

Green Infrastructure Development Plan Strategy

2016 - 2022

WICKLOW COUNTY
DRAFT DEVELOPMENT PLAN



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Number

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INTRODUCTION

This County Wicklow Green Infrastructure Development Plan Strategy has been undertaken and prepared in line with the guidance of Comhar's¹ Sustainable Development Council (SDC), '*Creating Green Infrastructure for Ireland – Enhancing Natural Capital for Human Wellbeing*' (August 2010). This development plan strategy sets out what Green Infrastructure (GI) is and why it is important to identify GI resources and to facilitate opportunities to enhance GI in the County from a land use point of view. The context of GI from a European level to a local level is presented with the strategy concluding with recommendations for a number of objectives for inclusion in the County Development Plan.

WHAT IS GREEN INFRASTRUCTURE?

Green Infrastructure (GI) can be broadly defined as '*an interconnected network of green space that conserves natural ecosystem values and functions and provides associated benefits to human populations. Green Infrastructure is the ecological framework needed for environmental, social and economic sustainability – in short it is a nation's natural life sustaining system*'².

Green infrastructure can include varying land uses - pasture lands, croplands, woodlands, heath, bog, scrubland, quarries, parks, formal and informal green spaces, active and passive spaces, areas around domestic and nondomestic buildings, brownfield areas, waterways, waterbodies, waterway corridors, wetlands, coastal areas, and community/institutional lands such as hospitals, schools, graveyards, allotments and community gardens. Heritage Sites, Natura 2000 site and NHAs are also important GI sites/assets.

Individually, each GI site/asset has an important role and benefit. These individual roles and benefits can be strengthened and enhanced when the sites/assets are linked together into a network of green infrastructure. Many social, economic and environmental benefits can be achieved especially when the green infrastructure is proximate to where people live and work. The benefits of green infrastructure sites/networks include some of the following:

- support unique habitats for wildlife, biodiversity, and fragile ecosystems;
- have important recreational, tourism and cultural roles;
- provide corridors for walking and cycling;
- provide or support forestry, crop production, agriculture and energy development;
- provide places for local food production - in allotments, gardens and through agriculture;
- provide green buffers /green wedges between built up areas;
- improve air quality;
- provide ready access to nature for the populace;
- assists in climate change adaptation - including flood alleviation;
- increase environmental education and awareness;
- Improved health and well-being by raising the quality of the County's citizen's living and working environment;
- assists in 'place-making', by positively recognising and maintaining the character of particular locations, particularly where new development is planned, and
- enhance biodiversity.

¹ Comhar Sustainable Development Council, are the forum for national consultation and dialogue on all issues relating to sustainable development, established in 1999.

² Source Comhar Sustainable Development Council '*Creating Green Infrastructure for Ireland*', August 2010

BENEFITS OF GREEN INFRASTRUCTURE

GI is multifunctional, performing many functions in the same spatial area. When the GI ecosystem is in a healthy condition it can deliver benefits to a wide range of stakeholders as well as to the public at large. The table below 'Green Infrastructure Elements and Social and Economic Benefits' shows how Green Infrastructure relates to such benefits³:

Green Infrastructure Elements and Social and Economic Benefits	
Recreation & Health	<ul style="list-style-type: none"> • Improves physical and mental well-being • Provides opportunities to exercise, play and engage in sport • Provides accessibility (permeability) through the landscape, especially for walking and cycling
Biodiversity & Natural Resources	<ul style="list-style-type: none"> • Increases opportunities for sustainable land management • Safeguards priority habitats and species • Restores ecological networks • Conserves and improves soil quality • Reduces the impact of poor air quality
Coast, Water Resource and Flood Management	<ul style="list-style-type: none"> • Improves water quality • Provides coastal and waterside recreation • Protects water resources and abstraction sites and brings them into multifunctional use
Sense of place – appreciation of landscapes and cultural heritage	<ul style="list-style-type: none"> • Safeguards the distinctive character and openness • Safeguards and encourages beneficial use of local landscape resources • Conserves historic landscapes, archaeological assets, built heritage and cultural heritage
Climate Change Adaptation and Mitigation	<ul style="list-style-type: none"> • Provides opportunities for renewable energy production • Buffers/brakes flooding (fluvial and coastal); providing space for SUDS • Provides shade and cooling to densely populated areas, especially those with vulnerable communities
Economic Development	<ul style="list-style-type: none"> • Provides a setting to encourage inward investment • Encourages retention of entrepreneurs and graduates • Provides a setting and market for land-based tourism and social enterprises
Social Inclusion	<ul style="list-style-type: none"> • Provides a setting for community engagement and informal education • Stimulates increase in training and skills • Provides an outlet for community instincts for stewardship of the environment
Productive Environments – Food, Fibre, Energy	<ul style="list-style-type: none"> • Sustains a diverse land-based industry (farming, forestry, fisheries, tourism, renewable energy)

³ Source Comhar Sustainable Development Council 'Creating Green Infrastructure for Ireland', August 2010

CONTEXT

European and National Level

The European Union adopted a Biodiversity Strategy (May 2011) to halt biodiversity loss in Europe by 2020. The strategy is built around six mutually supportive targets which address the main drivers of biodiversity loss. Target 2 aims to ensure that *'by 2020, ecosystems and their services are maintained and enhanced by establishing Green Infrastructure and restoring at least 15% of degraded ecosystems'*.

Responding to the Biodiversity Strategy, the EU published 'Green Infrastructure: Enhancing Europe's Natural Capital' Strategy (May 2013), which sets out *'to promote the deployment of green infrastructure in the EU in urban and rural areas'*. The strategy aims to create a robust enabling framework in order to promote and facilitate GI projects. The EU GI strategy is made up of the following four main elements:

- Promoting GI in the main EU policy areas;
- Supporting EU-level GI projects;
- Improving access to finance for GI projects, and
- Improving information and promoting innovation.

Nationally, there are a number of organisations responsible for developing GI guidance and GI actions in Ireland, namely the Department of Arts, Heritage and the Gaeltacht, The Heritage Council, National Parks and Wildlife Service and Comhar - Sustainable Development Council are a number of the key state stakeholders in providing information on GI in Ireland as well implementing the delivery of GI actions. Comhar - The Sustainable Development Council published *'Creating Green Infrastructure for Ireland: Enhancing Natural Capital for Human Wellbeing'* (August 2010) and this document is a key tool in GI as it sets out how a network of green spaces can be developed to benefit natural heritage and biodiversity as well as the greater economy and society.

The National Spatial Strategy states that a 'Green Structure' should be put in place in regional and county level plans and strategies with objectives to prevent urban sprawl, to reduce the loss of agricultural and other land to urban uses, to protect rural identity to create a green setting for cities and towns, to conserve and enhance biodiversity and to protect buildings, structures and other physical elements of the cultural heritage.

Regional Level

The Regional Planning Guidelines set out the function of green infrastructure planning at a regional level, which is to provide an overview of natural and cultural resources with emphasis on the identification of priority elements and routes. The Regional Planning Guidelines advise that more prescriptive details on how areas are to be enhanced or routes developed should be carried out through Development Plans, Local Area Plans and other spatial plan processes.

The RPGs set out the following Strategic Policy, with 6 strategic recommendations which in general seek the inclusion of GI in planning and decision making processes and to promote the role of GI throughout the region:

Strategic Policy

- GIP6** To ensure the protection, enhancement and maintenance of the natural environment and recognise the health benefits as well as the economic, social, environmental and

physical value of green spaces through the development of and integration of Green Infrastructure (GI) planning and development in the planning process.

Strategic Recommendations

- GIR30** Each Council should prepare a county based Green Infrastructure Strategy linking to adjoining areas and following regional connections, and implement GI strategies in local area plans and development management processes. (Local authorities, shall where necessary, liaise with each other to ensure consistency in delivering regionally identified green infrastructure development as part of their green infrastructure strategies).
- GIR31** GI development should be identified at the initial stages of all planning processes and included as a material consideration in order to inform future development.
- GIR32** As part of the GI Strategy local authorities are recommended to carry out
- (i) A 'stock take' of existing data available, studies and survey works and identify areas for further work.
 - (ii) Identify threats to habitats and green spaces as part of GI development and provide appropriate responses, obviation and mitigation measures as part of the process.
 - (iii) Identify priority areas for investment and pilot projects, including long and short term objectives and have clear designation of responsibility of process ownership for delivery of particular aims.
 - (iv) Engage with private landowners, relevant agencies (governmental and NGO's), community groups to build partnerships for development, delivery and maintenance of green infrastructure strategies and action plans.
 - (v) Adhere to the provisions of Article 6 of the Habitats Directive and promote ecological coherence of the Natura 2000 network, in accordance with Article 10 of the Habitats Directive.
- GIR33** Councils should apply the principles of GI development and county GI strategies to inform the development management process in terms of the design and layout of new residential areas, business/industrial development and other relevant projects.
- GIR34** Recognise the importance and contribution of green infrastructure throughout the region for the maintenance of biodiversity and ensuring that the region will be able to, or be ecologically robust enough to, adapt and respond to climate change issues.
- GIR35** Local authorities shall, on the basis of cooperation with landowners, recreational users and other relevant stakeholders, take a positive approach to the promotion of agreed and managed access in the countryside and to the coast for people, including agreed and managed walking/cycling routes. The feasibility of such access provisions and routes shall be informed by legislative responsibilities to designated sites of special amenity, ecological sensitivities and heritage value and shall be delivered on the basis of sustainability, consultation and consensus building.

Within the Greater Dublin Area a number of environmentally important areas have been identified (see table below with Wicklow examples extracted from the RPGs), placing focus on selected themes and regional classifications. Within the Dublin and Mid East Region, sites and areas which have been identified as having regional importance include World Heritage Sites, Natura 2000 sites (SPAs & SACs), proposed Natural Heritage Areas and proposed or candidate sites, coastal areas of recognised

heritage importance, major river corridors and canals, major recreational and amenity sites, greenbelts, areas of ecological, physical or historical importance, access routes for walking and cycling activities and access between and to the aforementioned areas.

Regional Green Infrastructure Classifications and Actions

Regional Planning Guidelines

Aim

To provide an overview of environmental and cultural resources and identification of strategic priority elements, areas and routes for inclusion in GI development within the Greater Dublin Area.

Regional GI Resources	County Wicklow GI Strategic Resources (examples)
UNESCO World Heritage sites	Glendalough Monastic Settlement (tentative list)
'Natura 2000' sites	Deputy's Pass, Vale of Clara
Environmental designated areas	Vartry Reservoir
Specific County level designations	Newcastle Nature Reserve, Bray Head SAAO
Architectural heritage	Structures on the RPS, NIAH, within ACAs, graveyards
Cultural sites	Holy wells
Archaeological Sites	National Monuments, Baltinglass Hills
Coastal zones	Brittas Bay
Estuaries	Broadlough Estuary
Regional Scale Managed Parks	The Wicklow Mountains National Park, forestry lands
Strategic green belts	Bray / Greystones agricultural green belt buffer

Regional GI Routes	County Wicklow Strategic GI routes
River corridors, Waterways	All waterways within County – e.g. Slaney River and its tributaries, Avoca River.
Transport corridors, Roads and Rail	All roadways within County – e.g. N81, R750, existing railway lines, disused railway line in from Woodenbridge to Shillelagh.
Regional cycle / walkways	Wicklow Way, Blessington Greenway Walk

County Level

County Wicklow has a widespread and prosperous existing Green Infrastructure network. The County boasts many key features and resources along the coast and across the urban, rural and upland/mountain areas. Many of these are iconic in nature, including the varied and dramatic coastline itself, the Murrough and Brittas Bay, the Wicklow Mountains, the numerous rivers and streams and the open spaces of County and regional significance.

The 'County Wicklow Heritage Plan' and the 'County Wicklow Biodiversity Action Plan' are two key Green Infrastructure tools for the County. The heritage plan's aim is '*conserving the natural, built and cultural heritage of the county, and increasing awareness and enjoyment of it among all in Wicklow*'. The biodiversity action plan sets out a strategy for increasing our understanding and appreciation of biodiversity in the county along with measures for enhancing the protection of this valuable resource.

The Heritage Office in Wicklow plays a key role in implementing actions that promote awareness of the heritage of the County. There are a number of leaflet guides from the Heritage Office that are important publications for the awareness of the GI network in the County. Some of the key leaflet guides are as follows:

- Wicklow Wild Coastline
- Wicklow Wild Mountains
- Wicklow Wild Woodlands
- The Murrough
- Wicklow Archaeology (Prehistory, Early Middle Ages and Late Middle Ages)
- Introduction to Biodiversity in County Wicklow
- Hedgerows (Conserving and Rejuvenation)

Wicklow County Council, through the development of social infrastructure also has a role to play in enhancing the Green Infrastructure of the County. The County Councils 'Local Economic and Community Plan' (LECP) has an important role in this regard. The LECP sets out, for a six-year period, the objectives and actions needed to promote and support the two key elements of a) the economic development and b) the local and community development of Wicklow County Council, both by itself directly and in partnership with other economic and community development stakeholders. Wicklow County Council's LECP 2016 - 2022 is currently at the initial stages of the process, with the socio economic profile of the County and preliminary public consultation on the 'Socio-Economic Statement' completed in early July 2015.

The development of social infrastructure is covered under the community development element with the 'Socio-Economic Statement' setting out 5 overarching goals for community development within County Wicklow, and Goal 5 is relevant to GI:

GOAL 5 *Capitalise on Wicklow's unique attributes including proximity to Dublin market; excellent quality of life; human capital; tourism; landscape; marine; agriculture and forestry resources.*

GREEN INFRASTRUCTURE AND LAND USE PLANNING

The Development Plan's role in Green Infrastructure is to facilitate the protection, management and enhancement of urban, peri-urban and rural environmental resources through the identification and provision of multi-functional and interconnected green spaces and networks, which in turn enhances the overall benefit. It is also important to recognise the economic, social, environmental and physical benefit of green spaces and networks through the development of and integration of GI planning and development in the development management process.

WICKLOW COUNTY DEVELOPMENT PLAN APPROACH TO GREEN INFRASTRUCTURE

The identification and enhancement of Green Infrastructure in County Wicklow has been integrated into the County Development Plan in a proactive way with the inclusion of relevant land use objectives that integrate the enhancement and creation of new green infrastructure networks and elements into the physical development of the County. Given the development plan remit as a land use framework its role is limited, with the focus on providing objectives that facilitate the identification of GI and encourages the enhancement of GI by seeking the incorporation of GI into proposed schemes for existing and new areas.

A number of policies and objectives are indirectly incorporated into the County Development Plan under Chapter 8 on 'Community Development'. The plan policies on Leisure and Recreation and Open Space set out the standards for recreation and leisure facilities for children, teenagers and young adults, as well as setting objectives and standards for the development of sports in the county. The development of Open Space for passive, active and private use in settlements within the County is addressed in Section 8.3 of the County Development Plan. Chapter 10 on 'Built and Natural Heritage' and Chapter 11 on 'Coastal Zone Management' are also key chapters that provide policy and objectives that address the issue of GI in the County. Specifically, Chapter 10, Section 10.3.6 on Green Infrastructure sets out the objectives for the development of Green Infrastructure in the County.

The purpose of this section in the CDP is to highlight the importance of the identification, protection, management and development of these environmental assets. A key element in this overall approach is to facilitate the development of linkages or green corridors between assets so that the value can be enhanced. These linkages could be a variety of sizes and scales and could be either ecological and / or recreational.

GREEN INFRASTRUCTURE COUNTY DEVELOPMENT PLAN OBJECTIVES

Specific Green Infrastructure Objectives

- 1** To recognise the importance and contribution of Green Infrastructure throughout the region for the maintenance of biodiversity and ensuring that the region will be able to, or be ecologically robust enough to, adapt and respond to climate change issues.
- 2** To protect existing Green Infrastructure resources and to facilitate, in consultation with relevant stakeholders, the development of Green Infrastructure that recognises the benefits that can be achieved with regard to the following:
 - Provision of open space amenities
 - Sustainable management of water
 - Protection and management of biodiversity
 - Protection of cultural heritage
 - Protection of protected landscape sensitivities
- 3** During the review process of the existing local plans, to consider identifying Green Infrastructure resources within and on the edge of the settlement boundary and to consider the inclusion of local green infrastructure proposals in each plan in line with the Green Infrastructure proposals and objectives set out in this section.
- 4** New development and redevelopment proposals, where considered appropriate, are required to contribute towards the protection, management and enhancement of the existing green infrastructure of the local area in terms of the design, layout and landscaping of development proposals.

- 5 To facilitate the development and enhancement of suitable access to and connectivity between areas of interest for residents, wildlife and biodiversity, with focus on promoting river corridors, Natura 2000 sites, nature reserves and other distinctive landscapes as focal features for linkages between natural, semi natural and formalised green spaces where feasible and ensuring that there is no adverse impact (directly, indirectly or cumulatively) on the conservation objectives of Natura 2000 sites.
- 6 To identify and facilitate the provision of linkages along and between river corridors within the county and adjoining counties to create inter connected routes and develop riverside parks and create linkages between them to form 'necklace' effect routes including development of walkways, cycleways and wildlife corridors where feasible and ensuring that there is no adverse impact (directly, indirectly or cumulatively) on the conservation objectives of Natura 2000 sites.
- 7 To promote and facilitate the development of coastal paths linking up with existing recreational paths / strategic walkways / cycleways, creating new linkages between coastal sites and inward linkages to green spaces in built up areas and extensions to existing facilities where feasible and ensuring that there is no adverse impact (directly, indirectly or cumulatively) on the conservation objectives of Natura 2000 sites.
- 8 To facilitate the development of green bridges/wildlife crossings over existing physical transport barriers to repair fragmentation of the green infrastructure network caused by such grey infrastructure developments.

As well as these general, high level objectives, the County Development Plan also includes the following objectives that would contribute to the protection and enhancement of GI:

- SS4** To require new housing development to locate on designated housing land within the boundaries of settlements, in accordance with the development policies for the settlement
- SS8** To ensure that key assets in rural areas such as water quality and the natural and cultural heritage area protected
- HD1** New housing development shall be required to locate on suitably zoned or designated land in settlements, and will only be considered in the open countryside when it is for the provision of a rural dwelling, to those with a housing, social or economic need to live in the open countryside.
- EMP2** To normally require new employment generating developments to locate on suitably zoned or identified land in settlements. Proposals in settlements with no zoning plan should be assessed on the basis of their individual merits, taking into consideration the objectives set out in this chapter of the plan and all other matters pertaining to the proper planning and sustainable development of the area, including ensuring that the proposal is appropriately sited in a location so that it enhances, complements, is ancillary to or neutral to the existing land uses in the area. All other proposals for employment generating developments outside of settlements will be assessed on the 'Objectives for Wicklow's Rural Economy'.
- AGR1** To facilitate the development of environmentally sustainable agricultural activities, whereby watercourses, wildlife habitats, areas of ecological importance and other environmental assets are protected from the threat of pollution, and where development does not impinge on the visual amenity of the countryside. Developments shall not be detrimental to archaeological and heritage features of importance.

- FTY3** To promote the use of forests for appropriate recreation purposes and to facilitate the development of appropriate recreation facilities at suitable locations. The recreational use of forests will only be permitted where it can be demonstrated that the recreational use is compatible with the other forest objectives, functions and values of the forest, such as timber production, sensitive habitats and important archaeology. Developments will only be permitted that are acceptable in terms of other planning considerations, including the provision of acceptable infrastructure such as roads, car parking, water and sewerage infrastructure.
- FSH1** To support the sustainable development of the fisheries and aquaculture industry in co-operation with the Department of Agriculture, Food and the Marine and the Inland Fisheries Ireland. The Council will not permit development that has a detrimental impact on the environment. In particular, development that has a detrimental impact on the environmental/ecological/ water quality of seas, rivers and streams, will not be permitted.
- T1** To promote, encourage and facilitate the development of the tourism and recreation sectors in a sustainable manner.
- T4** To only permit the development of a tourism or recreational facility in a rural area in cases where the product or activity is dependent on its location in a rural situation and where it can be demonstrated that the proposed development does not adversely affect the character, environmental quality and amenity of the rural area or the vitality of any settlement and the provision of infrastructure therein. The natural resource / tourist product / tourist attraction that is essential to the activity shall be located at the site or in close proximity to the site, of the proposed development. The need to locate in a particular area must be balanced against the environmental impact of the development and benefits to the local community.
- T29** To support the development of new and existing walking, cycling and driving routes / trails, including facilities ancillary to trails (such as sign posting and car parks) and the development of linkages between trails in Wicklow and adjoining counties. In particular, to encourage and facilitate:
- on-road cycling routes across the Wicklow Mountains (in particular across the Sally Gap) and along coastal routes;
 - the development of a new walking route from Bray Head, via the Sugarloaf Mountains, joining up with The Wicklow Way;
 - hill walking trails in West Wicklow;
 - the expansion of the 'Blessington Greenway' walk around the Phoulaphuca reservoir;
 - the development of a lakeshore walk around the Vartry reservoir;
 - the extension of the old Shillelagh branch railway walk from Aughrim to Shillelagh; and
 - the development of a walking route along the disused Great Southern and Western Railway line (Naas to Tullow branch) through Dunlavin and Baltinglass subject to consultation and agreement with landowners.
- T33** To promote, in co-operation with landowners, recreational users and other relevant stakeholders, on the basis of "agreed access", the more extensive use of the coastal strip for such activities as touring, sight-seeing, walking, pony trekking, etc. as a tourism and recreational resource for the residents of County Wicklow and other visitors.
- T34** To promote and encourage the recreational use of coastline, rivers and lakes for activities such as game fishing, boat sailing etc. Where such recreational uses involve the development of structures or facilities, the Planning Authority will ensure that the proposals will respect the natural amenity and character of the area, listed views and prospects onto and from the area in question. Where possible, such structures should be set back an appropriate distance from the actual amenity itself and should not adversely affect the unique sustainable quality of these resources.

- CD28** Subject to safety considerations, natural features (trees, streams etc) shall be retained in new developments.
- CD33** Through the local plan and Action Area Plan process to identify the need and designate suitable active open space for the provision and expansion of sport and recreation opportunities, commensurate with its needs and existing facilities, in accordance with the provisions of the Wicklow County Council Play, Sport & Recreation and Active Open Space policies.
- TR13** To facilitate the development of a cycling and walking amenity routes throughout the County.
- FL1** To prepare new or update existing flood risk assessments and flood zone maps for all zoned lands within the County as part of the review process for Local Area Plans, zoning variations and Town Plans, where considered necessary.
- FL2** To implement the 'Guidelines on the Planning System and Flood Risk Management' (DoEHLG/OPW, 2009).
- FL5** To prohibit development in river flood plains or other areas known to provide natural attenuation for floodwaters except where the development can clearly be justified with the Flood Risk Guidelines 'Justification test'.
- FL9** For developments adjacent to all watercourses of a significant conveyance capacity or where it is necessary to maintain the ecological or environmental quality of the watercourse, any structures (including hard landscaping) must be set back from the edge of the watercourse to allow access for channel clearing/ maintenance / vegetation. A minimum setback of up to 10m (or other width, as determined by the Council) will be required either side depending on the width of the watercourse.
- CCE11** To facilitate the development of expanded or new river / lake based hydroelectricity plants, subject to due consideration of ecological impacts, in particular, the free flow of fish and maintenance of biodiversity corridors.
- NH1** To ensure that the impact of new developments on biodiversity is minimised and to require measures for the protection and enhancement of biodiversity in all proposals for large developments.
- NH2** No projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this plan (either individually or in combination with other plans or projects5).
- NH3** To contribute, as appropriate, towards the protection of designated ecological sites including candidate Special Areas of Conservation (cSACs) and Special Protection Areas (SPAs); Wildlife Sites (including proposed Natural Heritage Areas); Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of 1979); Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs). To contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including the following and any updated/superseding documents:

- EU Directives, including the Habitats Directive (92/43/EEC, as amended)⁴, the Birds Directive (2009/147/EC)⁵, the Environmental Liability Directive (2004/35/EC)⁶, the Environmental Impact Assessment Directive (85/337/EEC, as amended), the Water Framework Directive (2000/60/EC) and the Strategic Environmental Assessment Directive (2001/42/EC).
- National legislation, including the Wildlife Act 1976⁷, the European Communities (Environmental Impact Assessment) Regulations 1989 (SI No. 349 of 1989) (as amended), the Wildlife (Amendment) Act 2000, the European Union (Water Policy) Regulations 2003 (as amended), the Planning and Development Act 2000 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011) and the European Communities (Environmental Liability) Regulations 2008⁸.
- National policy guidelines (including any clarifying Circulars or superseding versions of same), including the Landscape and Landscape Assessment Draft Guidelines 2000, the Environmental Impact Assessment Sub-Threshold Development Guidelines 2003, Strategic Environmental Assessment Guidelines 2004 and the Appropriate Assessment Guidance 2010.
- Catchment and water resource management Plans, including Eastern and South Eastern River Basin Management Plan 2009-2015 (including any superseding versions of same).
- Biodiversity Plans and guidelines, including Actions for Biodiversity 2011-2016: Ireland's 2nd National Biodiversity Plan (including any superseding version of same).
- Ireland's Environment 2014 (EPA, 2014, including any superseding versions of same), and to make provision where appropriate to address the report's goals and challenges.

NH5 To maintain the conservation value of all proposed and future Natural Heritage Areas (NHAs) and to protect other designated ecological sites in Wicklow.

NH6 Ensure ecological impact assessment is carried out for any proposed development likely to have a significant impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Annex I habitats, or 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.

NH7 The Council recognises the natural heritage and amenity value of the Wicklow Mountains National Park and shall consult at all times with National Park management regarding any developments likely to impact upon the conservation value of the park, or on issues regarding visitor areas.

NH8 To protect non-designated sites from inappropriate development, ensuring that ecological impact assessment is carried out for any proposed development likely to have a significant impact on locally important natural habitats or wildlife corridors.

NH10 To facilitate, in co-operation with the relevant statutory authorities and other groups, the identification of valuable or vulnerable habitats of local or regional importance, not otherwise protected by legislation.

⁴ Including Annex I habitats, Annex II species and their habitats and Annex IV species and their breeding sites and resting places (wherever they occur).

⁵ Including Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur).

⁶ Including protected species and natural habitats.

⁷ Including species of flora and fauna and their key habitats.

⁸ Including protected species and natural habitats.

- NH12** To support the protection and enhancement of biodiversity and ecological connectivity within the plan area in accordance with Article 10 of the Habitats Directive, including linear landscape features like watercourses (rivers, streams, canals, ponds, drainage channels, etc), woodlands, trees, hedgerows, road and railway margins, semi-natural grasslands, natural springs, wetlands, stonewalls, geological and geo-morphological systems, features which act as stepping stones, such as marshes and woodlands, other landscape features and associated wildlife where these form part of the ecological network and/or may be considered as ecological corridors or stepping stones that taken as a whole help to improve the coherence of the Natura 2000 network in Wicklow.
- NH13** To promote the preservation of trees, groups of trees or woodlands in particular native tree species, and those trees associated with demesne planting, in the interest of amenity or the environmental, as set out in Schedule 10.08 and Map 10.08 A, B & C of this plan.
- NH17** To encourage the preservation and enhancement of native and semi-natural woodlands, groups of trees and individual trees, as part of the development management process, and require the planting of native, and appropriate local characteristic species, in all new developments.
- NH18** To encourage the retention, wherever possible, of hedgerows and other distinctive boundary treatment in the County. Where removal of a hedgerow, stone wall or other distinctive boundary treatment is unavoidable, provision of the same type of boundary will be required of similar length and set back within the site in advance of the commencement of construction works on the site (unless otherwise agreed by the Planning Authority).
- NH19** To facilitate the implementation of the *EU Water Framework Directive* and associated River Basin and Sub-Basin Management Plans and the *EU Groundwater Directive* to ensure the protection, improvement and sustainable use of all waters in the County, including rivers, lakes, ground water, coastal and estuarine waters, and to restrict development likely to lead to a deterioration in water quality.
- NH20** To resist development that would interfere with the natural water cycle to a degree that would interfere with the survival and stability of natural habitats.
- NH21** To prevent development that would pollute water bodies and in particular, to regulate the installation of effluent disposal systems in the vicinity of water bodies that provide drinking water or development that would exacerbate existing underlying water contamination
- NH22** To minimise alterations or interference with river / stream beds, banks and channels, except for reasons of overriding public health and safety (e.g. to reduce risk of flooding); a buffer of generally 10m along watercourses should be provided (or other width, as determined by the Planning Authority) free from inappropriate development, with undeveloped riparian vegetation strips, wetlands and floodplains generally being retained in as natural a state as possible. In all cases where works are being carried out, to have regard to Regional Fisheries Board "Requirements for the protection of fisheries habitat during the construction and development works at river sites"
- NH38** To facilitate the use of natural areas for active outdoor pursuits, subject to the highest standards of habitat protection and management and all other normal planning controls.
- NH39** To facilitate access to amenity areas in the County for the benefit of all, on the basis of cooperation with landowners, recreational users and other relevant stakeholder groups to promote "agreed access" on public and privately owned land in the County on the basis of sustainability, consultation and consensus.

NH41 To preserve the open character of commonage land and similar hill land and secure access over paths and tracks through consensus with local landowners, particularly in mountain areas.

NH42 To facilitate the development of the coastal walking and cycling route between Greystones and Wicklow Town.

NH43 To implement the measures set out in the Bray Head SAAO (Special Amenity Area Order) (See Map 10.11).

CZM2 To ensure that no reclamation of estuary land or coastal marshland occurs, which would damage coastal habitats.

CZM6 To facilitate an Integrated Coastal Zone Management approach to ensure the conservation, management and protection of man-made and natural resources of the coastal zone.

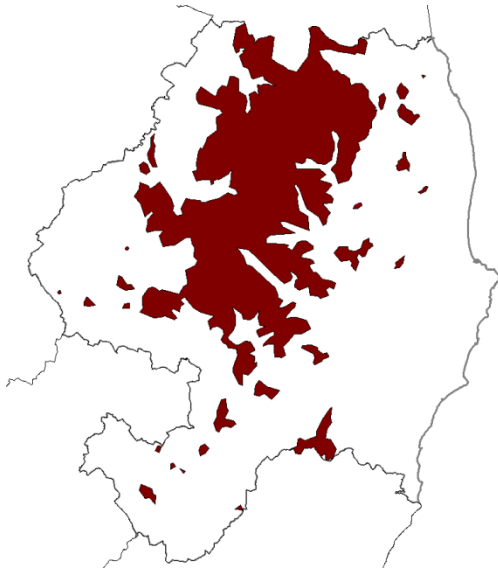
GREEN INFRASTRUCTURE ELEMENTS OF LEVEL 5 AND LEVEL 6 LOCAL PLANS

Town	GI related provisions
Ashford	<ul style="list-style-type: none"> ✓ Protect flood plains / riverine areas from inappropriate development ✓ Protect the built and natural heritage ✓ Network of connected open space (river bank, sports grounds, playgrounds residential open spaces, forests) along Vartry and feeder streams to north of town centre
Aughrim	<ul style="list-style-type: none"> ✓ Protect flood plains / riverine areas from inappropriate development ✓ Network of open spaces and linked routes along Aughrim river and feeder stream to NE of town centre ✓ Protect the built and natural heritage ✓ Planned extension of the Railway Walk
Baltinglass	<ul style="list-style-type: none"> ✓ Protect flood plains / riverine areas from inappropriate development ✓ Protect Natura 2000 sites, NHAs ✓ Protect the built and natural heritage ✓ Network of connected open space (river bank, sports grounds, playgrounds residential open spaces) along Slaney, linked to Stratford Lodge, new crossing over river ✓ Public park and existing boardwalk along the river Slaney
Carnew	<ul style="list-style-type: none"> ✓ Connected network of passive and active open spaces along stream to north of town centre, linked into town core ✓ Protect the built and natural heritage ✓ Provision of a network of green routes linking the town centre/main street to new residential areas and a large open space/linear walk area to the north of the plan area following the path of the northern tributary of Cove's Brook
Dunlavin	<ul style="list-style-type: none"> ✓ Protection and enhancement of disused railway route corridor, protection of trees ✓ Protect the built and natural heritage ✓ Network of green pedestrian routes within and surrounding the town linking the existing areas of open space, new residentially zoned lands and the main street. ✓ Protection and enhancement of disused railway route corridor, protection of trees
Enniskerry	<ul style="list-style-type: none"> ✓ Protect flood plains / riverine areas from inappropriate development ✓ Protect Natura 2000 sites, NHAs ✓ Network of connected open space (river bank, sports grounds, forests) along Glencullen / Cookstown River, open space and ROW protection along Dargle valley ✓ Protect the built and natural heritage

Tinahely	<ul style="list-style-type: none"> ✓ Protect flood plains / riverine areas from inappropriate development ✓ Protect Natura 2000 sites ✓ Network of connected open spaces along Derry River, connected to town core ✓ Protect the built and natural heritage
Avoca	<ul style="list-style-type: none"> ✓ Protect flood plains / riverine areas from inappropriate development ✓ Protect NHAs ✓ Protect the built and natural heritage ✓ Protection and enhancement of open spaces along Avoca River and links to amenity routes adjoining town including woodlands to east
Donard	<ul style="list-style-type: none"> ✓ Green routes at Donard Demesne ✓ Protect the built and natural heritage
Kilmacanogue	<ul style="list-style-type: none"> ✓ Protect flood plains / riverine areas from inappropriate development ✓ Protect Natura 2000 sites, NHAs ✓ Protect the built and natural heritage ✓ Consider link routes between Sugarloaf mountains
Newcastle	<ul style="list-style-type: none"> ✓ Protect flood plains / riverine areas from inappropriate development ✓ Protect the built and natural heritage ✓ Network of connected open space along river
Roundwood	<ul style="list-style-type: none"> ✓ Protect mature tree corridors, provide network of open spaces between town centre and reservoir ✓ Protect the built and natural heritage ✓ Protect Natura 2000 sites, NHAs
Shillelagh	<ul style="list-style-type: none"> ✓ Protect flood plains / riverine areas from inappropriate development ✓ Network of connected open space along river ✓ Protect the built and natural heritage ✓ Protect Natura 2000 sites, NHAs ✓ Protection and enhancement of disused railway route corridor/station buildings and linkages to the public park area/open space areas ✓ Provision of extensive open space areas along the River Derry and its Tributaries to the west ✓
Laragh - Glendalough	<ul style="list-style-type: none"> ✓ Protect flood plains/riverine areas from inappropriate developments ✓ Protect Natura 2000 sites ✓ Network of amenity routes through Wicklow Mountains National Park, linking sites of built and geological heritage ✓ Promotion of green route from Woollen Mills at Derrybawn to Glendalough

WICKLOW'S BASELINE GREEN INFRASTRUCTURE RESOURCES

The following maps present GI Resources, GI Elements and GI Routes in County Wicklow.



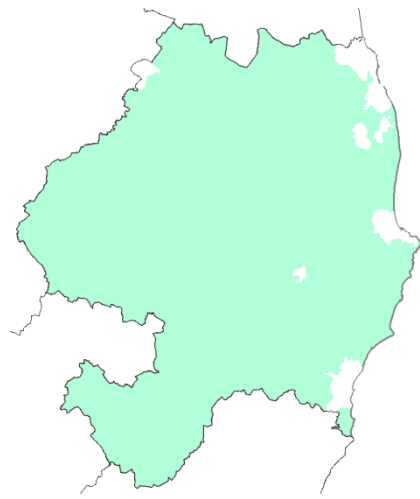
Uplands and Mountains



Coastline

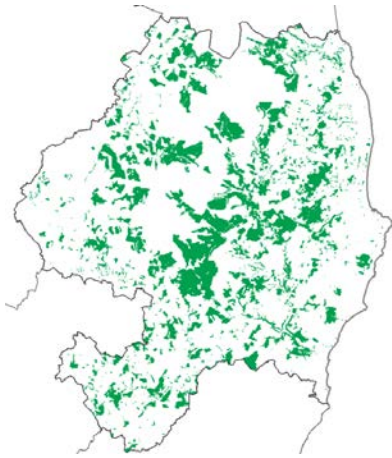


Urban Areas



Rural Areas

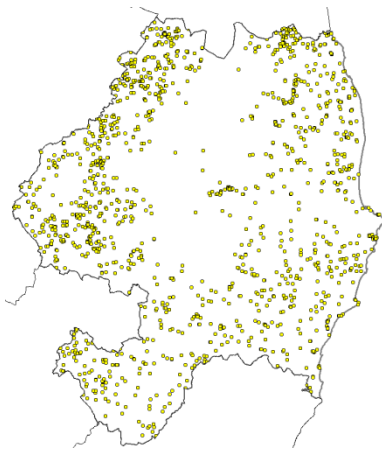
WICKLOW'S GREEN INFRASTRUCTURE ELEMENTS (Examples)



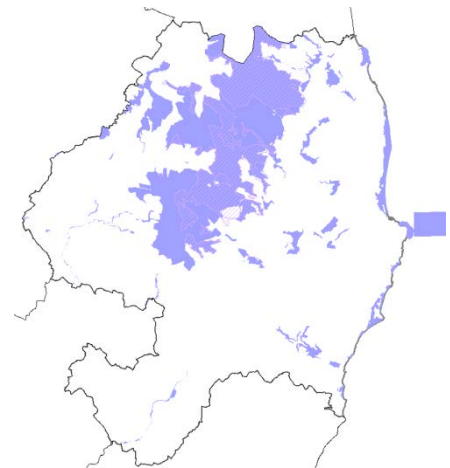
Trees, Forestry and Woodland



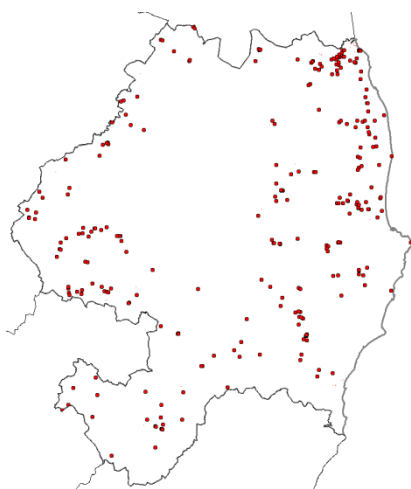
Graveyards



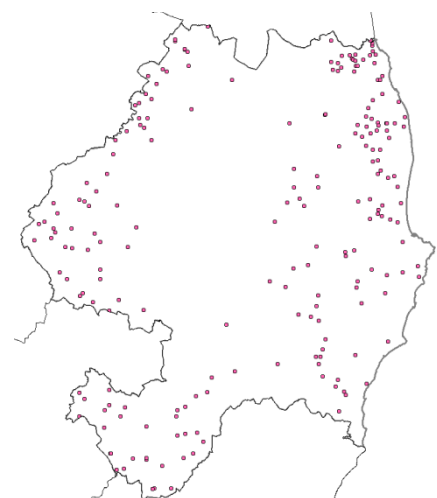
National Monuments



SAC, SPA NHA designations and National Park

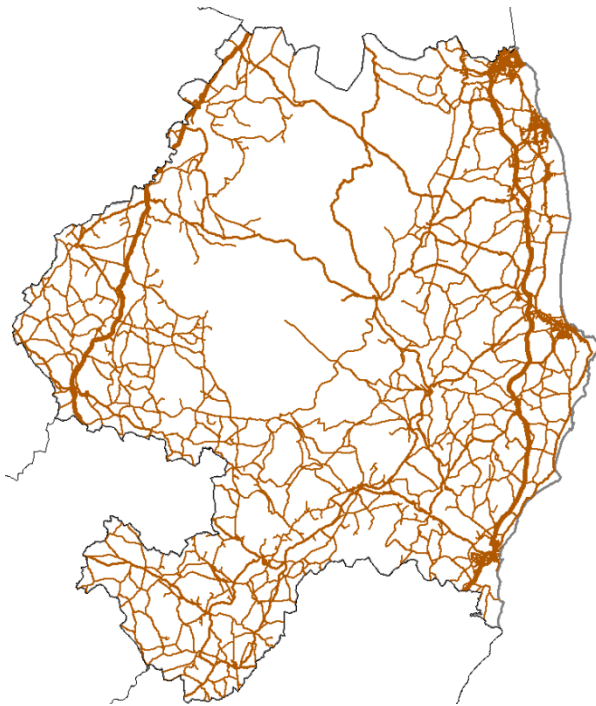


Architectural Heritage (NIAH buildings)



Garden Heritage (NIAH gardens)

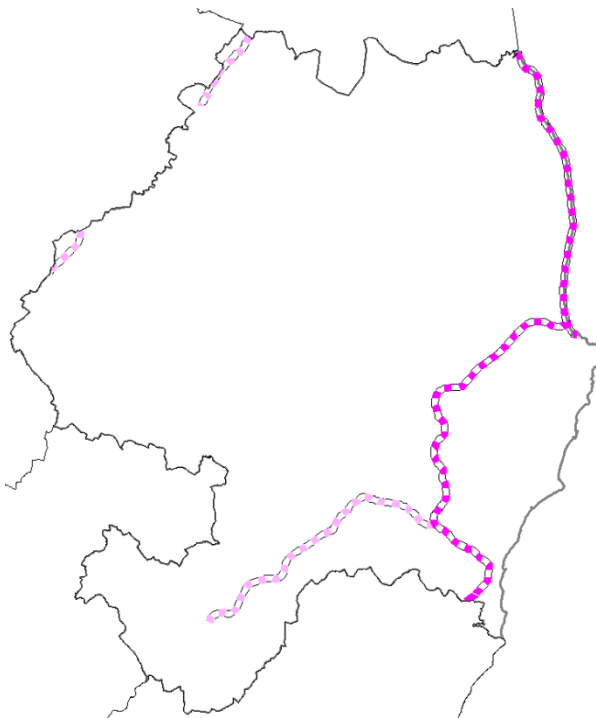
WICKLOW'S GREEN INFRASTRUCTURE ROUTES (Examples)



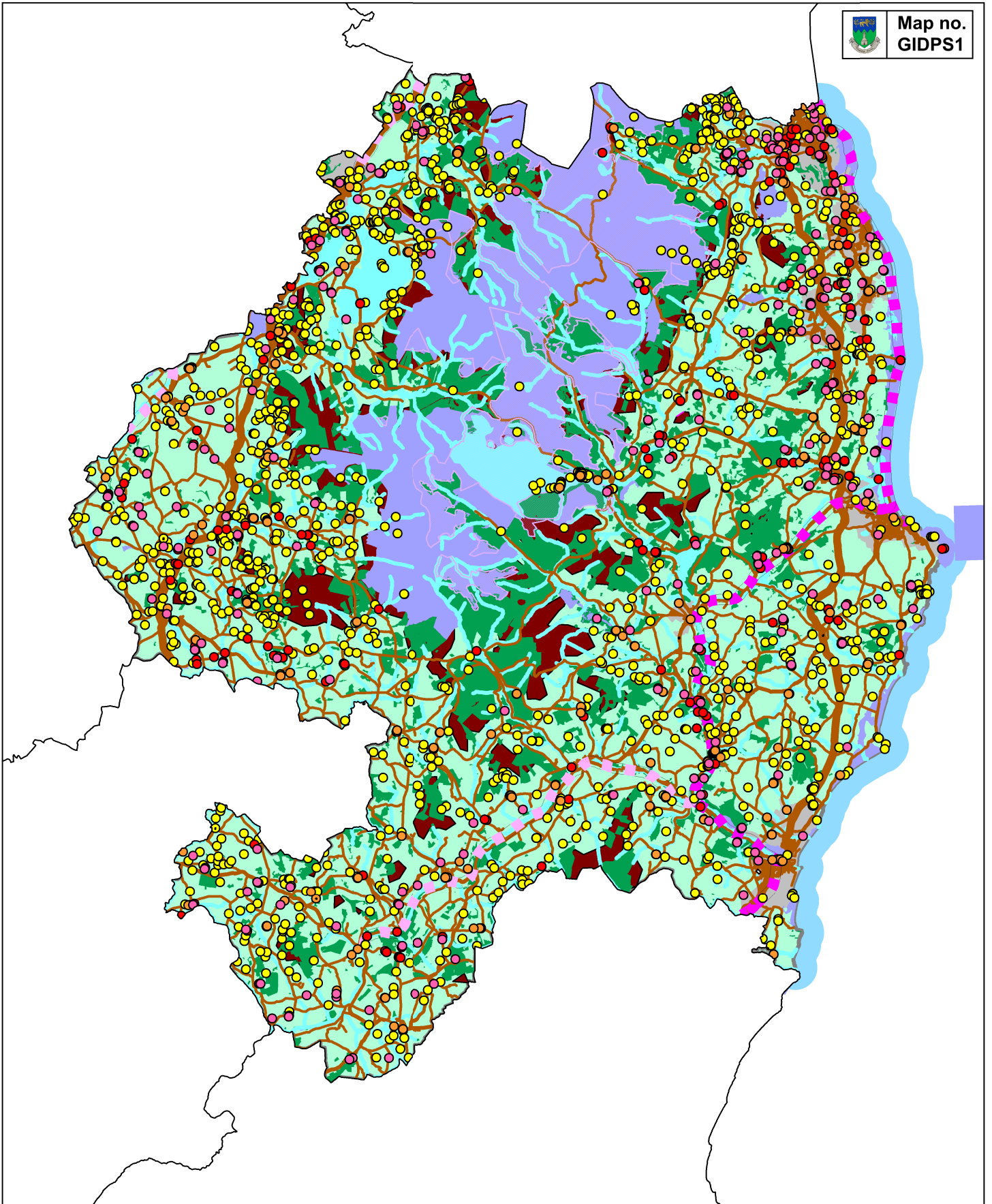
Road network



Rivers, lakes and reservoirs



Rail Network (including disused lines)



County Wicklow 'Green Infrastructure' Development Plan Strategy

DRAFT WICKLOW COUNTY DEVELOPMENT PLAN 2016-2022

Green Infrastructure Resources

- Uplands and Mountains
- Coastline
- Urban Areas
- Rural Area

Green Infrastructure Elements

- Trees, Forestry and Woodlands
- SAC-SPA-NHA and National Park
- National Monuments
- Architectural Heritage (NIAH)
- Garden Heritage (NIAH)
- Graveyards

Green Infrastructure Resources

- Road Network
- Rivers, Lakes and Reservoirs
- Rail Network
- Dis-used Rail Network



Wicklow County Council
Planning Department

Maps Not To Scale

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