

## Chapter 12: Biodiversity and Green Infrastructure

Recently the Minister of State for Heritage and Electoral Reform, Malcolm Noonan TD announced that the next National Biodiversity Conference will be held in June, 2022, under an “Act Now for Nature” theme. (<https://www.gov.ie/en/press-release/fb491-government-announces-national-biodiversity-conference-to-take-place-june-8-9/>)

We are asking Kildare County Council to join in this action to “Act Now for Nature” and to undertake the transformational changes required to conserve and protect Kildare’s habitats and species, and to achieve the Vision in the National Biodiversity Action Plan 2017 – 2021; and to guide and influence appropriate development in the County in the coming years to ensure that there is no further biodiversity loss.

We note here Malcolm Noonan comments as follows:

*“We are losing global biodiversity at a rate unprecedented in human history. In Ireland, many of our protected habitats are in poor condition and 14 per cent of assessed species are thought to be endangered. This ongoing biodiversity loss poses a threat not alone to our environment and natural heritage, but to our economy, society and individual quality of life.”*

It is therefore incumbent on Kildare County Council to the extent of its powers to play a meaningful part in halting biodiversity loss in County Kildare. To this end, we note the aim of this chapter and suggest replacing with the following:

- **Aim:** *To contributes towards the protection, conservation and management of the County’s unique biodiversity including sites designated at national and EU level, protected species and habitats outside of designated sites and to promote the development of an integrated Green Infrastructure network in order to improve our resilience to climate change and to enable the role of Green Infrastructure in delivering sustainable communities.*
- **Revised Aim -** Employ transformational change to ensure the protection, conservation and management of the County’s unique biodiversity, *including sites designated at national and EU level, protected species and habitats outside of designated sites and to promote the development of an integrated, ecologically guided, Green Infrastructure network, in order to improve our resilience to climate change and to enable the role of Green Infrastructure in delivering sustainable communities.*

We note the simplified explanation of ‘Biodiversity’ in Section 12.1 Biodiversity, and the explanation of ‘Green Infrastructure’ provided in Section 12.14.3 Green Infrastructure general. Additionally, we note the following from The County Kildare Biodiversity Plan 2009 – 2014:

*“One of the main issues that arose during the consultation process was the lack of awareness of what biodiversity is and why it is important. This lack of awareness is apparent in all sectors of society and is a major obstacle to successfully protecting biodiversity and natural heritage. Several of the actions in the plan, therefore, aim to increase awareness, appreciation and understanding of biodiversity and Kildare’s natural heritage.”*

Given the high level of confusion that increasingly exists amongst the general public and professionals relevant to the implementation of a Development Plan, we respectfully insist that precise definitions of these two terms, Biodiversity and Green Infrastructure, be provided at the commencement of this chapter and a clear distinction be made between them before employing the terms.

- **Biodiversity:** *The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems*

(Convention on Biological Diversity: <https://www.cbd.int/convention/articles/?a=cbd-02#:~:text=%22Biological%20diversity%22%20means%20the%20variability,between%20species%20and%20of%20ecosystems.>)

- **Green infrastructure** *is a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. This network of green (land) and blue (water) spaces can improve environmental conditions and therefore citizens' health and quality of life. It also supports a green economy, creates job opportunities and enhances biodiversity.*

([https://ec.europa.eu/environment/nature/ecosystems/benefits/index\\_en.htm#:~:text=Green%20infrastructure%20is%20a%20strategically,and%20climate%20mitigation%20and%20a%20daptation.](https://ec.europa.eu/environment/nature/ecosystems/benefits/index_en.htm#:~:text=Green%20infrastructure%20is%20a%20strategically,and%20climate%20mitigation%20and%20a%20daptation.))

This is crucial to informing all and ensuring that everyone is clear about beneficial actions to halt biodiversity loss, including staff within the Council (e.g., Planners, and Parks Department); and crucially, the general public, given the amount of work Community Groups and volunteers are increasingly tasked with, and grant schemes which have ‘Biodiversity Action’ requirements.

It is also important here to point out that **Green Infrastructure actions which lack the appropriate expert ecological guidance have the potential to undermine our native biodiversity.**

It is vital that the terms used in the title of this chapter are clearly explained and distinguished from the outset. This is important for two reasons:

- Failure to understand that the definition of biodiversity has a genetic component may result in inappropriate green infrastructure ‘enhancement’ practices.
- Additionally, the application of green infrastructure principles within urban areas (while they may be beneficial from a social/recreational/educational/climate

mitigation perspective) will contribute little to the conservation of rare or threatened species or habitats. For example, horticultural plant species may be used to support some common species or as flood mitigation solutions in urban areas but these actions are likely to have little effect on threatened habitats and species.

It is therefore essential to be clear as this filters down to Local Biodiversity plans. It is necessary to remember that the Biodiversity Crisis is not one of urban gardens or roundabouts, but the result of the destruction of the original habitats.

For example, there have been many recent actions borne of well-intentioned motivations, including the distribution of 'wildflower' seeds in semi-natural areas, that amount to little more than gardening of the landscape. Additionally, the importation and planting of species which are native to Ireland, dilutes the genetic heritage of our island-adapted native stock and hugely risks the introduction of pests and diseases.

These gardening 'biodiversity' actions are increasingly being hijacked by commercial interests to promote sales of their products. This 'greenwashing' is leading to high levels of confusion amongst the general public (and among many professionals of varying backgrounds) as to what actions might have a positive achievement for the protection our island biodiversity.

## 12. 1 Biodiversity

We note the explanation:

*Biodiversity or biological diversity simply refers to the variety of all living things on earth – including people, plants, animals, fungi and microorganisms and the inter-relationship between them.*

We must insist that this is an incomplete and unacceptable definition in the context of a statutory development plan. There is an internationally accepted definition of biodiversity which gives clarity to the understanding of what biodiversity means and hence biodiversity loss, as follows:

- **Biodiversity:** *The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems (Convention on Biological Diversity).*

It must be clearly pointed out here that Biodiversity conservation operates at 3 levels (genetic, species and ecosystem (habitat) level).

**Therefore, we must seek to protect:**

- **the genetic integrity of our island-adapted populations.**
- **all our indigenous species, not only including the legally protected rare and threatened ones.**
- **functioning habitats which can support these species, along with the species we have not yet identified (of which there are many).**

There is much confusion amongst the general public as to what ‘biodiversity’ means, and it is incumbent on KCC to clarify the term and not to perpetuate this confusion.

### **12.3.1. EU Habitats Directive**

We note here that Ireland has failed to fully implement the Habitats Directive. EU states are required to develop conservation objectives specific to each protected site to maximise the conservation of the habitats and species designated for protection. These objectives should then be translated into action through management plans.

We note here that **none of Kildare’s Natura 2000 sites currently have management plans** in place. This should be clearly stated in Kildare’s County Development Plan (See Aarhus Convention and access to environmental information: <https://ec.europa.eu/environment/aarhus>), and we ask KCC to urgently engage with NPWS to expedite the formulation and implementation of these management plans for the EU protected sites in Kildare. For example: see Pollardstown Fen:

<https://www.npws.ie/sites/default/files/protected-sites/natura2000/NF000396.pdf>

## **12.4 International Policy Context**

### **12.4.1 EU Biodiversity Strategy for 2030**

Based on the Eu Biodiversity Strategy Statement we suggest the addition of the following:

[https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030\\_en](https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en)

*On 20 May 2020, the Commission adopted an EU Biodiversity Strategy for 2030 (European Commission, 2020). The strategy presents an ambitious agenda to arrest the trend in biodiversity loss with increasing emphasis on ecosystem restoration and transformative change.*

*The strategy contains specific commitments and actions to be delivered by 2030:*

- *Better respecting nature in public and business decision-making*
- *Ensuring better implementation and tracking of progress*
- *Improving knowledge, financing and investments*
- *Establishing a larger EU-wide network of protected areas on land and at sea (30%);*
- *Launching an EU nature restoration plan;*
- *Introducing measures to enable the necessary transformative change;*
- *Introducing measures to tackle the global biodiversity challenge.*

## **12.5 National Policy Context 12.5.1**

### **National Biodiversity Plan(s)**

We note the background provided here but request that information regarding the following be inserted:

- *The 4th National Biodiversity Plan (2022– 2027) is now overdue and it is expected that it will be published before the end of 2022*
- *How will the recommendations and actions be implemented during the lifetime of this CDP?*

### **12.5.2 Eastern and Midlands Regional Spatial and Economic Strategy (RSES) 2019-2031**

We note the following in this section:

*The strategy acknowledges the importance of identifying, protecting and enhancing Green Infrastructure (GI) as a core element of land use planning and considers that GI offers an opportunity to develop integrated strategies around economic development, urban placemaking and rural policy.*

We note the use of the term Green Infrastructure (GI) here in the RSES (which the County Development Plan must adhere to) and would simply like to point out that we are not in a Green Infrastructure crisis *per se*, and that the use of such ill-defined terminology has the potential to dilute and undermine the value of our High Nature Value sites and potentially threaten their existence and the species which depend on them.

### **12.5.3 County Kildare Biodiversity Action Plan 2009-2014**

We note that the County Kildare Biodiversity Plan expired eight years ago in 2014.

Additionally, we note the following from that plan:

*“The National Biodiversity Plan (NBP), published in April 2002, recognised the key role of local authorities in promoting and delivering the conservation of biodiversity. The preparation of a local biodiversity plan is an action in the NBP.*

*A biodiversity plan provides a framework for conserving biodiversity and natural heritage at a local level. **These plans are designed to ensure that national and international targets for the conservation of biodiversity can be achieved, while at the same time addressing local priorities.**”*

- To be successful a plan requires targeted actions and identifiable results.
- Where is the evidence of any positive outcomes for biodiversity (habitats or species) in County Kildare from the actions undertaken in the 2009-2014 plan?
- How will a new County Kildare Biodiversity Plan measure the success of measures?

We note the following and suggest the following amendments:

*The County Biodiversity Plan provides a framework for conserving biodiversity and natural heritage at a local level. It complements the Kildare 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 high nature value habitats and threatened species by engaging with local and national experts (including NPWS); and managing the biodiversity resource, education, awareness raising and the promotion of effective cooperation between stakeholders. ~~The County Kildare Biodiversity Plan will be reviewed during the lifetime of this plan.~~ The County Kildare Biodiversity Action Plan will be reviewed and detailed time-bound actions be published by the end of 2023.

**Reason:** A central Kildare resource containing biodiversity aims, objectives and initiatives is essential. This document should illustrate the large reach, responsibility and accountability of the Council and partner organisations for biodiversity and the protection of nature. This new enhanced objective to reach 27% of land for nature (see chapter 13) should provide the cornerstone of the Plan with milestones for the achievement of this target. A published document will help inform the public, ensure implementation, and form a tool to keep track of progress.

## **POLICY**

We note and welcome **BI P1** and suggest a slight amendment, as follow:

It is the policy of the Council to:

*Integrate in the development management process the protection and enhancement of biodiversity and landscape features wherever possible, by minimising adverse impacts on existing habitats (whether designated or not) and by including ecologically guided mitigation and/or compensation measures, as appropriate.*

We note and welcome **BI O1**, and that Stakeholder responsibility lies with Development Management (Appendix 12).

*It is an objective of the Council to:*

**BI O1** - *Require, as part of the Development Management Process, the preparation of Ecological Impact Assessments that adequately assess the biodiversity resource within proposed development sites, to avoid habitat loss and fragmentation and to integrate this biodiversity resource into the design and layout of new development and to increase biodiversity within the proposed development.*

- However, we ask, specifically, which KCC staff will be tasked to adequately assess Ecological Impact Assessments provided by Developers and what ecological expertise they possess?

We welcome the sentiment expressed in **BI O2** and suggest the following amendment in line with **BI O1**

**BI 02** – *Require, wherever possible, ~~Encourage and promote~~ the retention and creation of green corridors within and between built up urban areas and industrial scale developments to protect wildlife habitat value including areas that are not subject to public access.*

We note **BI 03**, and that Stakeholder responsibility lies with the Environment Department and Development Management (Appendix 12).

**BI 03** - *Actively support the implementation of national biodiversity initiatives such as the All-Ireland Pollinator Plan 2021-2026.*

- What ecological expertise resides in this department and what is the input from local and national experts?
- What other national biodiversity initiatives will KCC support?
  - We note that currently, under publications on the KCC Biodiversity and Natural Heritage webpage, **nine of the 13 publications are Pollinator Plan related**
- How will the stakeholders evaluate the outcomes of such initiatives on the species concerned?

We note **BI 04**, and that Stakeholder responsibility lies with Environment Department (Appendix 12).

**BI 04** – *Promote increased public participation in **biodiversity conservation** by supporting and encouraging community-led initiatives such as native tree planting, the removal of invasive species and the continued preparation of Local Biodiversity Actions Plans for settlements in County Kildare*

We would like to note here the additional responsibility increasingly being placed on many highly stretched Local Community Groups to carry out Biodiversity actions as part of any grant schemes.

We also note the extreme confusion that currently exists amongst the general public about what biodiversity means (see earlier comments), and the need to have any **biodiversity conservation** actions guided and directed by suitably experienced botanists/ecologists, along with local and national experts.

- Additionally, please see our comments under **BI A4**

We therefore suggest amending BI 04 as follows:

- **BI 04** – *Promote increased public participation in **biodiversity conservation** by supporting and encouraging community-led initiatives such as native tree planting of native provenance and origin, the removal of invasive species and the continued*

*preparation of Local Biodiversity Actions Plans, guided by appropriate local and national expertise for settlements in County Kildare.*

We note the following actions here:

**BI A1** - *Continue to implement natural heritage actions in the County Heritage Plan 2019-2025, the County Biodiversity Plan, the National Biodiversity Action Plan 2017 – 2021 and any subsequent plans, in partnership with the Department of Housing, Heritage and Local Government, relevant stakeholders and the community.*

- Where is the evidence base that previous implementation of the County Biodiversity Plan or the National Biodiversity Action Plan contributed to halting biodiversity loss in County Kildare?
- Have any reviews of the implementation of these Plans in Kildare been conducted?

We note **BI A2** and simply wish to state that it is futile to carry out habitat mapping if local and national experts are not to be consulted; and if any identified high nature value habitats are to be destroyed by subsequent development, as has been the case in recent years in Co. Kildare.

We would like to suggest the following revision:

**BI A2** - *Carry out habitat mapping on a phased basis and integrate biodiversity considerations and protection measures into the suite of mandatory Local Area Plans and to develop specific policies and objectives that could be incorporated into council programmes and activities.*

- **Revised BI A2** - *Carry out habitat mapping on a phased basis which will incorporate the knowledge of local and national experts. County Kildare will be broken into XX (please insert) units for this purpose and all units will be completed during the lifetime of this plan. Kildare County Council commits to integrating biodiversity considerations and protection measures for high nature value habitats identified by these reports into the suite of mandatory Local Area Plans, and to further develop specific policies and objectives that could be incorporated into council programmes and activities.*

Related to this, we suggest insertion of the following action

**Additional Action:** *Expand the extent of the existing in-house capacity of KCC to utilise current GIS technology to access and make available to its planning department, at a formal level, the known and hitherto un-coordinated data relating to the occurrence of rare species of flora and fauna and their supporting habitats.*

- **Reason:** Although some significant site-specific occurrence data exists for a small number of rare and threatened species, much of this has never been integrated into any formalised data retrieval system. As a result, the data-to-knowledge conversion, which is essential for the responsible management of the Kildare landscape and its natural habitats, rarely occurs.

By expanding the extent of the existing in-house capacity of KCC to utilise current GIS technology to access and make available to its planning department, at a formal level, the known and hitherto un-coordinated data relating to the occurrence of rare species

of flora and fauna and their supporting habitats, the effectiveness of the local authority to protect these species and areas will be enhanced.

In populating the GIS data base, a number of national experts, many with Co. Kildare connections, should be incentivised, preferably in a pro bono capacity, to integrate and validate the material to be included.

By so doing, the statutory responsibility and executive functions of the KCC planners and other national decision makers can then be conducted in a transparent and accountable manner, uninfluenced by eccentric or tangential local pressures. Instead, the KCC planners, NPWS officials and others, can utilise the GIS database to evaluate the potential impact of any proposed development or other action, in relation to the EIS or other relevant contribution by the applicant or others. It will also assist the local authority to scrutinise the competence and comprehensiveness of the submitted ecological assessments and their proponents and practitioners.

- Additionally, we point you to the following from the Draft Development Plans Guidelines for Planning Authorities 2021 (<https://www.gov.ie/en/consultation/ef157-public-consultation-on-the-draft-development-plan-guidelines-for-planning-authorities/#how-to-get-involved>)

“Many local authorities make their statutory plan maps available online as interactive webmaps\* and **this should be the standard that all local authorities meet**. Web-based GIS software allows for the inclusion of multiple layers of mapping to be presented to the end-user (such as flood maps, **heritage designations**, architectural and archaeological designations etc.) which can be blended with the core development plan layers. This software also allows for a very clear visual representation of what the development plan comprises and in particular for assisting the understanding of its spatial impact. Once the development plan is made by the elected members, the planning authority **must provide digital mapping to the Department as soon as is practicable, to align with the plan coming into force 6 weeks after it is made.**”

We note **BI A3** and suggest replacing with the following text:

**BI A3** - *Review the County Kildare Biodiversity Plan within the lifetime of this Plan.*

- **BI A3** - *The County Kildare Biodiversity Action Plan will be reviewed and detailed time-bound actions be published by the end of 2023.*

We note **BI A4**, and that Stakeholder responsibility lies with Planning Department and Environment Department (Appendix 12).

**BI A4** - *Continue to prepare and roll-out Local Biodiversity Action Plans on an annual basis, in partnership, where appropriate with LEADER, subject to funding.*

- Biodiversity conservation requires informed scientific assessment, protection and conservation of the existing biodiversity.

- Biodiversity Action Plans are part of an internationally recognized program addressing threatened species and habitats and are designed to protect and restore biological systems.
- The principal elements of a BAP typically include:
  - preparing inventories of biological information for selected species or habitats;
    - assessing the conservation status of species within specified ecosystems;
    - creation of targets for conservation and restoration; and
    - establishing budgets, timelines and institutional partnerships for implementing the BAP.
- How do previously formulated plans reflect the views of local and national experts?
- We humbly suggest that “Local Biodiversity Action Plans” as previously formulated would more correctly be termed “Green Infrastructure Plans”. For example:
  - Where is the evidence base that any of the actions in these plans will contribute to halting biodiversity loss in County Kildare?
  - Where is the evidence base that any actions in these plans have been undertaken?
  - What evidence exists that planting imported ornamental plant species in urban environments contributes to the conservation of our threatened or rare pollinating species?
  - What effect have suggested plantings, often in containers of peat and plastic, got on our biodiversity or climate action goals?
  - What justification exists for spending € 27,000 on 12 Biodiversity Action Plans, (averaging 37 pages), wherein **25 pages are directly copied and pasted** across all Action Plans?
  - Given the lack of native tree stock nationally, and the recognised risk of importing pests and diseases (particularly microorganisms) from imported stock, what threat does this pose to our native biodiversity? Please refer to the following:
    - O’Hanlon et. al. 2021 Catalogue of Pests and Pathogens of Trees on the Island of Ireland. Biology and Environment: Proceedings of the Royal Irish Academy
    - *“In the last decade however, the greatest risk to trees and forests on the island of Ireland is the introduction of non-native pests and pathogens.”*
    - Recommendations highlighted in the **Draft Kildare County Development Plan 2023-2029 - SEA Environmental Report** that native plants of local provenance be planted:
    - <https://consult.kildarecoco.ie/en/system/files/materials/4060/Draft%20Kildare%20CDP-%20SEA%20Environmental%20Report%20Final%20Issue.pdf>
    - For definitions of **provenance and origin**, please refer to:
      - **Go Native. Guidelines for planting projects in the countryside:**
      - **“Origin** is the place in the wild from which the original seeds or plants were collected. This is not to be confused with



Additionally, see our comments on 'wildflowers' above.

## 12.6 Designated sites for nature conservation

### 12.6.1 Natura 2000 network

We note the policy statement **BI P2** here, and that Stakeholder responsibility lies with Development Planning and the Environment Department (Appendix 12) **for all objectives and actions.**

- Specifically, how it is proposed that this is achieved, given that currently the sites with the highest level of protections in Kildare **have no site-specific management plans?**
- Do we know the conservation status of Kildare's natural heritage sites, including the European sites?
- Specifically, what level of expertise is available in Development Planning or the Environment Department to guide this policy?

We respectfully suggest the following amendment to **BI P2**:

**BI P2** – *Actively engage with local and national expertise (including NPWS) to assess the current conservation status, and restore, protect and maintain ~~Protect and maintain the~~ favourable conservation status and conservation value of all-natural heritage sites designated or proposed for designation (and their qualifying interests) in accordance with European and national legislation and agreements. These include Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Natural Heritage Areas (NHAs), Ramsar Sites and Statutory Nature Reserves.*

We note **BI O6** in relation to Natura 2000 sites and Appropriate Assessment.

As the Local Authority is designated as the competent authority for Appropriate Assessment under the Habitats (2011) regulations.

- Specifically, what additional level of expertise in KCC will be employed to assess the competence of professional ecologists engaged by developers to carry out Appropriate Assessments (Screening)?
- How is **available local and national expertise** incorporated into these evaluations?

We suggest the following amendment to BI O6.

**BI O6** - *Ensure an Appropriate Assessment, in accordance with Article 6(3) and Article 6(4) of the Habitats Directive and with DEHLG guidance (2009), is carried out in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site to determine the likelihood of the plan or project having a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects and 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. Given the*

Council's acknowledgement of the Biodiversity Crisis in 2019, and the most recent Article 17 reporting on EU protected habitats and species, the Council commits to additional funding to appoint an suitably qualified staff member to evaluate Appropriate Assessments contributed as part of development proposals.

We note **BI O7**.

Given that our most highly designated sites in Kildare currently lack management plans, and the most recent Article 17 reporting, it would be preferably if this was amended to the following:

**BI O7** – Urgently advocate for and support ~~Support~~ the establishment of conservation measures and the preparation and implementation of management plans for the conservation of Natura 2000 sites by NPWS, as required by Article 6(1) of the Habitats Directive.

## 12.6.2 Natural Heritage Areas (NHAs) and Nature Reserves

We note the policy statement **BI P3** here,

Please note that this was copied twice and is the same as Policy statement **BI P2**

~~*BI P3 - Protect and maintain the favourable conservation status and conservation value of all natural heritage sites designated or proposed for designation in accordance with European and national legislation and agreements. These include Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Natural Heritage Areas (NHAs), Ramsar Sites and Statutory Nature Reserves.*~~

We note objective **BI O8** here.

- Specifically, what is the level of expertise in KCC staff tasked with assessing the competence of professional ecologists engaged by developers to carry out **Ecological Impact Assessments (Screening)**?
- How is **available local and national expertise** incorporated into these evaluations?

We suggest the following amendment to **BI O8**:

**BI O8** - Require the preparation of an Ecological Impact Assessment (EclA) by a suitably qualified professional for proposals for development within or adjacent to a Natural Heritage Area (NHA) to ensure the development is designed and sited to minimise its impact on the biodiversity, ecological, geological and landscape value of the site, particularly plant and animal species listed under the Wildlife Acts. Given the Council's acknowledgement of the Biodiversity Crisis in 2019, the Council commits to additional funding to appoint a suitably qualified staff member to evaluate Ecological Impact Assessments (EclAs) contributed as part of development proposals.

## 12.7 Protected Habitats and species outside Designated Areas

We note the policy statement **BI P4**; and that Stakeholder responsibility lies with Development Planning and the Environment Department (Appendix 12) **for all objectives and actions.**

We highly welcome this policy statement; however, we wish to ask:

- What database exists in KCC of rare habitats or sites for rare species, particularly rare flora?
- What expertise will be employed during the duration of this plan to document such rare habitats and species to ensure that habitats are not further eroded.

We suggest the following amendment to BI P4.

**BI P4** – *Ensure that any new development proposal does not have a significant adverse impact, incapable of satisfactory mitigation on plant, animal or bird species which are protected by law. To inform the planning process, the Council commits to completing a database of rare habitats and site lists for rare flora and other relevant rare species protected by law over the course of this Development plan.*

We note objective **BI O10** here and ask:

- How will KCC evaluate whether a site has a rare species of flora or fauna?
- It would seem that in the absence of a County Register of locations of rare species of flora or fauna, a site survey would be necessary for any new development proposal.

We suggest the following amendment to **BI O10**.

*It is an objective of the Council to:*

**BI O10** – *Ensure that any new development proposal does not have a significant adverse impact on rare and threatened species, including those protected under the Wildlife Acts 1976 and 2012, the Birds Directive 1979 the Habitats Directive 1992 and the Flora Protection Order species. To inform the planning process, the Council commits to completing a database of rare habitats and site lists for rare flora and other relevant rare species protected by law over the course of this Development plan.*

We highly welcome the strong statement here in objective **BI O13** and suggest a minor amendment as previously mentioned.

**BI O13** – *Require all applications for new developments to identify, protect and sensitively enhance the most important ecological features and habitats, and incorporate these into the overall open space network, keeping free from development and to provide links to the wider Green Infrastructure network as an essential part of the design process and by making provision for local biodiversity (e.g. through provision of swift boxes or towers, bat roost sites, hedgehog highways, green roofs, etc.). To inform the planning process, the Council commits to completing a database of rare habitats and site lists for rare flora and other relevant rare species protected by law over the course of this Development plan.*

We highly welcome action **BI A6** and suggest a minor amendment as follows.

It is an action of the Council to:

**BI A6** – To engage with local and national expertise (including NPWS) to undertake  
~~Undertake~~ surveys and collect data to provide an evidence-base to assist the Council in meeting its obligations under Article 6 of the Habitats Directives (92/43/EEC) as transposed into Irish Law. A plan will be formulated before the end of 2022 to provide for the setting aside of resources in a staged manner to ensure that this is completed over the course of the Development Plan.

## **12.8 County Biodiversity Sites**

We note and welcome objective **BI O14** and action **BI A7** here and suggest the following amendments:

**BI O14** - Protect, in co-operation with the relevant statutory agencies and other relevant groups (including local and national experts), sites of local biodiversity importance (County Biodiversity Sites), not otherwise protected by legislation.

**BI A7** - Identify and map and make publicly available, County Biodiversity Sites in cooperation with the relevant statutory agencies, other relevant groups (including local and national experts), and the general public, not otherwise protected by legislation.

We note action BI A10 and suggest the following amendment:

**BI A10** - Work with Teagasc and landowners throughout the county in order to identify suitable 'Hare's Corner' projects which would create pocket sized habitats in order to enhance biodiversity. Any such projects will seek to protect existing biodiversity by ensuring that any planting 'enhancements' are from locally sourced native material of native provenance and origin.

- See comments above

Please insert additional action, as follows:

- **Additional Action:** Publish updated list of County Biodiversity Sites in the County Biodiversity Action Plan.

## **12.9 Trees, Woodlands and Hedgerows**

### **12.9.1 Hedgerows**

We note the following paragraphs in the Introduction to this section, and we would like to suggest additional insertions based on the following:

- See our earlier comments on native provenance and origin.
- Additionally, in the case of tree species, for planting in hedgerows, or any 'Native Woodland' or other 'Biodiversity' schemes, it should be specified that these are not from 'forestry-selected' stock; for example, Teagasc trials of selected alder and birch. These trees have a narrow genetic base and are chosen for speed and straightness of growth for a forestry crop.

- *It is important to point this out, given recent consolidation within the Nursery Stock Sector, and the overall shortage of native tree stock for the current level of planting schemes.*
- *Also, see our earlier comments in Chapter 9 in relation to supporting our local indigenous Nursery Stock industry in Kildare.*
- *Additionally, we welcome and note the recommendations in relation to hedgerows in the **SEA Environmental Report for the Kildare County Development Plan 2017-2023***
  - <https://consult.kildarecoco.ie/en/system/files/materials/4060/Draft%20Kildare%20CDP-%20SEA%20Environmental%20Report%20Final%20Issue.pdf>
  - *Including:*
    - **Require** that proposals retain and maintain existing hedgerows in all instances, with the exception only of the section required to be removed to provide visibility at the proposed site entrance. On such cases, proposals for replacement hedgerows, including details of composition and planting must be submitted with any application which requires such removal.
    - It is an objective of the Council to only permit the removal of hedgerow where the removal of same has been clearly demonstrated, to the satisfaction of the Planning Authority, to be necessary for the development of a solar farm(s)
    - Consider the removal of trees (singular or in stands) and hedgerows (in part or in whole) only in circumstances where it can be clearly demonstrated that the removal of hedgerow material and or tree(s) is essential for the provision of energy and cannot be designed out. Where proven, the vegetation is to be replaced with equivalent number, species, variety and size as was in situ. Where non-native species are removed, they will be required to be replaced with native species. In all cases, plants of local provenance are to be planted within 1 year of removal and maintained to establishment to negate the habitat and biodiversity loss within 3 years. Existing vegetative or ‘stepping-stone’ linkages are to be maintained and improved upon to increase wildlife corridors.
    - Recognise the important contribution trees and hedgerows make to the county biodiversity resource climate mitigation, resilience, and adaptation
    - Prevent, in the first instance, the removal of hedgerows to facilitate development. Where their removal is unavoidable, same must be clearly and satisfactorily demonstrated to the Planning Authority.
    - Promote the integration of boundary hedges within and along development sites into development design so as to avoid “trapped hedges” located to the boundary of houses within the development layout.

*Suggested amendments:*

*A survey of Kildare hedgerows was conducted in 2006 (Foulkes, 2006) where the total length of hedgerow in County Kildare was estimated at 10,305 km. The average figure for*

hedgerow density as 5.92 km/km<sup>2</sup>. It is estimated that 1.2% of the county was covered in hedgerows in 2006. County Kildare's hedgerows show a higher degree of fragmentation than those of other counties, largely due to the high degree of development in rural areas. This coupled with the fact that two thirds of hedges adjoin intensively managed farmland, means that there are implications for the overall biodiversity potential of the resource. Since the publication of Foulkes, 16 years ago, Kildare's hedgerows have further deteriorated due to removal for development and farming, over-management and under-management.

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 and hedgerows can contribute to amenity and more attractive developments as well as providing important wildlife habitats. The retention of trees should be considered at the earliest possible design stage in any new or redevelopment proposal.

Under Section 37 of the Forestry Act 1946, as amended, with certain exceptions, it is illegal to uproot a tree over ten years of age or cut down a tree of any age unless notice of intention to do so has been given in accordance with the Forestry Act. Except for an area located within the boundaries of a town or borough council area, a tree felling licence from the Forest Service of the Department of Agriculture, Food and the Marine is required if it is proposed to fell trees.

When planting hedgerows, species indigenous to the area (of local provenance and origin, which are not from forestry-selected stock) should be used. The County Kildare Hedgerow Survey (2006) identified the predominant hedgerow species in Kildare. These species are listed in Chapter 16, Development Management Standards.

*We note and really welcome objectives **BI O15** and **BI O16** and suggest the following minor amendment:*

**BI O15** - Prevent, in the first instance, the removal of hedgerows to facilitate development. Where their removal is unavoidable, same must be clearly and satisfactorily demonstrated to the Planning Authority. In any event, removal shall be kept to an absolute minimum and there shall be a requirement for mitigation planting 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 to existing adjacent hedges. Native plants of a local provenance and origin, which are not from forestry-selected stock should be used for any such planting. Removal of hedgerows and trees prior to submitting a planning application will be viewed negatively by the planning authority and may result in an outright refusal.

**BI O16** - Promote the integration of boundary hedges within and along development sites into development design so as to avoid "trapped hedges" located to the boundary of houses within the development layout. Encourage the planting of woodlands, trees and hedgerows as part of new developments and as part of the Council's own landscaping works using native plants of local provenance and origin which are not from forestry-selected stock.

We note and welcome all actions **BI A11 - BI A16** and suggest amendment to **BI A16**.

**BI A16** - *Develop a pilot project to demonstrate traditional hedgerow management skills including hedge laying. Engage with developers to encourage traditional hedgerow management to rejuvenate boundary hedges, where appropriate and feasible.*

### 12.10 Inland Waters: Lakes, Rivers, Streams and Groundwater

We note **BI P7** and please refer to our earlier comments in Chapter 6 on restoration of good ecological status by 2027 as per the Water Framework Directive.

**BI P7** - *Protect rivers, streams and other watercourses and, wherever possible, maintain them in an open state capable of providing suitable habitats for fauna and flora while discouraging culverting or realignment.*

We note and welcome objective **BI O22** here. Please refer to our earlier comments on Ecological Impact Assessments.

**BI O22** - *Require the preparation and submission of an Ecological Impact Assessment (EclA) including bat and otter surveys for developments along river or canal corridors. Given the Council's acknowledgement of the Biodiversity Crisis in 2019, the Council commits to additional funding to appoint a suitably qualified staff member to evaluate Ecological Impact Assessments (EclAs) contributed as part of development proposals.*

We note objective **BI O29** here in relation to riverine environments (and please see our comments in chapter 6)

We recognise the value and need for Sustainable Urban Drainage systems (SuDs) and other nature-based solutions; however, we would like to emphasize the following:

- The **primary nature-based solution** should be to leave **established native vegetation in situ, wherever possible, to intercept runoff.**
- **It is important to note that SuDs have the capacity to disrupt and undermine the integrity of native flora** when generic (often imported) swale, pond and other green infrastructure plants or seed mixtures are employed. Often planting specifications provided by landscape consultants are from generic lists of swale 'wildflower' mixes, or pond plants, and these plant mixtures bear little or no resemblance to natural pond floras or the flora of the surrounding area.
  - <https://dnfc.net/wildflower-seed-mixtures/>
  - <https://pollinators.ie/wildflower-seed/expert-opinions/>
- Additionally, **aquatic plants are some of the world's most problematic invasive organisms, many are extremely difficult to identify accurately to species level** (relevant botanical expertise is required), and **mis-identified invasive species are often sold in garden centres and nurseries**, due to this difficulty.

- Aquatic plants are highly vagile and **disperse readily in nature**; therefore, left unplanted, **pond features will rapidly colonise from locally available material and this should be the preferred option.**
- **Any nature-based or green infrastructure solution** should therefore be under the explicit guidance of a **suitably experienced botanist/ecologist**. See:

[https://www.susdrain.org/files/resources/other-guidance/ecological\\_benefits\\_summary.pdf](https://www.susdrain.org/files/resources/other-guidance/ecological_benefits_summary.pdf)

We therefore suggest amending **BI O29** as follows:

**BI O29** - *Ensure the protection, improvement or restoration of riverine floodplains and to promote strategic measures to accommodate flooding at appropriate locations including nature-based solutions, in order to protect ground and surface water quality and build resilience to climate change. The Council commits to ensuring that the construction SuDs or other nature-based solutions **will not contribute to further native biodiversity loss**, by requiring that plans submitted at design stage are under the direction of a **suitably experienced botanist/ecologist**. Additionally, the preferred option in employing these techniques is to allow natural recolonization, or at the very minimum, that any plantings arise from locally sourced native material of native provenance and origin.*

### 12.11 Wetlands and Ramsar Sites

We note and welcome the County Kildare Wetland Surveys.

We would like to point to **Table 12.5 - County Kildare Wetland Survey Sites - Rating of Importance of Ecological Sites**, and would suggest that it is not very useful to provide Eastings and Northings in this table. The web link to the mapping of these sites would be more helpful for the general public. Additionally, we would like to see links to the three Wetland Survey Reports provided on the Council's website.

- See: <http://www.wetlandsurveysireland.com/news/kildare-wetland-inventory.html>

We note the following paragraph in the introduction (please refer to our earlier comments) and suggest the following insertion:

As developments and forestry tree plantations sited on peatlands have the potential to increase overall carbon losses, potentially undermining expected carbon savings (in the case of renewable energy developments) and damaging rare habitats of European importance, these factors must be considered in any environmental or ecological impact assessment prepared to accompany any planning applications. Given the Council's acknowledgement of the Biodiversity Crisis in 2019, and the most recent Article 17 reporting on EU protected habitats and species, the Council commits to additional funding to appoint a suitably qualified staff member to evaluate Ecological Impact Assessments contributed as part of development proposals.

We note the policy statement **BI P8** here and suggest insertion of the following (please see our earlier comments):

**BI P8** - *Ensure that Kildare's wetlands and watercourses are retained for their biodiversity and flood protection values ~~and maintain good ecological status of wetlands and watercourses in support of the provisions of the Water Framework Directive and Ramsar Convention~~, and at a minimum to achieve and maintain at least good ecological status for all wetlands and watercourses in the county by, at the latest, 2027 in line with the Water Framework Directive and Ramsar Convention.*

We note objective **BI O31** here and suggest the following:

**BI O31** - *Protect wetland sites that have been rated A (International), B (National) C+ (County) and C (Local) importance and D (Moderate value, locally important) as identified in the County Kildare Wetlands Survey 2012-2014, (See Tables 12.5 & 12.6).*

We note objective **BI O33** here and suggest the following:

**BI O33** - *Ensure that an ecological assessment is undertaken in conjunction with proposals involving drainage or reclamation of wetland identified in Table 12.6. Impact assessment of all developments on peatlands shall consider peatland stability, carbon emissions balance, Hydrology and Ecology. Given the Council's acknowledgement of the Biodiversity Crisis in 2019, and the most recent Article 17 reporting on EU protected habitats and species, the Council commits to additional funding to appoint a suitably qualified staff member to evaluate Ecological Impact Assessments contributed as part of development proposals.*

## **12.12 Invasive Species and Noxious Weeds**

We note the following paragraph in the introduction and comment as follows:

Please note: **any kind of a living organism that is not native to an ecosystem may become invasive and pose a major threat**, for example:

Ash dieback (caused by *Hymenoscyphus fraxineus*).

- This is a fungal organism which was imported into Ireland on plantation stock in 2012 and is responsible for the **Ash Dieback disease** which is currently destroying our native ash trees (and the multiple species they support), and causing devastation in hedgerows throughout the country. In other words, this imported fungal organism is responsible for massive biodiversity loss in Ireland.
- Grey Squirrels, Feral Ferrets and Muntjac Deer (all mammals)

Also, please note that **fungi and other microorganisms currently pose a significant threat to forests and trees in Ireland** for example, a number of *Phytophthora* species.  
See:

- <https://www.teagasc.ie/crops/forestry/advice/forest-protection/phytophthora-ramorum/>
- See O’Hanlon et. al. 2021 Catalogue of Pests and Pathogens of Trees on the Island of Ireland. Biology and Environment: Proceedings of the Royal Irish Academy.
- “In the last decade however, the greatest risk to trees and forests on the island of Ireland is the introduction of non-native pests and pathogens.”

Additionally, please see our earlier comments on aquatic plants.

We highlight this here in light of our earlier comments on plantings for nature-based solutions, green infrastructure and native tree planting and we suggest the following amendments:

*Invasive species, which can be plants, animals, fungi or a number of different microorganisms, can represent a major threat to local, regional, and national biodiversity. Terrestrial and aquatic habitats can be negatively affected, resulting in significant damage to the environment and economic interests, such as agriculture, forestry and civil infrastructure.*

*Thistle, Ragwort, Dock, Common Barberry, Male Wild Hop plant & Wild Oat are scheduled as noxious weeds under the Noxious Weeds Act, 1936 and Noxious Weeds (Common Barberry) Order, 1958. Noxious weeds, most of which are native plants of disturbed ground, impact adversely on agriculture. They may compete for space, harbour pests or diseases, or be injurious to livestock or human beings. It is important to note that, some noxious weeds are native species, and as such, as native species, ~~noxious weeds~~ are part of our natural biodiversity and are utilized by a range of invertebrate and bird species. The management objective for these native species should be control and not complete eradication. The loss of such species will also result in the loss of species that depend on them as a food source. Creeping thistle (*Cirsium arvense*) for example, is a food plant for over twenty species of butterfly and moth, with four species of moth depending on the genus *Cirsium* as their sole food plant. Thistle seed is also an important food resource for goldfinch. Ragwort (*Senecio jacobea*) has four species of moth dependant on it including the day-flying cinnabar moth. Ragwort and thistle are significant sources of nectar for bees.*

We note the policy statement **BI P9** here and also note that there is no specific statement detailing any commitment by the Council to eradicating invasive species. Given the **recognised significant threat that invasive species present to biodiversity**, we respectfully insist on the following amendments:

**BI P9 – Implement and support** ~~Support~~ *measures for the prevention and/or eradication of invasive species within the county and the control of noxious weeds.*

We note **BI O35**, and comment as follows:

Please note that “It is required by the Council as part of the planning application process to eradicate/control invasive introduced species including Japanese Knotweed, when identified on a site **or in the vicinity of a site**, in accordance with Regulation 49 of the European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.”. Please

see:

- **SEA Environmental Report for the Kildare County Development Plan 2017-2023**
- <https://consult.kildarecoco.ie/en/system/files/materials/4060/Draft%20Kildare%20CDP-%20SEA%20Environmental%20Report%20Final%20Issue.pdf>

We therefore respectfully insist on the following amendment:

**BI 035** - *Require all development proposals to address the presence or absence of invasive alien species on proposed development sites, or in the vicinity of a development site; and (if necessary) require applicants to prepare and submit an Invasive Species Management Plan where such species exist, in order to comply with the provisions of the European Communities (Birds and Natural Habitats) Regulations 2011-2015.*

We note **BI 036** and would like to point out that removal of certain particularly harmful invasive plant species, such as Japanese Knotweed, requires herbicide control. If these pesticides are to be used in public areas, then there are a number of necessary requirements under the Pesticide legislation which need to be adhered to, including that the pesticide operator should be licensed and trained. See:

- S.I. No. 438/2019 - European Communities (Sustainable Use of Pesticides) (Amendment) Regulations 2019

We therefore feel, that there is the need for a dedicated Action Plan by the Council, which might include a web portal to facilitate reporting of particularly harmful invasive species in the County. This would facilitate implementation of a targeted program for the successful eradication of such species by the Council, for example, see:

- **Overview of Dun Laoghaire Rathdown Invasive Species Action Plan 2021**
- [https://www.dlrcoco.ie/sites/default/files/atoms/files/dlr\\_invasive\\_alien\\_species\\_action\\_plan\\_aa\\_screening\\_report.pdf](https://www.dlrcoco.ie/sites/default/files/atoms/files/dlr_invasive_alien_species_action_plan_aa_screening_report.pdf)
  - The overall aim of the DLR IAS Plan is as follows:
  - **“To provide a roadmap for invasive species to be eradicated from Dún Laoghaire-Rathdown when possible; controlled when eradication is not possible; for new introductions to be prevented; and for damaged habitats to be restored”.**
    - Eight Objectives are identified and form the basis of this plan, these are as follows:
      - Objective 1: To develop a record of invasive species within the county
      - Objective 2: To prevent new introductions of IAS into DLR
      - Objective 3: To prevent further spread of IAS within the county
      - Objective 4: To effectively treat IAS currently present in the county
      - Objective 5: To create awareness of IAS and the threats they pose, and to provide training and education for the public
      - Objective 6: To minimise the impacts of IAS and restore

- damaged ecosystems to their previous state
- Objective 7: To create ties and cooperative relationships with other counties and agencies in order to effectively tackle IAS
- Objective 8: To consider the impact of Climate Change in relation to IAS

We note the single action **BI A17** and contend that this is **wholly insufficient given the threat that invasive species pose to our biodiversity**. We advocate for a similar roadmap for invasive species control as employed by DLR.

We submit the following amendment and additional actions as a very minimum:

**BI A17** - *Prepare a programme of mapping of invasive species in the county, including the development of a web portal to allow residents of County Kildare to report invasive species in the County, by the end of 2023.*

- **Additional Action** - It is an action of the Council to determine, as a priority, whether there is a potential threat of invasive species to the protected sites within the County, and to begin a dedicated programme of eradication, beginning with the Natura 2000 sites.
- **Additional Action** - It is an action of the Council to begin a dedicated campaign to build awareness of invasive species amongst all residents of the county. Additionally, this programme will provide training to Community Groups on appropriate control and removal measures for responsive species, and will educate and facilitate training on reporting of plant species necessitating herbicide treatment for their removal.

#### **12.14 Green Infrastructure (GI) 12.14.1 EU Policy**

We note the following statement in the introduction to this section and suggest the following insertion and deletions:

*Responding to the Biodiversity Strategy, the EU published ‘**Building a Green Infrastructure for Europe**’ (2014) and ‘**Green Infrastructure: Enhancing Europe’s Natural Capital**’ Strategy (2013), which sets out ~~“(delete)”~~to promote the deployment of Green Infrastructure in the EU in urban and rural areas’~~“(delete)”~~.*

We draw your attention to the statement on the **definition of Green Infrastructure (GI)** in the later document above:

- “Many definitions of GI have been developed. It is therefore difficult to cover all aspects in one short paragraph. The following working definition will however be used for the purposes of this Communication.
- **GI: a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services. It incorporates green spaces (or blue if aquatic ecosystems are concerned) and other physical features in terrestrial**

(including coastal) and marine areas. On land, GI is present in rural and urban settings.”

- **Green Infrastructure: Enhancing Europe’s Natural Capital’ Strategy (2013)**
- <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52013DC0249>

### 12.14.2 National Policy

We note the following introduction:

*In August 2010, Comhar - The Sustainable Development Council, published ‘Creating Green Infrastructure for Ireland: Enhancing Natural Capital for Human Wellbeing’. This document proposes an approach and a set of principles that should be followed in Green Infrastructure planning.*

Additionally, we draw your attention to the following from the Comhar (2010) document - **Creating Green Infrastructure for Ireland - Enhancing natural capital for human wellbeing:**

- [http://edepositireland.ie/bitstream/handle/2262/71873/Comhar\\_27\\_2010.pdf?sequence=1&isAllowed](http://edepositireland.ie/bitstream/handle/2262/71873/Comhar_27_2010.pdf?sequence=1&isAllowed)

“Green Infrastructure 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’.**”

“There is no standard definition of Green Infrastructure and indeed the working definition adopted by the project was as follows:

‘**Green Infrastructure is a strategically planned and managed network featuring areas with high quality biodiversity (uplands, wetlands, peatlands, rivers and coast), farmed and wooded lands and other green spaces that conserve ecosystem values which provide essential services to society.’**”

We have laboured with highlighting the difficulties of the definition of Green Infrastructure to highlight that this term is **ill-defined and there is a high degree of subjectivity in its application**. We wish to state here, once again, that we acknowledge the dual crises of Climate Change and Biodiversity Loss, **and point out that the later has its own unique set of drivers**. We need to be extremely cognisant of this in our consideration of green Infrastructural elements.

In this light, **we have extreme difficulty in recognising the current system of intensive agriculture as “high quality biodiversity” as this definition might suggest**. Please see our earlier comments on the contribution of agriculture in Ireland currently to poor water quality and habitat loss.

Furthermore, we direct you to the following from this Comhar document:

*“This study highlighted the need for local area studies in the context of national or local spatial planning....*

*Perhaps more so than local datasets, the NPWS maps of designated Natura 2000 sites are the most important source of information on Green Infrastructure assets. Few local authorities have access to other NPWS data sets such as data on rare plants, or results of bat, woodland and grassland surveys. There is less awareness and little direct use of other national digital data sets to guide spatial planning such as those provided by the EPA (CORINE landcover, water quality, river catchments, soils); the Geological Survey (soils, aquifers, bedrock geology); Ordnance Survey (1st and following editions of 1:10560 scale mapping; Digital Terrain Model providing height, slope and aspect data; aerial photography); and other organisations such as the Teagasc, Forest Service, Coillte, Department of Agriculture Fisheries and Food. These specialist data sets are principally used for Strategic Environmental Assessment or by consultants or where a staff member such as a Heritage Officer has particular expertise in Geographic Information Systems. **Data from non-governmental organisations including BirdWatch Ireland (IWeBS wetlands birds survey) or Botanical Society of Britain and Ireland (flora distribution) were mentioned by just one local authority surveyed...***

*There is general dissatisfaction with the mechanisms currently available to input information on biodiversity to spatial plans....*

*The planning process requires a multi-disciplinary team. The range of expertise required on the team depends on the range of services to be performed by the Green Infrastructure plan. A Green Infrastructure planning team would typically include or have access to the expertise of **ecologists, landscape architects, planners and GIS specialists, as well as civil and sanitary service engineers (transportation, water quality and hydrology), agriculture and forestry experts.....”***

We note policy statement **BI P11**. We feel this statement is ill-defined, and additionally, it is highly similar to **BI P12**, and suggest deletion and replacement with the following amendment.

~~**BI P11** - Recognise the importance of Green Infrastructure in Kildare and to put measures in place to protect this valued biological resource.~~

- **BI P11** - Identify the key elements of the green infrastructure network in Kildare; designate these as important elements of the County’s green infrastructure network; protect the key elements of the green infrastructure network and seek to enhance and expand the County’s green infrastructure network, through informed, evidence-based methods, which do not threaten the integrity of existing native biodiversity.

We note action **BI A19** contained here, and advise that since a Green Infrastructure network in the county has not been **adequately** identified, planned and mapped, it cannot be protected and maintained? Refer to Comhar 2010.

We suggest the following amendment:

**BI A19** – *Identify, map, protect ~~Protect~~ and maintain a Green Infrastructure network in the county.*

#### **12.14.4 Green Infrastructure approach to spatial planning**

We note policy statement **BI P12** and similarity to **BI P11**; and we suggest addition of the following:

**BI P12** - *Recognise the importance of Green Infrastructure in Kildare and protect this valued biological resource, the ecosystem services it provides and the contribution to climate resilience. The Council will ensure, as far as is possible, that any future development zonings are carefully considered and managed so they do not negatively impact the integrity and proper functioning of the existing Green Infrastructure network.*

We note the objective **BI O39** and ask:

**BI O39** - *Ensure the protection, enhancement and maintenance of Green Infrastructure in Kildare.*

- How is this materially different to **BI A19** (Protect and maintain a Green Infrastructure network in the county)?

We note **BI O41** and suggest the following inclusion:

**BI O41** - Develop a strategy, to identify a series of greenbelt/green spaces (in addition to those identified in this CDP) to retain and protect and act as a buffer between the growing settlements within Kildare during the lifetime of the Plan with particular attention to the undeveloped areas between Celbridge, Leixlip and Maynooth and to collaborate with South Dublin County Council, where appropriate.

We note and particularly welcome action **BI A22**:

**BI A22** - *Work with Bord Na Mona to prepare a Green Infrastructure Masterplan that will inform the delineation of core areas, stepping stones and corridors (long distance peatways) as identified in Sections 12.14.6, 12.14.7 and 12.14.8, that may inform the designation of an interconnected Bog of Allen Nature Reserve, Special Amenity Area Order and/or National Peatlands Park.*

We note the following in section **12.14.6.5 Bog of Allen** and suggest the following deletion (please see our comments under **RD O28** and **RD O29**)

A number of proposed long distance peatways that could connect the Royal Canal with the Grand Canal/Barrow Blueway are listed below in Section 12.14.8.8. ~~It is expected that 50% of the Peatland Area will remain free from any development.~~

#### **12.14.6.8 Ummeras Bog**

We note and welcome the following and suggest revision for consistency with BI A22: This area is proposed for a ~~Peatlands National Park~~ National Peatlands Park, which is supported by the Council.

#### 12.14.7 Nodes/Stepping Stones

We note the following and suggest an insertion:

*The key nodes in the County include the following features:*

- *Wetlands [specifically, wetland sites that have been rated A (International), B (National), C+ (County) and C (Local Importance), and D (Local Importance) in the County Kildare Wetland Survey]*

#### 12.14.9 Urban Green Infrastructure

We note the following policies and comment as follows:

**BI P13** does not distinguish between **existing semi-natural areas or high nature value habitats** (such as hedgerows, canals, rivers) and **horticultural/landscape plantings**. This is fundamental to our statements about qualifying terminology. Please see our earlier comments on the limited ability to conserve biodiversity in urban habitats and general confusion as to what 'Biodiversity' and hence Biodiversity Loss actually means.

The failure to understand and acknowledge the highly significant difference between these elements of Green Infrastructure, poses one of the most serious threats to our natural environment and has the potential to expedite habitat and species loss.

Please amend **BI P13** to provide clarity:

**BI P13** - *Recognise the importance of Urban Green Infrastructure in addressing a broad range of urban challenges, such as ~~conserving biodiversity~~, connecting people with nature, adapting to climate change, supporting the green economy and improving social cohesion; and to seek to protect and enhance this resource, particularly existing semi-natural areas or habitats (such as hedgerows, canals, rivers).*

Please note that **increased footfall is currently impacting on high nature value habitats** in County Kildare, for example, some stretches of the Blueways. It is therefore necessary to insert a clarification in **BI O45** (and see recommendations from Comhar).

**BI O45**- *Ensure that the Green Infrastructure Strategy and Network identified in this County Development Plan and Local Area Plans is used to inform the development management process to ensure that new residential areas, business/ industrial development, tourism and other relevant projects contribute towards the conservation and protection of Kildare's habitats and species, and the protection, management and enhancement of the existing Green Infrastructure in terms of design, layout and landscaping.*

In relation to **BI O46**, we bring your attention again to the relevant section from the Comhar document above, which draws attention to the need to have a multi-disciplinary Green Infrastructure team in place within/available to the Council, composed of a number of professionals, **including ecologists**.

*“The planning process requires a multi-disciplinary team. The range of expertise required on the team depends on the range of services to be performed by the Green Infrastructure plan. A Green Infrastructure planning team would typically include or have access to the expertise of ecologists, landscape architects, planners and GIS specialists, as well as civil and sanitary service engineers (transportation, water quality and hydrology), agriculture and forestry experts.....”*

*We point out here that **landscapers are not trained botanists or ecologists**; and therefore, if we are to be serious about halting biodiversity loss, objectives **BI O46 and BI O47** need to be revised as follows:*

**BI O46** - *Identify existing Green Infrastructure at the initial stages of the planning process and to use this information to guide the overall design of an appropriate site layout which is reflected in the developments landscaping plan. The landscaping plan submitted with an application should clearly illustrate how existing Green Infrastructure (particularly semi-natural or high nature value elements) are to be retained, and provide opportunities to create more linkages, have informed and been incorporated into the development, layout and, if appropriate, management proposals. These plans will be reviewed by a suitably qualified ecologist (accessing local and national expertise)*

**BI O47**- *Ensure that the design of new development does not cause fragmentation of the Green Infrastructure network (particularly existing semi-natural or high nature value areas).*

We suggest the following minor amendment to **BI O48**:

**BI O48**- *Encourage the use and incorporation of Biophilic design into all new development schemes, increasing proximity of and/or views to nature, landscape and landscape features, in the interests of public health.*

#### **12.14.10 Green Infrastructure within Public Open Spaces and Parks**

We suggest the following amendments (please see our comments above)

**BI P14** - *Protect (particularly existing semi-natural or high nature value areas).and enhance the Green Infrastructure network throughout the county, having regard to ecologically sound techniques, such as managed rewilding, and utilising plants of local provenance and origin.*

**BI O49** - *Strengthen ecological networks between urban areas, and protect existing semi-natural or high nature value areas, to create greater linkages to Natura 2000 sites,*

proposed Natural Heritage Areas, parks and open spaces and the wider regional Green Infrastructure network.

**BI O50** - Require multifunctional open space provision within all new developments; this includes provision for ~~ecology~~ of spaces for nature and sustainable water management.

#### **12.14.11 Green Infrastructure and Sustainable Urban Drainage Systems**

We draw your attention to the following statement and comment as follows:

*Nature-based solutions are critical in climate change adaptation; they can play an important role not only for biodiversity and ecosystems, flood prevention and carbon sequestration, but also in temperature regulation, water quality, erosion prevention, and filtering pollutants from the air and water.*

It must be clearly understood and acknowledged that **‘nature-based’ solutions, lacking appropriate ecological guidance, may also cause harm and damage to native biodiversity.**

The IUCN defines Nature-based solutions as: **“Actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.”**

We recognise the value and need for Sustainable Urban Drainage systems (SuDs); however, we would like to emphasize the following:

- The **primary nature-based solution** should be to leave **established native vegetation in situ, wherever possible, to intercept runoff.**
- **It is important to note that SuDs have the capacity to disrupt and undermine the integrity of native flora** when generic (often imported) swale, pond and other green infrastructure plants or seed mixtures are employed. Often planting specifications provided by landscape consultants are from generic lists of swale ‘wildflower’ mixes, or pond plants, and these plant mixtures bear little or no resemblance to natural pond floras or the flora of the surrounding area.
  - <https://dnfc.net/wildflower-seed-mixtures/>
  - <https://pollinators.ie/wildflower-seed/expert-opinions/>
- Additionally, **aquatic plants are some of the world’s most problematic invasive organisms, many are extremely difficult to identify accurately to species level** (relevant botanical expertise is required), and **mis-identified invasive species are often sold in garden centres and nurseries**, due to this difficulty.
- Aquatic plants are highly vagile and **disperse readily in nature**; therefore, left unplanted, **pond features will rapidly colonise from locally available material and this should be the preferred option.**
- **Any nature-based or green infrastructure solution** should therefore be under the explicit guidance of a **suitably experienced botanist/ecologist**. See: [https://www.susdrain.org/files/resources/other-guidance/ecological\\_benefits\\_summary.pdf](https://www.susdrain.org/files/resources/other-guidance/ecological_benefits_summary.pdf)

In particular, we note the following policy statement, and suggest that an additional objective should be inserted:

**BI P15** - Promote and support the development of Sustainable Urban Drainage Systems (SuDs) to ensure surface water is drained in an environmentally friendly way by replicating natural systems.

- **Additional Policy** - Require that established native vegetation should be left *in situ*, wherever possible, to intercept, slow down and filter runoff as an integral part of all new development proposals.

Additionally, we provide suggested amendments for the following objectives:

**BI O51** - Promote and support the development of Sustainable Urban Drainage Systems (SuDs) such as integrated constructed wetlands, permeable surfaces, filter strips, ponds, swales and basins at a site, district and county level and to maximise the amenity and bio-diversity value of these systems. The first step in this approach will be that existing established native vegetation should be left *in situ*, wherever possible. Where additional measures are necessary, the preferred option in employing these techniques will be to allow natural recolonization, or at the very minimum, that any plantings arise from locally sourced native material of local provenance and origin.

**BI O52** - Integrate nature-based solutions and climate change considerations into the design, planning, and implementation of infrastructure provision/ works and development proposals at the earliest possible stage of the design process. Ensure that these solutions do not undermine or pose threats to Kildare's native biodiversity by primarily employing techniques to allow natural recolonization, or at the very minimum, that any plantings arise from locally sourced native material of local provenance and origin.

**BI O53** - Actively promote and encourage nature-based approaches and green infrastructure solutions as viable mitigation and adaptation measures to surface water management. The first step in this approach will be that existing established native vegetation should be left *in situ*, wherever possible. Where additional measures are necessary, the preferred option in employing these techniques will be to allow natural recolonization, or at the very minimum, that any plantings arise from locally sourced native material of local provenance and origin.

**BI O54** - Promote the provision of Green Roofs and/ or Living Walls in developments where expansive roofs are proposed.

**BI A23** - Showcase good examples of Sustainable Urban Drainage Systems (SuDs) which maximise amenity and biodiversity through the use of systems such as (but not limited to) swales, rain gardens as part of local authority developments. The first step in this approach will be that existing established native vegetation should be left *in situ*, wherever possible. Where additional measures are necessary, the preferred option in employing these techniques will be to allow natural recolonization, or at the very minimum, that any plantings arise from locally sourced native material of local provenance and origin.