

Cardiff Replacement LDP Examination

Natural Environment

Action Point HS8.1

Council to draft a new Policy SPXX to embed step wise approach and ensure LDP is in general accordance with national policy.

Suggest BG4 is the foundation for this, elevated to a strategic policy.

Action Point HS8.2

Council to review and redraft SP3, SP4, SP21, BG1, NG2, BG3, BG5 and BG6 to align with and complement the new Policy SPXX.

SPXX to set out stepwise and, with the exception of SSSIs (BG1) the BG policies to indicate where it has been demonstrated there are no alternative sites for the proposed development and avoidance is not possible, development must demonstrate it has minimised, mitigated or compensated as appropriate.

- i. For SP3 & SP4, to ensure stepwise influences master planning and design at the outset,*
- ii. Amend Policy BG1 to reflect national policy. development not necessary for the management of a SSSI should only be permitted in wholly exceptional circumstances.*
- iii. The amendment to BG5 to include the additional (last) sentence added by the Council in the Hearing statement.*
- iv. Amend 7.376 & 7.377 as suggested by the Council in the Hearing statement.*

Amend Policy BG6 to indicate where there are no alternatives and avoidance is not possible, mitigation and enhancement is required to achieve public benefit.

Council Response

In response to these Action Points the Council propose the following amendments to plan:

- (1) Proposed amendment to SP3 Ensuring a Master Planning Approach in Point iii to embed the Step Wise Approach:

iii. **Establish an integrated framework for:**

- **land uses and density;**
- **strategic active travel, movement networks and connectivity;**
- **green infrastructure networks, ecosystem resilience and public spaces;**
- **community facilities and neighbourhood centres;**
- **the timely provision of supporting infrastructure and utilities;**
- **landscape, ecology and following the step wise approach to biodiversity;**
- **heritage, culture and the Welsh language;**

- the creation of areas of distinctive character; and
 - the phasing and delivery of development;
- (2) Proposed amendment to SP4: Securing Good Quality and Sustainable Design Point ii to embed the Step Wise Approach:
- ii. **Nature, Green Infrastructure and Climate: Minimise energy demands in construction and use and apply the step wise approach to biodiversity, ensure ecosystem resilience, integrate and enhance green infrastructure, connected habitats, biodiversity, sustainable drainage and climate-responsive design as fundamental components of development, supporting environmental enhancements and resilience, low-carbon living and adaptation to climate change.**

(3) Add New Policy SPXX incorporating BG4

New Policy SPxx: Step-wise Approach, Green Infrastructure and Net Benefit for Biodiversity

Development proposals must maintain and enhance biodiversity, promote ecosystem resilience and deliver a net benefit for biodiversity having regard to the DECCA principles of Diversity, Extent, Condition Connectivity and Adaptability.

Development proposals must demonstrate, through a Green Infrastructure Statement proportionate to the scale and nature of the development how biodiversity, ecosystem resilience and green infrastructure have informed site selection, layout, design, construction and long-term management.

Development must apply the Step wise approach to biodiversity by:

- 1. Avoiding adverse impacts on biodiversity, ecological features and green infrastructure.**
- 2. Minimising impacts that cannot be avoided. Where impacts are demonstrated to be unavoidable harm must be minimised through on site mitigation design measures.**
- 3 Mitigating and restoring biodiversity features, where avoidance and minimisation is unavoidable on site where ever possible.**
- 4 Providing Compensation measures only where significant residual impacts remain after avoidance, minimisation and mitigation and restoration.**
- 5 Provide biodiversity enhancement measures.**
- 6 The provision of a long-term management that covers all steps outlined above.**

Cardiff faces a climate and nature emergency. Planning Policy Wales requires development to maintain and enhance biodiversity, promote ecosystem resilience and secure a Net Benefit for Biodiversity. Protecting, restoring and enhancing biodiversity

and green infrastructure is fundamental to creating healthy, resilient and sustainable places.

Biodiversity and green infrastructure considerations must be integrated into development proposals from the earliest stages of site selection and design to ensure that nature recovery, ecosystem resilience and climate adaptation are embedded throughout the planning process.

The Step-wise Approach provides the framework through which to secure a net benefit for biodiversity and the resilience of ecosystems from all development. The Step-wise Approach requires development proposals to first avoid impacts on biodiversity and green infrastructure before considering minimisation, mitigation, restoration or compensation. Compensation should only be considered where adverse impacts cannot reasonably be avoided and may occur on or offsite. The final stages of the Step-wise Approach of enhancement and long-term management are essential to achieving a Net Benefit for Biodiversity and ensuring that ecological gains are sustained over time.

Applicants must demonstrate how ecological constraints and opportunities have influenced site layout, design and delivery. Green Infrastructure Statements provide the principal mechanism for demonstrating compliance with this policy and should be proportionate to the scale and complexity of development.

Development must contribute positively to ecosystem resilience through consideration of DECCA principles of Diversity, Extent, Condition, Connectivity and Adaptability, which provide a recognised framework for maintaining resilient ecosystems.

Applicants must avoid undertaking pre-emptive site clearance prior to ecological assessment and preparation of a Green Infrastructure Statement. The Council will apply a precautionary approach when assessing biodiversity value in these instances and opportunities for delivering a net benefit for biodiversity and the resilience of ecosystem where habitat removal has occurred before adequate ecological assessment.

Further guidance on the preparation of Green Infrastructure Statements and application of the Step-wise Approach is provided in Supplementary Planning Guidance (SPG) and Technical Guidance Notes (TGNs).

- (4) Revise and combine Policy SP21: Maintaining and Enhancing Green Infrastructure and Biodiversity and BG2 Ecological Networks and Features of Importance for Biodiversity and rename Ecological Resilience and Nature Networks

Revised Policy SP21: Ecological Resilience and Nature Networks

Development proposals must protect, maintain and enhance ecological resilience and nature networks.

Development will only be permitted where it can be demonstrated that:

- **The diversity, extent, condition, connectivity and adaptability of ecosystems will be maintained and enhanced;**
- **Existing ecological networks, habitats, green infrastructure assets and ecological corridors and stepping stones have been protected and incorporated into the design of the development;**
- **Connectivity between habitats and species populations is maintained and enhanced and habitat fragmentation, loss of ecosystem function and the isolation of species populations are avoided;**
- **Appropriate buffers, corridors, stepping stones and other green infrastructure measures shall be provided where necessary to maintain and enhance ecological resilience; and**
- **Opportunities to strengthen ecological connectivity on and off site, habitat restoration and long-term ecological management have been maximised.**

Maintaining and enhancing ecological resilience is fundamental to addressing biodiversity loss, climate change and the long-term health of ecosystems. Resilient ecosystems support species recovery, ecosystem services and wider community well-being. Ecological networks and green infrastructure opportunities must be considered from the earliest stages of site design retaining existing ecological connections but also strengthen them where possible.

The DECCA principles provide a framework for demonstrating the resilience of ecosystems having regard to their; diversity, extent, condition, connectivity and adaptability and should be considered alongside green infrastructure planning and biodiversity enhancement measures.

Development should avoid habitat fragmentation recognising that ecological networks operate across administrative and site boundaries and maximise opportunities for habitat restoration, creation and improved ecological connectivity both within and beyond the development site.

Nature networks provide important ecological connections between designated sites, habitats and species populations, enabling wildlife to move, adapt and recover in response to climate change and other environmental pressures. Development should protect existing ecological connections and maximise opportunities for habitat restoration and improved connectivity at both the site and landscape scales. Habitats, watercourses, trees, hedgerows, grasslands and other green infrastructure assets all contribute to wider ecological connectivity.

Further guidance relating to ecological networks, corridor design, habitat buffering and ecological resilience is provided in supporting SPG and TGNs.

- (5) Revised Policy BG7 Severn Estuary and Cardiff Beech Woods Recreational Pressure and renumber BG1

Revised BG1: Recreational Pressure on the Severn Estuary and Cardiff Beech Woods

Development proposals that would result in an increase in visitor pressure on Cardiff Beech Woods SAC and the Severn Estuary SAC, SPA, Ramsar or functionally linked land associated with those sites, will only be permitted where it can be demonstrated that no adverse impacts on the integrity of the sites will occur or where appropriate strategic mitigation measures are secured in accordance with the Council's approved mitigation strategy and supporting guidance.

The Severn Estuary SAC, SPA and Ramsar Site and the Cardiff Beech Woods SAC are internationally important nature conservation sites protected under habitat legislation. Evidence prepared to inform the Plan and Habitats Regulations Assessment identifies recreational pressure as a source of significant effect on these designated sites that requires mitigation to address it.

Increased population growth, housing development and tourism can lead to more visitors using sensitive habitats and designated nature conservation sites. Increased recreational activities such as walking, dog walking, cycling, horse riding and informal recreation can cause direct and indirect impacts on protected habitats and species/qualifying species which can lead to habitat degradation, disturbance and loss of ecological function.

A Recreation Mitigation Strategy has been prepared to meet Habitats Regulations Assessment requirements when permitting residential and tourism development for both the Severn Estuary Site and the Cardiff Beech Woods to address the recreational impacts of new housing and tourism development on the sites. The Cardiff and the Vale of Glamorgan Joint Severn Estuary Recreation Mitigation Strategy identifies a 12.6km mitigation catchment to be applied within which development is considered likely to increase visitor pressure on the Severn Estuary and the Cardiff Beech Woods identifies a 6km mitigation catchment to be applied within which development is considered likely to increase visitor pressure on the Cardiff Beech Woods.

The Recreation Mitigation Strategies consists of two elements

- Strategic Access Management and Monitoring (SAMM) consisting of measures related to managing recreation pressure on and around the Severn Estuary and the Cardiff Beech Woods
- Green Infrastructure and Suitable Alternative Green Space (SANGs) to reduce recreation pressure on and around the Severn Estuary and the Cardiff Beech Woods

Where necessary, development will be required to contribute to strategic recreation mitigation measures, including visitor management, access management, habitat

protection and enhancement, the provision of alternative recreational opportunities, monitoring, and other measures necessary to maintain the integrity of protected sites and support ecological resilience.

Further detail on mitigation requirements, contribution mechanisms will be provided through supplementary planning guidance.

(6) Revise Policy BG1 Designated Sites and renumber as BG2:

BG2: Designated Sites

Development proposals must protect, maintain and enhance biodiversity, ecosystem resilience and the integrity of designated nature conservation and geological sites, including their supporting habitats, ecological functions and wider ecological network connections.

- **Development affecting an European designated site will only be permitted where it can be demonstrated, alone and/or in combination with other plans or projects, that there will be no adverse effect on the integrity of the site.**
- **Development affecting a nationally designated site, including a Site of Special Scientific Interest (SSSI) will only be permitted where it can be demonstrated that the special features, ecological value and functionality of the site will be maintained. Development that is not necessary for the management of the site should only be permitted in wholly exceptional circumstances. Where wholly exceptional circumstances are considered met, applicants will demonstrate that the need for and benefits of the proposal clearly outweigh the national importance of the site and that all reasonable measures have been taken following the Step-wise Approach for biodiversity.**
- **Development affecting locally designated sites, including Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves must avoid significant adverse effects on their biodiversity, geodiversity and ecological value. Development proposals must demonstrate application of the Step-wise Approach to maintain and enhance biodiversity and promote ecosystem resilience.**

Internationally and nationally designated sites represent the most important areas for biodiversity and geodiversity conservation. These designations include Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar Sites, Sites of Special Scientific Interest (SSSIs)

Development likely to damage the special features of an SSSI would not be permitted. Particular weight will be given to the protection of SSSIs and development that is not necessary for the management of the site should only be permitted in wholly exceptional circumstances. Applicants must demonstrate that the need for and benefits of the proposal clearly outweigh the national importance of the site and that all reasonable measures have been taken to avoid, minimise and mitigate adverse effects. Zone of

Influence/nature recovery zones impacts on ecological connectivity, ecosystem resilience and the role of SSSIs within wider nature networks will also be taken into account, as will indirect impacts such as recreational pressure, hydrological changes, pollution, fragmentation and cumulative effects.

The protection of all designated sites contributes significantly to the Council's duties under the Environment (Wales) Act 2016 and supports the objectives of Nature Recovery in Cardiff.

Locally designated sites form an important component of Cardiff's ecological network and contribute significantly to biodiversity conservation, ecological resilience and community access to nature.

Such sites include Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves (LNRs), and Regionally Important Geological Sites (RIGS).

Although local designations do not have the same statutory protection as national or international sites, they represent areas of significant ecological or geological value and are material considerations in planning decisions.

Development proposals should seek to avoid impacts on locally designated sites and where impacts cannot be avoided, demonstrate that appropriate mitigation and enhancement measures have been incorporated.

The Council will seek opportunities to strengthen local ecological networks through habitat restoration, enhancement and improved ecological connectivity.

Further guidance on designated site assessment and mitigation requirements is contained within supporting SPG and TGNs.

- (7) Revise Policy BG3: Priority Habitats and Species and rename Protected Habitats, Species and Species of Principal Importance

Policy BG3: Protected Habitats, Species and Habitats and Species of Principal Importance

Development proposals affecting protected habitats, protected species or Species of Principal Importance, or other habitats and species of recognised local ecological value will only be permitted where it can be demonstrated that:

- **There will be no unacceptable loss, deterioration, fragmentation or disturbance of protected habitats, habitats containing protected species, Habitats or Species of Principal Importance, irreplaceable habitats, species or ecological features that contribute to nature networks and ecosystem resilience.**
- **The favourable conservation status of species and the ecological integrity of supporting habitats will be maintained.**

- **Development resulting in the loss or deterioration of irreplaceable habitats, such as ancient woodland and ancient and veteran trees, will only be permitted in wholly exceptional circumstances and where consistent with national planning policy.**
- **Direct, indirect and cumulative adverse effects have been avoided through site selection, layout and design.**
- **the stepwise approach has been applied by seeking to avoid impact, minimising, mitigation/restoring and, where necessary, compensating, enhancement and long term management..**
- **A Net Benefit for Biodiversity is achieved for each.**

Cardiff contains a diverse range of protected species, habitats and Habitats and Species of Principal Importance, that together with other ecological features contribute to biodiversity, ecological connectivity, ecosystem resilience and the wider Nature Recovery Network. These include internationally, nationally and locally important habitats, legally protected species, Habitats and Species of Principal Importance and wildlife corridors that facilitate the movement of species across the landscape and those species which are of local value through geographical extent or population size. Protecting, restoring and enhancing these assets is essential to addressing the Nature Emergency, supporting climate resilience and delivering the well-being objectives of the Council.

Development can adversely affect habitats and species directly, indirectly or cumulatively and proposals must therefore be informed by appropriate ecological evidence proportionate to the nature, scale and location of development. Ecological assessments should consider not only individual habitats and species but also habitat condition, ecological function, connectivity and the role of sites within wider Nature Networks and resilient ecological networks.

Applicants will be required to demonstrate that the Step-wise Approach has been applied, giving priority to avoiding adverse effects before considering minimisation, mitigation, compensation, enhancement and long term management measures. Protected species or habitats, Habitats and Species of Principal Importance and those of local value should be considered at the earliest stages of project development to maximise opportunities for avoidance and minimise the need for mitigation or compensation.

In assessing proposals, particular regard will be given to maintaining and strengthening ecological connectivity, supporting Nature Recovery Networks and enhancing ecosystem resilience. Opportunities for habitat creation, restoration, enhancement and long-term management must be incorporated into development proposals to secure biodiversity benefits that support species recovery and ecological resilience.

The Council's Nature Recovery Action Plan, Biodiversity and Resilience of Ecosystems Duty reporting and associated technical guidance provide additional information on species and habitat priorities within Cardiff.

Policy BG5 Trees, Woodlands and Hedgerows

Development proposals should protect and enhance a sustainable urban forest.

Permanent removal of trees, woodlands and hedgerows or significant harm to trees, woodlands and hedgerows will not be permitted unless it is clearly shown that this will achieve significant and clearly defined public benefits and losses are compensated in accordance with National Planning Policy.'

7.375 Trees, woodlands and hedgerows offer multiple benefits, including: -

- Visual amenity.
- Defining a sense of place.
- As important cultural heritage or natural heritage monuments.
- Providing places for relaxation and recreation.
- Supporting biodiversity.
- Improving health and wellbeing
- Intercepting and storing pollutants.
- Intercepting and storing water.
- Carbon sequestration.
- Accretion of soil and soil organic matter.
- Protecting against soil erosion.
- Microclimatic amelioration.
- Mitigating the predicted impacts of climate change.

7.376 A sustainable urban forest will contain a diverse but balanced age range and species mix of trees, though large, long-lived trees will be favoured for protection and planting due to the increased benefits they offer in mitigating the predicted impacts of climate change. The selection of appropriate species for planting will be dependent on the local context – for example, in semi-natural contexts, locally native trees are likely to take precedence, whereas in highly urbanised contexts, non-native trees better adapted to climatic extremes may be more appropriate. A sustainable urban forest is key to the ambition to achieve 25% canopy cover by 2030.

7.377 To help determine if removal of and/or significant harm to trees, woodlands or hedgerows within or bounding a site will achieve significant and clearly defined public benefits, applicants must assess them in accordance with the current British Standard 5837, the Hedgerows Regulations 1997 and as part of wider Green Infrastructure Assessment in accordance with Planning Policy Wales Chapter 6. The assessments must inform rather than be informed by design. The Cardiff Council Green Infrastructure Supplementary Planning Guidance (Trees and Development Technical Guidance Note) provides further guidance on determining if removal of and/or significant harm to trees, woodlands or hedgerows within or bounding a site will achieve significant and clearly defined public benefits.

7.378 To prevent damage to trees, woodlands and hedgerows during development, schemes of protection will be required, in accordance with the current British Standard 5837. Veteran trees, ancient trees and ancient woodland require special protection measures to ensure that they are buffered against changes to the environment that may be detrimental to their health and/or their capacity to provide a habitat for other organisms.

7.379 Trees are the largest and longest living organisms in Cardiff. When considering developments that may affect them, regard will be given to potential short and long-term impacts. Where the loss of trees, woodland or hedgerows is unavoidable, compensatory planting (which is proportionate to the proposed loss as identified through an assessment of green infrastructure value including biodiversity, landscape value and carbon capture) will be required. Replacement planting shall be at a ratio equivalent to the quality, environmental and ecological importance of the tree(s) lost, and this must be preferably onsite, or immediately adjacent to the site, and at a minimum ratio of at least 3 trees of a similar type and compensatory size planted for every 1 lost. Where a woodland or a shelterbelt area is lost as part of a proposed scheme, the compensation planting must be at a scale, design and species mix reflective of that area lost. In such circumstances, the planting rate must be at a minimum of 1600 trees per hectare for broadleaves, and 2500 trees per hectare for conifers. The planting position for each replacement tree shall be fit to support its establishment and health and ensure its unconstrained long-term growth to optimise the environmental and ecological benefits it affords.

7.380 Although younger trees are more easily replaced, the Council will seek to ensure that sufficient young trees survive to maturity, having regard to the number of developments that may occur during their natural lifespan. Proposals that create spaces for larger tree species to grow to maturity will be favoured over proposals for scattered smaller trees.

7.381 Ancient woodland, semi-natural woodlands, individual ancient, veteran and heritage trees and ancient hedgerows are irreplaceable natural resources, and have significant landscape, biodiversity and cultural value. Such trees, woodlands and hedgerows must be afforded protection from development which would result in their loss or deterioration unless very exceptionally there are significant and clearly defined public benefits; this protection must prevent potentially damaging operations and their unnecessary loss.

(9) Revised Policy BG6 Soils

Policy BG6 Soils

Development proposals shall clearly evidence how they will protect and enhance important soil resources for the multiple benefits they afford. Permanent removal of, sealing of and/ or significant harm to the functionality of soils will not be permitted unless it is clearly shown that this will achieve significant and clearly defined public benefits.

7.382 Soils offer multiple benefits including: -

- A habitat for organisms.
- Climate regulation.
- Nutrient cycling.
- Provision of construction materials.
- Carbon sequestration.
- Flood regulation.
- Water purification and contaminant reduction.
- Foundation for human infrastructure.
- Protection of cultural heritage.
- Provision of food and fuel.

7.383 Long undisturbed or little disturbed soils such as those supporting grassland, woodland or other semi-natural vegetation, are very difficult restore, recreate or replace. Soil formation operates over a very long timescale and soils under semi-natural vegetation may've been undisturbed/little disturbed for thousands of years. Soils supporting agricultural crops may be disturbed/altered at least in the surface horizons, by ploughing and other practices, but nevertheless such soils typically still represent an important resource, and any functionality lost or damaged by agriculture can be more rapidly returned than a soil subject to compaction and contamination by construction processes.

7.384 New development shall emphasise the protection and restoration of in-situ soils rather than relying on importing soils or intensive soil remediation/amelioration. Imported soils and 'site won' soils salvaged from stockpiles are best described as 'soil forming materials' as they have not been subject to long-term pedological processes, or those processes have been disrupted due to excavation.

7.385 The overall impact of development on soils shall form part of a Green Infrastructure Assessment in accordance with Planning Policy Wales Chapter 6.

7.386 The sustainable management of soils shall be informed by a Soil Resource Survey in accordance with the Cardiff Council Green Infrastructure Supplementary Planning Guidance (Soils and Development Technical Guidance Note) and this shall inform the production of a Soil Resource/Soil Management Plan that sets out how the development will ensure compliance with this policy and how soils will be sustainably managed and

re-used. The Cardiff Council Soil Strategy provides further information on soils in Cardiff and best practice in sustainable soil management.

7.387 Where permanent removal of, sealing of and/or significant harm to the functionality of soils is unavoidable, full details of mitigation measures shall be presented to evidence how this will be compensated for. For example, the planting of long-lived woody vegetation can restore soil structure, organic matter and both accrete soil and reduce soil erosion. Active measures to de-compact soil mechanically may be appropriate in some cases, whereas in other cases a more passive approach may be appropriate involving the incorporation of mulches, organic matter, Biochar or allowing for natural succession so that soil decompaction and functionality return more slowly, allowing for ecological succession.

7.388 Where permanent removal of, sealing of and/or significant harm to the functionality of soils is unavoidable, full details of mitigation measures shall be presented to evidence how this will be compensated for. The nature of enhancement or remediation will depend on the site in question and nature of the problem, but some examples of mitigation measures to enhance or remediate soil include:

- The planting of long-lived woody vegetation including deep rooted trees to restore soil structure, organic matter and both accrete soil and reduce soil erosion.
- Mechanical decompaction may be appropriate in some cases, especially where subsoil is compacted, with the type of equipment and methodology used dependent on the nature of the problem and size of the site. Ripping soils with a tined ripping tool may de-compact subsoil where it has been compacted by construction operations. At a smaller scale, the injection of compressed air may be effective in breaking up compacted layers and this may be combined with vertical and radial mulching.
- The incorporation of surface mulches, organic matter, Biochar, microbial inoculants or soil faunal inoculants may increase soil biodiversity and/or improve soil structure.
- On some sites allowing for natural succession so that soil decompaction and functionality return more slowly, is appropriate. Different soil faunal and floral communities are likely to dominate at different successional stages and in general terms the later the successional stage, the higher the organic matter content of the soil. Management intervention may be required to prevent or slow succession to favour a particular species, or group of species.
- Ensuring there is strong connectivity between soils to be remediated and adjoining soils on land that is comparatively undisturbed, such as woodland or older grasslands. This will allow species to colonise the remediated soil naturally

though it must be recognised that some species such as earthworms are likely to colonise more rapidly than smaller, less mobile organisms such as mites, so the biodiversity and faunal composition of remediated soils will change over time, but may require very long timescales to achieve the complexity of a natural, undisturbed soil.