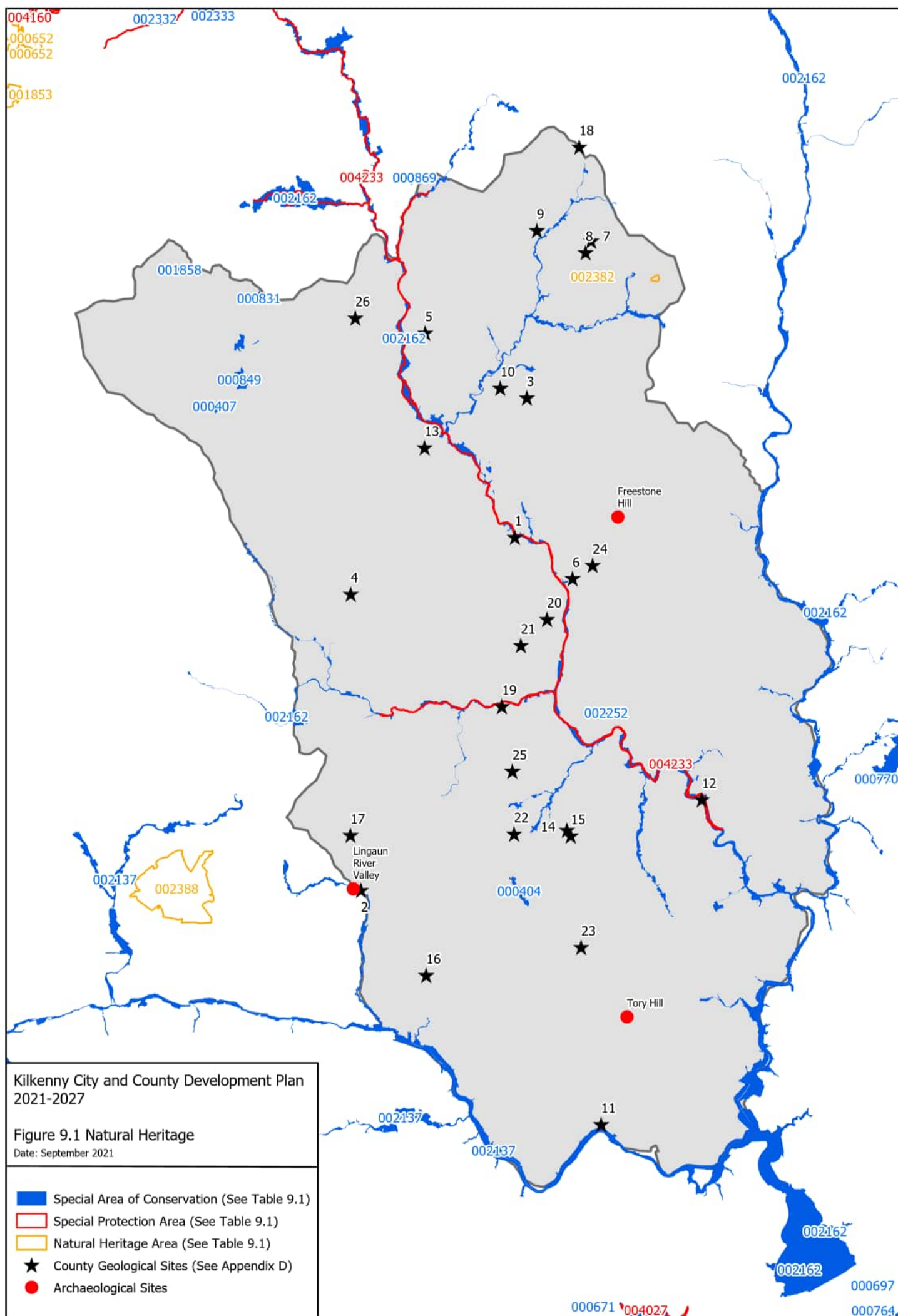
There are a number of overlaps between areas zoned for development and/or areas within settlement boundaries and European Sites (Special Areas of Conservation and Special Protection Areas). These European Sites are protected from inappropriate development under the European Habitats and Birds Directives, transposing national legislation and various provisions under this Plan. The protection of the integrity of European Sites as per these requirements will take primacy over other Plan provisions.

Visitor and Habitat Management

The Council will seek to control the impact of visitor numbers in order to avoid significant effects including loss of habitat and disturbance, including ensuring that new any projects, such as greenways, are a suitable distance from ecological sensitivities, such as riparian zones. As per Section 1.3, all projects that may have a significant effect on any Natura 2000 site, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. Control measures may include ensuring that new projects and activities are a suitable distance from ecological sensitivities. Visitor/Habitat Management Plans will be required for projects as relevant and appropriate.

Integrated Management Plans for European Sites

The Council shall be available to engage with the NPWS with the objective of achieving the preparation and implementation of Integrated Management Plans, informed as appropriate by comprehensive species surveys, for sites within the County, including those which are designated for Kingfisher and Otter. Such Plans would establish the necessary conservation measures for European sites in line with the Habitats Directive and be integrated with other plans and programmes, with the intention that



such plans are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations, including those of local communities.

Development Management Requirements

AAs for Recreation

AAs for recreational projects that have the potential to affect the integrity of any European site shall demonstrate that potential direct, indirect and cumulative effects including in relation to the following issues, have been adequately mitigated, where they exist:

- Hard infrastructure in riparian zones;
- Increased recreational access;
- Species and populations of conservation concern, such as Kingfisher and Otter where relevant; and
- Water quality

9.2.1.2 Natural Heritage Area

Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs) are designated under the Wildlife (Amendment) Act 2000 and encompass nationally important semi-natural and natural habitats, landforms and geomorphological features. There are 34 Natural Heritage Areas in the county. See Table 9.1 and Figure 9.1.

9.2.1.3 Statutory Nature Reserve

A Nature Reserve is an area of importance to wildlife which is protected under Ministerial order. Most are owned by the State. There are 4 Statutory Nature Reserves in the county. See Table 9.1 and Figure 9.1.

9.2.1.4 Wildfowl Sanctuary

Wildfowl Sanctuaries are areas that have been excluded from the 'Open Season Order' so that game birds can rest and feed undisturbed. Shooting of game birds is not allowed in these sanctuaries. There are 2 wildfowl sanctuaries in the county. See Table 9.1 and Figure 9.1.

9.2.1.5 Protected Plant and Animal Species

Certain plant, animal and bird species are protected by law. These includes plant species listed in the Flora (Protection) Order 2015 (S.I. No. 356 of 2015) (or other such Orders) and animals and birds listed in the Wildlife Act, 1976 and subsequent statutory instruments, those listed in Annex IV of the Habitats Directive (92/43/EEC), and those listed in Annex I of the Birds Directive.

The Planning Authority will consult with the National Parks and Wildlife Service (a) in respect of any proposed development where there is a possibility that such development may have an impact on a protected area of international or national importance, and (b) take account of any licensing requirements, when undertaking, or approving development which is likely to affect plant, animal or bird species protected by national or European legislation.

The Council will protect and, where possible, enhance the natural heritage sites designated under EU legislation and national legislation (Habitats Directive, Birds Directive, European Communities (Birds

and Natural Habitats) Regulations 2011 and Wildlife Acts). This protection will extend to any additions or alterations to sites that may arise during the lifetime of this plan. The Council will also protect and, where possible, enhance the plant and animal species and their habitats that have been identified under European legislation (Habitats and Birds Directive) and protected under national Legislation (European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011), Wildlife Acts 1976-2010 and the Flora Protection Order (SI94 of 1999).

Development Management Requirements:

- Ensure that an ecological impact assessment is carried out, by suitably qualified professional(s), for any proposed development likely to have a significant impact on rare and threatened species including those species protected by law and their habitats. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

Table 9.1 Protected Habitats of International and National Importance

Site Name	Site Code/Ref	SAC	SPA	pNHA	SNR	WF
Cullahill Mountain	000831	✓				
Hugginstown Fen	000404	✓		✓		
Galmoy Fen	001858	✓		✓		
Lower River Suir	002137	✓				
River Barrow & River Nore	002162	✓		✓		✓
River Nore	004233		✓			
Spa Hill & Clomantagh Hill	000849	✓				
The Loughans	000407	✓				
Thomastown Quarry	002252	✓				
Archersgrove	002051			✓		
Ardaloo Fen	000821			✓		
Ballykeeffe Woodland	000400			✓	✓	
Barrow River Estuary	000698			✓		
Brownstown Wood	000827			✓		
Clohastia	000830			✓		
Coan Bogs*	002382			✓		
Dunmore Cave	000401			✓		
Dunmore Complex	001859			✓		
Esker Pits	000832			✓		
Fiddown Island	000402			✓	✓	
Garryrickin Nature Reserve	000403			✓	✓	
Grannyferry	000833			✓		
Ice House near Inistioge	002094			✓		
Inchbeg	000836			✓		
Inistioge	000837			✓		

Kilkeasy Bog	000839			✓		
Kyleadahir Wood Nature Reserve	000405			✓	✓	
Kylecorragh Wood	000842			✓		
Lough Cullin	000406			✓		✓
Lough Macask	001914			✓		
Mothel Church, Coolcullen	000408			✓		
Mount Juliet	000843			✓		
Murphy's of the River	000844			✓		
Newpark Marsh	000845			✓		
Rathsnagadan Wood	000409			✓		
Red Bog, Dungarvan	000846			✓		
Thomastown	000410			✓		
Tibberaghny Marshes	000411			✓		
Whitehall Quarries	000855			✓		

See www.npws.ie for further information.

* refers to the fact that Coan bog is an NHA, not a pNHA

9.2.2 Biodiversity Outside of Habitats Designated for Nature Conservation

Much of the biodiversity in the county occurs in the wider countryside, i.e., in areas which are not subject to legal protection under National or EU biodiversity law. These habitats and features are particularly important in contributing to the biodiversity, landscape value and sense of place of the county. They provide vital links and corridors to allow the movement of plant and animals between the network of protected sites. These features include: hedgerows, ditches and banks, stone walls, woodlands, estates and parklands, rivers, streams and associated riparian zones, reservoirs, ponds and canals. Such corridors or interconnected networks are the basis of our Green Infrastructure.

Article 10 of the Habitats Directive outlines the obligations of EU member states in relation to natural heritage in the wider countryside. It provides that through land use planning and development policies, Planning Authorities shall endeavour to improve the ecological coherence of the Natura 2000 network and encourage the management of landscape features that are of major importance for wild fauna and flora. Such features are those which, by virtue of their function and structure are essential for the migration, dispersal and genetic exchange of wild species and form part of the network of green infrastructure.

Kilkenny County Council has commissioned, and continues to commission, habitat assessments and Green Infrastructure surveys of a number of towns, villages, and habitats throughout the county, including Kilkenny City, Gowran, Fiddown, Piltown, Johnstown, Urlingford, Ballyragget, Ballyhale, Mooncoin, Thomastown, and Knocktopher. The findings of these surveys are vital to improving our understanding of biodiversity resource in the county and will be used to inform the development management process.

Objective

- 9A** Continue to identify and map habitats and green infrastructure of county importance, and raise awareness and understanding of the county's natural heritage and biodiversity identifying green corridors and measures to connect them.

Development Management Requirements:

- To ensure that development proposals, where relevant, improve the ecological coherence of the Natura 2000 network and encourage the retention and management of landscape features that are of major importance for wild fauna and flora as per Article 10 of the Habitats Directive.
- To protect and where possible enhance wildlife habitats and landscape features which act as ecological corridors/networks and stepping stones, such as river corridors, hedgerows and road verges, and to minimise the loss of habitats and features of the wider countryside (such as ponds, wetlands, trees) which are not within designated sites.
- To ensure that appropriate mitigation and/or compensation measures to conserve biodiversity, landscape character and green infrastructure networks are required in developments where habitats are at risk or lost as part of a development.

9.2.3 Green Infrastructure

Green Infrastructure can be defined as strategically planned and interconnected networks of green space and water capable of delivering ecosystem services and quality of life benefits. Green Infrastructure can include parks, open spaces, rivers, farmland, playing fields, woodlands, allotments and private gardens which surround and intersperse our towns and villages. The National Planning Framework (NPF) highlights the importance of the interrelationships between biodiversity, natural heritage, landscape and our green spaces. The NPF states that integrated planning for green infrastructure and ecosystem services will be incorporated into the preparation of statutory land use plans. It should be designed and managed as a multifunctional resource capable of delivering a wide range of economic, environmental and quality of life benefits for local communities including:

- adaptation to the impacts of climate change and flooding
- high-quality environment which can attract investment and new business
- places for people to access nature, outdoor recreation and for social interaction
- local food production - in allotments, gardens and through agriculture
- space for nature and wildlife to flourish
- a sense of place and local distinctiveness
- a resource for environmental education

Green Infrastructure planning has a significant role to play in assisting in the protection of Natura 2000 sites, biodiversity in the wider countryside and climate resilience. The Council's Land Use Plans will protect, manage and provide, where possible, green infrastructure in an integrated and coherent manner.

Objective

9B To identify and map green infrastructure assets and sites of local biodiversity value over the lifetime of the Plan.

Development Management Requirement:

- **Require all developments in the early pre-planning stage of the planning process to identify, protect and enhance ecological features and habitats, and making provision for local biodiversity (e.g. through protection of existing breeding sites, and provision of appropriate new infrastructure such as swift, bat and barn owl boxes, bat roost sites, green roofs, etc.) and provide links to the wider Green Infrastructure network as an essential part of the design process.**

9.2.4 Geological Heritage

The Geological Survey of Ireland (GSI) has assessed the geological heritage of County Kilkenny and identified sites of geological and geomorphological importance, and recommended their protection as County Geological Sites⁶ (See Appendix D). Some of these sites may in future be designated by the Department of Housing, Local Government and Heritage and the GSI as Natural Heritage Areas (NHAs) because of their geological interest from a national perspective. In the interim, the Council will seek to maintain the geological value of these sites and to protect, and where appropriate, enhance their geological and geomorphological heritage values. The locations of the sites are shown on Figure 9.1.

The Council will consult the Geological Survey of Ireland when considering undertaking, approving or authorising developments which are likely to affect County Geological Sites. In some locations, in consultation with landowners, it may be possible to access geological and geo-morphological features of interest, and the Council will support and facilitate this where appropriate.

9.2.5 Woodland, Trees and Hedgerows

Woodlands and trees contribute significantly to the biodiversity and landscape character of the county. They are a vital part of a network of habitats, ecological 'corridors' and 'stepping stones' essential for wildlife to flourish and move between and within habitats. They have a vital role to play in climate adaptation. They filter out noise, dust and pollutants and help minimise flooding by retaining moisture.

Useful databases and sources of information on woodlands and trees in County Kilkenny include:

⁶ Clarke, A., Parkes, M. & Gatley, S. 2007. *The Geological Heritage of Kilkenny. An audit of County Geological Sites in Kilkenny*. Geological Survey of Ireland. Unpublished Report.

<https://www.gsi.ie/ga-ie/publications/Pages/The-Geological-Heritage-of-Kilkenny.aspx>

- Ancient woodlands are areas which have been wooded since 1660. 28 Possible ancient woodlands (PAWS) and long-established woodlands (LEWS) were identified by the NPWS in Co. Kilkenny⁷
- The Tree Register of Ireland (TROI) database of outstanding trees in Ireland compiled by the Tree Council of Ireland identifies significant trees in the county. A copy of the TROI for Kilkenny is available to view from the Parks Department of Kilkenny County Council.
- Woodland Survey of Kilkenny (Kilkenny County Council, 1997) identifies the amenity potential of woodlands in the county. A copy of the survey is available to view from the Parks Department of Kilkenny County Council.
- The National Survey of Native Woodlands (2003-2008) identified and surveyed 58 sites in Kilkenny as part of a National Survey⁸.
- Survey of Mature Trees Kilkenny City, see Appendix F

There are a number of legislative measures which recognise the importance of trees and woodlands and provide for their protection. These include:

- Tree Preservation Orders (TPO's)**
Under the Planning and Development Act 2000, TPO's allow for the protection of trees, groups of trees and woods of amenity value. Trees, which are the subject of a TPO, cannot be felled unless the owner also obtains planning permission. See Appendix E for list of current TPO's in the county. This list may be added to over the course of this Plan. Consult with the Parks Department of the County Council for the most up-to-date list. The Council will conserve important trees, groups of trees or woodlands, using Tree Preservation Orders, as appropriate.
- Tree Felling**
Under the Forestry Act 2014, with certain exceptions, it is illegal to uproot or cut down any tree unless notice of intention to do so has been given in accordance with the Act. The Council will provide guidance to landowners on the legal requirements and procedures in relation to tree felling in order to protect the landscape character and biodiversity of the county.

9.2.5.1 Hedgerows

Hedgerows contribute significantly to biodiversity and landscape character. They have an important farming function, they are wildlife habitats, and corridors, between habitats, and they also have historical significance as townland and field boundaries. Hedgerows are afforded protection under the Wildlife (Amendment) Act, 2000, prohibiting the cutting of hedges within the bird nesting period (1st March -31st August).

Kilkenny County Council has undertaken surveys of hedgerows in a number of areas/settlements around the county, as part of the Habitat and Green Infrastructure Assessments, undertaken to inform Local Area Plans (See Section 9.2.2 Biodiversity Outside of Habitats Designated).

⁷ Department of Environment, Heritage and Local Government, [A provisional inventory of ancient and long-established woodland in Ireland](#), 2010

⁸ BEC Consultants, [National Survey of Native Woodlands 2003-2008](#), 2008

The Council will promote the planting of native tree and shrub species, by committing to using native species (of local provenance wherever possible) in its landscaping work and on County Council property and maximise the opportunity to enhance biodiversity within the City & County during the life time of the plan.

Development Management Requirements:

- To protect existing woodlands, trees and hedgerows which are of amenity or biodiversity value and/or contribute to landscape character of the county, and to ensure that proper provision is made for their protection and management, when undertaking, approving or authorising development.
- To ensure that when undertaking, approving or authorising development that sufficient information is provided to enable an assessment of impacts on woodlands, trees, and hedgerows.
- To have regard to, and seek the conservation of identified trees and woodlands from a) the National Survey of Ancient and Long-Established Woodlands, b) the Tree Register of Ireland (c) sites of significance identified in the Kilkenny Woodlands Survey 1997, (d) the National Survey of Native Woodlands, and (e) Survey of Mature Trees in Kilkenny City and Environs, in the assessment of planning applications
- To retain hedgerows, and other distinctive boundary treatment such as stone walls, when undertaking, authorising or approving development; where the loss of the existing boundary is unavoidable as part of development, to ensure that a new hedgerow is planted using native species, and species of local provenance to replace the existing hedgerow and/or that the wall is re-built using local stone and local vernacular design.
- To discourage the felling of mature trees to facilitate development and, where appropriate make use of Tree Preservation Orders to protect important trees and groups of trees which may be at risk or have an amenity, biodiversity or historic value.
- To require the planting of native broadleaved species, and species of local provenance, in new developments as appropriate. See Appendix G for a list of native trees and shrubs.

9.2.6 Inland Waters- Rivers, Streams and Groundwater

The rivers, streams, wetlands and groundwater in County Kilkenny are important riparian zones and are home to a variety of plant and animal species, and are one of the most important biodiversity resources in the county. The Rivers Barrow, Nore and Suir (known collectively as the “Three Sisters”) are the principal rivers flowing through County Kilkenny. They are protected habitats under European legislation. The rivers provide a rich landscape setting for the towns and village of the county and are the primary green infrastructure network in the county. The economic benefits of the rivers are significant. The development of riverside walks has enabled greater access to the waterway corridors, whilst the rivers themselves are used for water-pursuits including angling, boating, canoeing and kayaking, and swimming. The River Nore Heritage Audit (2009-2011) identifies and maps the built, natural and cultural heritage of the River Nore corridor in County Kilkenny (See section 8.4.1.1 River Nore for further details). Groundwater is important for supplying water and maintaining wetlands and river flows in dry periods.

Relevant planning applications shall have regard to the guidance document '*Planning for Watercourses in the Urban Environment*'.

9.2.7 Wetlands

Wetlands include a wide range of habitats including watercourses, marshes, fens, bogs, turloughs, wet woodlands and estuaries. They support a variety of habitats and species, function in the protection of water quality and flood control, are important carbon stores contributing to climate resilience, and provide open space and recreational opportunities. The *County Kilkenny Preliminary Wetland Survey, 2020* provides baseline ecological data on wetland sites in the county.

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

The Council will protect, manage and enhance the wetlands of the County having regard to the '*County Kilkenny Preliminary Wetland Survey, 2020*' and subsequent surveys published during the lifetime of this plan. The Council will also ensure that there is an appropriate level of assessment in relation to proposals which involve draining, reclaiming or infilling of wetland habitats.

9.2.8 Peatlands

Peatlands are important ecosystems sustaining a range of animal and plant species. The distribution of peatland in Kilkenny is shown on Figure 9.3. Industrial extraction of peat for energy and horticulture in Kilkenny is limited to a small area in the northwest of the county, adjacent to the Tipperary county boundary. Damage to peatlands can occur from domestic peat extraction, afforestation, wind farms, recreational activities and invasive species. Peatlands may contain archaeological artefacts. The *National Peatland Strategy*⁹ guides peatland management and conservation.

Baunmore Bog has been selected by Bord Na Móna to be part of a project to establish and accelerate the development of native woodland that would have climate action benefits and provide significant new habitat for a wide range of species.

The Council will protect peatlands from inappropriate development having regard to their amenity and biodiversity value and their visual sensitivity.

9.2.9 Pollinators

One third of our bee species are threatened with extinction from Ireland. Habitat loss, loss of food sources, pests and disease, pesticide and climate change all contribute. In addition to their intrinsic value, they are vital to our agricultural and horticultural industries, contribute to our health and wellbeing, and also pollinate up to 78% of flowering plants.

Kilkenny County Council has adopted the All Ireland Pollinator Plan (www.pollinator.ie), a national framework which aims to make Ireland a place where pollinators thrive. The Council will continue to

⁹ Department of Arts, Heritage and the Gaeltacht, [National Peatland Strategy](#), 2015

support the implementation of the All Ireland Pollinator Plan and is committed to undertaking actions to support pollinators in the county.

The Council will in as far as is practicable and affordable manage and restore semi-natural habitats and their native plants on Council land.

9.2.10 Invasive Species

Invasive non-native plant and animal species (animals and plants that are introduced accidentally or deliberately into a natural environment where they are not normally found) are a significant threat to biodiversity. They can negatively impact on native species, can transform habitats and threaten ecosystems causing serious problems to the environment, buildings and the economy.

Irish legislation makes it an offence to plant, breed, disperse, allow dispersal or cause to grow a range of plant and animal species, or to import or transport these or vector material such as soil or spoil from which they can grow (Articles 49 and 50 of the European Communities (Birds and Natural Habitats) Regulations 2011). The Council will seek to prevent the spread of invasive non-native species.

Development Management Requirements:

- **To require relevant development proposals to address the presence or absence of invasive alien species on proposed development sites and (if necessary) require applicants to prepare and submit an Invasive Species Management Plan where such a species exists to comply with the provisions of the European Communities (Birds and Natural Habitats) Regulations 2011-2015.**
- **For proposals connected to surface water systems, risks associated with the spread of crayfish plague shall be considered and applicants should submit a crayfish plague management strategy where appropriate.**

9.2.11 Native Plant Species

Where possible, the use of native plants and seeds from indigenous seed sources should be used on all developments and landscape projects/treatments. This will help to:

- contribute to national commitments on the conservation of biological diversity by establishing native habitats and reducing the planting and dispersion of non-native plants
- support a reduction in the threat posed by the importation of pests and diseases carried on non-native (and non-indigenously sourced) plant material
- compensate for loss of habitat
- maintain regional identity, landscape character and diversity

Development Management Requirement:

- **The Council will promote the use of native plants and seeds from indigenous seed sources in all landscape projects**

