Welsh Government's Approach to Net Benefits for Biodiversity and the DECCA Framework in the Terrestrial Planning System

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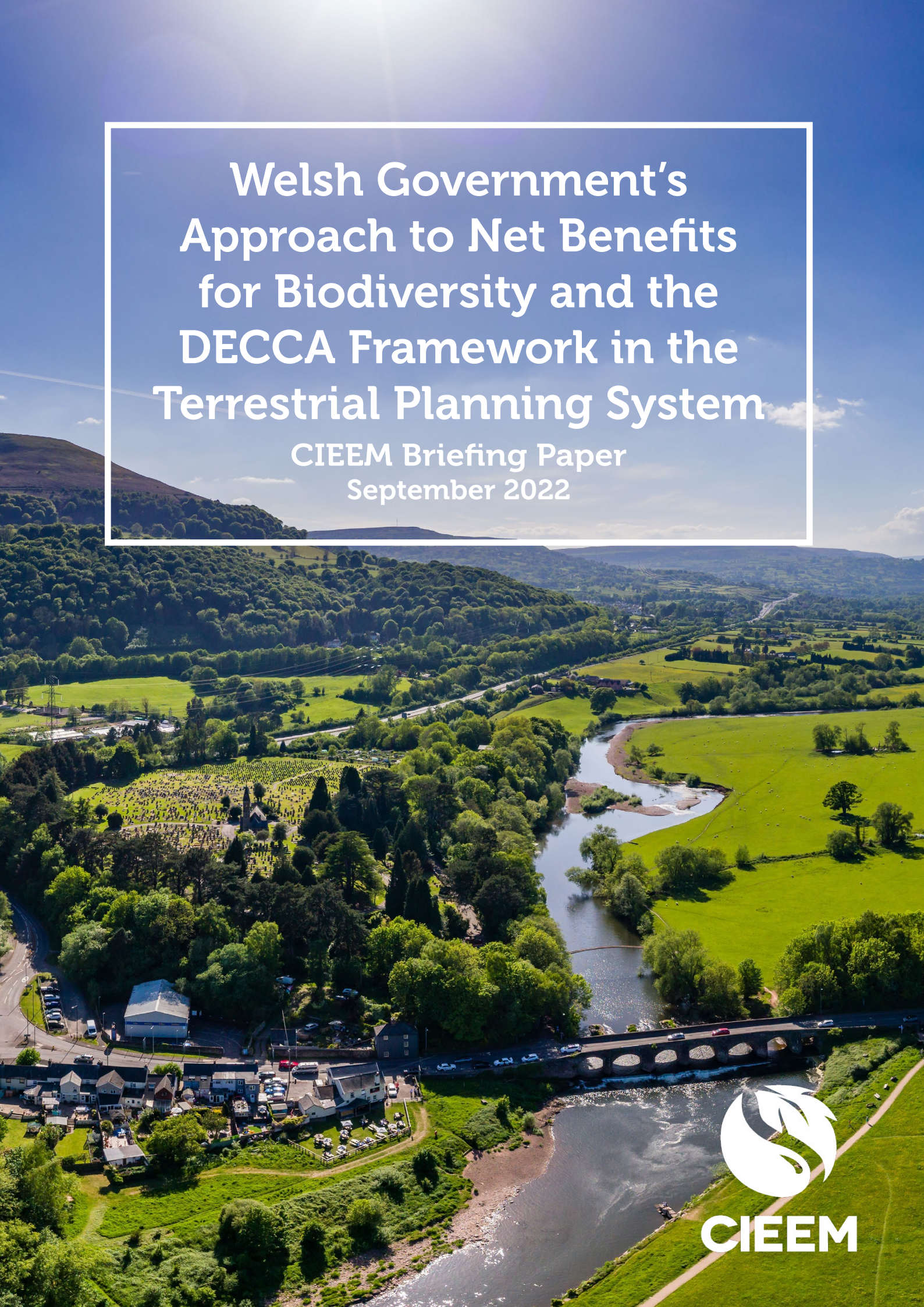

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Introduction

Purpose of this briefing

Due to the devolved nature of environmental policy and legislation in the UK, a variety of approaches are being taken to achieving nature recovery. This briefing paper seeks to inform ecologists and environmental managers of the broad terrestrial planning policy landscape in Wales, Welsh Government's approach to delivering net benefits for biodiversity and key considerations for ecologists and developers in submitting planning proposals. CIEEM has worked with the Welsh Government to produce a separate advice note on the process of delivering biodiversity enhancements. This has yet to be published but will be a valuable extension of this information document.

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Background

In recent years, there has been growing recognition of the fact that we can no longer just try to protect and conserve nature; we must rapidly restore habitats and species populations to address the biodiversity crisis, both for nature's intrinsic value and for the tangible benefits that it has for society and the economy.

There have been promising shifts in policy and legislation, with Governments from UK devolved nations committing to expand the areas of land protected to 30% of land cover by 2030[1], committing to deliver legally binding targets for nature's recovery[2], bringing forward new agricultural payment schemes with a focus on public money for public goods (such as improved air and water quality, biodiversity etc.)[3], and reforms of planning policies to deliver positive effects on biodiversity[4].

How does Wales differ (or not) from other UK nations?

In England, the Environment Act 2021 mandated a 10% net gain in biodiversity for all new developments (with specified exemptions), with habitats secured for a minimum of 30 years through planning obligations or conservation covenants. The key feature of the 'net gain' approach is that it is measured using a metric developed by Natural England[5]. The metric uses habitat features including the size of the habitat, its distinctiveness, condition, quality, strategic significance and location, to determine how many biodiversity units are available. The developer must then use the mitigation hierarchy to avoid, mitigate and compensate losses to achieve an overall 'no net loss', and then deliver at least a 10% gain in the metric biodiversity units value to meet the Environment Act requirements. This provides a quantitative approach to biodiversity net gain.

CIEEM, together with CIRIA and IEMA, has published guidance on the Biodiversity Net Gain approach[6]. A British Standard (BS8683) has also been published[7].

The net-benefits for biodiversity approach by Welsh Government has the same intent – to deliver an overall improvement in biodiversity - but does not utilise a metric. Instead, it puts the emphasis on proactive consideration of biodiversity and wider ecosystem benefits within a placemaking context early in the design process[8]. The aim is that the planning system will encourage the use of high calibre ecological expertise and early discussions with planning teams to design developments on a case-by-case basis that positively impact ecosystem resilience. There is no mandatory length of time that management is required for in Wales.

There have been cases of Local Authorities in Wales receiving a completed metric calculation as part of a planning application. Ecologists and developers should note that the metric approach is not designed to meet Welsh legislative requirements, for example encompassing ecosystem resilience. A metric can be submitted to provide evidence and a supplementary overview if preferred, but will not necessarily demonstrate compliance with planning requirements. Local planning authorities will be considering whether a net benefit for biodiversity has been secured.

The approach in Scotland has similarities to Wales. The draft National Planning Framework 4, due to be finalised this year, states "*development proposals should contribute to the enhancement of biodiversity, including restoring degraded habitats and building and strengthening nature networks and the connections between them.*" The document makes clear this should take place after the mitigation hierarchy has been applied. As in Wales, Scottish Government has not adopted a metric-based approach, again emphasising the design stage. However, at the time of writing, Scottish Government is still consulting on proposals for how "positive effects for biodiversity" will be delivered.

In Northern Ireland, the approach is also similar. The Wildlife and Natural Environment Act (Northern Ireland) 2011 places a statutory duty on public bodies to "*further the conservation of biodiversity when carrying out their functions... and to look for opportunities to enhance or restore biodiversity, or provide an educational input to others about biodiversity.*"[9] Implementing this duty requires new projects to follow the mitigation hierarchy and set out how habitats will be conserved, mitigated or compensated for in an action plan. Any additional enhancements should also be included.

The current policy and regulatory landscape in Wales

In 2016, the Environment (Wales) Act was introduced to put in place the legislation needed to plan and manage Wales' natural resources in a sustainable and joined-up way and is intended to work alongside the Well-being of Future Generations Act. The Environment Act brought in a new duty to replace the existing biodiversity duty (in the Natural Environment and Rural Communities Act 2006) which required public authorities to have regard to conserving biodiversity. The new Section 6 duty takes this further, requiring all public authorities, when carrying out their functions in Wales, to seek to "*maintain and enhance biodiversity*" where it is within the proper exercise of their functions. In doing so, public authorities must also seek to "*promote the resilience of ecosystems*".

Planning and development is a key area impacting nature's recovery and in which the Section 6 duty should be applied. The duty is referenced throughout the national planning policy guidance, Planning Policy Wales, which states "*Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity. In doing so planning authorities must also take account of and promote the resilience of ecosystems...*"[10] Future Wales (the national development plan) contains Policy 9 – Resilient Ecological Networks and Green Infrastructure, a high bar strategic policy that aims to further advance and mainstream biodiversity and ecosystem resilience within the planning system. Welsh Government now requires strategic action to safeguard ecological networks and secure biodiversity enhancement.

Strategic action should be taken in Strategic Development Plans (SDPs), which are development plans spanning several local authority boundaries, sitting between Future Wales (the national development plan) and Local Development Plans. The Local Government Elections (Wales) Act 2021 established four Corporate Joint Committees (CJCs) to prepare four SDPs covering the whole of Wales. The ability to consider broader issues within a SDP framework, including ecological networks and ecosystem resilience, in a cohesive and consistent manner should provide for a more effective and efficient approach to delivering positive biodiversity outcomes. Furthermore, all SDPs and Local Development Plans prepared in Wales have to be in general conformity with Future Wales.

Wales also has a key piece of overarching legislation called the Well-being of Future Generations (Wales) Act, introduced in 2015, that requires national government, local government, local health boards and other specified public bodies to carry out sustainable development and work towards objectives that contribute to seven well-being goals. Sustainable development in the Act means "*the process of improving the economic, social, environmental and cultural wellbeing of Wales by taking action, in accordance with the sustainable development principle (i.e. not compromising the ability of future generations to meet their needs), aimed at achieving the well-being goals.*"The seven wellbeing goals are:

- A Prosperous Wales
- Resilient Wales
- Healthier Wales
- More Equal Wales
- Cohesive Communities
- Vibrant Culture and Thriving Welsh Language,
- Globally Responsible Wales[11]

In 2019, Welsh Government's Chief Planner issued a letter to the Heads of Planning[12] to set out how biodiversity enhancements[13] should be secured as part of a development proposal. The letter states that development applications which do not propose biodiversity enhancements will be refused unless they include other significant material considerations. The letter also reiterates the importance of incorporating biodiversity enhancements into development proposals at the earliest possibility and into local development policies.

The intent of the above is for positive management of Wales' ecosystems and increasing resilience to become standard within development. The development should contribute to and not erode biodiversity, ecosystem resilience and the ecosystem services of the site and wider ecosystem. The onus on the developer will be to demonstrate how the development will deliver this, including evidence of site management and the resources to do this for as long as is necessary. Development proposals should have regard to broader strategies such as Green Infrastructure Assessments to ensure it works within the wider landscape. We want to move away from development and practices that damage biodiversity and then seek to mitigate that damage.

Welsh Government will soon be publishing advice on achieving net benefits for biodiversity, drafted in collaboration with CIEEM, which aims to assist local planning officers with addressing the Planning Policy Wales 11 requirements and sets out possible measures that can be implemented as part of a planning proposal. This is not intended to be a replacement for competent ecological advice, which this briefing document will make clear is essential to implementing the Net Benefits for Biodiversity (NBB) approach, but to provide a starting point for ecologists, developers and local authorities to incorporate NBB in an efficient way.

Natural Resources Wales (NRW), the regulatory and advisory body for issues relating to the environment in Wales, also has a duty to ensure that the environment and natural resources of Wales are sustainably maintained, sustainably enhanced and sustainably used. Article 4 of the Natural Resources Body for Wales (Establishment) Order 2012 sets a general purpose for NRW to pursue the sustainable management of natural resources (SMNR) in the exercise of its functions. In order to achieve this, NRW applies a set of 9 principles: adaptive management, scale, collaboration and engagement, public participation, evidence, multiple benefits, long term (consequences of actions), preventative action, and building resilience[14]. Importantly, the objective of SMNR is to maintain and enhance the resilience of ecosystems and the benefits they provide and, in so doing, meet the needs of present generations of people without compromising the ability of future generations to meet their needs, and contribute to the achievement of the well-being goals of the Well-being of Future Generations (Wales) Act 2015.

A key part of NRW's work is providing expert advice for planning authorities and developers on the likely environmental effects from development proposals, through which the above principles will be applied.

As mentioned previously, this briefing does not cover the marine environment which operates under a different legislative context. NRW has produced a useful summary of this area[15].

Image credit: Mandy Marsh

The DECCA Framework and Net Benefits for Biodiversity

The Environment (Wales) Act, the Well-Being of Future Generations Act and the Chief Planner's letter frame biodiversity with respect to its contribution to achieving ecosystem resilience. Natural Resources Wales (NRW) has developed a framework for evaluating ecosystem resilience based on five attributes and properties specified in the Environment (Wales) Act. This is referred to as DECCA: Diversity, Extent, Condition, Connectivity and Aspects of ecosystem resilience.

The attributes provide a framework for considering the state of ecosystem resilience in Wales and can be applied across different habitats and land uses and for a range of different scales.

NRW works to the definition of ecosystem resilience published in its State of Natural Resources Report in 2020, which is: "*An environment that can respond to pressures by resisting, recovering or adapting to change; and is able to continue to provide natural resources and benefits to people*."[16]

When assessing planning applications, Planning Policy Wales instructs planning authorities to take account of and promote the resilience of ecosystems, in particular the five attributes of ecosystem resilience. The DECCA attributes are explained further in NRW's *Terrestrial and freshwater Resilient Ecological Networks: a guide for practitioners in Wales*[17], but as a broad summary, the definitions are as follows:

- Diversity: maintaining and enhancing diversity at every scale, including genetic, structural, habitat and between-habitat levels. This supports the complexity of ecosystem functions and interactions that deliver services and benefits.
- Extent: incorporating measures which maintain and increase the area of semi-natural habitat/features and linkages between habitats. In general, smaller ecosystems have reduced capacity to adapt, recover or resist disturbance.
- Condition: The condition of an ecosystem is affected by multiple and complex pressures acting both as short term and longer term types of disturbance. Both direct and wider impacts should be considered, for example avoiding or mitigating pressures such as climate change, pollution, invasive species, land management neglect etc.
- Connectivity: This refers to the links between and within habitats, which may take the form of physical corridors, stepping stones in the landscape, or patches of the same or related vegetation types that together create a network that enables the flow or movement of genes, species and natural resources. Developments should take opportunities to develop functional habitat and ecological networks within and between ecosystems, building on existing connectivity.
- Aspects of ecosystem resilience (adaptability, recovery and resistance): ecosystem resilience is a product of the above four attributes. Adaptability, recovery and resistance to/from a disturbance are defining features of ecosystem resilience.

What does this mean for ecologists and developers?

The focus on ecosystem resilience in the legislation and policies outlined above seeks to address the broader issues affecting biodiversity and ecosystem services, as well as the individual developmental impacts. **Ecologists are therefore encouraged to take a whole system approach when conducting assessments including an understanding of:**

- **the biodiversity value of a site**
- **its ecosystem resilience (using DECCA)**

- **the ecosystem services or benefits provided, and**
- **its existing and potential linkages with the wider green infrastructure network – before and after as a result of the development proposal.**

The NRW Ecosystem Resilience Field Guide[18] offers a useful summary of both simple and more ambitious examples of actions that can be taken to increase resilience, and what Wales could look like in 2050 if implemented properly. For example, a priority action identified for towns and cities in Wales is "*providing more accessible biodiverse green and blue space, for example through Green Infrastructure Strategies*".

NRW's Resilient Ecosystem Networks handbook[19] sets out a series of broader 'rules of thumb' for each of the DECCA attributes to improve resilience, for example one of the rules of thumb under 'Diversity' is to "*target areas of important habitat potential in the intervening land-use matrix.*" Appendix 1 of the document also provides a useful checklist and helpful resources in developing Resilient Ecological Networks.

Demonstrating Net Benefits for Biodiversity

Any planning proposal must demonstrate that it has both maintained and enhanced biodiversity and built resilient ecological networks. Biodiversity enhancements that achieve NBB must be delivered following (i.e. additionally to) implementation of the stepwise approach of firstly avoiding, then minimising, mitigating and as a last resort compensating for, adverse impacts on the environment in a development. Finally, where the adverse effect on the environment clearly outweighs other material considerations, the development should be refused. This process is detailed in Planning Policy Wales (para. 6.4.21, p. 142).

A net benefit for biodiversity can be achieved through a range of actions, ranging from bat and bird boxes to large-scale creation, and/or restoration or long term management of habitats. The Chief Planner's letter highlights that this does not "*need to be onerous*", and should be **proportional** to the extent and impact of development, to contribute to a bigger, better, more joined up approach to a resilient and biodiverse ecological network in Wales. This will mean some small or low impact developments can deliver NBB relatively easily, others will need to invest in delivering land area for NBB and long-term maintenance of habitats.

The policy puts emphasis on the outcome, not the process. This provides the opportunity for creative and empowering solutions, developed collaboratively between developers, ecologists and other specialists such as landscape architects, to enhance placemaking and other benefits such as health and wellbeing, climate adaptation, access to green space etc. In any case, a key requirement is that the measures put forward are suitable in the local context of the site and make a genuine contribution to ecosystem resilience. This can be assessed by referring to the Local Biodiversity Action Plans to check priority habitats and species, and checking local species records and other information from Local Environmental Records Centres as part of a preliminary ecological appraisal[20]. They should not just be selected based on lowest cost or a quick tick-box exercise.

This approach also encourages consideration of features that may not necessarily be protected, but are crucial for ecosystem functioning, leading to more joined up spaces for nature.

As highlighted by the stepwise approach, compensation should only be considered as a last resort, where it has been demonstrated clearly that adverse effects on the environment cannot be avoided or fully mitigated. Following that, compensation must be delivered on-site where possible but off-site compensation can be sought if demonstrated that this is not possible. Compensation should be on a like-for-like basis where possible. Habitats which

require creation can take many years to obtain the same biodiversity as those which are well established and some habitats, for example ancient woodland and lowland bog that cannot be recreated in a reasonable timescale and as such are irreplaceable[21]. To ensure net benefits are achieved, compensatory habitat may need to be significantly larger than that lost as a result of development. Offsite compensation should be strategically planned to maximise benefits, for example using habitat opportunity maps and Green Infrastructure strategies.

Swansea Council's Supplementary Planning Guidance provides a useful timeline of the stepwise approach for a planning proposal, and how NBB and ecosystem resilience fit into the planning system[22]. However it is important to check local guidance.

How to maximise Net Benefits for Biodiversity

It is necessary to reiterate **the importance of incorporating assessments of impacts on biodiversity and wider ecological features, and plans for achieving NBB, at the earliest opportunity** and using industry best-practice guidance for ecological assessments[23]. This will help prevent unnecessary delays (and costs associated with these), improve the quality of plans and identify any issues with proposals that might mean they do not meet requirements early on so they can be addressed. This is best achieved by seeking collaborative input from the Local Authority, design teams and competent ecologists ahead of proposal submission to provide a baseline assessment of the existing biodiversity and ecosystem resilience and relevant ecosystem services, identify any survey needs and timescales, potential legislation breaches, and how to integrate biodiversity and resilience measures into plans while being drawn up (rather than retrospective changes). The outline planning stage should have a well-designed master plan including biodiversity measures that guides the rest of the project.

As part of the approach in Wales developers are strongly encouraged to consider the benefits of incorporating measures for biodiversity and ecosystems, such as grey water management and soft sustainable drainage systems, more valuable spaces and positive effects on the community. Also, considering how the development could contribute to this as part of the wider green infrastructure and resilient ecological networks (see the requirement for local authorities to prepare a Green Infrastructure Assessment, PPW 6.2.6). In taking this approach, it is hoped that developers will not see biodiversity and other ecosystem measures as an add on to get planning permission, but instead investing in ecosystem management as one of their key goals. Maintaining and enhancing biodiversity and resilient ecosystems needs to be one of the key outcomes of the development and not an add on.

One way in which developers can maximise these benefits is by considering them at the land purchase stage. Area Statements[24], produced by Natural Resources Wales, set out the natural resources present in each of seven areas covering Wales, opportunity maps for building ecosystem resilience where available, the benefits these provide, and the main challenges and opportunities for these natural resources. Area Statements could be used to broadly inform what type of land could be scoped for purchase, followed by checks of designated sites, semi-natural habitats, Green Infrastructure Assessments and habitat networks, to identify land that can deliver the most benefits for biodiversity or other ecosystem services and reduce risks of negative impacts on existing high-biodiversity/ecosystem service value areas.

Key considerations in implementing NBB

The use of ecological expertise is essential to the Welsh Government's approach to NBB. When advising on a development proposal in Wales, there are a few key considerations ecologists/ environmental managers should make.

To reiterate a crucial point from the above - ecologists are encouraged to take a whole system approach when conducting assessments.

Ecologists will need to have a good understanding of the site and its relationship with the local and wider landscape. This includes biodiversity (including priority habitats and species), geodiversity, landscape character, relevant protected areas and the influence of the cultural and historical environment.

Developers must have regard to Section 7 habitats and species, Area Statements and the State of Nature Resources Report. Due to the high level nature of these documents, it is also important to check other local strategies such as Local Biodiversity Action Plans, Green Infrastructure Assessments etc. in choosing enhancements and describing their appropriateness for the local area. The latest State of Natural Resources Report[25] describes the main pressures on ecosystems and natural resource stocks across Wales, while Current Relative Ecosystem Resilience (CuRVE) maps show patterns of relative resilience resolved at a scale of one-kilometre square[26], and Habitat Network maps[27] (both produced by NRW) are a key resource for informing interventions to improve ecological connectivity for resilience measures. Wales' Nature Recovery Action Plan is also a useful resource to cross reference[28].

Proportionality is key – there is a risk that developments will default to simple measures that a simple, small-scale development might be required to deliver. How proportionality is interpreted consistently across Local Planning Authorities and between developers is a key consideration which would greatly benefit from further guidance.

NRW's Resilient Ecological Networks handbook, developed for defining resilient ecological networks expands on the above, providing a useful checklist with links to resources that can be considered (Appendix 1 of the handbook). Checklists include:

- Important legislation and policy documents
- Evidence to describe place
- Strategies and plans
- Environmental standards and good practice
- Guidance on stakeholder and public engagement
- List of pressures and drivers for environmental change
- Ecosystems services

An assessment of the impacts on DECCA attributes will then be needed. As previously mentioned, this approach requires an assessment of features that are of importance in terms of habitat and/or connectivity, not just those that are protected or priority. This will include (but not exclusively) habitats that act as corridors or stepping stones, buffers surrounding protected sites, management of invasive non-native species in addition to internationally protected and locally designated sites, and protected and priority species. IUCN have published useful guidelines for conserving connectivity through ecological networks and corridors[29].

Once the measures have been designed to achieve NBB and improved ecosystem resilience, the final essential steps are developing long term management (maintaining the habitat for as long as is necessary depending on what is beng secured) and monitoring plans that are proportional to the scale and impact of the development. Monitoring plans should identify key measures of success, and what rectification actions will be taken by who if these success measures are not met. Management plans should clearly set out timescales and responsibilities for all stakeholders involved. NBB measures should aim to be designed in such a way that minimal maintenance is required, they are climate change resilient, and that opportunities for destruction, damage or removal of features should be reduced as far as possible.

Developers and Local Authorities will ultimately need to:

- Ensure that any conditions and legal obligations attached to the NBB concerning detailed design, implementation and monitoring of the project are carried out.
- Ensure that public scrutiny, and stakeholder engagement, are satisfied with the outcome of the design that incorporates NBB, and involved at each step of the process.
- Ensure proposed reporting required to fulfil the NBB, and auditing procedures are in place from the outset, and these are reviewed by a competent ecologist, the local authority and stakeholders if necessary.

Challenges

Since the introduction of the planning requirement to deliver NBB, there have been some key challenges. One of which is the lack of wider understanding of the need to go beyond the minimum requirements of mitigation/no-net loss of biodiversity. The need for high quality applications that seek to achieve real net benefits should be promoted widely to developers and their design teams. It is also important that ecologists working in Wales are aware of the differences to approaches in other countries and the additional requirements regarding ecosystem resilience.

The need for a quality master plan and agreements on NBB early in the process becomes even more apparent in phased developments. Difficulties arise when ecologist teams need to pick up the work of others for a later phase if there is no clarity on how the enhancements will be delivered. On the other hand, NBB should be able to accommodate changes over time where needed to achieve the overall aim of enhancing biodiversity ecosystems and their ecosystem services. For example, in phased developments, where there is a long period of time between phases, valuable habitats could develop changing the ecological baseline, potentially impacting NBB outcomes. As such, additional NBB information may be needed, including a strategy for how it will be delivered and tracked on a phase-by-phase basis.

Additionally, communication has been shown to be a significant issue in practice, for example the implementation of reporting requirements not being delivered correctly on site, with instructions set out not adhered to by contractors, which could lead to breaking wildlife law.

The more flexible approach to delivery also raises the possibility of inconsistencies amongst Local Authorities. This poses a risk of legal challenges and further costs. One way to address this could be through an overarching NBB ‘checklist’ produced by Welsh Government that sets out minimum standards for delivery for all Local Planning Authorities. A consistent checklist or other method is also needed for Local Authorities to decide whether offsetting will be allowed if a developer claims they are unable to deliver NBB onsite or would be beneficial on a landscape scale, and what constitutes significant material considerations that would mean it is not refused.

Local Authorities must ensure the approach to NBB is compatible with local planning policy which emphasises design of green infrastructure-led schemes that seek to deliver multifunctional benefits and ecosystem services.Enforcement of obligations and long-term management can also be difficult without sufficient resources within Local Authorities.

The following are crucial parts of delivering NBB and mitigation more generally that should be considered by the development team to help address the above challenges:

- Providing the location and extent of the proposed net benefit (or mitigation) measures on a scaled plan that can be used and scrutinised against by a wide range of stakeholders, local authority, NGO etc.
- Provide adequate details of how any habitats or features will be established and maintained.
- Providing a clear and concise timetable for implementation of net benefits (or mitigation) that is integrated within each phase of development e.g. construction, operation, decommissioning.
- Details of how the proposed ecological measures and or net benefit will be funded, and how the financial agreements will be set up, are clearly demonstrated and available to the public.
- Providing a clear provision on the availability and security of land to implement net benefits and or mitigation from the outset.
- Providing a clear statement on how net benefits and or mitigation will be secured within the planning process or consent process.
- Providing a robust (and proportionate) monitoring and rectification framework for the biodiversity, ecosystem resilience attributes and ecosystem services provided by the new development.

Case Studies

In 2021, the North Wales Wildlife Trust commissioned a study into taking forward Welsh Government's planning policy to secure net benefit for biodiversity, with a focus on how to secure off-site measures if required to achieve policy compliance. The report[30] includes a series of case studies on (some real, some fictional) to illustrate how NBB would be applied in that instance. Case studies range from small to large scale and highlight some of the practical difficulties set out above.

Monmouthshire County Council in 2022 have prepared a guidance note (pictured below) for householders on biodiversity net benefit. It is primarily a note for planning applicants with applications in the local authority area that fall into the Householder category which can include proposals such as extensions, but the local authority note that it may also be useful for other minor planning applications such as conversions. It is intended that the guidance will form a technical guidance note as part of Monmouthshire's Biodiversity Supplementary Planning Guidance to the Replacement Local Development Plan; it will shortly be published on the MonLife website.


Image credit: Mandy Marsh

Other Resources

- Biodiversity and resilience of ecosystems duty (section 6): guidance for public authorities
- Terrestrial and freshwater Resilient Ecological Networks: a guide for practitioners in Wales 2021
- Sanderson Bellamy, A., J. Latham, S. Spode, S. Ayling, R. Thomas, and K. Lindenbaum. (2021) A framework for ecosystem resilience in policy and practice: DECCA. *Ecology and Society*, 26(4):31. https://doi.org/10.5751/ES-12865-260431
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