



Planning Ref: Carlow Graiguecullen LAP 2023-29

(Please quote in all related correspondence)

14 October 2022

Carlow County Council Senior Executive Officer,
Planning Department,
Carlow County Council,
Athy Road,
Carlow

Via email: jointlap@carlowcoco.ie

Re: Notification under Article 28 (Part 4) or Article 82 (Part 8) of the Planning and Development Regulations, 2001, as amended.

Proposed Development: Issue Papers for Joint Urban LAP 2023-2029, Carlow/Laois

A chara

I refer to correspondence received in connection with the above. Outlined below are heritage-related observations/recommendations co-ordinated by the Development Applications Unit under the stated headings.

Archaeology

The Department welcomes the opportunity to comment on the Pre-Draft Consultation for the Carlow Graiguecullen Joint Urban Local Area Plan (JULAP) 2023-2029 and notes the inclusion of a specific section on Heritage, Amenity and Landscape (Pre-Draft Issue Paper Section 10).

General

In addition to the specific comments on individual sections (see below), the Department recommends including specific reference to the *Framework and Principles for the Protection of the Archaeological Heritage* (Government of Ireland 1999). This document sets out national policy on the protection of the archaeological heritage in the course of development and in accordance with the aims and requirements of the 'Valletta Convention' – 1992 *European Convention on the Protection of the Archaeological Heritage* – to which Ireland is



a signatory and which was ratified by this state in 1997. In this regard, any development plan must have due regard to the *Framework and Principles* in establishing appropriate objectives, policies and development management guidance for the protection and promotion of archaeological heritage and must additionally be explicit in stating this.

Additional government policies with relevance to the protection and promotion of our built and cultural heritage can be found in the following publications:

- Project Ireland 2040
- Climate Action Plan 2021
- Heritage Ireland 2030
- Town Centre First
- Housing for All
- Places for People - the National Policy on Architecture

This submission follows the section headings of the Pre-Draft Consultation Issue Paper.

Section 2 – Strategic Planning

The Department notes that the preparation of the JULAP will be informed by policies and objectives established in higher level planning documents including the over-arching strategic policies and objectives of the Carlow and Laois County Development Plans, the Regional Spatial and Economic Strategies for the Southern Region (RSES) and Project Carlow 2040. In this regard, the Department recommends the inclusion of a strategic vision statement and goals specific to the protection and promotion of built and cultural heritage. Protection, promotion and support for built and cultural heritage would be essential to delivering the over-arching vision for the joint urban area as a RSES designated Key Town.

The Department recommends inclusion of a vision statement which sets out the Councils' objectives to achieve a high quality of life for all citizens through the provision of a good quality, attractive, built environment, through the protection of the unique natural and built heritage environment and through facilitation of key economic, cultural and social supports.

The Department recommends inclusion of a specific Strategic Goal which outlines how the Councils' will seek to protect, enhance, support and develop our built heritage environment through heritage led regeneration, appropriate and sensitive use now and for future generations.



Section 4 – Economic Development, Tourism and Retail

The Department notes the stated objective of Carlow and Laois County Councils to position and promote the Joint Urban Area as having a vibrant enterprise culture, including through further development of tourism as a key economic contributor to the local economy. Natural, built and cultural heritage are significant contributors to tourism and the JULAP should contain policies and objectives specific to the enhancement of heritage in developing the tourism product.

The Department welcomes the stated need to enhance the retail role and function of the streets in the traditional core as a key consideration with regard to retail. The urban historic fabric of Carlow town has degraded significantly in recent years despite it being a unique and irreplaceable heritage asset, representing centuries of settlement. The form and function of the historic street layout and built heritage should be preserved and enhanced through inclusion of specific policies and objectives in the JULAP.

Section 5 – Urban Design and Regeneration

The Department welcomes the stated intention and listed key principles to promote architecture and urban design which complements and reinforces the existing built fabric of the Joint Urban Area. This Department acknowledges the regeneration strategy outlined in Project Carlow 2040 and recommends that the JULAP includes specific policies, objectives and development management guidance with reference to national policy on the protection of built and archaeological heritage. In particular, the recently published *Places for People - the National Policy on Architecture* represents government policy on architecture and has specific relevance to urban regeneration, including in historic towns.

Carlow Town core and a defined area of Graiguecullen are assigned a Zone of Archaeological Potential which is subject to statutory protection in the Record of Monuments and Places (RMP) established under Section 12 of the National Monuments (Amendment) Act 1930-2014. Any proposals for urban regeneration within the historic core of Carlow (including any master-planning) must have regard for the archaeological and cultural heritage of this part of the Joint Urban Area.

Section 8 – Environment and Climate Change

The Department welcomes the stated consideration of the environment in achieving a balance in terms of land use and development. Further, the Department acknowledges that the preparation of environmental assessments will inform the drafting of the JULAP.



Archaeological Impact Assessment (AIA) should form a key element in achieving that balance and is relevant to the development of overall Strategic Environmental Assessment (SEA) as well as Flood Risk Assessment and Climate Adaptation. Where flood relief schemes are being undertaken the Councils should have regard to the *Archaeological Guidelines for Flood Relief Schemes* (Draft document, DHLGH 2022).

Additionally, as part of the implementation of the *Climate Change Sectoral Adaptation Plan for Built and Archaeological Heritage* (2019), the Department strongly recommends the inclusion of specific commitments in the JULAP in relation to climate change and archaeology.

Section 9 – Sustainable Communities

The Department acknowledges the stated focus on creating and sustaining healthy, inclusive and vibrant communities. In terms of the enhancement and development of open spaces – whether within the joint urban core or within natural heritage areas such as along the River Barrow – the Councils should have regard to national policy on the protection of the archaeological heritage and include specific policies, objectives and development management guidance in the development of the JULAP. Enhancement and development of open and public amenity spaces affords an opportunity to preserve and enhance, where appropriate, the setting and amenity of archaeological monuments, particularly upstanding monuments. This can be done by ensuring that development in the vicinity of archaeological monuments is not detrimental to their character or setting by reason of the development's location, scale, bulk or detailing.

Incorporation of recorded archaeological monuments into designated open spaces and public amenity spaces should be done in a manner that is compatible with the protection and proper management and conservation of the monument in question, in particular through ensuring that such monuments are not left vulnerable, e.g. to erosion or to becoming the focus of vandalism or anti-social behaviour, or are not left in, or allowed to deteriorate to be in a condition incompatible with public safety. Accordingly, where such incorporation takes place, an appropriate and enforceable permanent management and conservation plan should be required.

The Community Monuments Fund (CMF) is an important initiative managed by the Department and administered through Local Authorities. The fund is having a very positive impact on monument repair, conservation and improving access to heritage sites, with a strong community and public involvement and also providing employment for heritage



professionals and trades. The impact of activities supported through this initiative should be recognised within the development plan.

Section 10 – Heritage, Amenity and Landscape

The Department welcomes the stated acknowledgment that heritage is integral to the identity of Carlow-Graiguecullen and provides a sense of place, character, and distinctiveness which is reflective of the life and culture of its people.

Early prehistoric settlement in the environs of the plan area is attested by a Neolithic portal tomb, known as the Brownhill Dolmen, which is reputedly the largest of its kind in Ireland. Until the nineteenth century this was part of a trio of such tombs in the area and further evidence for a rich Neolithic funerary landscape in the region is provided by a Neolithic cist burial in the townland of Linkardstown. The Barrow basin has also produced a significant number of stray stone axe finds. The later prehistoric period is represented by a number of fulachta fiadh and burnt mound sites, many of which were excavated during the construction of the M9 to the east of Carlow town. The River Barrow corridor also contains a fine collection of Bronze Age funerary monuments in the form of cists and barrows. Activity in the environs in the early medieval period is indicated by ringforts at Crossneen and Derrymoyle and the recent discovery of an early medieval cemetery near Carlow Castle.

Following the Anglo-Norman conquest an earth-and-timber castle, probably a motte and bailey, was built on what was effectively an island at the confluence of the Rivers Barrow and Burren by Hugh de Lacy for John de Clahull who had been granted by Strongbow, Lord of Leinster, all the land 'between Oboy and Leighlin'. Features relating to this original earth-and-timber castle have been excavated beneath its thirteenth century masonry successor at Carlow. The stone castle was built by William Marshal, Earl of Pembroke and Lord of Leinster in the early thirteenth century and was constructed as Western French-style 'four-towered keep', a rectangular-plan form with cylindrical drum-towers at the corners. The castle controlled the strategically important River barrow waterway and it acted as a fortified seigneurial caput and defence for the borough of Carlow which developed around it from the early thirteenth century. The castle was refortified in the second half of the fourteenth century, probably as a result of it acting as the Crown's exchequer in Ireland between 1360-94.

In the late thirteenth-century the castle and town of Carlow came into the possession of the Bigod Earls of Norfolk and documents from this time refer to re-roofing of the building, an 'old hall' a kitchen, a 'great hall' and an 'exchequer house'. Due to constant attacks from the Gaelic Irish on Carlow, the exchequer moved back to Dublin in 1394, which precipitated a period a decline for the town. The castle remained in the hands of the crown until the end of the fifteenth century. Carlow Castle sheltered English planters during the 1641 Irish Rebellion



and in 1647 it was taken by the Irish Confederates, who eventually surrendered to Cromwell's forces in 1650. In the early nineteenth century the keep was severely damaged when its east wing and much of its north and south wings were destroyed by explosives. The castle is presently a National Monument (ref. 306) in state care.

The chartered borough area of Carlow was concentrated in the drier ground to the east of the castle and by at least 1373-4, when the 'Irish enemies' were attacking the surrounding countryside and 'were right up to the city walls', it had been surrounded by a stone town wall. None of the town wall is known to survive above ground today but extensive sub-surface remains are known to exist. The parish church of the borough, unusually the only religious foundation in the town, was dedicated to St Mary and was situated to the north-east of the castle. The medieval church was pulled down in 1726 and replaced with a building which was itself largely replaced in 1832 by the present Church of Ireland church.

It should be noted that, in addition to the provisions of the National Monuments (Amendment) Act 1930-2014, Archaeological Heritage is also afforded protection under the Planning and Development Regulations 2001-2022 and the policies of the Carlow and Laois County Development Plans.

In addition to recorded archaeological monuments listed in the Record of Monuments and Places (RMP), National Monuments are monuments which are considered to be of national importance and are in the ownership or guardianship of the state or relevant local authority. Carlow Castle is a National Monument in the guardianship of the state within the Joint Urban Area (National Monument No. 306). Additionally, the sub-surface remains of Carlow town defences, both known and presumed, are considered to be a National Monument as defined in the National Monuments (Amendment) Act 1930-2014 and are protected under the provisions of this legislation and the policies within the National Policy of Town Defences.

As previously stated, the historic urban core of Carlow Town, equating generally to the extent of the medieval walled town, and a defined area within Graiguecullen (which originated as a suburb of the medieval town of Carlow) are assigned a large Zone of Archaeological Potential, as defined by the Urban Archaeological Survey of Carlow. Any development proposed within this Zone must be cognisant of the high potential for disturbing archaeological remains, including those underwater. Therefore, regard must be given to national policy for the protection of archaeological heritage as detailed in the *Frameworks and Principles* document as well as the policy objectives and relevant development management guidance of the Carlow County Development Plan 2022-2028 and Laois County Development Plan 2012-2027.



Any development proposed within the designated Zone of Archaeological Potential for Carlow-Graiguecullen must be notified to the Minister of Housing, Local Government and Heritage at least 2 –months in advance of commencement of development. Such proposals will require the preparation of an Archaeological Impact Assessment. Additionally, any proposed development which, due to its location, size or nature, has potential to impact archaeological heritage is subject to Archaeological Impact Assessment. This includes proposals greater than 0.5 hectares or greater than 1km in length, in the case of linear developments.

The Department advises that policies for the protection of our archaeological heritage must also incorporate explicit protection for underwater sites and archaeology. The River Barrow has an abundance of underwater archaeological heritage that requires protection and merits promotion. During the medieval period the strategically important River Barrow waterway was navigable between Carlow and the port-town at New Ross. As an important inland port and market-centre both banks of the River Barrow at Carlow would have been intensively used for warehousing and for jetties during the medieval period. The precise date at which the first bridge-crossing over the River Barrow was constructed is unknown a bridge was probably in place during much of the medieval period. The 1656 Down Survey parish map of Carlow includes a depiction of a stone bridge and a timber bridge crossing on the River Burren. The present Graiguecullen Bridge, formerly known as the 'Wellington Bridge' was constructed in 1815 and may incorporate elements of an earlier bridge. In the medieval period a tower known as the 'White Castle' guarded the west side of the bridge crossing. During periods when a bridge was not in place the crossing over the Barrow was probably achieved with ferries. As is the case with most inland riverine medieval towns and suburbs, much of the urban area and waterfront was probably built on ground reclaimed from the former river floodplain; the precise location of the medieval waterfront is unknown.

The Barrow Navigation Company, which had been incorporated in 1792, effectively canalised much of the river between Athy and St Mullins, making it navigable for boats carrying up to 40 tons, and Carlow and Graiguecullen acted as a key loading and unloading points on the Navigation, as well the company's headquarters. The Barrow Navigation Company's Stores and dry docks for repairing boats stretched along the western river bank to the north of Barrow street and promenade, known as 'Bachelor's Walk' was constructed running along the river edge in-front of the stores before 1907.

In light of the above, it is clear that the urban riverscape within the plan area is a repository of a dense concentration of a diverse range of archaeological heritage, including wrecks, in a variety of settings, including terrestrial, underwater, reclaimed ground, floodplains, industrial and vernacular. Accordingly, the Department recommends that the JULAP contain



a specific section on underwater archaeology and that the protection of underwater cultural heritage in all its forms (which encompasses a range of features, including wrecks, remains of bridges and submerged, or partially submerged, coastal and riverine structures, objects and palaeolandscapes) is included as a core objective of the Plan in relation to archaeological heritage.

The Department is engaged in the compilation of an inventory of shipwrecks recorded in Irish waters, including inland waterways. The Wreck Inventory of Ireland Database (WIID) includes all known wrecks over 100 years old and approximately 18,000 records have been compiled and integrated into the shipwreck database thus far. Wrecks 100 or more years old have full legal protection under the National Monuments Acts. They (along with archaeological objects underwater) are automatically protected and generally do not feature in statutory listings (the Record of Monuments and Places and the Register of Historic Monuments). The Department's Wreck Viewer has been developed to facilitate easy access to the WIID. The Wreck Viewer displays only wrecks for which we have a recorded location (approx. 22% of total entries in the WIID). Of the wrecks listed for Ireland, most are without exact locations and the records of wrecking pertaining to them date from the 18th century or later. Many more previously unknown wrecks therefore await discovery, including within the plan area. Many of these wrecks are potentially of international significance.

Accordingly, it is recommended that the JULAP sets out to protect, preserve and promote the archaeological value of underwater archaeological sites in the plan area's riverine environments. In assessing proposals for development, the Council will take account of the Archaeological Potential of the plan area's rivers. The Council will seek and have regard to the advice and recommendations of this Department relating to all developments with potential to have impacts on underwater archaeology, including flood relief schemes, dredging operations, marina developments and in-stream tourism initiatives.

The Department advises that specific policies, objectives and development management guidance for the protection of our archaeological heritage should also take account of the setting and amenity of sites and monuments. Where archaeological excavation takes place – particularly as part of mitigation for development projects – all such works are licensed by the Department and it is important that the results of such investigations are communicated to the wider public by, for example, facilitating access to ongoing excavations (having due regard to health and safety requirements) and supporting initiatives to publish excavations and archaeological research.



Summary

In summary, the Department recommends that relevant and specific policies, objectives and development management guidance pertaining to the protection of the built, archaeological and cultural heritage are included within the Carlow-Graiguecullen Joint Urban Local Area Plan 2023-2029.

In addition to the above headings, any Statement of Compliance with Ministerial Guidelines to be included within the JULAP must explicitly reference *The Framework and Principles for the Protection of the Archaeological Heritage* (Government of Ireland 1999).

As part of its statutory remit, the Department provides expert advice from an archaeological perspective to planning and other relevant authorities in respect of individual planning, development applications and other projects and plans. We welcome the opportunity to comment at this pre-draft consultation stage on the development of the Joint Urban Local Area Plan and look forward to providing further assistance and advice as the plan is progressed.

Nature Conservation

The following observations are made by the Department in its role as a statutory authority with overarching responsibility for nature conservation and the nature directives (i.e. the Bird Directive (2009/147/EC) and Habitats Directive (92/43/EEC)). The observations are not exhaustive but are intended to assist the planning authorities in meeting their obligations in relation to nature conservation, European sites, biodiversity and environmental protection in the process of reviewing and preparing the Carlow/Graiguecullen Joint Urban Local Area Plan (JULAP) 2023-2029, hereafter referred to as the JULAP.

The Department welcomes the coming together of Carlow and Laois County Councils to prepare the JULAP. Given that the River Barrow and Nore Special Area of Conservation (SAC) (Site Code 002162) lies partly within both settlements, the JULAP will provide an opportunity for the Local Authorities to work together to ensure that the conservation objectives¹ for this internationally important biodiversity site are achieved.

¹ https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002162.pdf



Nature Conservation Policy

Ireland has ratified the United Nations (UN) Convention on Biological Diversity, and all subsequent protocols, is a signatory to the UN Sustainable Development Goals (SDGs) and is fully committed to halting the loss of biodiversity and the degradation of ecosystem services as set out in the EU Biodiversity Strategy for 2030. Government policy on nature conservation is outlined in the National Biodiversity Action Plan 2017-2021 (NBAP) which includes Ireland's vision for biodiversity '*That biodiversity and ecosystems in Ireland are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally.*' Regional Strategic Outcome 11 of the Regional Spatial & Economic Strategy (RSES) for the Eastern and Midland Region (EMRA) sets out the regional commitment to '*Promote co-ordinated spatial planning to conserve and enhance the biodiversity of our protected habitats and species including landscape and heritage protection*'. This commitment is echoed the policy of Carlow County Development Plan 2022 – 2027 (Policy NH. P1) to '*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.*' The Department advises that these policy commitments to biodiversity conservation must be reflected in the JULAP.

1. Nature Conservation within the JULAP:

The recent Covid-19 pandemic has highlighted the value of biodiversity in relation to our physical and mental wellbeing. There is an urgent need to protect our natural resources for present and future generations. A JULAP that has biodiversity embedded in its core policies will help build a healthy place for residents and visitors alike, as well as providing fully functioning and resilient ecosystems.

It is important that the JULAP sets out legislative requirements in relation to the protection of designated sites and protected species under both European (i.e. Birds and Habitats Directive) and national legislation (i.e. Wildlife Act 1976-2021) and must ensure government policy on biodiversity can be delivered at local level. Objective 1 of the NBAP is to '*Mainstream biodiversity into decision-making across all sectors*'. There are real opportunities to protect and enhance biodiversity when considered at strategic level. The Department would recommend that biodiversity is integrated into all sections of the JULAP and that policies and objectives that undermine or are in direct conflict with natural heritage policies and objectives are avoided.



The current JULAP's policies and objectives should be reviewed with a view to streamlining and strengthening them and ensuring that they are consistent with current EU and National plans, reports, guidance documents and case law relating to biodiversity.

2. Natural Heritage Objectives:

The Department notes the planning authorities existing commitment to biodiversity protection in the Joint Spatial Plan for the Greater *Carlow Graiguecullen* Urban Area 2012 – 2018 (extended until 4th November 2022). The planning authorities should build on this commitment and seek to strengthen biodiversity protection within the JULAP area and its zone of influence. The Department recommends that natural heritage objectives are clear and robust, and that there is an objective to protect, conserve and enhance biodiversity both within and outside protected sites. This will be critical if the planning authorities are to meet their obligations in relation to nature conservation and Ireland is to meet its target to halt the loss of biodiversity.

Objective 1.1.3 of the NBAP requires all Public Authorities and private sector bodies '*move towards no net loss of biodiversity through strategies, planning, mitigation measures, appropriate offsetting and/or investment in Blue-Green infrastructure*'. The Department advises the inclusion of a '*no net loss*' biodiversity target for all developments, activities, programmes and plans arising from this JULAP.

The Department advises that objectives related to biodiversity and ecosystem conservation, protection, enhancement and restoration should be separated from objectives related to other matters such as amenity provision and landscape in the JULAP. This will assist the planning authorities in securing and monitoring the implementation of the JULAP's policies and objectives and in the Department's monitoring of the NBAP which includes the performance indicator '*Number of explicit policies and objectives for biodiversity and ecosystem services in County Development Plans and other local plans per Local Authority*'.

3. Nature Conservation Threats and Pressures:

Annex IV Species (Bats and Otter)

Clear and robust objectives are required to ensure the strict protection of all bat species and otter, species listed under Annex IV species under the European Communities (Birds and Natural Habitats) Regulations, 2011 to 2021. The recent Department publication '*Guidance on the Strict Protection of Certain Animal and Plant Species under the Habitats*



*Directive in Ireland*², should be consulted. The Department advises that plans and projects relating to the restoration and re-use of historic buildings must be accompanied by a bat survey report.

The Department recommends that objectives are included within the JULAP to reduce the impact of lighting on wildlife, including bat species. Reported declines in insect populations have sparked global concern, with artificial light at night (ALAN) identified as a potential contributing factor. Recent scientific evidence indicates that ALAN and the ongoing shift toward white LEDs (i.e., from narrow- to broad-spectrum lighting) will have substantial consequences for insect populations and ecosystem processes³. The Department advises that there should be a presumption against the lighting of entire footpaths and cycle tracks, in areas with low or no levels of background light and along ecological/green corridors, riparian corridors, woodlands and other habitat areas. Bats have been recorded utilising the Burren River for commuting and foraging, as well as a potential roost site and this ecological corridor should be protected from intrusive artificial light at night.

The Department recommends that documents which provide further information on reducing lighting impacts, such as EUROBATS⁴, Dark Sky Ireland⁵ and Institute of Lighting Professions⁶ lighting guidance, should be consulted.

Swifts

The swift is an urban bird species of conservation concern in Ireland. The town's swift population is a significant biodiversity asset⁷. As outlined in the Swift Conservation Ireland report 'A Survey of Swift (*Apus apus*) nesting sites in Co. Carlow 2018/19/20', Carlow Town was found to have the highest density of Swift nests with 44 found over the three years, accounting for half the number of nest sites in the County. The Youth Centre was found to contain the most nest sites per single structure in the county, with 15 nests. The highest number of swifts observed at any one time in the county was 127 in Carlow Town. The Department recommends that swift conservation measures are included in the JULAP. The

² Mullen, E., Marnell, F. & Nelson, B. (2021) Strict Protection of Animal Species. National Parks and Wildlife Service Guidance, No. 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage <https://www.npws.ie/sites/default/files/files/article-12-guidance-final.pdf>

³ <https://www.bbc.com/news/science-environment-58333233>

⁴ EUROBATS Series No. 8 publication, Guidelines for consideration of bats in lighting projects, 2018

⁵ Dark Sky Ireland Lighting Recommendations, 2020
http://www.tara.tcd.ie/bitstream/handle/2262/91582/Lighting_guidelines_13Feb2020.pdf?sequence=1

⁶ <https://theilp.org.uk/category/ilp-guidance-notes/>

⁷ https://www.swiftconservation.ie/wp-content/uploads/2021/03/Co.-Carlow-Swift-Report-2018_2019_2020-1.pdf



Department notes the erection of swift boxes on existing buildings in the town and suggests that the planning authorities include an objective that all new public buildings consider swift nest bricks/boxes at development pre-planning stage.

General Biodiversity

The Department recommends that measures outlined in the Carlow Town Biodiversity Strategy & Action Plan 2021 – 2025⁸ are incorporated into the JULAP.

4. Green Infrastructure (GI):

The incorporation of Green Infrastructure (GI) in spatial planning is one of the ways in which the National Biodiversity Action Plan 2017 -2021 seeks to address the main drivers of biodiversity loss in Ireland. The Department welcomes that the JULAP will seek to address the important role of green infrastructure for Carlow-Graiguecullen and would recommend the preparation of an overall Green Infrastructure Strategy for the JULAP area. This would including spatial mapping of GI and clear objectives with regard to the protection of trees, hedgerows and other habitats, as well as wetlands and flood zones. There should be a clear commitment made to protect the ecological integrity of the River Barrow and River Nore Special Area of Conservation (Site Code 002162). A distinction should be made between GI and greenways and other trail development within the JULAP. *Development of new greenways should look to support rather than replace existing green infrastructure⁹. Existing areas of green infrastructure mostly coincide with important areas for biodiversity and such areas should be avoided by hard infrastructure. Route selection can be used to examine alternatives in this regard.*

Appropriate riparian setback distances support the attainment of high ecological status for water bodies, the conservation of biodiversity, good ecosystem health and provide buffer zones for flood plains. Urban streams can, all too often, be fenced or walled off and sometimes polluted and dumped –in. An example is the tributary of the Burren River, in Carlow Town near Poacher’s Gate where dumping of rubbish and garden waste is a problem. By providing adequate riparian zones, with appropriate provision for recreational users, when planning for development, such impacts can be avoided. *Riparian areas, particularly within a minimum of 10m of the top of the riverbank of River Burren and other*

⁸ <https://www.localenterprise.ie/Carlow/News/Carlow-Town%E2%80%99s-Biodiversity-Strategy-Action-Plan-2021-2025.html>

⁹ SEA of Local Authority Land-Use Plans - EPA Recommendations and Resources 2022 Version 1.17



watercourses should be protected from all development. This is in accordance with the Inland Fisheries Ireland's Urban Watercourses Planning Guide¹⁰.

5. Water:

In urban areas, where natural infiltration is reduced, rainfall runoff can be 400% greater in volume than in rural areas and prone to extreme flows in severe rainfall events. Furthermore, the runoff from urban areas includes a toxic cocktail of pollutants washed off the urban impermeable areas into receiving waterbodies. This polluting effect has been identified by the Environmental Protection Agency (EPA) as one of the primary sources of pollution from urban areas, alongside discharges from urban wastewater systems. Nature-based Sustainable Urban Drainage (SuDs) are designed to absorb, retain, store and treat urban runoff prior to discharge back into the environment. As outlined in the Department's recently published Best Practice Interim Guidance Document '*Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas, Water Sensitive Urban Design (2021)*'¹¹, the implementation of nature-based solutions at the scale of the settlement results in a coordinated "whole of settlement" approach to the implementation of nature-based solutions and is preferable to the implementation of solutions at site or development level. One of the key messages of this guidance document is that rainfall, including extreme rainfall, will occur at various times and within various areas of the urban plan area and this needs to be planned for. This is particularly relevant to the Greater Carlow Urban Area and the Department advises that incorporation of a rainwater management plan and Strategic SUDS measures are considered as part of the JULAP.

6. Climate Change:

An objective of Ireland's Biodiversity Climate Change Sectoral Adaptation Plan 2019¹² is to '*Protect, restore and enhance biodiversity to increase the resilience of natural and human systems to climate change*'. This objective is particularly relevant to all wetland habitats and flood plains which provide an essential service in relation to flood alleviation. The Department recommends objectives to ensure that undesignated wetland areas and flood plains are protected within the JULAP area.

¹⁰ <https://www.fisheriesireland.ie/what-we-do/protection/environmental-protection/guidance-for-urban-watercourses>

¹¹ <https://www.gov.ie/en/publication/10d7c-nature-based-solutions-to-the-management-of-rainwater-and-surface-water-runoff-in-urban-areas-best-practice-interim-guidance-document/>

¹² <https://www.npws.ie/news/biodiversity-climate-change-sectoral-adaptation-plan>



You are requested to send further communications to this Department's Development Applications Unit (DAU) at manager.dau@housing.gov.ie where used, or to the following address:

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