Integrating Green Infrastructure and Biodiversity Enhancement in development.

Good Practice Guide for Green Infrastructure Statements for larger developments

2025

CONWY
CYNGOR BWRDEISTREF SIROL
COUNTY BOROUGH COUNCIL

Mae'r ddogfen hon ar gael yn Gymraeg hefyd.

Context

In 2024 the Welsh Government updated the Planning Policy Wales.

Its aim is to make sure the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural wellbeing of Wales.

Part 6 of the policy says every new building project needs to send in a Green Infrastructure Statement.
It has guidance on Green Infrastructure (GI) and how to achieve a net benefit for biodiversity.

This guidance tells you more about green infrastructure and biodiversity enhancement design. It also sets out the Step-wise Approach.

Conwy County Borough Council wants to:

1. Protect, enhance, create and restore habitats to create a resilient wildlife and biodiversity network
2. Enable a thriving blue environment
3. Promote sustainable growth and economic development through GI
4. Encourage, enable and promote healthy lifestyles and enhance wellbeing
5. Improve connectivity

Green infrastructure is the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places. Green infrastructure is made up of parts that can work at different sizes or scales:

- **Landscape scale** — can include entire ecosystems such as wetlands, waterways and mountain ranges.
- **Local scale** — can include parks, fields, public rights of way, allotments, cemeteries and gardens.
- **Smaller scale** — can include individual urban interventions such as street trees, hedgerows, roadside verges, and green roofs/walls.

A net benefit for biodiversity means that any development should leave ecosystems and biodiversity in a much better state than before. This is done by securing immediate and long-term, measurable and demonstrable benefit, mainly on or preferably right next to the site.

Introduction

When is a Green Infrastructure Statement needed?

A Green Infrastructure Statement should:

- be submitted with all planning applications,
- be proportionate to the scale and nature of the development proposed
- describe how green infrastructure has been incorporated into the proposal.

It should be submitted with all outline, householder, and full planning applications.

If you want pre-application advice, we suggest sending us a draft of your Green Infrastructure Statement too.

Who should write it?

Someone with an overview of the whole project should fill out the Green Infrastructure Statement – this could be the applicant, agent or architect.

Preliminary site and ecological surveys and analyses should be used to inform the design and layout which can be discussed at pre-application stage. This way, officers can give advice and the design can be amended before an application is submitted.

When should it be written?

The Green Infrastructure Statement should be created in the early stages of a development to make sure a design idea meets the policy and goals of green infrastructure.

Ideally, preliminary site surveys and analyses should be used to guide the design and layout that is sent in at the pre-application stage. This way, officers can give advice before an application is sent in.

What should be in a Green Infrastructure Statement?

The Green Infrastructure Statement is an effective way of demonstrating positive multi-functional outcomes which are appropriate to the site in question. It must be used for demonstrating how the Step-wise Approach has been followed.

What is the Step-wise Approach?

Green infrastructure statements must show how decisions on design, siting, scale, density and other plans have thought about protecting biodiversity and used that to give the best outcomes.

The Step-wise approach helps planning focus on impact.

Avoiding impact

Are there ways to keep and improve existing habitats and species. There will be the need to demonstrate that reasonable alternatives which would result in less harm, no harm or benefit have been considered and can't be achieved.

Minimising impact

When location and siting options have been exhausted, there will be a requirement to minimise any impacts. This can be achieved by maintaining as much habitat as possible, retaining existing features and using innovative solutions to minimise damage.

Mitigating impact

Steps should be taken to reduce any loss and damage. Mitigation measures should be like for like in the case of priority habitats and species.

Compensate for impact

If there is damage or loss, compensation must be provided. This can include finding ways to create or restore a habitat.

Approach for Larger developments

Including more than 1 dwelling, larger conversions, new retail/commercial, camping/static sites, renewable energy [KS1] development, transport and flood/coastal defence schemes.

Proposals must be supported with a short Green Infrastructure and Biodiversity Statement that includes:

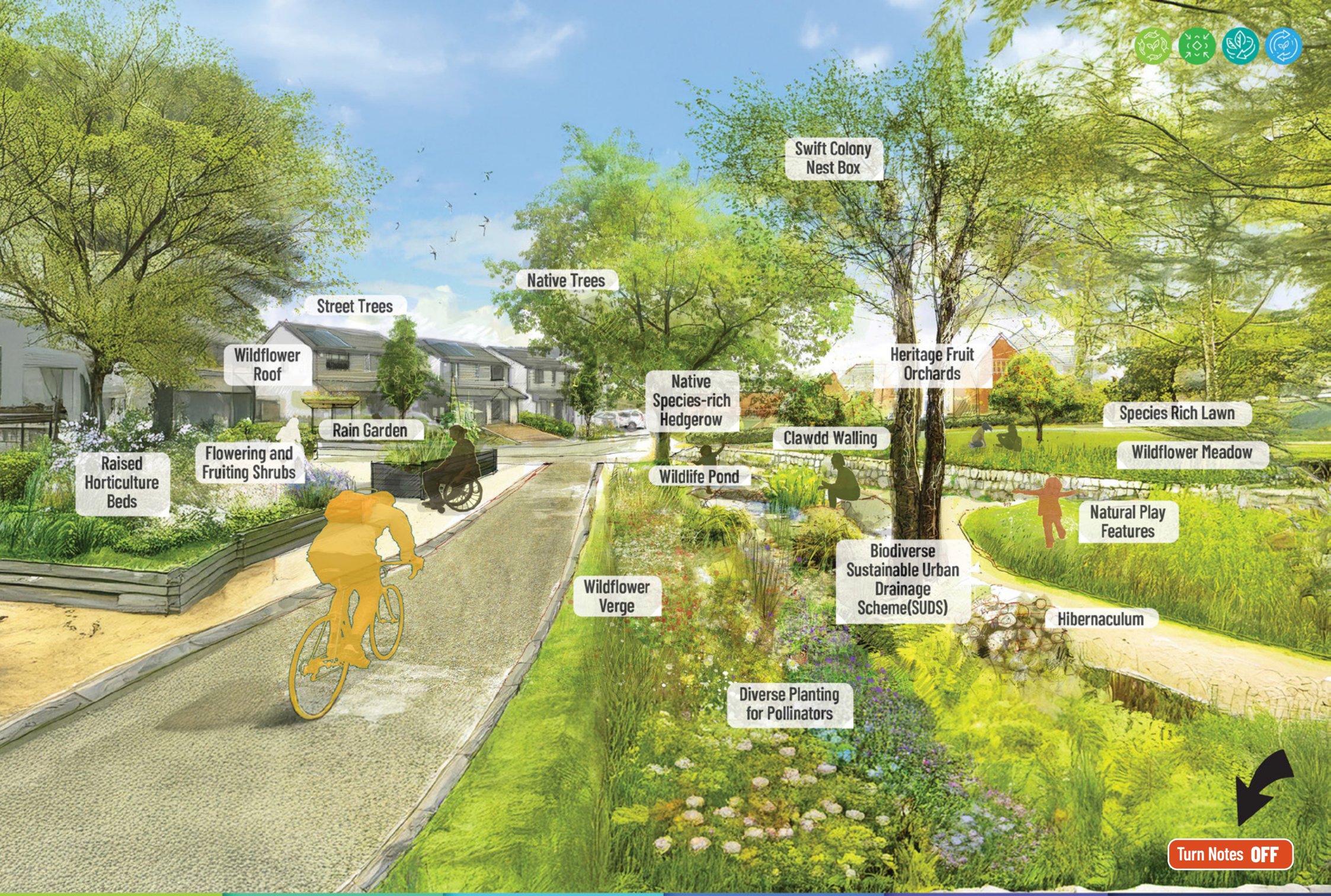
- Suitable preliminary surveys, screening, site analysis identifying impacts and opportunities including retention, enhancement and long-term management of ecological features e.g. bat roosts, bird nesting opportunities, woodland, trees, native hedgerows, meadows, ponds, habitat corridors; buffering hedges and watercourses, foraging/roosting/shelter areas.
- Application of the **Building with Nature Standards** Standards Form — Building with Nature. Buildings to include where possible: solar panels and air source heat pumps in line with carbon reduction policies, green walls or rooves, local dry-stone walls, rainwater harvesting, swift bricks, bat boxes.
- A **Biodiversity Statement** which outlines the step wise approach taken applying the DECCA principles to retain and avoid adverse impact to ecological features, within and around the site, and secure a net benefit for biodiversity.

- **A GIS** (Green Infrastructure Statement) outlining the GI assessment and proposals in and around the site which should include:
  - Improvement of retained existing features (for example, filling and widening hedgerows and maintaining a construction exclusion buffer zone within 3metres, creating scrub ecotones at woodland edges, improving existing habitat via appropriate conservation management plans – reduced grass cutting, coppicing, hedge-laying, woodland management, invasive non-native species control, enhanced connectivity to wider habitats and corridors.
  - Attractive places for rest/reflection/meeting (sculpture, picnic bench, and seating) diverse open space (Natural play space, community orchard/edible hedging/meadow/pond…) amongst housing for recreation/biodiversity/SUDS.
  - Long term management plan (covering 30 years unless otherwise agreed) containing annualised schedules of work to ensure the retention and effective management of green infrastructure clear responsibilities and funding mechanisms set out and objectives for monitoring, reviewing adapting where necessary and reporting.
  - Retaining and extending tree canopy cover through tree planting public open spaces, new gardens, streetscene. Natural regeneration may be encouraged adjacent to existing woodland.
  - Waterway corridor re-profiling/naturalising, removal of barriers to migratory species (installation of fish passes, removal of man-made structures), geomorphological interventions, natural revetment, streamside corridors with livestock fencing.
  - Structural and species diversity for the benefit of wildlife in soft landscaping to include but need not be restricted to: Standard trees, whips, shrubs, pollinator friendly hardy perennials hedgerows, heritage orchard, meadows, stumpery, varied substrate and raingardens.
  - Avoidance of peat use or disturbance to peat soils.
  - Minimal removal or import of topsoil. Substrate reuse as surface treatment providing varied topography and habitats. Soil management plan likely to be necessary for large development or where soil removal is proposed.
  - Green or brown roofs on garden sheds, cycle stores or waste storage areas,
  - Grass and wildflower verges, meadow creation and species rich lawned areas in residential setting.
  - Sustainable drainage schemes and rain gardens. Avoidance of open sump traps- add gulley pot ladders if unavoidable. Incorporation of wildlife curbs around open grids. Permeable paving and parking areas.
  - Wildlife ponds and wetlands.
  - Allotment provision in line with Council policy, with growing space and suitability considered and designed-in where possible.
  - Compost bins, refugia for reptiles and amphibians.
  - Bee bricks “bee-banks Permeable paving and parking areas.
  - Sensitive lighting schemes which only light required areas with ‘warm’ spectrum light colours <2700K, avoiding upward sky glow and where possible/appropriate use timers and/or movement sensors. Full cut-off units (illuminating the intended area with no spill), Include diversity of suitable luminere options; Solar ‘bat hat’ stud lighting and bollards. Include horizontal lux contour maps clearly indicating areas of semi natural habitats within application sites which will be maintained as ‘dark corridors ’free of artificial light spill (hedgerows/streams/meadow). (see national lighting guidance due end 2024 or ILP guidance in interim).
  - Active travel: consider links through and to the site, access points for non-motorised users, existing desire lines and PROW. Refer to cycle and walking audits in the Wales Active Travel Act Guidance appendices. Segregated active travel routes through larger sites and links/improvements to adjacent/local routes.

See examples on the next page

Note: Simultaneous applications or applications submitted adjacent to land likely subject to development should be assessed cumulatively and holistically. Logical active travel routes or habitat links should not be compromised or blighted by the more recent development or planning approval.


Swift Colony Nest Box
Bat Slates
Bat Brick
Native Trees
Universal Nesting Brick
Bat Roost Box
Wildflower Roof
Flowering and Fruiting Shrubs
Bird Nest Box
Solitary Bee House
Bug Hotel
Bee Bricks
Compost Bin
Hedgehog highways
Wildlife Pond
Hibernaculum
Rain Garden
Bee Bank
Wildflower Grassland
Species-rich Lawn
Turn Notes OFF


Swift Colony Nest Box
Native Trees
Street Trees
Wildflower Roof
Native Species-rich Hedgerow
Heritage Fruit Orchards
Species Rich Lawn
Rain Garden
Clawdd Walling
Wildflower Meadow
Flowering and Fruiting Shrubs
Raised Horticulture Beds
Wildlife Pond
Natural Play Features
Biodiverse Sustainable Urban Drainage Scheme(SUDS)
Wildflower Verge
Hibernaculum
Diverse Planting for Pollinators
Turn Notes OFF

Lighting

Two of the biggest dangers to biodiversity are habitat loss and fragmentation. Artificial Light at Night (ALAN) makes it harder for native species to move around because it creates barrier effects.

A Green Infrastructure and Biodiversity statement, appropriate surveys, site analysis and design should identify key ecological features and areas to be maintained free of artificial light spill.

Lighting schemes should be justified with clear purpose and benefit, adhere to dark sky design lighting principals light target areas only with warm spectrum colours <2700K, avoid sky glow with zero upspill , no glare and where possible or appropriate control use with timers and/or movement sensors.

Full cut-off units should be used, illuminating the task area with no spill. A diversity of suitable options can be used including Solar ‘bat hat’, stud lighting, and bollards. Properties with elevations facing dark corridors, or habitats supporting light sensitive species could incorporate VLT glazing, electric blinds and smart glass. Any security lights should be fully shielded.

All roof sky lights and windows will need to have blinds or shutters on that can be closed when dark to prevent light from spilling out. Alternatively smart glass could be used on any skylights, roof lights or windows.

See the Bat Conservation Trust (BCT), Institute of Lighting Professionals (ILP) and Dark Skies national guidance for further information.


Limited or no visibility of astronomical features in night sky.
Overly bright, unshielded, light, glare, extending beyond area required.
Light intrusion in rural landscapes and wildlife habitats.
Artificial light along river corridor affecting wildlife.
Cumulative light spill.
Upward, sky glow.
Street light intrusion into properties, gardens, trees, and other habitats.
Overbright, sports, lighting, and spillage beyond where is needed.
Security light glare.
Intrusive illuminated neon LED signs.
Lights left on out of hours of work.
Roof lights spill light upwards.
No curtains or blinds making light visible at distance distance
Bright external LED decorative illumination affecting nocturnal wildlife.
Unshielded lights with unnecessary wall lighting.
Without ecologically sensitive lighting mitigation
Turn Notes OFF
With ecologically sensitive lighting mitigation
Turn Notes OFF

Thanks for reading

To find out more and get the **Green Infrastructure Statement form** for **larger developments**, go to:
conwy.gov.uk/en/Resident/Planning-Building-Control-and-Conservation/Planning-Building-Control-Conservation.aspx

Appendix 1

Policy content to inform Green Infrastructure Statement to align with PPW12 - Chapter 6

Category of Application	Questions on Standard Application Form relevant to PPW 12-Chapter 6	Documents required where the proposed development meets criteria of 1-App. Application invalid if required document not provided	Requirement for a Green Infrastructure Statement	Does the development require separate consent from SuDS Approval Body?	Green Infrastructure Statement (GIS) scope and content
Full Planning Permission for Householder Development (Part 3 of the Town and Country Planning Act 1990).	Trees and Hedges Biodiversity and geological conservation	BS5837 Tree Survey. Arboricultural Impact Assessment and Method Statement Biodiversity Survey and Report. Preliminary Ecological Assessment. Protected Species Survey.	Yes	No. Developments with drainage implications of a single dwelling and the area of land covered by the construction work is less than 100 square metres.	Net Benefit for Biodiversity in respect of extensions, minor alterations and single dwellings can be met through relatively simple measures detailed in a Green Infrastructure Statement. As well as being specified in the GIS the measures proposed should be specified within the planning application documents such as site plans or elevational drawings.
Outline or Full Planning Permission for **Major**[1] Development.	Trees and Hedges Biodiversity and geological conservation Assessment of Flood Risk	BS5837 Tree Survey. Arboricultural Impact Assessment and Method Statement Biodiversity Survey and Report. Preliminary Ecological Assessment. Protected Species Survey.	Yes	Yes, all new developments of more than 1 dwelling house or where the construction area is 100 square metres or more, require Sustainable Drainage Systems (SuDS) for surface water designed and built in accordance with the Welsh Ministers' Statutory SuDS Standards.	**Full Planning Permission** The GIS must be proportionate to the scale and nature of the development proposed and will describe how green infrastructure has been incorporated into the proposal. Step-Wise Approach[2] must be used and onus on developers to bring forward proposals demonstrating a net benefit for biodiversity in the GIS.

1 Major development is defined in article 2 of the Town and Country Planning (Development Management Procedure) (Wales) Order 2012
2 Planning Policy Wales Edition 12 – Figure 12

		Flood Consequences Assessment		The design of the surface water management system should maximise biodiversity benefits. Statutory standards for sustainable drainage systems – designing, constructing, operating and maintaining surface water drainage systems.	Planning Authorities required to undertake a Green Infrastructure Assessment and make available records and maps of existing green infrastructure, ecological assets and networks. Applicants should make use of the available information when preparing a Green Infrastructure Statement. Sources of information: • Cofnod-North Wales Environment Information Service[1] • Datamap Wales[2] • Landmap[3] • NRW's North West Wales Area Statement[4] • Active Travel Maps[5] **Outline Planning Permission** Applications for outline planning permission must include a GIS which may be limited in scope by the known details of the proposed development but not by the availability of sources of to carry out green infrastructure assessment. The GIS must include a Step-Wise Approach to assessment and be able to demonstrate, in principle, that a net benefit for biodiversity can be achieved at the detailed stage planning stage. **Pre-Application** Pre-application advice can aid the preparation of major developments and achieving a net benefit for biodiversity. Pre-app advice can also identify at an early-stage schemes that officers do not believe are likely to meet the requirement and what would need to be done to address concerns. Pre-application advice can confirm the required information necessary in a submission. Where off-site compensation is proposed the Council will be able to provide guidance on the financial contributions and commitments necessary to maintain biodiversity and habitat measures.

1 https://www.cofnod.org.uk/Home
2 https://datamap.gov.wales/
3 https://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/evidence-to-inform-development-planning/landmap-the-welsh-landscape-baseline/?lang=en
4 Natural Resources Wales / North West Wales Area Statement
5 Active Travel - Conwy County Borough Council

Outline or Full Planning Permission for Major Development requiring an Environmental Statement under the EIA Regulations[1]	As above	As above	Yes, as development. Dual requirement for a GIS and ES.	Yes	As above, however additional requirement for an Environmental Statement (ES) containing an assessment of the potential significant effects on the environment during construction, operation and decommissioning as well as proposed mitigation measures. Part III of the ES will contain technical reports (e.g. Ecological reports, arboricultural surveys). Guidance necessary on how the dual requirement for a GIS and ES should be separately and/or jointly assessed.
Outline or Full Planning Permission for Minor Development (excluding householder Applications)	Trees and Hedges in Development Manual but not in 1 App on planning portal Biodiversity and geological conservation Assessment of Flood Risk	BS5837 Tree Survey. (Refer to Supplementary Guidance Note 4 or latest revision). Biodiversity Survey and Report. (Refer to Supplementary Guidance Note 8 and 8a or latest revisions). Flood Consequences Assessment	Yes	Yes, unless exempt as specified above.	**Full Planning Permission** Proposed full applications for minor development will vary in scale and extent and the GIS must be proportionate to the proposed development. Step-Wise Approach must be used and onus on developers to bring forward proposals demonstrating a net benefit for biodiversity in the GIS. When preparing a Green Infrastructure Statement applicants should make use available information that is relevant and commensurate to the minor development. **Outline Planning Permission** Applications for outline planning permission for minor development must include a GIS which may be limited in scope by the known details of the proposed development. Notwithstanding, the GIS must be able to demonstrate, in principle, that a net benefit for biodiversity can be achieved at the detailed stage planning stage. Depending on the type of minor development proposed officers may advise applicants to submit an application for full planning permission.

1 The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017

Other consents administered by the Local Planning Authority but not in essence development					
Planning permission for relevant demolition in a conservation area	None	-	Most are unlikely to require a GI Statement unless surveys identify specific issues such as bat use.	No	Even though there is no need for a GIS, protected species surveys may be required with the application or as a condition of planning consent.
Listed building consent	None	-		No	Even though there is no need for a GIS, protected species surveys may be required with the application or as a condition of planning consent.
Advertisement consent	None	-		No	Would not be expected to affect duty or net benefit for biodiversity requirements.
Lawful Development Certificate (LDC) proposed and existing uses	No	-		No	Where relevant to the prior approval the Council will require a net benefit for biodiversity to be demonstrated in accordance with general duty of the LPA to maintain and enhance biodiversity in the exercise of its functions.
Prior approval – Part 6, Part 7 and Part 24 of Schedule 2 to the Town and Country Planning	No	-		See statutory standards for sustainable drainage systems.	Where relevant to the prior approval the Council will require a net benefit for biodiversity to be demonstrated in accordance with general duty of the LPA to maintain and enhance biodiversity in the exercise of its functions.

Removal or Variation of a Condition following Grant of Planning Permission	None	None		Dependant on what matters have been reserved for approval. See statutory standards for sustainable drainage systems.	Regardless of whether a GIS is required, where relevant to the reserved matters application (e.g. landscape schemes, landscape and ecological management plans) the Council will require a net benefit for biodiversity to be demonstrated in accordance with general duty of the LPA to maintain and enhance biodiversity in the exercise of its functions.
Approval of Reserved Matters (Article 4 of the DMPWO)	None	None			
Consent under Tree Preservation Orders	None. (Questions relate to health or safety and Alleged subsidence only)	None		No	General duty of the LPA to maintain and enhance biodiversity in the exercise of its functions. (Could be argued that a condition requiring replacement planting should be imposed to meet the duty).
Notification of proposed works to trees in conservation areas	None	None		No	Section 211 notifications do not require express permission and conditions requiring replacement planting cannot be imposed.
Applications not determined by the Local Planning Authority					
Developments of National Significance determined by Welsh Ministers	Due to scale of development EIA Regulations would apply and submission of an Environmental Statement required. A GI Statement would be expected to be prepared either as a separate document or included as part of the ES.				
Nationally Significant Infrastructure Projects consented by UK Government	Due to scale of development EIA Regulations would apply and submission of an Environmental Statement required. A GI Statement would be expected to be prepared either as a separate document or included as part of the ES. Biodiversity Net Gain applies in England for transnational applications.				

Appendix 2

SSSI protection

SSSIs are of national importance. The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act 2000, places a duty on all public bodies, including planning authorities, to take reasonable steps, consistent with the proper exercise of their functions, to further the conservation and enhancement of the features by reason of which a SSSI is of special interest. SSSIs can be damaged by developments within or adjacent to their boundaries, and in some cases, by development some distance away.

Designation	Statutory or non-statutory	Interaction with step-wise approach
SAC	Statutory	Avoid
SPA or RAMSAR	Statutory	
SSSI	Statutory	
NNR	Statutory	
UNESCO Biosphere Reserve	Non-statutory	Apply Step-wise approach to determine
UNESCO Geoparks	Non-statutory	
SINCs	Non-statutory	
Local Nature Reserve	Non-statutory	
Local Wildlife Sites	Non-statutory	
RIGS	Non-statutory	
Potential National Natural Resource Areas (Future Wales)	Development Plan	
Resilient Ecological Network Maps	Development Plan/ Area Statements/GIA	

See PPW12 for futher guidance. **Planning policy Wales | GOV.WALES**

Resources

1. Welsh Government's Approach to Net Benefits for Biodiversity and the DECCA Framework in the Terrestrial Planning System CIEEM Briefing Paper September 2022 **Net-Benefits-briefing.pdf (cieem.net)**
2. **Biodiversity and resilience of ecosystems duty (section 6): guidance for public authorities | GOV.WALES**
3. 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**
4. State of Natural Resources Report (SoNaRR): Assessment of the Sustainable Management of Natural Resources. **Chapter 4. Resilient Ecosystems (naturalresources.wales)**

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