

# CHAPTER 13

Natural Heritage/Biodiversity

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**Aim:** *To protect, conserve and manage natural heritage including sites designated at national and EU level and protected species and habitats outside of designated sites and to secure conservation objectives in the interests of the proper planning and sustainable development of the county.*

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### 13.1 Background

Heritage is recognised as an important environmental and economic resource that requires care and management through the planning process. Kildare has a wide range of habitat types and landscapes supporting diverse species both in natural and semi natural state and managed locations. These include grassland, woodland, stream and canal habitats, bogland and riparian habitats. These habitats support a variety of species and ecosystems that contribute to the unique biodiversity of Kildare. Many of these areas are coming under pressure as development intensifies the demand for land. It is imperative that measures are put in place to respond to these pressures and that any development will not have a detrimental effect on the natural environment.

### 13.2 Strategy

The following strategy will guide the Council's heritage policies and objectives as set out in this Plan:

- To protect and conserve nationally important and EU designated sites including Special Protection Areas, candidate Special Areas of Conservation and proposed Natural Heritage Areas.
- To promote conservation and development measures while promoting the orderly and sustainable development of County Kildare.
- To avoid undue negative impacts upon the natural environment.
- To promote appropriate enhancement of the natural environment as an integral part of future development.
- To mitigate the effects of harm where it cannot be avoided.

### 13.3 Policy Context National/ Local Level

While legislative provisions exist governing the protection of important habitats and species, there are also a number of policy documents which seek to protect and enhance national heritage and promote the enhancement of biodiversity.

#### 13.3.1 National Heritage Plan (2002)

The conservation of our natural heritage is a key objective of Government which, through the *National Heritage Plan*, recognises that heritage is a communal and mutually shared asset to be protected by the actions of all. It sets out a clear and coherent strategy and framework for the protection and enhancement of Ireland's national heritage with a core objective to protect national heritage as well as promoting it as a resource to be enjoyed by all.

#### 13.3.2 County Kildare Heritage Plan 2005–2009

On foot of the *National Heritage Plan* Kildare County Council prepared a *County Kildare Heritage Plan* which comprises a five year action plan for the conservation, preservation and enhancement of Kildare's heritage including natural heritage. The County Kildare Heritage Plan will be reviewed in 2011.

#### 13.3.3 National Biodiversity Plan (2010)

The *National Biodiversity Plan* recognises that conservation and enhancement of biological diversity is essential for sustainable development and for maintaining the quality of life. The National Biodiversity Plan reflects that of the Convention on

Biological Diversity. Ireland's economic development and the health and wellbeing of our society will be linked with the success of the actions taken to maintain and restore biodiversity.

#### 13.3.4 County Biodiversity Plan 2009–2013

The *County Biodiversity Plan* provides a framework for conserving biodiversity and natural heritage at a local level. It complements the *Heritage Plan* by including detailed actions to deliver positive outcomes focused on species and habitats. A key focus of the plan is gathering information on and managing the biodiversity resource, education, awareness raising and the promotion of effective cooperation between stakeholders. Key actions which have been achieved include the publication of guidance documents:

- *Good Practice Guidelines for Developers – Biodiversity and Development in Co. Kildare (2009).*
- *Good Practice for Householders – Biodiversity and Development in Co. Kildare (2009).*

### 13.4 Legislative Context

Ireland has signed and ratified a number of international conventions and agreements including the Convention on Biological Diversity, the Convention on the Conservation of European Wildlife and Natural Habitats (Bern) and the Convention on Wetlands of International Importance (Ramsar). These various obligations are given legal effect through both European and national legislation and have resulted in the designation of natural heritage sites throughout the county.

#### 13.4.1 EU and National Designated Sites

European and national legislation protects the most valuable of our natural heritage areas. At European level, Natura 2000 sites form a network of protected areas throughout the European Union and comprise Special Areas of Conservation (SAC) and Special Protection Areas (SPAs). At a national level, Natural Heritage Areas and Nature Reserves are designated to conserve species and habitats of national importance.

#### 13.4.2 Special Areas of Conservation

Special Areas of Conservation (SACs) are protected sites designated under the EU Habitats Directive. Article 3 of the Habitats Directive requires the establishment of a European network of important high-quality conservation sites (Natura 2000 sites) that will make a significant contribution to conserving the habitat types and species identified in Annex I and II of the Directive. The habitat types and species listed are considered to be most in need of conservation at a European level. While cSAC are fully protected under the EU Habitats Directive, the term “candidate” refers to the fact that the sites are currently under consideration by the European Commission. Seven Candidate Special Areas of Conservation (cSAC) are located in the county (Table 13.1 and Map 13.1 Refer).

**Table 13.1** Candidate Special Areas of Conservation in Co. Kildare

Site Name	Site Code
Pollardstown Fen	00391
Ballynafagh Bog	00396
Ballynafagh Lake	01387
Rye Water Valley at Carton	01398
Moud's Bog	02331
River Barrow and Nore	02162
Red Bog	00397

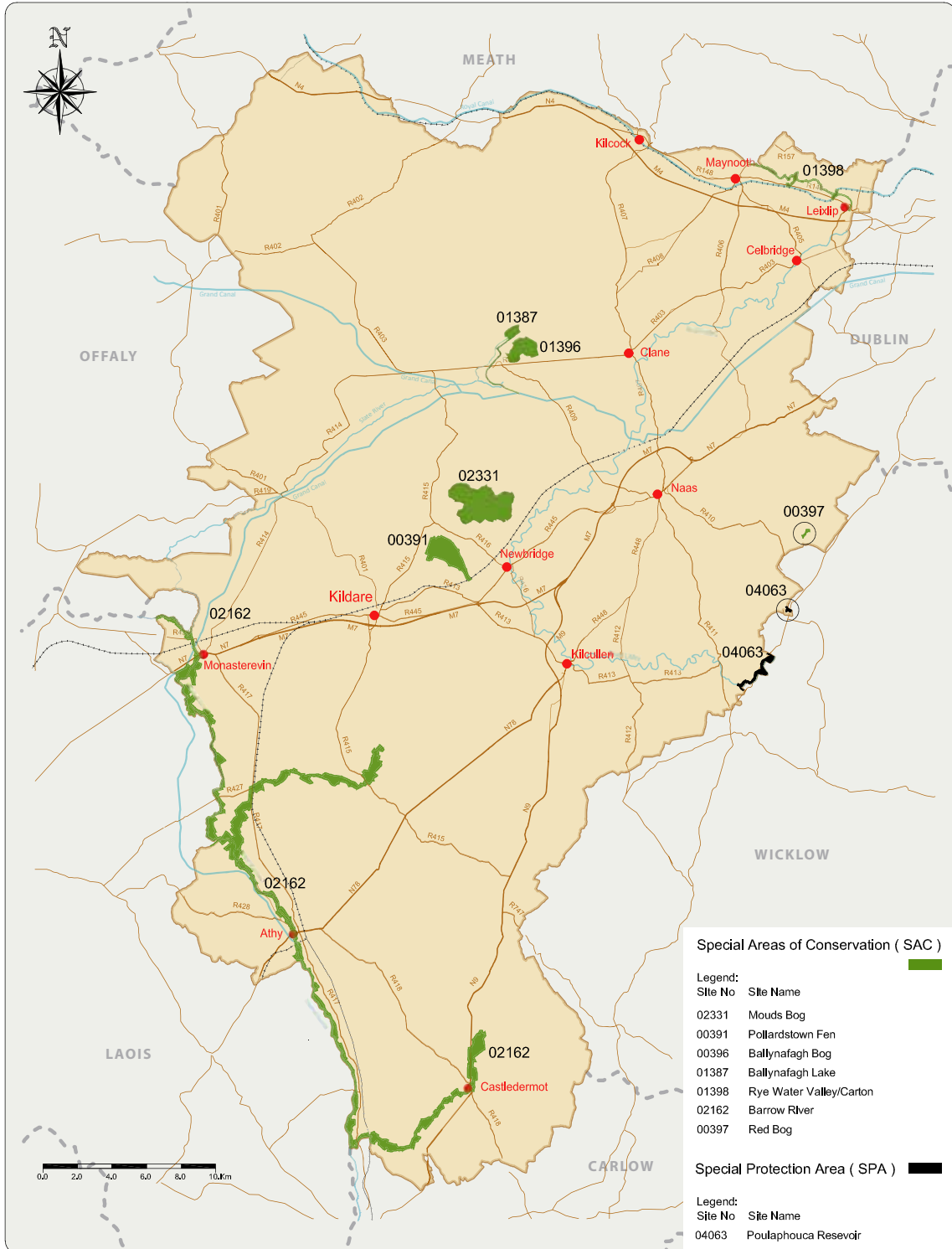
#### 13.4.3 Special Protection Areas

Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EU Birds Directive. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species. Poulaphouca Reservoir is the only candidate site located in the county (Map 13.1 Refer).

**Table 13.2** Candidate Special Protection Areas in Co. Kildare

Site Name	Site Code
Poulaphouca Reservoir	004063

Map 13.1 Special Areas of Conservation and Special Protection Area



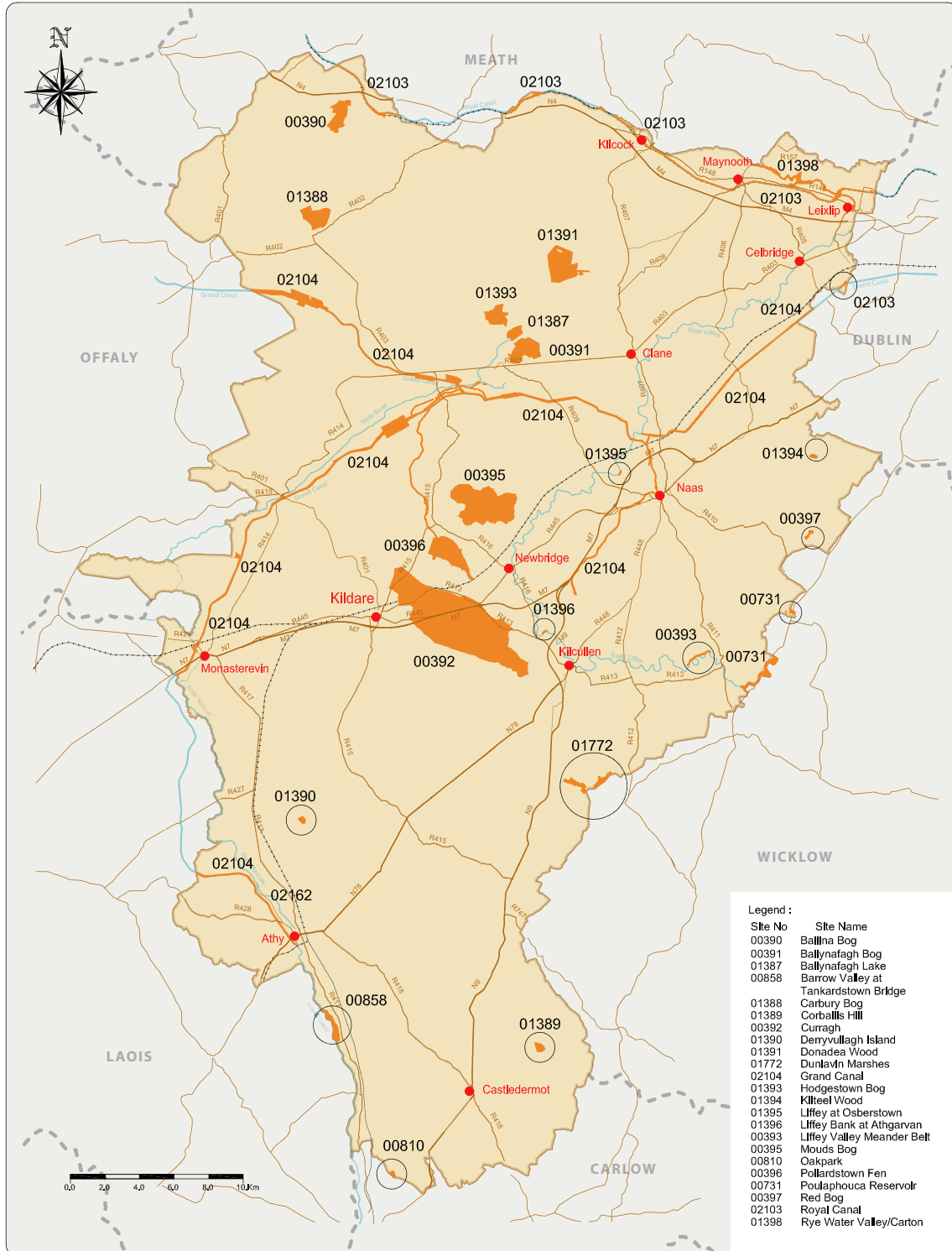

Kildare County Council  
 Planning & Economic  
 Development Department  
 Áras Chill Dara,  
 Naas, Co Kildare.


CDP 2011 - 2017

Special Areas of Conservation  
 and Special Protection Area

Scale:	N.T.S.	Map Ref.:	13.1
Date:	April 2010	Drawing No.:	200/09/465
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Map 13.2 Proposed Natural Heritage Areas




 Kildare County Council  
 Planning & Economic Development Department  
 Áras Chill Dara,  
 Naas, Co. Kildare.

CDP 2011 - 2017  
**Proposed Natural Heritage Areas**

Scale:	N.T.S.	Map Ref.:	13.2
Date:	April 2010	Drawing No.:	200/09464
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#### 13.4.4 Natural Heritage Areas

At national level, the Wildlife Act 1976 and the Wildlife (Amendment) Act 2000 are the principal statutory provisions for the protection of wildlife (both flora and fauna) and the control of activities which may impact adversely on the conservation of wildlife. Under the Wildlife (Amendment) Act 2000, Natural Heritage Areas (NHAs) are designated to conserve species and habitats of national importance and sites of geological interest. The designation of these sites is the responsibility of the National Parks and Wildlife Division of the Department of the Environment, Heritage and Local Government and is an ongoing process as boundaries are revised and adjusted and new sites added. There are 23 Natural Heritage Areas (NHAs), within the county (Table 13.3 and Map 13.2 Refer).

**Table 13.3** Natural Heritage Areas in Co. Kildare

Site Name	Site Number
Carbury Bog	01388
Hodgestown Bog	01393
Ballina Bog	00390
Ballynafagh Bog	00391
Ballynafagh Lake	01387
Barrow Valley at Tankardstown Bridge	00858
Corballis Hill	01389
Curragh	00392
Derryvullagh Island	01390
Donadea Wood	01391
Dunlavin Marshes	01772
Grand Canal	02104
Kilteel Wood	01394
Liffey at Osberstown	01395
Liffey Bank at Athgarvan	01396
Liffey Valley Meander Belt	00393
Mouds Bog	00395
Oakpark	00810
Pollardstown Fen	00396
Poulaphouca Reservoir	00731
Red Bog	00397
Royal Canal	02103
Rye Water Valley/Carton	01398

#### 13.4.5 Nature Reserves and Ramsar Sites

A nature reserve is an area of importance to wildlife, which is protected under Ministerial Order.

Ramsar Sites are designated for the conservation of wetlands, particularly those of importance to waterfowl. These sites were designated under the Ramsar Convention on Wetlands of International Importance. Pollardstown Fen is designated as a nature reserve and as a Ramsar Site.

**Table 13.4** Nature Reserve and Ramsar Sites

Site Name	Designation
Pollardstown Fen	Nature Reserve
Pollardstown Fen	Ramsar Site

### 13.5 Conservation within Natura 2000 Designated Sites – Appropriate Assessment

Articles 6 (3) and 6 (4) of the Habitats Directive requires an Appropriate Assessment of any plan or project whether within or outside a designated Natura 2000 site, which does not directly relate to the management of the site but may impact upon its conservation objectives.

The assessment is based on best scientific knowledge by a person with ecological expertise. It addresses the potential impacts of the plan or project on the conservation objectives of any Natura 2000 site. The impact assessed must include the indirect and cumulative impacts of approving the plan or project, together with any current or proposed activities, developments or policies impacting on the site. The potential impacts of policies outside Natura 2000 sites but potentially impacting upon them (known as ‘ex situ’ impacts) must also be included in the assessment. Guidelines issued by the DoEHLG in 2009 entitled *Appropriate Assessment of Plans and Projects in Ireland, Guidance for Planning Authorities* should be referenced in this regard.

A project or plan may only proceed if it can be concluded on the basis of Appropriate Assessment that there will be no adverse effects on the integrity of a Natura 2000 site. If adverse effects are likely, or in cases of doubt, then derogation under Article 6 (4) shall apply, but only in cases of imperative reasons of over-riding public interest.

## 13.6 European and National Designated Protected Species

Certain plant, animal and bird species are also protected by law. This protection applies wherever the plant, animal or bird species are found and is not confined to sites designated by law and their habitats. This includes plant species listed in the Flora Protection Order 1999 and animals and birds listed in the Wildlife Act 1976 and subsequent statutory instruments, those listed in Annex IV of the Habitats Directive and those listed in Annex I of the Birds Directive.

## 13.7 Nature/Biodiversity Conservation outside Designated Sites

Much of our biodiversity occurs outside sites which are not subject to legal protection under national and EU law. These include: woodlands, hedgerows, watercourses and associated riparian zones, canals, freshwater wetlands, urban parks and gardens and demesne gardens. This Plan will seek to protect and enhance these elements and identify locally important biodiversity areas.

A network of protected areas and ecological corridors available to support the movement of species and to sustain habitats, ecological processes and functions is necessary to maintain biodiversity. Article 10 of the Habitats Directive requires EU member states in their

land-use planning and development policies to encourage the management of features which constitute such ecological networks and which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species.

### 13.7.1 Trees, Woodlands and Hedgerows

Trees, woodlands and hedgerows make a valuable contribution to the landscape and visual amenity of County Kildare. Trees, either individually as specimen trees or in groups also make an important contribution to the landscape of many of the country house demesnes throughout the county. They perform many functions such as shelter from wind, act as a natural barrier, absorb pollutants, and provide a biodiversity function in terms of provision of habitat and food sources. They are important producers of oxygen and act as carbon sinks. Hedgerows, in many instances double hedgerows, often form townland boundaries and as such are an important historic resource. These hedgerows also act as wildlife corridors.

In urban settings trees or groups of trees can contribute significantly to the local landscape or townscape and to the successful integration of new buildings into the landscape. The planting or retention of mature trees can contribute to amenity and more attractive developments as well as important wildlife habitats. The retention of trees should be considered at the design stage of any development.

When planting hedgerows, species indigenous to the area should be used. *The County Kildare Hedgerow Survey* (2006) identified the predominant hedgerow species in Kildare. These species are listed in Chapter 19, Development Management Standards.



There are a number of existing Tree Preservation Orders in the County as follows,

**Table 13.5** Tree Preservation Orders in Co. Kildare

Clane	1987/1	OS 6"14
Ballymore Eustace	1991/1	OS 6"29
Clogheen (Moore Abbey)	1988/1	OS 6"28
Clongowes	1987/1	OS 6" 14

### 13.7.2 Invasive Non-Native Species

Non native species, both invertebrate and plants, can represent a major threat to local, regional, and national biodiversity. Terrestrial and aquatic habitats can be negatively affected, resulting in significant damage to conservation and economic interests, such as agriculture, forestry and civil infrastructure.

### 13.7.3 Inland Waterways, Rivers, Streams, Canals, Wetlands and Groundwater.

Aquifers, rivers, streams, canals, lakes and groundwater provide a network of waterways. These contribute to an important web of ecological corridors and are home to a variety of habitats and species. The banks (riparian zones) of rivers and streams are particularly important as they contain a range of habitats and species which are different from the surrounding landscape.

The maintenance of rivers and streams in an open, semi-natural condition, will be encouraged to protect and maintain biodiversity, landscape, and for flood protection control purposes. This can be achieved by managing development in river and stream corridors and by implementing sustainable drainage systems for commercial and residential developments.

### 13.7.4 Geology

The Geological Survey of Ireland has identified sites of geological importance in the report *The Geological Heritage of County Kildare*, (2005) (Table 13.6 Refers). Some of these sites may be designated as NHAs in due course and the Council recognises the need to protect these sites in the interest of protecting our geological heritage.



Table 13.6 Sites of Geological Importance

Site Name	Geological Interest	Location
Chair of Kildare	Precambrian – Devonian Palaeontology	Carrickanearla, Conlanstown, Cannonstown.
Dunmurry Hill	Precambrian – Devonian Palaeontology	Dunmurry
Hill of Allen	Cambrian-Silurian	Barnacrow
Slate Quarries	Cambrian-Silurian	Slate Quarries
Ballysax	Quaternary	Curragh
Glen Ding	Quaternary	Blessington, Athgarrett, Newtown Great, Newtown Park
Pollardstown Fen and Springs	Quaternary	Scarlettstown, Roseberry, Rathbride, Cornelscourt
Moorhill	Quaternary	Kilcullen
The Curragh	Quaternary	St Ledgers Bottoms
Ballykane Hill	Lower Carboniferous	Kilrainy
Carbury Castle	Lower Carboniferous	Carbury
Carrick Hill, Edenderry	Lower Carboniferous	Carrick
Liffey Oxbow	Fluvial/Lacustrine Geomorphology	Celbridge
Liffey Valley	Fluvial/Lacustrine Geomorphology	Ballymore Eustace-Kilcullen
Kilbrook Spring	Hydrogeology	Kilbrook
Louisa Bridge Springs (Cold and Warm)	Hydrogeology	Leixlip
St Bridget's Well – Japanese Gardens	Hydrogeology	Kildare
St Patricks Well (1)	Hydrogeology	Barrettstown, Naas
St Patricks Well	Hydrogeology	Ardross Lower
St Peters Well	Hydrogeology	Dunmurraghill

## 13.8 Natural Heritage/ Biodiversity Policies

### 13.8.1 Heritage Plan

It is the policy of the Council :

HB 1: To implement the key objectives and associated actions identified in the County Heritage Plan and any revision thereof.

### 13.8.2 Natural Heritage

It is the policy of the Council:

NT 1: To facilitate, maintain and enhance as far as is practicable the natural heritage and amenity of the county by seeking to encourage the preservation and retention of woodlands, hedgerows, stonewalls, rivers, streams and wetlands. Where the removal of such features is unavoidable appropriate measures to replace like with like should be considered, subject to safety considerations.

NT 2: To encourage the protection of historic hedgerows or significant hedgerows which serve to link habitat areas to each other and the surrounding countryside.

NT 3: To promote the carrying out of basic habitat assessments to inform the design of new developments in order to ensure that proposals for development integrate the protection and enhancement of biodiversity and landscape features wherever possible, by minimising adverse impacts on existing habitats (whether designated or not), by including mitigation and/or compensation measures, as appropriate.

NT 4: To require compliance with Article 10 of the Habitats Directive with regard to encouraging the management of features in the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species.

NT 5: To request the National Parks and Wildlife Service to prioritise the preparation of Management Plans for Natura 2000 Sites which are located within the county.

NT 6: To encourage access to our natural heritage and to promote access where it is practicable and does not affect the integrity of protected sites or conflict with their conservation objectives.

### 13.8.3 Designated Sites and Species

It is the policy of the Council:

DS 1: To maintain, protect and where possible enhance the conservation value of existing European and national designated sites (NHA, SAC and SPA) in the county and any additional sites that may be proposed for designation during the period of this Plan.

DS 2: To have regard to the policies and guidance of the National Parks and Wildlife Service of the DoEHLG in respect of proposed development where it is possible that such development may impact on a designated European or national site or a site proposed for designation.

DS 3: To ensure the impact of proposed development on a pNHA is assessed by requiring the submission of an Ecological Impact Assessment (EcIA) prepared by a suitably qualified professional which should accompany planning applications and council developments.



- DS 4: To ensure an Appropriate Assessment in accordance with Article 6(3) and Article 6(4) of the Habitats Directive and in accordance with DoEHLG guidance, 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, either individually or in combination with other plans or projects.
- DS 5: To ensure that projects which may give rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites will not be permitted (either individually or in combination with other plans or projects) unless for reasons of overriding public interest.
- DS 6: To ensure that development does not have a significant adverse impact on plant species, animals and birds listed in the Flora Protection Order, Wildlife Act 1976–2000, those listed in Annex IV of the Habitats Directive, and those listed in Annex I of the Birds Directive.
- DS 7: To consult with the National Parks and Wildlife Service when undertaking, approving and authorising development which is likely to affect plant, animal or bird species protected by law. In the event of a proposed development impacting on a site known to be a breeding or resting site of species listed in Habitats Regulations a derogation licence, issued by DoEHLG may be required.

#### 13.8.4 Trees, Woodlands and Hedgerows

It is the policy of the Council:

- TW 1: To promote the protection of trees, in particular native and broadleaf species specimen trees which are of conservation and/or amenity value and to incorporate these into the design of new developments.
- TW 2: To promote the environmentally sensitive management of hedges in accordance with best practice.
- TW 3: To protect and manage existing woodlands, trees and hedgerows which are of amenity or biodiversity value and/or contribute to landscape character. Proper provision must be made for their protection and management when undertaking, approving or authorising development. A management plan should be provided to ensure that trees are adequately protected during development.
- TW 4: To 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.



- TW 5: To restrict the cutting of hedges during the bird-nesting season (1<sup>st</sup> March until 31<sup>st</sup> August), except in certain legally defined circumstances, in accordance with the provisions of the Wildlife (Amendment) Act 2000.
- TW 6: To recognise the biodiversity and archaeological importance of townland boundaries, including hedgerows, and promote their protection and retention.
- TW 7: To protect, where possible, the trees which are considered an important component of demesne landscapes.

### 13.8.5 Invasive Non-Native Species

It is the policy of the Council:

- IS 1: To promote best practice with respect to minimising the spread of invasive species in the carrying out of development.

- IS 2: To support measures for the prevention and / or eradication of invasive species as appropriate within the county as opportunities and resources allow. Targeted invasive species control should be informed by the current distribution of that species, the degree of threat posed and the resources available to control and/or eradicate them.

### 13.8.6 Inland Waterways, River, Streams, Canals, Wetlands and Groundwater.

It is the policy of the Council:

- IW 1: To require the submission of an Ecological Impact Assessment where deemed necessary by the planning authority (and where necessary an Appropriate Assessment in relation to Natura 2000 sites) including bat and otter surveys for developments along river, stream and canal corridors. These assessments should where appropriate suggest a minimum buffer of undisturbed vegetation to be retained to mitigate against pollution risks, reduce flooding potential, maintain habitats and provide an ecological corridor. This buffer zone shall, where possible be maintained free of development and hard surfaces.
- IW 2: To seek during redevelopment the creation of a riparian buffer strip along either side of all watercourses where practicable.
- IW 3: To ensure that expert advice is sought in developing lighting proposals along river, stream and canal corridors, which are not in conflict with bat species, in order to mitigate impacts of lighting on bats and other species.
- IW 4: To require that runoff from a developed area will not result in deterioration of downstream watercourses or habitats, and that pollution generated by a development is treated within the development area prior to discharge to local watercourses.



- IW 5: To protect rivers, streams and other water courses and, wherever possible, maintain them in an open state capable of providing suitable habitats for fauna and flora while discouraging culverting or realignment.
- IW 6: To consult, as appropriate, with Inland Fisheries Ireland in relation to any development that could potentially impact on the aquatic ecosystems and associated riparian habitats.
- IW 7: To ensure, where possible, residential and commercial developments use sustainable drainage systems in accordance with best current practice.
- IW 8: To ensure that floodplains and wetlands, where appropriate, are retained for their biodiversity and flood protection value.
- IW 9: To promote the amenity, ecological and educational value of the rivers within the county while at the same time ensuring the conservation of their fauna and flora and the protection of the quantity and quality of the water supply.

### 13.8.7 Geology

It is the policy of the Council:

- G 1: To require applications which require an EIS to have regard to the Irish Geological Institute “*Geology in EIS – A Guide*”, (Sept 2002).
- G 2: To protect Geological Natural Heritage Areas that become designated during the life time of the Plan.
- G 3: To encourage, where practicable, and when not in conflict with ownership rights, access to geological and geomorphological features identified in the Plan.

### 13.9 Natural Heritage / Biodiversity Objectives

It is an objective of the Council:

- NHO 1: To identify and protect, in co-operation with the relevant statutory agencies and other relevant groups, sites of local biodiversity importance (Local Biodiversity Areas), not otherwise protected by legislation.
- NHO 2: To encourage the development of proposals for new woodlands utilising funding available through schemes such as the Neighbour Wood and Native Woodland Schemes.



- NHO 3: To undertake a study to survey, document and map significant mature trees and groups of trees of high amenity or biodiversity value within the county at appropriate locations subject to funding.
- NHO 4: To investigate the use of Tree Preservation Orders under the Planning Act 2000, as amended, to protect significant trees in the county as identified in tree surveys.
- NHO 5: To implement the actions contained in the County Biodiversity Plan 2009–2013 through the identification of priority actions subject to the availability of funding.
- NHO 6: To integrate biodiversity considerations into Local Area Plans, programmes and activities.
- NHO 7: To identify, conserve and provide guidance on development in important local biodiversity areas within the county.
- NHO 8: To conduct surveys to identify mature trees/ groups of trees and mature hedgerows of high amenity / biodiversity value at appropriate locations throughout the county.
- NHO 9: To support measures for the prevention and/ or eradication of invasive species as appropriate within the county as opportunities and resources allow.
- NHO 10: To carry out habitat mapping on a phased basis (including wetlands) within the plan area. This habitat mapping will identify Local Important Biodiversity areas in co-operation with NPWS, DoEHLG and Inland Fisheries Ireland.
- NHO 11: To identify suitable buffer zones between designated ecological sites and areas zoned for development.