

Caerphilly County Borough
2nd Replacement Local Development Plan 2020-2035

EB35: Green Infrastructure Assessment

Updated October 2026

CAERPHILLY COUNTY BOROUGH COUNCIL
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2ND REPLACEMENT LOCAL DEVELOPMENT PLAN (2RLDP) 2020 - 2035

DEPOSIT PLAN EVIDENCE BASE

EB35: GREEN AND BLUE INFRASTRUCTURE ASSESSMENT

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2. LIST OF ACRONYMS

2RLDP	-	*2nd Replacement Local Development Plan*
ATNM	-	*Active Travel Network Map*
AA	-	*Appropriate Assessment*
AIA	-	*Arboricultural Impact Assessment*
ALC	-	*Agricultural Land Classification*
AMR	-	*Annual Monitoring Report*
ASNW	-	*Ancient Semi-Natural Woodland*
CB	-	*Caerphilly Basin Masterplan Area*
CCBC	-	*Caerphilly County Borough Council*
CCR	-	*Cardiff Capital Region*
CDA	-	*Critical Drainage Area*
CJC	-	*Corporate Joint Committee*
CSR	-	*Candidate Site Register*
DAM	-	*Development Advice Map*
DCWW	-	*Dwr Cymru Welsh Water*
DEFRA	-	*Department for Environment, Food and Rural Affairs*
DVM	-	*Development Viability Model*
EEA	-	*European Environment Agency*
EIA	-	*Environmental Impact Assessment*
EU	-	*European Union*
FCA	-	*Flood Consequence Assessment*
FmFP	-	*Flood Map for Planning*
FRMP	-	*Flood Risk Management Plan*
GB	-	*Greater Blackwood Masterplan Area*
GBI	-	*Green and Blue Infrastructure*
GI	-	*Green Infrastructure*
GIA	-	*Green Infrastructure Assessment*
GIS	-	*Geographic Information System*
HIA	-	*Health Impact Assessment*
HoV	-	*Heads of the Valleys Masterplan Area*
HRA	-	*Habitat Regulations Assessment*
INNS	-	*Invasive Non-Native Species*
IPCC	-	*Intergovernmental Panel on Climate Change*
ISA	-	*Integrated Sustainability Appraisal*
LA	-	*Local Authority*
LDP	-	*Local Development Plan*
LNR	-	*Local Nature Reserve*
LPA	-	*Local Planning Authority*
LVIA	-	*Landscape Visual Impact Assessment*
MRA	-	*Mining Remediation Authority*
NDF	-	*National Development Framework*
NGA	-	*National Growth Area*
NNR	-	*National Nature Reserve*

NRAP	-	*Nature Recovery Action Plan*
NRP	-	*National Resource Policy*
NRW	-	*Natural Resource Wales*
NSN	-	*National Sites Network*
ONS	-	*Office for National Statistics*
PEDW	-	*Planning and Environment Decisions Wales*
PEN	-	*Priority Ecological Network*
PPW	-	*Planning Policy Wales*
PROW	-	*Public Right of Way*
RCT	-	*Rhondda Cynon Taf*
RDP	-	*Rural Development Plan*
REN	-	*Resilient Ecological Network*
RIGS	-	*Regionally Important Geodiversity Site*
RLDP	-	*Replacement Local Development Plan*
RNC	-	*Lower Ebbw and Sirhowy Valleys Masterplan Area*
SA	-	*Sustainability Appraisal*
SAB	-	*SuDS Approval Body*
SAC	-	*Special Area of Conservation*
SAM	-	*Scheduled Ancient Monument*
SANG	-	*Suitable Alternative Natural Greenspace*
SBR	-	*Settlement Boundary Review*
SDP	-	*Strategic Development Plan*
SEA	-	*Strategic Environmental Assessment*
SFCA	-	*Strategic Flood Consequence Assessment*
SINC	-	*Site of Importance for Nature Conservation*
SLA	-	*Special Landscape Area*
SM	-	*Supporting Map*
SoNaRR	-	*State of Natural Resources Report*
SPA	-	*Special Protection Area*
SPG	-	*Supplementary Planning Guidance*
SSSI	-	*Site of Special Scientific Interest*
SuDS	-	*Sustainable Drainage Systems*
TAN	-	*Technical Advice Note*
TfW	-	*Transport for Wales*
UK	-	*United Kingdom*
VILL	-	*Visually Important Local Landscape*
WG	-	*Welsh Government*
WIMD	-	*Welsh Index of Multiple Deprivation*
WINS	-	*Welsh Information for Nature-Based Solutions*
YM	-	*Ystrad Mynach Masterplan Area*

3. DOCUMENT GLOSSARY

3.1 This Green Infrastructure Assessment (GIA) is part of a series of documents published to support the Deposit Plan of the 2nd Replacement Local Development Plan (2RLDP). These documents contain the evidence base for the policies included within the Deposit Plan, which should be read in conjunction with the list of evidence documents below.

- EB35: Green and Blue Infrastructure Assessment (GIA) Report
- EB36: Green and Blue Infrastructure Assessment (GIA) Supporting Maps
- EB37: Green and Blue Infrastructure Assessment (GIA) Supporting Tables
- EB38: Green and Blue Infrastructure Assessment (GIA) Method Statement

3.2 In addition, the following documents provide evidence-based studies on themes referenced within the GIA.

- EB18: Leisure and Recreation Evidence Paper
- EB31: Landscape Designations Review
- EB33: Green Wedge Review
- EB34: Sites of Importance for Nature Conservation Review
- EB39: Regional Strategic Flood Consequence Assessment (SFCA)
- EB40: Update to SFCA Stage 1 and Stage 2 Assessment
- EB41: Historic Environment Evidence Paper

4. INTRODUCTION

4.1 Caerphilly County Borough Council (CCBC) began work on its 2nd Replacement Local Development Plan (2RLDP) 2020 – 2035 in October 2020. The 2RLDP contains the local planning policy framework for the County Borough, it allocates land for development, and it safeguards important areas from inappropriate forms of development.

4.2 The Development Plans Manual for Wales (DPM) outlines that development plans in Wales should be underpinned by an evidence base that is appropriate, robust and timely. Therefore, this GIA is part of a series of documents which underpins the policy framework, allocations and designations within the Deposit Plan.

4.3 This GIA provides a comprehensive evaluation of the existing green and blue infrastructure network within the County Borough and its contribution to environmental quality, ecosystem resilience and community wellbeing. The report sets out the relevant policy context, establishing the legislative and planning framework that guides GBI provision in Wales. This is followed by a strategic assessment of the wider regional context which identifies the principal environmental assets, trends and drivers influencing the area, before a more detailed local assessment examines the condition, distribution and functionality of GBI assets across the County Borough.

4.4 Building on this evidence base, the assessment identifies the key threats and challenges affecting the GBI network, alongside opportunities for enhancement and nature-based solutions. The report concludes with a series of policy recommendations for the Deposit Plan aimed at strengthening the multifunctionality, connectivity and resilience of the GBI network, ensuring it continues to support biodiversity recovery, climate adaptation, sustainable growth and the wellbeing of current and future generations.

What is Green and Blue Infrastructure?

4.5 Planning Policy Wales (PPW) defines Green and Blue Infrastructure (GBI) as:

"the network of natural and semi-natural features, green spaces, rivers and lakes that intersperse and connect places" (para 6.2.1).

Scales of GBI

4.6 GBI is a multifunctional network of natural and semi-natural features which operates across a range of spatial scales, these scales are:

*The **Strategic Scale** which comprises regional and landscape sized networks, including river catchments, woodlands, ecological corridors and extensive areas of open countryside. These features are vast in scale and cross boundaries.*

*The **Local Scale** which includes features such as urban parks, country parks, public open spaces, rivers, community woodlands, active travel routes and green corridors.*

*The **Site Scale** which encompasses individual features within development sites, including trees, hedgerows, landscaping, gardens, sustainable drainage systems (SuDS), habitats and watercourses.*

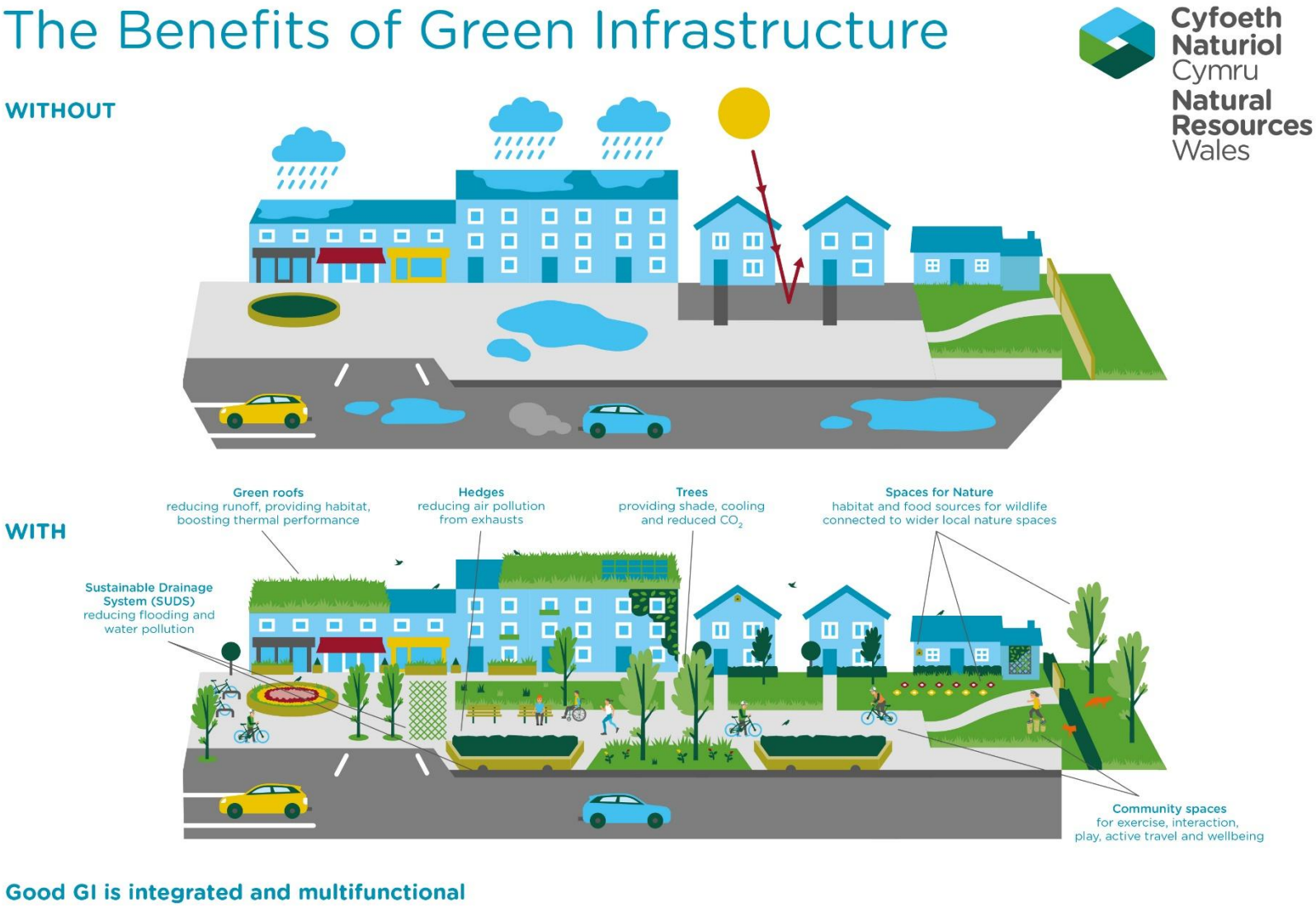
What are the Benefits of GBI?

4.7 GBI is a fundamental component of sustainable placemaking and delivers a wide range of economic, social, environmental and cultural benefits. These include supporting biodiversity conservation, strengthening ecosystem resilience and improving habitat connectivity across the landscape.

4.8 It also plays a vital role in climate change mitigation and adaptation by providing carbon storage, urban cooling and increasing resilience to extreme weather events. GBI also contributes to natural flood management and sustainable water management through features such as wetlands, woodlands, river corridors and sustainable drainage systems.

4.9 Beyond its environmental functions, GBI supports physical and mental wellbeing by providing access to high-quality natural environments and opportunities for recreation and active travel. It also contributes to the creation of attractive, distinctive and sustainable places by enhancing landscape character, improving visual amenity and strengthening local identity.

Figure 1 - Infographic showing the benefits of GBI (NRW, 2026)



5. THEMES OF GREEN AND BLUE INFRASTRUCTURE

Multifunctionality

5.1 A multifunctional network is a key principle of GBI, whereby the same assets and spaces deliver multiple benefits simultaneously. For example, a river corridor may support wildlife and habitats, manage flood risk, improve water quality, offer recreational opportunities, enhance landscape character and contribute to climate adaptation. By performing a range of interconnected functions, a multifunctional GBI network maximises value, strengthens ecosystem resilience and supports the creation of sustainable and well-connected places.

Nature and Biodiversity

5.2 The Nature and Biodiversity theme focuses on protecting, restoring and enhancing habitats, species and ecological networks. It seeks to maintain and enhance ecosystem resilience by strengthening habitat connectivity, supporting species movement and promoting biodiversity recovery. Through the conservation, enhancement and creation of natural assets, this theme contributes to the sustainable management of natural resources, helps ecosystems adapt to environmental change and delivers wider benefits for communities and the environment.

Landscapes

5.3 The Landscape theme is concerned with conserving and enhancing landscape character, visual quality and local distinctiveness. It considers the contribution of natural and semi-natural features to the setting of settlements, the quality of the environment and people's experience of place. By protecting important landscape features and maintaining landscape connectivity, this theme supports sustainable placemaking, reinforces local identity and helps create attractive, resilient and well-connected environments.

Health and Well-being

5.4 The Health and Well-being theme recognises the important role that GBI plays in supporting healthier people and communities. It promotes access to high-quality green spaces, natural environments and active travel routes that encourage physical activity, recreation and social interaction. By increasing opportunities for people to connect with nature, this theme contributes to improved physical and mental health, enhanced quality of life and stronger, more inclusive communities.

Blue Infrastructure

5.5 The Blue Infrastructure theme focuses on the protection, enhancement and integration of water environments, including rivers, streams, lakes, wetlands and sustainable drainage features. It recognises the multifunctional role of water in supporting biodiversity, managing flood risk, improving water quality and contributing to climate resilience.

Rural Communities

5.6 The Rural Communities theme considers how GBI can support the sustainability, resilience and vitality of rural areas. It recognises the importance of natural assets in underpinning rural economies, local character and community wellbeing. Through the enhancement of landscape, biodiversity, recreation opportunities and accessibility, this theme helps strengthen connections between urban communities and the countryside whilst supporting sustainable rural development and quality of life.

Historic Environment

5.7 The Historic Environment theme focuses on the protection and enhancement of heritage assets, historic landscapes and cultural features that contribute to local identity and sense of place. It recognises that GBI can play an important role in conserving the setting and significance of historic assets while increasing public appreciation and access.

Summary

5.8 These themes demonstrate the multifunctional nature of GBI, highlighting its role in delivering economic, social, environmental, and cultural benefits. By integrating nature and biodiversity, landscape, health and well-being, blue infrastructure, rural communities and the historic environment, a connected network of green and blue assets can support ecosystem resilience, climate adaptation, sustainable placemaking and the creation of healthy, distinctive and prosperous places.

6. STRATEGIC ASSESSMENT

6.1 GBI is the network of natural and semi-natural features, green spaces, water environments and other environmental assets that collectively support sustainable development. These networks go beyond traditional administrative boundaries, linking the County Borough with neighbouring authorities and the wider region, making GBI a cross-boundary issue for consideration within the 2RLDP.

6.2 This strategic assessment examines the extent, condition, and connectivity of GBI features across the South East Wales Region to gain an understanding of what is currently present, their deficiencies, and opportunities for enhancement. *EB36a: Green Infrastructure Assessment Supporting Maps, Strategic Assessment* contains the supporting maps for this strategic assessment. These are referred to with their relevant SM reference throughout this report.

Regional Position

6.3 Future Wales divides Wales into four regions, the North, Mid Wales, the South West and South East (SM1.1). CCBC is located within the South East Wales region as one of ten local authorities. This area also forms the basis of the Cardiff Capital region for regional growth, development and infrastructure investment.

6.4 The County Borough shares administrative boundaries with Rhondda, Cynon, Taf, Merthyr Tydfil, Powys, Blaenau Gwent, Torfaen, Newport and Cardiff. In addition, whilst the County Borough does share a border with Powys, the area directly bordering the County Borough is managed by the Bannau Brycheiniog National Park (BBNP) authority for development plan purposes.

6.5 The County Borough is also part of the South East Wales Area statement prepared by NRW, this covers five of the ten other local authorities within the region, which are Caerphilly, Blaenau Gwent, Torfaen, Monmouthshire and Newport. This geographic area encompasses strategically important landscapes such as the Gwent Levels, the Eastern Valleys of South Wales, the Wye Valley and Wentwood, Central Monmouthshire, and areas of the Bannau Brycheiniog National Park.

Spatial Assessment

6.6 The South East Wales region has been mapped using Geographic Information Systems (GIS) to identify GBI networks based on the key themes identified in section five of this report. The supporting maps for the assessment can be found in *EB36a: Green and Blue Infrastructure Assessment Supporting Maps, Strategic Assessment.*

National and Regional Context *(SM1.1)*

6.7 The regional position outlined above places Caerphilly County Borough within the wider South East Wales region. It shows the neighbouring local authorities, major settlements and the regional context for strategic planning. The map demonstrates Caerphilly's central position between Cardiff, Newport, Blaenau Gwent, Rhondda

Cynon Taf, Torfaen and Merthyr Tydfil, highlighting the importance of cross-boundary planning and ecological connectivity.

Designated Sites Network *(SM1.2)*

6.8 This identifies the statutory and non-statutory biodiversity designations across the South East Wales region, including the RAMSAR wetlands of international importance, Special Protection Areas (SPAs), Special Areas of Conservation (SACs), National Nature Reserves (NNRs), Sites of Special Scientific Interest (SSSIs), and Local Nature Reserves (LNRs).

6.9 Sites of Importance for Nature Conservation (SINCs) have not been mapped at the strategic level due to the availability of the spatial data. However, they have been mapped as part of the local assessment for the County Borough. The map shows that designated biodiversity assets are concentrated along the southern river valleys, upland areas, and key woodland habitats, forming an established ecological network of regional and national importance.

Priority Ecological Networks (PENs) *(SM1.3)*

6.10 This illustrates the PENs identified within the South East Wales region. These include habitat networks such as fen, heathland, native woodland, sand dunes, and coastal habitats. The map demonstrates where habitat connectivity is strongest and identifies strategic corridors that support species movement and ecosystem resilience.

LANDMAP Visual and Sensory Landscape *(SM1.4)*

6.11 This presents the LANDMAP Visual and Sensory evaluation, categorised from low to outstanding. Large areas of the South East Wales region are assessed as moderate to high value, with the highest ratings concentrated within upland landscapes, wooded valleys and areas with strong scenic character.

Designated Landscapes *(SM1.5)*

6.12 This identifies nationally and locally recognised landscape designations, including the Bannau Brycheiniog National Park, the Wye Valley Area of Outstanding Natural Beauty (AONB), Historic Landscapes, and Special Landscape Areas (SLAs). The map illustrates that the Bannau Brycheiniog National Park runs along the northern boundary of the region, and into parts of Torfaen and Monmouthshire. Monmouthshire is also home to parts of the Wye Valley AONB. In addition, extensive areas of the region are covered by Historic Landscape, and locally designated Special Landscape Areas, reflecting their landscape sensitivity and value.

Trees and Woodlands *(SM1.6)*

6.13 This shows the distribution of ancient woodland, native woodland, other woodland, and urban trees. Woodland cover is widespread throughout the region, particularly

along the valleys and upland slopes. The map demonstrates the importance of woodland networks as a key component of the regions GBI network.

Agricultural Land Classification (ALC) *(SM1.7)*

6.14 This grades agricultural land according to its quality and versatility. The Best and Most Versatile Agricultural Land (Grades 1, 2 and 3a) is shown alongside lower quality land. The map indicates that higher quality agricultural land is predominantly concentrated in lower-lying eastern and southern areas, while upland areas consist mainly of poorer-grade agricultural land.

Welsh Index of Multiple Deprivation (WIMD) *(SM1.8)*

6.15 This presents four of the WIMD datasets relevant to GBI in South East Wales. These are the physical environment, health, access to services, and overall deprivation. The mapping reveals a strong variation across the region, with more deprived communities generally concentrated within the principal valley settlements, whilst rural and suburban areas tend to exhibit lower deprivation levels. This is useful as it highlights the environmental and social inequalities relevant to GBI provision.

Tranquil Areas *(SM1.9)*

6.16 This classifies areas according to their relative tranquillity. The most tranquil environments are located within upland landscapes, extensive woodland blocks, and less developed rural areas. Urban settlements and major transport corridors generally display lower tranquillity scores. The map identifies areas where landscape character and human wellbeing benefits are strongest.

Noise Levels from Rail, Road and Industry *(SM1.10)*

6.17 This highlights major transport and industrial noise within the region. Elevated noise levels are concentrated along the M4 corridor, principal A-roads, railway corridors, and large urbanised and industrial areas. More remote upland and rural areas experience significantly lower background noise levels. This provides an indication of environmental quality and potential impacts on biodiversity and wellbeing.

Dark Skies and Light Pollution *(SM1.11)*

6.18 This measures brightness levels at night and any associated light pollution. The darkest skies occur in the upland northern and eastern areas of the region, while highest light pollution levels correspond with urban settlements and transport corridors. The map highlights areas of high environmental quality and opportunities for dark skies protection.

River Basin Districts *(SM1.12)*

6.19 This shows the river basins and districts within the region. Most local authorities lie within the Severn River Basin. Bridgend and the Vale of Glamorgan are predominately

within the Western Wales Basin. The map is important for understanding water management and catchment-based planning approaches.

Main Rivers *(SM1.13)*

6.20 This identifies the strategic river network throughout the region. The pattern reflects the area's valley topography, with numerous river corridors extending southwards through the principal valleys. These river systems form significant blue infrastructure assets, supporting biodiversity, recreation, flood management, and ecological connectivity.

Open Access Land *(SM1.14)*

6.21 This highlights areas of public open access land under the Countryside and Rights of Way legislation, which includes public forest land, common land, open countryside, and other statutory land. Open access land is concentrated in upland and semi-natural landscapes, particularly across northern and western areas of the region. The map highlights the strategic recreational resource available to residents and visitors.

Strategic Findings

6.22 The mapping for the strategic assessment demonstrates that the South East Wales region contains a diverse and highly interconnected mix of environmental features that collectively function as a strategic GBI network. The assessment highlights the strong relationship between biodiversity, landscape character, water environments, recreational resources and community wellbeing, illustrating how these individual components combine to deliver a wide range of economic, social, environmental, and cultural benefits.

6.23 Caerphilly County Borough occupies an important position within the wider South East Wales landscape, forming ecological, hydrological and recreational links with neighbouring local authority areas. As many environmental processes and habitat networks extend beyond administrative boundaries, the assessment reinforces the importance of collaborative and landscape scale approaches to environmental management and spatial planning.

6.24 Nature and biodiversity within the region is underpinned by a network of designated sites, priority ecological habitats, river corridors and other semi-natural habitats. These features collectively form an extensive ecological network that supports species movement, habitat connectivity and ecosystem resilience. The river network is particularly significant, acting as a strategic corridor that connects many of the region’s most important habitats whilst also providing opportunities for biodiversity enhancement, flood management and climate adaptation.

6.25 The assessment identifies a strong correlation between areas of high ecological value and those recognised for their landscape quality. Locations with high LANDMAP Visual and Sensory evaluations frequently coincide with designated landscapes, extensive woodland cover, tranquil environments and darker night skies. These areas

represent some of the region's most valuable GBI assets, providing multiple ecosystem services including biodiversity conservation, climate regulation, recreation, landscape protection and health and wellbeing benefits.

6.26 The mapping also highlights the role of agricultural land within the region. Whilst upland areas comprise extensive areas of lower-grade agricultural land, pockets of the best and most versatile agricultural land occur within more accessible lowland locations, many of which are subject to competing development pressures. These areas represent an important natural resource that contributes to food production, landscape character and wider ecosystem services, emphasising the need for balanced land-use and decision making.

6.27 The social dimensions of GBI are evident through analysis of deprivation patterns across the region. Communities within the valley settlements often experience comparatively higher levels of deprivation whilst simultaneously being located in close proximity to significant environmental assets. This presents opportunities for GBI interventions to contribute towards wider health, wellbeing and equality objectives through improved access to high-quality green spaces, recreational opportunities and active travel networks.

6.28 Environmental quality indicators further reinforce the strategic importance of the region's natural assets. Areas exhibiting the highest levels of tranquillity, darkest night skies and lowest background noise generally correspond with locations of high biodiversity and ecological value, strong landscape character and extensive recreational opportunities. In comparison, urban areas and major transport corridors are associated with greater environmental pressures, including noise and light pollution.

6.29 Blue infrastructure forms a critical component of the GBI network. The regions river systems connect settlements, habitats, and landscapes whilst delivering a range of important functions including biodiversity support, recreation, natural flood management and ecological connectivity. The relationship between local watercourses and wider river basin catchments further emphasises the need for integrated catchment-scale management and cross-boundary environmental planning.

6.30 Public access to the natural environment is another key theme emerging from the assessment. Significant areas of common land, open countryside and public forest provide opportunities for recreation, active travel and public enjoyment of the natural environment. These areas often overlap with locations of high ecological and landscape value, demonstrating the capacity of GBI to simultaneously support nature conservation, public health, tourism, and community wellbeing.

7. LOCAL ASSESSMENT

Spatial Assessment

7.1 Caerphilly County Borough has been mapped extensively using Geographic Information Systems (GIS) to identify GBI networks based on the key themes identified in section five of this report. The supporting maps for the Local Assessment of the County Borough can be found in *EB36b: Green and Blue Infrastructure Assessment Supporting Maps, Local Assessment.*

Nature and Biodiversity

7.2 There are many areas of the County Borough that are protected due to their national and local importance for biodiversity and nature conservation. The strategic assessment identified Caerphilly County Borough at the centre of a regional ecological network which extends beyond the boundaries of the County Borough. There are no RAMSAR or SPAs within the County Borough. However, it does contain a SAC, a NNR, SSSI's, LNRs, and SINCs.

Statutory Sites

Special Area of Conservation (SAC) *(SM2.1)*

7.3 There is one SAC located within the County Borough, which is the Aberbargoed Grasslands. The site is approximately 39.8 Ha in size and is considered of particular importance for its population of Marsh Fritillary Butterflies and Purple Moor Grass Meadows. The latest baseline assessment of protected sites produced by NRW (2020), assessed both indicative features of the SAC and concluded that both features were in an unfavourable condition.

7.4 The County borough also shares a boundary with the Cardiff Beech Woods SAC, located north west of Cardiff near Taffs Well and Tongwynlais. There are two indicative features located at the SAC. The baseline assessment of protected sites (2020) found that both of these features were also in an unfavourable condition.

National Nature Reserve (NNR) *(SM2.1)*

7.5 The Aberbargoed Grasslands is also designated as an NNR. The site is approximately 42.2 Ha in size, 2.4 Ha larger than the SAC designation. There is currently no data available to determine the condition of the NNR outside of the indicative SAC features. However, both indicative features within the SAC boundary on site were in an unfavourable condition following the baseline assessment of protected sites (2020).

Sites of Special Scientific Interest (SSSIs) *(SM2.1)*

7.6 There are fifteen SSSIs within the County Borough, at the start of the 2RLDP preparation period there were thirteen sites. Two additional sites were added in January 2025, the first was an extension to Mynyddoedd Llangynidr a Llangatwg,

Cefn Yr Ystrad a Chomin Merthyr site in the north of the County Borough. The second was Gweunydd Nant y Twyn site in the centre of the County Borough, near Maesycwmmer.

7.7 The baseline assessment for protected sites (2020) assessed eleven of these sites for their condition. Information was not available for Cefn Y Brithdir and Memorial Meadows in Pontllanfraith. Mynyddoedd Llangynidr a Llangatwg, Cefn Yr Ystrad a Chomin Merthyr and Gweunydd Nant y Twyn had not yet been identified. Sixteen features were assessed across eleven sites, ten of these were in unfavourable condition, five were unknown, and one was favourable. This feature was located at the Ruperra Castle and Woodlands SSSI.

Non-Statutory Sites

Local Nature Reserves (LNRs) *(SM2.1)*

7.8 There are four LNRs within the County Borough, located at Cwmllwydrew Meadows, Memorial Park Meadows, Graig Goch, and Flatwood Meadows Natural Reserve. These designations cover approximately 25.97 Ha of land. All four LNRs are within the land ownership of the Local Authority and are managed appropriately to maintain and enhance the condition of their features.

7.9 Cwmllwydrew Meadows consists of a small alder woodland, two ponds, an ant meadow and two hay meadows. This area is considered of importance as it is one of the last few wet meadows within the County Borough. Flatwood Meadows is made up of two meadows near the Sirhowy River which is home to wild flowers, butterflies, birds, and amphibians. This area is of importance to the locality as it is one of the few remaining examples of species rich grasslands within the Sirhowy Valley.

7.10 Graig Goch is an ancient oak and beech woodland located within the Sirhowy Valley. It is one of the few remaining woodlands from the pre-industrial period, it supports a range of species, as well as being an important feature of the landscape. Memorial Park Meadows contains four hay meadows and a large pond, it is also designated as a SSSI due to its important wet meadows, laid hedges, and wildflowers.

Sites of Importance for Nature Conservation (SINCs) *(SM2.1)*

7.11 There are currently 190 SINCs designated within the County Borough. These were based on a SINC survey undertaken by Hyder Consulting in 2007, as part of the evidence base for the Adopted LDP (2010). *EB34 Sites of Importance for Nature Conservation (SINC) Review* outlines that the 2RLDP required an up-to-date evidence base that is robust and timely. Therefore, a full SINC review has been undertaken to support the 2RLDP.

7.12 The review outlines that the existing 190 SINC sites have maintained their SINC status despite a significant decline in their overall condition. In addition, the review identifies a further fifty-one sites proposed for designation within the new plan. These areas will form an important role of enhancing nature conservation areas, increasing

their extent, and improving their connectivity. A full list of the newly proposed SINCs can be found in *Appendix 3* of *EB34 Sites of Importance for Nature Conservation (SINC) Review*.

Ecological Networks *(SM2.2, SM2.3, SM2.4)*

7.13 In addition to statutory and non-statutory designations, there are many areas of the County Borough which contain ecological networks that do not have an ecological designation for their conservation. Ecological networks are interconnected terrestrial and aquatic habitats that help species and ecosystems survive changing conditions. They allow wildlife to move freely across landscapes, which helps species recolonize areas after disturbances and reduces the risk of local extinctions.

Priority Ecological Networks (PENs) *(SM2.2)*

7.14 PENs in the terrestrial environment are key areas of habitat that provide connectivity between protected sites. Identification of these key habitats provides a framework for creating '*Resilient Ecological Networks' (RENs)* in line with Section 6 of the Environment (Wales) Act (2016), PPW (2024) and Future Wales.

7.15 PENs include peatlands, bogs, fen, native woodlands, heathlands, semi natural grasslands, and marine areas. Given the strategic importance of them in connecting and enhancing the extent of habitats, typical interventions include habitat enhancement, restoration and creation. These activities are typically carried out within the boundaries of each PEN, or its edges, where they can strengthen, expand, or connect different networks.

Peatlands *(SM2.2)*

7.16 Peatlands in Wales are waterlogged, carbon-rich landscapes formed through the extremely slow accumulation of partially decayed plant material, known as peat, under consistently wet conditions that inhibit full decomposition. Peat typically forms at a rate of around 1 mm per year, meaning a metre of peat can take up to a thousand years to develop.

7.17 Some Welsh peatlands have been accumulating for more than 8,000 years and contain peat deposits exceeding 10 metres in depth. These habitats are sustained by high water tables that limit oxygen availability, slowing decomposition and allowing organic material to build up over millennia. In total, peatlands cover more than 90,000 hectares, representing approximately 4.3% of Wales's land area.

7.18 Peatlands are critically important Welsh habitats that offer substantial environmental benefits but face significant vulnerabilities. As exceptional long-term carbon stores, they lock away organic material accumulated over thousands of years and play a vital role in mitigating climate change. They also support rare and specialist wildlife, regulate water flow, improve water quality, and enhance climate resilience by reducing flood risk and acting as natural firebreaks.

7.19 However, peatlands are highly sensitive to disturbance, and around 90% in Wales are currently in poor condition. When degraded, they release carbon rather than storing it, contributing to greenhouse gas emissions. Their slow formation rate makes restoration challenging, and damaged peatlands can degrade water quality and become more prone to wildfire. These factors underscore both the ecological significance of peatlands and the importance of protecting and restoring them.

7.20 There are several small pockets of peatland within and bordering the County Borough. These areas are predominantly located in the open countryside, outside of defined settlements. As a result, they are not under any immediate development pressure. However, these areas are extremely important and should be safeguarded where possible.

Priority Species

7.21 Priority species in Wales are terrestrial and freshwater species that are identified as being of principal importance for the conservation of biodiversity under Section 7 of the Environment (Wales) Act (2016). These species are recognised as nationally significant due to factors such as rarity, threat level, population decline, or their critical role in ecosystems.

7.22 Welsh Ministers are legally required to publish and maintain a list, and to take all reasonable steps to protect and enhance the species included. *EB37 Green and Blue Infrastructure Assessment, Supporting Tables* includes a full list of priority species recorded within the County Borough, and historic species which are no longer present.

Broad Habitats

7.23 The Office for National Statistics (ONS) categorizes ecosystem networks into eight broad habitat classifications which are based on the methodology set out within the UK National Ecosystem Assessment. These habitats include, enclosed farmland, woodland, mountains, moorlands and heathlands, semi natural grasslands, freshwater, coastal margins, marine, and urban habitats.

Enclosed Farmland

7.24 Enclosed farmland in Wales, which covers approximately 54% of the country, is primarily used for livestock production. This ecosystem is intensively managed and includes areas of high biodiversity like hedgerows and traditional orchards. While agricultural productivity has been stable, it negatively impacts other ecosystem services through pollution and biodiversity loss.

7.25 Agriculture must reduce greenhouse gas emissions and improve nutrient use to address climate change and environmental challenges and systemic changes in agricultural practices are needed to balance food production with environmental sustainability. The *Welsh Information for Nature Based Solutions (WINS)* data produced by NRW *(2025)* shows that Caerphilly County Borough contains

approximately 8647 Ha of farmland, which is around a third of all land. However, this area only accounts for around 10% of all farming land within the region.

Woodlands

7.26 Woodlands in Wales provide essential ecosystem services, including timber, biodiversity support, carbon storage, and improved air and water quality. They also help reduce flooding and drought risks and enhance physical and mental health. Welsh woodlands cover about 15% of the total land in Wales, this has increased from around 5% in the early 1900s.

7.27 Despite this increase, Wales remains one of the least wooded countries in Europe, prompting efforts to create more woodlands. There are approximately 4887 Ha of woodland within the County Borough, which is a mix of ancient semi natural woodland, native woodland, broadleaved woodland, and urban tree parcels. This accounts for around 17% of land within the local authority and 21.9% of all woodland within the region *(WINS, 2025).*

Mountains, Moorland, and Heathland

7.28 Mountains, moorlands, and heathlands include upland habitats like dwarf shrub-heath, blanket bog, and native woodland. These ecosystems provide key benefits such as carbon storage, flood mitigation, and support for species. Mountains, moors and heath cover 19.3% of Welsh land, but lowland peatlands and heathlands are small and fragmented.

7.29 Both upland and lowland areas face challenges from pollution and changes in traditional land management practices. There are approximately 4111 Ha of this habitat within the County Borough, accounting for a quarter of all of this habitat type within the region *(WINS, 2025).*

Semi-Natural Grassland

7.30 Semi-natural grasslands once dominated the Welsh lowlands but declined by over 90% in the late 20th century due to agricultural policies. Now, they cover about 9% of Wales, often in small, fragmented areas with low-intensity management. These grasslands, typically used for grazing livestock, provide higher ecosystem services than improved grasslands, especially for biodiversity, pollination, carbon storage, pollution control, and cultural heritage. The County Borough contains approximately 4951 Ha of semi natural grassland, which is 40.7% of the existing habitat type within the region, outlining its strategic and local importance for ecological networks *(WINS, 2025).*

Freshwater

7.31 Freshwater ecosystems, such as rivers, lakes, ponds, and floodplains, are crucial for biodiversity but are highly threatened globally. In Wales, only 44% of rivers meet good ecological status due to pressures like climate change, pollution, and invasive

species. These ecosystems provide essential services, including water supply, renewable energy, and flood management.

7.32 Sustainable management of these ecosystems is closely tied to the land within their catchments, and balancing their use with environmental sustainability is a significant challenge. There are 309 Ha of freshwater habitat within the County Borough, which accounts for around 10% of the habitat within the region *(WINS, 2025).*

Coastal Margins

7.33 Wales has 2700 km of coastline, with coastal margins including saltmarsh, sand dunes, sea cliffs, shingle, and saline lagoons, making up 3% of semi-natural habitats. These dynamic ecosystems, which transition between land and sea, have faced significant losses due to development and agriculture. They are highly diverse and support specialized species.

7.34 The coastline is celebrated for its scenery, benefiting recreation, tourism, and the economy. Coastal margins also play a crucial role in flood protection. However, they are threatened by climate change, sea-level rise, and erosion. Caerphilly County Borough does not have a coastline, as it is land locked. Therefore, no coastal margin habitat exists within the County Borough *(WINS, 2025)*.

Marine

7.35 The Welsh inshore marine area extends up to twelve nautical miles from the coast, covering nearly 15,000 square kilometres or 41% of Wales. This marine ecosystem includes water quality, intertidal and subtidal habitats, and various species. It supports economic activities like aggregate extraction, ports, shipping, aquaculture, fishing, and marine renewable energy.

7.36 The marine environment provides essential services such as carbon sequestration, natural flood defence, habitat restoration, and benefits for recreation, tourism, and well-being. Similar to coastal margins, the County Borough is not located on the coast with access to the marine environment. Therefore, it does not contain any marine habitats *(WINS, 2025).*

Urban

7.37 Urban areas have a significant impact on other ecosystems but also offer opportunities for innovation to reduce environmental impacts. By rethinking urban design, transport, and planning, urban areas can lead efforts to address climate and nature emergencies, improving quality of life and creating new jobs.

7.38 Urban ecosystems, where most people live, are crucial for addressing environmental challenges and creating a sustainable, zero-carbon society with adequate green and blue infrastructure integration. The County Borough contains approximately 4783 Ha of urban habitat, which accounts for a quarter of the habitat within the region *(WINS, 2025).*

Landscapes

7.39 The established approach to assessing the characteristics of the landscape in Wales, is via LANDMAP. This is a GIS based resource produced by NRW, which provides a consistent and evidence-based foundation for understanding landscape character at both strategic and local levels.

7.40 LANDMAP consists of five spatial datasets which are:

- Geological landscape
- Landscape habitats
- Visual and sensory
- Historic landscape
- Cultural landscape services

7.41 The last assessment of the landscape in Caerphilly County Borough took place to inform the Adopted Local Development Plan (2010). The result of which informed the designation of several Special Landscape Areas (SLAs) and Visually Important Local Landscapes (VILLs).

Special Landscape Areas (SLAs) (SM2.6)

7.42 SLAs in Wales are non-statutory local landscape designations applied by planning authorities to identify and safeguard areas of particularly high landscape importance within their administrative boundaries. These designations recognise landscapes of notable physical, environmental, visual, cultural, or historic value and ensure that their distinctive character and key qualities are appropriately protected.

7.43 Development proposals located within, or with the potential to affect an SLA are subject to enhanced assessment to ensure that the landscape's special qualities are fully considered and conserved as part of the decision-making process. The Adopted LDP designated six SLAs within the County Borough, which includes approximately 13128.35 Ha of land, around 47.3% of all land within the County Borough.

7.44 The six SLA designations are:

- Upper Rhymney Valley
- Gelligaer
- Mynydd Eglwysilan
- North Caerphilly
- South Caerphilly
- Mynyddislwyn

Visually Important Local Landscapes (VILLs) *(SM2.6)*

7.45 In addition to SLAs, the Adopted LDP (2010) designated four VILLs within the County Borough. These are areas which were assessed as part of the SLA study but did not possess the all-round qualifying criteria to be designated as SLAs. However, these

areas scored highly on the visual and sensory elements of the assessment due to their visual quality and backdrop.

7.46 Therefore, they possess distinct and important qualities which needed to be preserved within the County Borough. As a result, these four areas were designated as VILLs. VILLs are not a specific planning designation nationwide. They are a specific local non-statutory designation used solely within Caerphilly County Borough. VILLs do not possess any statutory protection as they are a local designation. However, locally they are given the same weight in planning decisions within the county borough as SLAs.

7.47 The four VILL designations are:

- Northern Rhymney
- Manmoel
- Abercarn
- Rudry

Green Wedges *(SM2.6)*

7.48 Green wedges in Wales are local planning designations used by planning authorities to safeguard open land, prevent the coalescence of neighbouring settlements, and protect the distinct identity and character of individual towns and villages. Functioning in a similar manner to Green Belts but applied at a local rather than national scale, green wedges are designated and managed through development plans to ensure that the form and setting of urban areas are appropriately maintained. The Local Development Plan (2010) designated twenty-four green wedges within the County Borough.

7.49 The green belt designations are:

- Llechryd and Rhymney
- Fochriw and Pontlottyn
- Rhymney and Abertysswg
- Brithdir and Tir-Phil
- Argoed and Markham
- Aberbargoed, Cefn Fforest and Pengam
- Penpedairheol, Gilfach and Tir Y Berth
- Blackwood, Cwm Gelli and Cefn Fforest
- Blackwood, Oakdale and Penmaen
- Croespenmaen and Treowen
- West of Nelson
- Gelligaer, Penybryn and Penpedairheol
- Pengam, Blackwood and Pontllanfraith
- Newbridge and Abercarn
- Cefn Hengoed, Hengoed, Ystrad Mynach and Fleur de Lys
- Maesycwmmer, Pontllanfraith and Fleur de Lys

- Maesycwmmer and Ystrad Mynach
- Cwmcarn and Pontywaun
- Cwmfelinfach and Ynysddu
- Penyrheol, Hendredenny and Abertridwr
- Llanbradach and Pwllypant
- Bedwas and Caerphilly
- Machen, Graig Y Rhacca and Waterloo
- Ty Sign and Pontymister

Green Belt

7.50 Green Belts are a permanent strategic planning designation which restricts urban sprawl. Green belts often contain areas of attractive landscape, however, the quality of the landscape is not relevant to the inclusion of land within a green belt or to its continued protection. The most important attributes of green belts are their permanence and their openness. Land within a green belt is protected for a longer period than a development plan period, and the green belt is not reviewed as part of the development plan process. Currently there are no green belt designations within Caerphilly County Borough.

7.51 Policy 34 of Future Wales, the National Plan requires the SDP for the South East of Wales to identify a green belt north of Cardiff and Newport. The regional strategic diagram in Future Wales for the South East region (pp163) highlights a general area north of Cardiff where the green belt may be designated. However, no definitive boundaries have been established. The SDP is responsible for the designation of the green belt's boundaries. The SDP is still in the early stages of development. There is no set time for when it will be published. However, it is expected to be within the 2RLDP plan period. Until then, Future Wales recommends that LPAs should not permit major developments within the proposed area for the green belt.

Trees and Woodlands *(SM2.7)*

7.52 Trees and woodlands provide a wide range of essential benefits for the GBI network. They play a critical role in climate regulation, absorbing and storing carbon over long periods and mitigating the effects of climate change. Woodlands enhance biodiversity, supporting thousands of species and forming vital ecological networks that contribute to nature recovery. They also help regulate water and soil systems, reducing flood risk, improving water quality, and stabilising soils through natural processes such as interception, filtration, and erosion control. In addition, trees improve air quality by filtering pollutants and moderating local microclimates, particularly in urban environments.

7.53 Beyond environmental functions, woodlands deliver significant health and social benefits, providing restorative spaces that support physical activity, reduce stress, and promote mental well-being while offering cultural and recreational value for communities. Economically, they contribute through ecosystem services, tourism, timber and biomass production, and by underpinning natural capital that supports

long-term prosperity and resilience. Collectively, trees and woodlands are indispensable natural assets, foundational to environmental sustainability, community well-being, and climate resilience.

7.54 Caerphilly County Borough has a rich and diverse mix of trees and woodlands. In total, approximately 8500 Ha of land within the county borough is made of up of trees and woodland, representing nearly 30% of all land.

Woodlands *(SM2.7)*

7.55 Woodlands are diverse, multi-layered ecosystems dominated by trees and shaped by natural processes and long-term land management. They provide essential habitat for a wide range of species, support soil and water systems, and play a critical role in regulating climate through carbon storage and sequestration. Beyond their ecological importance, woodlands contribute to landscape character, offer recreational and cultural value, and deliver significant benefits for human health and well-being.

7.56 The National Forest Inventory (2020) indicates that Caerphilly County Borough contains a mixture of broadleaved, coniferous and felled woodlands, approximately 55% (3104 Ha) of which is ancient semi natural woodland. Ancient semi-natural woodlands are among the most valuable and irreplaceable habitats in Wales, having maintained continuous woodland cover for hundreds of years.

7.57 Therefore, due to their long ecological continuity, these woodlands are typically more diverse and of significantly higher conservation value than more recently established woodlands. They support complex communities of native plants, fungi, invertebrates, birds, and mammals that have developed over centuries, including many species that are entirely dependent on ancient woodland conditions. Their undisturbed soils, rich organic layers, and long-established ecological processes make them a critical component of the County Boroughs natural heritage.

Urban Trees *(SM2.7)*

7.58 Urban trees form a vital component of the built environment, providing structure, character, and ecological value within towns and cities. Integrated into streets, parks, public spaces, and residential areas, they contribute significantly to environmental quality by improving air quality, regulating microclimates, reducing surface water runoff, and supporting urban biodiversity.

7.59 Beyond their ecological functions, urban trees enhance visual amenity, strengthen sense of place, and deliver important social benefits by creating attractive, healthier, and more liveable urban environments. As multifunctional natural assets, they play an essential role in supporting climate resilience, community well-being, and sustainable urban design. There are a large number of urban trees present within the County Borough. It is not possible to produce an exact figure for the number of trees. However, these areas account for approximately 554.37 Ha of land.

Protected Trees

7.60 Due to their importance some trees and wooded areas are protected by Tree Preservation Orders (TPOs). A TPO is a statutory process which allows LPAs in Wales to protect important trees and wooded areas. As a statutory process, it is an offence to cut down, fell, uproot or remove trees protected by a TPO without formal consent from the LPA. Within the County Borough there are around 544 areas of protected trees and a further 1000 individual trees protected by TPOs.

Hedgerows

7.61 Hedgerows are an important feature of both rural and urban landscapes in Wales and are formally recognised as a priority habitat. They play a crucial ecological role by providing food, shelter, and connective corridors for a wide range of wildlife species. In addition to their ecological value, hedgerows contribute significantly to climate resilience, functioning as important carbon stores, stabilising soils, and reducing flood risk by slowing and intercepting surface water flow. Many hedgerows also hold considerable historic and cultural significance, shaping local landscape character and reflecting centuries of land-use history.

7.62 There is little information available to pinpoint the exact number of hedgerows within the County Borough. However, it is estimated by the *European Environment Agency (2026)* that there are over 2500 separate features within the County Borough. There is some information available regarding hedgerows within statutory and non-statutory protected sites. Statutory sites contain approximately 53.3 Ha of hedgerows. In addition, non-statutory sites contain 464.2 Ha. As hedgerows are a priority habitat, they should be protected from inappropriate development and integrated within any site design where possible.

Agricultural Land *(SM2.8)*

7.63 Agricultural land delivers a wide range of benefits, forming a cornerstone of rural areas. It underpins food production and supports the wider economy, including rural employment. In addition to its productive role, well-managed farmland provides critical ecosystem services such as carbon storage, water regulation, soil conservation, and habitats for farmland wildlife and pollinators. Farmland also shapes the cultural identity and landscape character of the County Borough, supporting rural communities, the Welsh language, and the tourism sector.

7.64 Within Caerphilly County Borough, there is approximately 8647 Ha of agricultural land, around 31.2% of all land. However, not all agricultural land is of equal quality and importance. The WGs Predictive Agricultural Land Classification (ALC) data provides detailed information on the condition of agricultural land and where the best and most versatile agricultural land is located. This allows LPAs to consider the quality and importance of agricultural land when making development decisions.

7.65 The latest ALC data (2019) indicates that the County Borough contains very limited areas of Grade 1 agricultural land, with only a small section present along the southern boundary of the County Borough adjoining Cardiff. Grade 2 land is more prevalent but remains concentrated in the southern part of the County Borough, particularly near the Cardiff boundary and in the areas surrounding Bedwas, Machen, Wattsville, and Risca. Grade 3 land is more widely distributed across the south of the area. However overall, less than 3% of the County Borough comprises land graded between 1 and 3a, emphasising the need to safeguard these higher quality agricultural soils from development wherever possible.

Geodiversity

Regionally Important Geodiversity Sites (RIGS)

7.66 RIGS are non-statutory sites designated for their geological, geomorphological and educational significance, representing important geodiversity features. Although they do not receive the same legal protection SSSIs, RIGS are recognised within the planning system as valuable environmental assets that should be considered in development decisions.

7.67 These sites often include distinctive rock formations, fossil localities, mineral exposures, landforms and geomorphological features that contribute to scientific understanding, landscape character, biodiversity and cultural heritage. Conserving RIGS helps to maintain the geological foundation of ecosystems, supports education and research opportunities, and contributes to the wider GBI network by preserving natural processes and sense of place.

7.68 There are five RIGS within the County Borough, one in the north near Llechryd, and four areas in the south surrounding Caerphilly and Risca. These sites cover an area of 12.9 Ha in total and are relatively small in nature.

Health and Well-Being

7.69 *Technical Advice Note (TAN) 16: Sport, Recreation and Open Space (2009),* categorises open space into a range of typologies that reflect the diverse functions these areas perform within communities.

7.70 These areas include parks and gardens, natural and semi-natural greenspaces, green corridors, amenity greenspace, provision for children and young people, outdoor sports facilities, allotments and community growing spaces, cemeteries and churchyards, civic spaces, and accessible water spaces.

7.71 Collectively, these typologies provide a comprehensive framework for assessing the quantity, quality and accessibility of open space provision. They recognise that open spaces fulfil a wide range of environmental, recreational and social functions, contributing to biodiversity conservation, active travel, healthy lifestyles, food production, recreation, community cohesion and placemaking. As such, they form an

integral component of GBI networks and play an important role in supporting the health, wellbeing and resilience of communities.

Natural and Semi-Natural Greenspaces *(SM2.9)*

7.72 Natural and semi-natural greenspaces, including woodlands, grasslands, wetlands and heathlands, play a vital role in supporting health and wellbeing through direct contact with nature. These environments provide opportunities for walking, outdoor recreation and nature appreciation, all of which can contribute positively to physical health and psychological wellbeing. Access to natural environments is increasingly recognised as an important component of preventative health, helping to reduce stress, improve mental resilience and support overall quality of life.

Amenity Greenspaces *(SM2.9)*

7.73 These greenspaces contribute to everyday wellbeing by providing accessible areas for informal recreation, relaxation and social interaction close to where people live and work. Although often modest in scale, these spaces improve the visual quality of neighbourhoods, provide opportunities for casual outdoor activity and create a more pleasant living environment. Their proximity to residential areas makes them an important component of local health and wellbeing infrastructure.

Allotments and Community Growing Spaces *(SM2.9)*

7.74 Allotments and community growing spaces deliver a range of health and wellbeing benefits through physical activity, social interaction and food production. Participation in gardening and food-growing activities can improve physical fitness, support mental wellbeing and encourage healthier lifestyles. These spaces also strengthen community networks, promote environmental awareness and provide opportunities for lifelong learning and community engagement.

Parks and Gardens *(SM2.9)*

7.75 Parks and gardens provide accessible, multifunctional spaces that support a range of physical, mental and social wellbeing outcomes. They offer opportunities for informal recreation, exercise, relaxation and social interaction, helping to encourage active lifestyles whilst providing access to natural environments. As attractive and inclusive public spaces, parks and gardens contribute to improved mental wellbeing, reduced stress levels and stronger community cohesion by providing places where people can meet, participate in activities and engage with the wider community.

Outdoor Sports Facilities *(SM2.9)*

7.76 Outdoor sports facilities support participation in organised sport, physical exercise and recreational activities. By providing opportunities for regular physical activity, they contribute to improved fitness, physical health and mental wellbeing. Sporting facilities also play an important social role, helping to foster community engagement,

social inclusion and opportunities for participation across a wide range of age groups and abilities.

Provision for Children and Young People *(SM2.9)*

7.77 Dedicated play spaces and recreational areas for children and young people make an important contribution to physical, social and emotional development. These spaces encourage active play, support healthy childhood development and provide opportunities for social interaction and learning. Well-designed and accessible play provision can also contribute to community wellbeing by creating inclusive environments that support families and encourage outdoor activity from an early age.

Accessible Water Spaces *(SM2.9)*

7.78 Accessible rivers, lakes, reservoirs and other blue spaces provide significant benefits for both physical and mental wellbeing. These environments offer opportunities for recreation, walking, relaxation and engagement with nature, whilst often contributing to the distinctive character of a place. Water environments can have a calming influence and support mental health and wellbeing, while also delivering wider environmental functions such as flood management, climate resilience and biodiversity enhancement.

Cemeteries, Churchyards and Burial Grounds *(SM2.9)*

7.79 Cemeteries, churchyards and burial grounds provide important areas of tranquillity and reflection within both urban and rural environments. They offer opportunities for quiet contemplation and remembrance, contributing positively to emotional and mental wellbeing. Many also contain mature vegetation and areas of biodiversity value, enhancing environmental quality and providing informal green spaces that contribute to the wider green infrastructure network.

Country Parks *(SM2.10)*

7.80 Country Parks provide accessible and multifunctional green spaces that enable residents and visitors to experience the countryside in close proximity to urban areas. They perform an important role within GBI networks by supporting recreation, active lifestyles and opportunities for engagement with the natural environment.

7.81 In addition to delivering significant health and wellbeing benefits through walking, cycling and informal recreation, Country Parks often contain valuable habitats and landscape features that contribute to biodiversity conservation, ecological resilience and environmental quality. As such, they represent an important community resource, providing recreational, educational and environmental benefits whilst supporting wider objectives relating to health, wellbeing, climate resilience and sustainable placemaking.

7.82 There are six country parks located within the County Borough. These are Parc Penallta in Ystrad Mynach, Parc Cwm Darran in Deri, Bryn Bach Park in Rhymney,

Parc Coetir in Bargoed, Sirhowy Valley in Cwmfelinfach, and Pen Y Fan Pond in Croespenmaen. These areas total approximately 812.7 Ha of land, accounting for around 3% of the County Borough.

Urban Parks *(SM2.9)*

7.83 Urban Parks are strategically important green spaces that provide accessible opportunities for recreation, physical activity and social interaction within built-up areas. They make a significant contribution to public health and wellbeing by encouraging active lifestyles, promoting mental wellbeing and providing spaces for relaxation and community engagement.

7.84 In addition to their recreational function, urban parks deliver a range of environmental benefits, including biodiversity enhancement, sustainable drainage, urban cooling and improved air quality. As multifunctional GBI assets, urban parks play a vital role in creating attractive, healthy and resilient places, supporting both community wellbeing and wider environmental objectives.

7.85 There are six large urban parks within the County Borough. These are Bargoed Park in Bargoed, Morgan Jones Park in Caerphilly, Nelson Wern Park in Nelson, Sir Harold Finch Park in Pontllanfraith, Waunfawr Park in Crosskeys, and Ystrad Mynach Park in Ystrad Mynach. In addition, there are a number of smaller park areas throughout other settlements within the County Borough. Each of these serves as an important outdoor and accessible greenspace for residents. Many of these areas are also equipped for outdoor play, offering multi used games areas (MUGAs) and fixed play provision for children and young adults.

Green Flag Areas

7.86 Green Flag sites are nationally recognised parks and green spaces that meet the highest standards of environmental management, accessibility and visitor experience. Administered by Keep Wales Tidy the Green Flag Award provides assurance that a site is safe, welcoming, well-maintained and managed in a sustainable manner. These areas make an important contribution to biodiversity, recreation, health and wellbeing, whilst also supporting community engagement and the long-term management of GBI. There are six sites in Caerphilly County Borough that have received the full award, and a further eighteen sites that have been given the community award. A full list of these sites can be found in *EB37 Green and Blue Infrastructure Assessment, Supporting Tables.*

Sport and Recreation *(SM2.10)*

7.87 Sport and recreation facilities form an important component of GBI networks, providing opportunities for physical activity, social interaction and engagement with the natural environment. Access to high-quality sports pitches, recreation grounds, MUGAs and informal recreational spaces supports a healthier lifestyle by encouraging

regular exercise, helping to reduce the risk of physical and mental health issues, and improving overall wellbeing.

7.88 When integrated within GBI, these spaces can also contribute to biodiversity enhancement, climate resilience and active travel networks, creating multifunctional environments that deliver both health and environmental benefits to local communities. Further detailed information on leisure and recreation provision for the 2RLDP can be found in EB18 Leisure and Recreation Evidence Paper. However, the following sections are relevant to GBI.

7.89 The Councils Sport and Active Recreation Strategy provides an overview of existing sport, recreation, and fixed play facilities within the County Borough.

7.90 The Council currently provides and maintains:

- 116 playing pitches for football and rugby
- 105 fixed equipment playgrounds
- 27 multi used games areas
- 21 tennis courts
- 21 youth shelters
- 20 bowling greens
- 18 skate parks
- 10 kickwalls
- 8 cricket grounds
- 1 assault course
- 1 athletics track
- 1 water play splash park

7.91 There are other sporting opportunities within the County Borough, which are run privately. There is no definitive list for all of these facilities, clubs and classes. However, examples of these includes seven public golf courses, boxing and martial arts clubs, private gyms, dance clubs, padel and squash courts, and many others.

Leisure Centres

7.92 In addition to outdoor play areas, the Council operates several leisure centres, including facilities for gym, sauna, swimming, racquet courts and fun pools located throughout the County Borough. These are located at Heolddu Leisure Centre in Bargoed, Sue Noake Leisure Centre in Ystrad Mynach, St Cenydd Leisure Centre in Caerphilly, New Tredegar Leisure Centre, Cefn Fforest Leisure Centre, Caerphilly Leisure Centre, Risca Leisure Centre, Newbridge Leisure Centre, and Bedwas Leisure Centre. In addition, construction is underway on the new well-being centre to be located on Caerphilly Business Park.

Cycling and Active Travel Networks *(SM2.11)*

7.93 Cycling is a key component of sustainable GBI, providing an accessible form of physical activity that delivers significant health, wellbeing and environmental benefits.

Well-connected cycling routes encourage active travel, helping to increase daily physical activity, improve cardiovascular health and support mental wellbeing through greater access to green spaces and the natural environment.

7.94 Cycle networks also enhance connectivity between communities, employment areas, services and recreational destinations, reducing reliance on private vehicles and contributing to wider sustainability and climate objectives. As part of an integrated GBI network, cycling infrastructure can support healthier lifestyles, improve accessibility and create more attractive, resilient and liveable places.

7.95 The County Borough contains several national and local cycling routes which link urban areas and provide opportunities for sustainable travel and exercise. National cycling routes link Rhymney and the heads of the valley to destinations outside of the County Borough in Merthyr and Blaenau Gwent, as well as southwards towards Bargoed and Blackwood. Other routes connect Nelson with Ystrad Mynach, south through the Sirhowy valley towards Risca and Newport. Routes through Caerphilly connect it with Newport and the south west towards Cardiff and Pontypridd. In addition, local routes provide important connectivity between national routes and more rural areas, providing ample opportunity for cycling with the County Borough.

7.96 The County Borough also contains opportunities for active travel. Further information on these exact routes can be obtained by consulting the Councils *Active Travel Network Map (ATNM).*

Soundscape

7.97 Soundscapes are an important element of GBI, reflecting the acoustic character of a place and influencing how people experience and interact with their environment. High-quality soundscapes associated with natural features such as woodlands, rivers, coastlines and open countryside can contribute positively to health and wellbeing by reducing stress, supporting mental restoration and enhancing opportunities for recreation and connection with nature.

7.98 Protecting and enhancing tranquil areas from excessive noise can improve the quality of green spaces, strengthen local character and encourage greater use of the natural environment for leisure, exercise and relaxation. As part of a multifunctional GBI network, soundscapes contribute to the creation of healthier, more attractive and more resilient places for communities and wildlife alike.

Tranquil Areas *(SM2.12)*

7.99 Tranquil areas represent an important component of GBI, providing places where people can experience peace, quiet and a strong connection with the natural environment. Access to tranquil landscapes can deliver significant health and wellbeing benefits by reducing stress, supporting mental restoration, improving mood and encouraging opportunities for relaxation, recreation and reflection.

7.100 The majority of the County Borough outside of urban areas falls within Zone B of the Tranquil Areas in Wales (2009). Zone B areas are considered highly tranquil but may be subject to some limited influences from nearby development, transport infrastructure or human activity. While not as remote as undisturbed areas, they retain a strong sense of tranquillity and contribute significantly to landscape quality and wellbeing.

7.101 There are some minor pockets of the County Borough which fall within Zone C. These are areas exhibit moderate levels of tranquillity, where the effects of settlement, transport routes, agricultural activity or other forms of development are more evident. Despite these influences, they can still provide important opportunities for recreation, contact with nature and local landscape appreciation. There are limited areas which are classified as undisturbed areas.

7.102 There is one isolated area in the north west of the County Borough near Gelligaer and Merthyr Common which is classified as undisturbed. Undisturbed areas represent the most tranquil parts of Wales, characterised by very low levels of human influence, noise, light pollution and visual intrusion. These areas are typically found in remote upland, coastal and rural landscapes and offer the highest levels of peace and quiet.

Loud and Noisy Areas *(SM2.13)*

7.103 Environmental noise can have significant adverse effects on health, wellbeing and the quality of GBI. Prolonged exposure to noise from road traffic, railways, industry and other human activities can increase stress levels, disturb sleep, reduce opportunities for relaxation and negatively affect mental wellbeing. Excessive noise can also diminish the recreational value of parks, open spaces and the wider countryside by reducing people's ability to experience tranquillity and connect with nature. In addition, noise pollution can affect wildlife behaviour, communication and habitat use, potentially reducing the ecological function of GBI networks. Managing environmental noise is therefore important to maintaining healthy, attractive and multifunctional environments that support both community wellbeing and biodiversity.

7.104 Environmental noise mapping provides an assessment of noise exposure from major sources such as roads, railways, industry and aviation, helping to identify areas where noise may affect quality of life, health and wellbeing. This assessment highlights that the primary noise pollutants within the County Borough arise from strategic highway and rail routes, as well as areas with an industrial use. This is especially evident around strategic road routes in Rhymney, Ystrad Mynach and Caerphilly. In addition, the Rhymney and Ebbw Vale rail lines which connect the County Borough with regional corridors make a slightly smaller contribution to noise levels than the strategic road network. The data shows the average noise levels between 7am and 11am for the average week day. As expected, areas with industrial uses are also a source for noise during productive and working hours.

Dark Skies *(SM2.14)*

7.105 Light pollution can have adverse effects on both human health and the natural environment. Excessive or poorly directed artificial lighting can disrupt natural sleep patterns, affect circadian rhythms and reduce opportunities to experience the restorative benefits of dark night skies, potentially impacting mental and physical wellbeing. From an environmental perspective, light pollution can alter wildlife behaviour, interfere with feeding, migration and breeding activities, and fragment ecological networks.

7.106 It can also diminish landscape character and reduce the quality of tranquil areas and recreational spaces. Managing light pollution is therefore an important consideration in protecting biodiversity, maintaining environmental quality and preserving the multifunctional benefits delivered by GBI. The assessment highlights that urban areas as expected are responsible for the main sources of light pollution within the County Borough. However, outside of these areas, the area is considerably darker, with some areas scoring on the lower end of the assessment criteria for brightness, which provides darker habitat conditions for priority species such as bats who thrive in these conditions.

Blue Infrastructure *(SM2.15, SM2.16, SM2.17)*

7.107 Blue infrastructure, including rivers, streams, wetlands and floodplains, forms a vital component of GBI networks, delivering a wide range of benefits. These features support biodiversity by providing important habitats and ecological connectivity, whilst also contributing to natural flood management, water quality improvement and climate resilience. Rivers and floodplains create opportunities for recreation, active travel and engagement with nature, which can enhance physical health, mental wellbeing and overall quality of life. In addition, they contribute to landscape character and sense of place, helping to create attractive, multifunctional environments that support both healthy communities and resilient ecosystems.

Main Rivers *(SM2.15)*

7.108 The County Borough is located in the Severn River Basin, as outlined within the Water Framework Cycle 2 data. As a result, the County Borough has a unique valleys landscape consisting of several Cycle 1 catchments with three main freshwater rivers servicing local communities. These are the rivers Rhymney, Ebbw and Sirhowy. In addition, there are many other smaller watercourses, and ground water flows which feed into these rivers as tributaries.

Flood Risk and Drainage *(SM2.16, SM2.17)*

7.109 Due to the valley's topography and issues such as climate change, some areas of the County Borough are susceptible to flooding from rivers, surface water and other small watercourses. The Flood Map for Planning (FMfP) provides data for these areas, outlining which areas fall into Zones 2 and 3.

7.110 Flood Zone 2 comprises land with a low to moderate probability of river flooding, defined as having between a 0.1% and 1% annual chance of flooding, whilst Flood Zone 3 represents land with a high probability of flooding, where the annual likelihood exceeds 1%. These flood risk zones provide an important evidence base for planning and development decisions, helping to ensure that future development is directed away from areas with the greatest flood risk and contributes to the creation of safe, resilient and sustainable communities.

7.111 Some areas of the County Borough contain large urban areas which are within these zones at risk of flooding. However, they are protected by defended zones. Defended zones identify areas that benefit from existing flood defence infrastructure that would otherwise be at risk of flooding. Whilst these defences can reduce the likelihood of flooding, they do not remove flood risk entirely, as overtopping, failure or exceedance of the design standard may still occur during extreme events.

Critical Drainage Areas *(SM2.17)*

7.112 Critical Drainage Areas (CDAs) are locations identified as being particularly susceptible to surface water flooding due to factors such as topography, urban development patterns and drainage network constraints. These areas are important in informing planning and development decisions, as they highlight locations where flood risk management and sustainable drainage measures may be required. Consideration of CDAs can help reduce flood risk, improve climate resilience and support the delivery of sustainable, well-designed places that effectively manage surface water while protecting communities, infrastructure and environmental assets.

7.113 Critical Drainage Areas can also present opportunities for the delivery of multifunctional green infrastructure. Through the incorporation of *Sustainable Drainage Systems (SuDS)*, wetlands, swales, attenuation areas and other GBI features, flood risk can be reduced while simultaneously enhancing biodiversity, improving water quality, creating attractive green spaces and supporting community health and wellbeing.

7.114 The Councils *Flood Risk Management Plan (FRMP)* and *Local Flood Risk Management Strategy and Action Plan (2024)* identifies three critical drainage areas within the County Borough. These are located at the Rhymney River Upper Reach in the north of the County Borough, The Nant Tywn Harris Catchment in the Mid Valleys, and the Porset Brook catchment in the South.

Rural Areas

7.115 Urban areas account for approximately 20% of the County Borough, therefore 80% of the County Borough is considered as open countryside. Countryside areas in the context of strategic planning relates to areas outside of defined settlement boundaries.

7.116 The countryside is a key component of the GBI network, providing a wide range of environmental, social, economic and cultural benefits. Rural landscapes support biodiversity, ecological connectivity and vital ecosystem services, including natural flood management, carbon sequestration and climate resilience. They also provide opportunities for recreation, active travel and engagement with nature, contributing positively to physical health, mental wellbeing and overall quality of life. As part of an interconnected GBI network, the countryside helps create resilient, multifunctional landscapes that support both thriving communities and healthy ecosystems.

7.117 Access to the countryside is an important component of GBI, providing opportunities for recreation, active travel and meaningful engagement with the natural environment. Well-connected public rights of way, trails and access land enable people to benefit from regular physical activity, support mental wellbeing through contact with nature, and promote healthier lifestyles.

Public Rights of Way (PRoW) *(SM2.19)*

7.118 There are over 495.8 miles of PRoW located within the County Borough. This network consists of 378.7 miles of footpaths, 59.6 miles of restricted bridleways, 50.9 miles of bridleways, and 6.8 miles of byways open to all traffic.

Open Access Land *(SM2.18)*

7.119 Open access land provides valuable opportunities for public access to some of Wales' most significant natural landscapes, supporting recreation, active lifestyles and engagement with the natural environment. These areas contribute positively to physical and mental wellbeing by enabling people to experience nature, tranquillity and outdoor recreation. The County Borough contains areas of open access land for public use, these areas include common land, public forest, open country, other dedicated and statutory land. Public forests are more prevalent in the South of the County Borough. Whereas opportunities for common land and other statutory land are concentrated in the North of the County Borough in upland locations.

Historic Environment *(SM2.20)*

7.120 The historic environment forms an integral part of the GBI network, contributing to landscape character, cultural heritage and local identity. Historic assets and landscapes often provide valuable green spaces that support recreation, education and community wellbeing, whilst also contributing to biodiversity and ecological connectivity. The conservation and enhancement of the historic environment can strengthen sense of place, promote sustainable tourism and support the creation of resilient, attractive and multifunctional landscapes that deliver multiple benefits.

Historic Landscape *(SM2.20)*

7.121 The County Borough contains an area of historic landscape located on Gelligaer and Merthyr Common. This area contains a number of landmarks relating to several

historical periods. The area is approximately 693.6 Ha in size and stretches from the north of the County Borough, south towards the Roman remains located in Gelligaer.

Listed Buildings *(SM2.20)*

7.122 Listed buildings are designated heritage assets recognised for their special architectural or historic interest and are protected through the planning system in Wales. Buildings are classified as Grade I, Grade II or Grade II* according to their significance, ranging from exceptional national importance to special historic or architectural interest. Collectively, listed buildings make an important contribution to the historic environment, helping to define local character, reinforce sense of place and preserve cultural heritage.

7.123 The County Borough contains 378 listed buildings ranging from grade 1 to grade 2*. Each of these buildings provides a snapshot of the history within the County Borough, from the Tudor house at Llancaiach Fawr, to the Garden Suburbs of Pontywaun. The majority of the listed buildings in the County Borough are grades II and grade II*. However, Caerphilly Castle and Llancaiach Fawr are grade I, and require special protection and consideration.

Scheduled Monuments *(SM2.20)*

7.124 Scheduled Monuments are nationally important archaeological and historic sites afforded statutory protection due to their cultural, archaeological and historical significance. They include a diverse range of heritage assets, from prehistoric and Roman remains to medieval castles, industrial sites and historic landscapes. The County Borough contains fifty-one scheduled monuments, ranging from the remains of a Roman Fort in Gelligaer, to smaller archaeological features in rural areas of the County Borough.

Conservation Areas *(SM2.20)*

7.125 Conservation Areas are designated locations of special architectural or historic interest where the character and appearance of the area are considered worthy of protection, preservation or enhancement. They often comprise a combination of historic buildings, streetscapes, open spaces, trees and landscape features that collectively contribute to local distinctiveness and cultural heritage. The County Borough contains sixteen Conservation Areas, each of which has distinctive requirements and guidance in place to protect and preserve them.

Historic Parks and Gardens *(SM2.20)*

7.126 Historic Parks and Gardens are designated heritage landscapes recognised for their special historic, cultural and landscape significance. They comprise a diverse range of designed landscapes, including formal gardens, parklands and public parks, which contribute to local distinctiveness, sense of place and cultural heritage.

7.127 There are five Historic Parks and Gardens located within the County Borough. These are located at the Maes Manor (11 Ha), Van Mansion (1.5 Ha), Ruperra Castle (254 Ha), Cefn Mably (210 Ha), and the Memorial Garden, Senghenydd (0.2 Ha). All of which are grade 2 listed buildings.

Local Assessment Findings

7.128 The local assessment demonstrates that Caerphilly County Borough possesses a substantial and diverse GBI network that contributes significantly to biodiversity, landscape quality, climate resilience, health and wellbeing, recreation, cultural heritage and sustainable placemaking. The County Borough occupies a strategically important position within the wider regional ecological network and contains an extensive range of statutory and non-statutory nature sites. Together with PENs, priority habitats, peatlands, woodlands, semi-natural grasslands and freshwater ecosystems, these assets provide an important foundation for nature recovery, habitat connectivity and ecological resilience.

7.129 The assessment highlights the importance of the County Borough's landscapes, with almost half of its area designated as Special Landscape Areas and additional protection afforded through Visually Important Local Landscapes and Green Wedges. Extensive areas of countryside, upland habitats, woodlands, hedgerows and agricultural land contribute to landscape character, local distinctiveness and the delivery of essential ecosystem services, including carbon sequestration, natural flood management, climate regulation and biodiversity support. The County Borough's woodland resource is particularly significant, with a substantial proportion comprising ancient semi-natural woodland of high ecological and heritage value.

7.130 The GBI network also makes a major contribution to the health and wellbeing of local communities. An extensive network of parks, country parks, natural green spaces, sports facilities, cycling routes, active travel networks, public rights of way and open access land provides accessible opportunities for recreation, physical activity and engagement with nature. These assets support healthier lifestyles, improve mental wellbeing and contribute to social cohesion, while Green Flag sites demonstrate high standards of environmental management and visitor experience.

7.131 Blue infrastructure forms a key component of the County Borough's multifunctional landscape. The Rhymney, Ebbw and Sirhowy river corridors, together with associated watercourses, floodplains and wetlands, provide valuable ecological, recreational and landscape functions. Whilst flood risk remains a consideration in parts of the County Borough, particularly within river valleys and identified Critical Drainage Areas, opportunities exist to strengthen resilience through the enhancement of sustainable drainage systems, natural flood management measures and wider GBI interventions.

7.132 The historic environment further enriches the GBI network through the presence of historic landscapes, listed buildings, scheduled monuments, conservation areas and historic parks and gardens. These assets contribute to local identity, cultural heritage

and sense of place, whilst also providing valuable opportunities for recreation, tourism, education and engagement with the historic landscape.

7.133 Although challenges remain, including the unfavourable condition of several designated ecological features, pressures associated with flood risk, and environmental impacts arising from noise and light pollution in more urbanised areas, the overall assessment identifies a strong and highly connected GBI network. The breadth and quality of environmental, recreational and cultural assets across the County Borough demonstrate a landscape capable of delivering multiple benefits simultaneously for people, nature and place.

8. THREATS AND CHALLENGES

8.1 The strategic and local assessments highlighted the extent, connectivity and multifunctional characteristics of the GBI network within the County Borough and the wider region. However, despite these strengths, GBI is facing multiple threats and challenges.

8.2 These challenges arise from a combination of factors, including climate change, biodiversity decline, development pressures, flood risk, pollution, and non-native invasive species. Understanding these threats is essential to identifying opportunities for intervention, informing future planning decisions and ensuring that the County Borough's GBI network remains resilient, connected, and capable of supporting both nature recovery and sustainable communities.

South East Wales Area Statement

8.3 The South East Wales Area Statement prepared by NRW identifies the following threats and challenges, impacting upon the natural environment and local communities within the region.

Climate Change and Resilience

8.4 Climate change is recognised as a significant and increasing threat to the long-term sustainability of South East Wales. Projected changes in temperature, rainfall patterns and the frequency of extreme weather events are expected to place growing pressure on communities, infrastructure, natural resources and local economies. The Area Statement emphasises the need for both climate change mitigation and adaptation measures, including nature-based solutions, resilient infrastructure, and sustainable land management practices, to reduce vulnerability and support the region’s capacity to respond to future environmental change.

Biodiversity Decline and Habitat Fragmentation

8.5 A key challenge identified is the continuing decline in biodiversity and the fragmentation of habitats across the region. The deterioration and isolation of ecological resources reduce the resilience of ecosystems and limit the ability of species to move, adapt and thrive in response to environmental change. The Area

Statement highlights the importance of protecting and enhancing ecological networks, restoring habitats, and improving landscape connectivity to support the recovery of nature and strengthen ecosystem resilience at both local and regional levels.

Flood Risk and Water Management

8.6 Flood risk is highlighted as a major challenge across South East Wales, particularly given the anticipated impacts of climate change. Increased rainfall intensity and changing hydrological conditions are expected to exacerbate flood risks affecting communities, businesses, infrastructure and the natural environment. The Area Statement advocates the adoption of integrated catchment-scale management and natural flood management approaches, recognising the important role that rivers, wetlands, floodplains and other natural systems play in reducing flood risk while delivering wider environmental benefits.

Development Pressures and Land Use Change

8.7 The Area Statement identifies urban growth, development demands and changing patterns of land use as significant pressures on the natural environment. Without appropriate planning and management, these pressures can contribute to the loss of GBI, increase habitat fragmentation and reduce the capacity of landscapes to deliver ecosystem services. Sustainable development approaches are therefore considered essential to ensuring that future growth is balanced with the protection and enhancement of environmental assets and natural resources.

Inequalities in Access to Nature and Green Spaces

8.8 The Area Statement highlights disparities in access to high-quality natural environments and green spaces across the region. Unequal access to nature can contribute to wider social and health inequalities, particularly within disadvantaged and densely urbanised communities. Improving opportunities for people to access and experience natural environments is recognised as an important means of supporting physical and mental health, enhancing wellbeing and fostering stronger, more resilient communities.

Partnership Working and Cross-Boundary Collaboration

8.9 Recognising that environmental challenges often extend beyond administrative boundaries, the Area Statement emphasises the need for effective partnership working and collaborative action. Issues such as biodiversity recovery, climate change adaptation, flood risk management and ecosystem restoration require coordinated responses involving public bodies, local authorities, landowners, community organisations and other stakeholders. Strengthening partnerships and promoting cross-boundary cooperation are considered fundamental to delivering successful, long-term outcomes for both people and nature.

State of Natural Resources Report (SoNaRR)

8.10 The SoNaRR (2020 & 2025) identifies the range of drivers and pressures on both our natural resources and the natural environment. These are divided into categories and presented in the tables below.

Natural Resources

Driver	***Natural Resource***	***Pressures***
Climate Change	*Water*	*Sea level rise,* *Changes in water temperature,* *Changes in intensity and frequency of weather events.*
	Soil	*Sea level rise,* *Changes in intensity and frequency of weather events.*
Pollution	*Water*	*Water pollution,* *Air pollution*
	Air	*Air pollution,* *Noise pollution,* *Light pollution*
	Soil	*Air pollution,* *Noise pollution,* *Light pollution*
Direct Exploitation	*Water*	*Non efficient use,* *Water abstraction and demand*
	Soil	*Drainage,* *Water abstraction and demand*
Land and Sea Use Change	*Water*	*Agricultural intensification,* *Built development and infrastructure,* *Physical modifications (freshwater and coastal)*
	Air	*Agricultural intensification,* *Built development and infrastructure,*
	Soil	*Afforestation,* *Agricultural intensification,* *Built development and infrastructure,* *Reduced land use / management intensity*

Biodiversity, Ecosystems and Habitats

Table 1: Climate Change Pressures

Driver / Pressures	***Habitat Type***	***Potential Impacts***
Climate Change: Changing Weather Patterns	*Enclosed Farmland, Freshwater, Mountains, Moorlands and Heath, Semi Natural Grasslands, Urban, and*	*Inconsistent weather for growing crops and managing livestock, loss of habitat, increased risk of wildfires, loss of species, increased risk of*

	Woodlands	*flooding, reduced water quality, soil degradation, increased risk of pests and disease, changes in carbon sequestration, changes in land suitability.*
Climate Change: Increased Water Temperature	*Freshwater*	*Changes in species population, increased risk of invasive species.*

Table 2: Pollution Pressures

Driver / Pressures	***Assets Impacted***	***Potential Impacts***
Pollution: Air	*Enclosed Farmland, Freshwater, Mountains, Moors and Heath, Semi Natural Grasslands, Urban, and Woodland.*	*Acidification of rivers, ponds and lakes, impacts on ecosystem services, increased levels of greenhouse gases, increased levels of nitrogen, reduction in species richness in both animal and plant species, increased carbon intake, soil acidification, harmful to human health and well-being.*
Pollution: Water	*Enclosed Farmland, Freshwater, Mountains, Moors and Heath, and Urban.*	*Excessive nutrient content in rivers, lakes and ponds, less species diversity, eutrophication due to fertiliser use, poor soil condition, overexploitation.*
Pollution: Land and Soils	*Enclosed Farmland, and Urban*	*Less diverse species, eutrophication due to fertiliser use, poor soil condition, decreased water quality, land contamination, lower value of land, decreased tourism, decline in health and well-being.*
Pollution: Noise	*Urban.*	*Poor quality of life, decline in health levels.*

Table 3: Land Use Change Pressures

Driver / Pressures	***Assets Impacted***	***Potential Impacts***
Land Use Change -	*Enclosed Farmland, Freshwater, Mountains, Moors and Heath,*	*Loss of habitat, deforestation, species decline, increased habitat fragmentation,*

Agricultural Intensification	*Semi Natural Grassland, Urban, and Woodland.*	*increased flood risk, pollution, lack of buffer zones for priority species, soil compaction, fertiliser application, depletion of pollinators.*
Land Use Change – Built Development and Infrastructure	*Enclosed Farmland, Freshwater, Semi Natural Grassland, Urban, and Woodland.*	*Loss of high-grade agricultural land, increased risk of flooding, loss of habitat, increased carbon footprint, consumes more natural resources, increases in landfill and waste, overexploitation.*
Land Use Change - Competing Land Use	*Enclosed Farmland, Semi Natural Grassland, and Woodlands.*	*Creation leads to possible loss of other habitats, loss of green areas for built development.*
Land Use Change - Insufficient Management	*Mountains, Moors and Heath, Semi Natural Grassland, and Woodland.*	*Decline in species and habitat, overgrazing, lower livestock production, lower food growth productivity, designated sites not managed effectively, poor connectivity, quality of sites deteriorates.*
Land Use Change - Unmanaged Access, Sport and Recreational Activity	*Mountains, Moors and Heath, and Semi Natural Grassland.*	*Pollution (noise and air), physical damage,*
Land Use Change – Historic Inappropriate Afforestation	*Mountains, Moors and Heath.*	*Loss of habitat and species.*
Land Use Change – Physical Modifications	*Freshwater.*	*Reduced ecosystem resilience, impacts species movement and migration, loss of habitat, loss of connectivity,*

Table 4: Non-Native Invasive Species (INNS) Pressures

Driver / Pressures	***Assets Impacted***	***Potential Impacts***
Invasive Species – Invasive Non-Native Species (INNS)	*Freshwater, Mountains, Moors and Heath, Semi Natural Grasslands, and Urban.*	*Outcompete native species, loss of some species, structural impacts on river and canal banks, increased threat of flooding, threat to ecosystem delivery and connectivity, uncontrolled growth, impacts on built*

		structures and environmental systems.
Invasive Species – Pests and Diseases	*Enclosed Farmland, and Woodlands.*	*Tree loss, loss of species, decline in tree health, deforestation.*

Council Pressures

Maintenance of Open and Green Spaces

8.11 Local authorities across Wales face increasing challenges in maintaining and enhancing GBI assets due to ongoing financial pressures, rising maintenance costs and competing service demands. Budget constraints can limit opportunities for proactive landscape management, ecological enhancement and the long-term stewardship of parks, open spaces, green corridors and other environmental assets.

8.12 At the same time, local authorities are expected to respond to growing pressures associated with climate change, biodiversity recovery, public health improvements and sustainable development. These challenges often necessitate difficult decisions regarding resource allocation and highlight the importance of prioritising multifunctional GBI investments, partnership working and innovative funding mechanisms to ensure that environmental assets continue to provide ecological, social and economic benefits for communities across Wales.

Development Pressure

8.13 The Adopted LDP is beyond its intended plan period of 2021. Therefore, this presents significant challenges for the Local Authority in managing growth, protecting environmental assets and delivering sustainable development. As the local planning policy framework become increasingly detached from current evidence and emerging environmental priorities, the effectiveness of the plan in guiding development decisions can be reduced.

8.14 This can create uncertainty for decision-makers, developers and communities, while limiting the authority's ability to proactively address issues such as climate change adaptation, biodiversity recovery, GBI enhancement, housing delivery and infrastructure provision. The absence of an up-to-date strategic planning framework may also increase the risk of speculative development proposals and reduce opportunities to coordinate investment and deliver long-term place-making objectives aligned with local and national priorities.

8.15 There is an urgent need to adopt a replacement local development plan, as the current framework relies on elements of national policy to evaluate development proposals, which does not address locally distinct issues in relation to the natural environment.

Summary of Threats and Challenges

8.16 This section has identified the principal challenges and opportunities influencing the provision, function and resilience of GBI across the County borough and wider South East Wales region. Drawing upon the findings of the South East Wales Area Statement and the SoNaRR reports, it is evident that biodiversity loss, habitat fragmentation, climate change, flood risk, and development pressures represent significant and interconnected issues that require a coordinated and long-term response.

8.17 The evidence also highlights the importance of addressing inequalities in access to high-quality natural environments, whilst recognising the vital role that GBI plays in supporting biodiversity, climate adaptation, public health and wellbeing, sustainable water management and ecosystem services. Collectively, these challenges reinforce the need to maintain and enhance existing GBI assets through integrated planning and sustainable natural resource management.

9. OPPORTUNITIES FOR ENHANCEMENT

Spatial Opportunities

Designated Sites Network

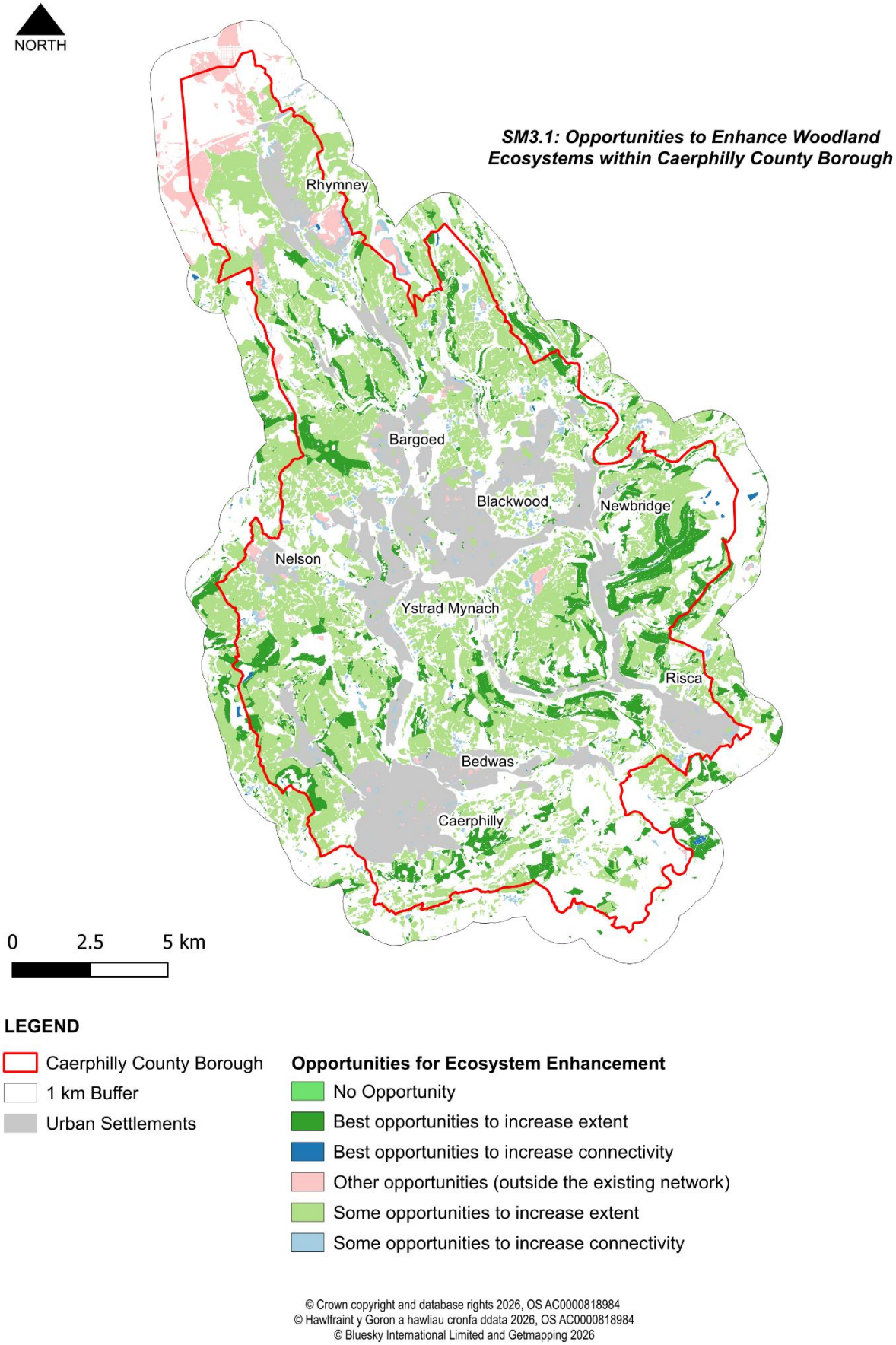
9.1 Although NRW are the organisation primarily responsible for the management of statutory designated sites, the Local Authority can collaborate with them to enhance the extent and connectivity of nature conservation sites at the local level to improve the resilience of designated sites through stepping stones.

9.2 The local assessment identified that there were 190 SINC areas within the County Borough. However, the SINC review has identified a further fifty-one sites that meet the criteria for designation. These sites would make a vital contribution to enhancing the extent, condition, and connectivity of the local nature network. Further information on these sites can be found in EB34: Sites of Importance for Nature Conservation Review. The review recommended that these sites be designated as part of the Deposit Plan.

Priority Ecological Networks

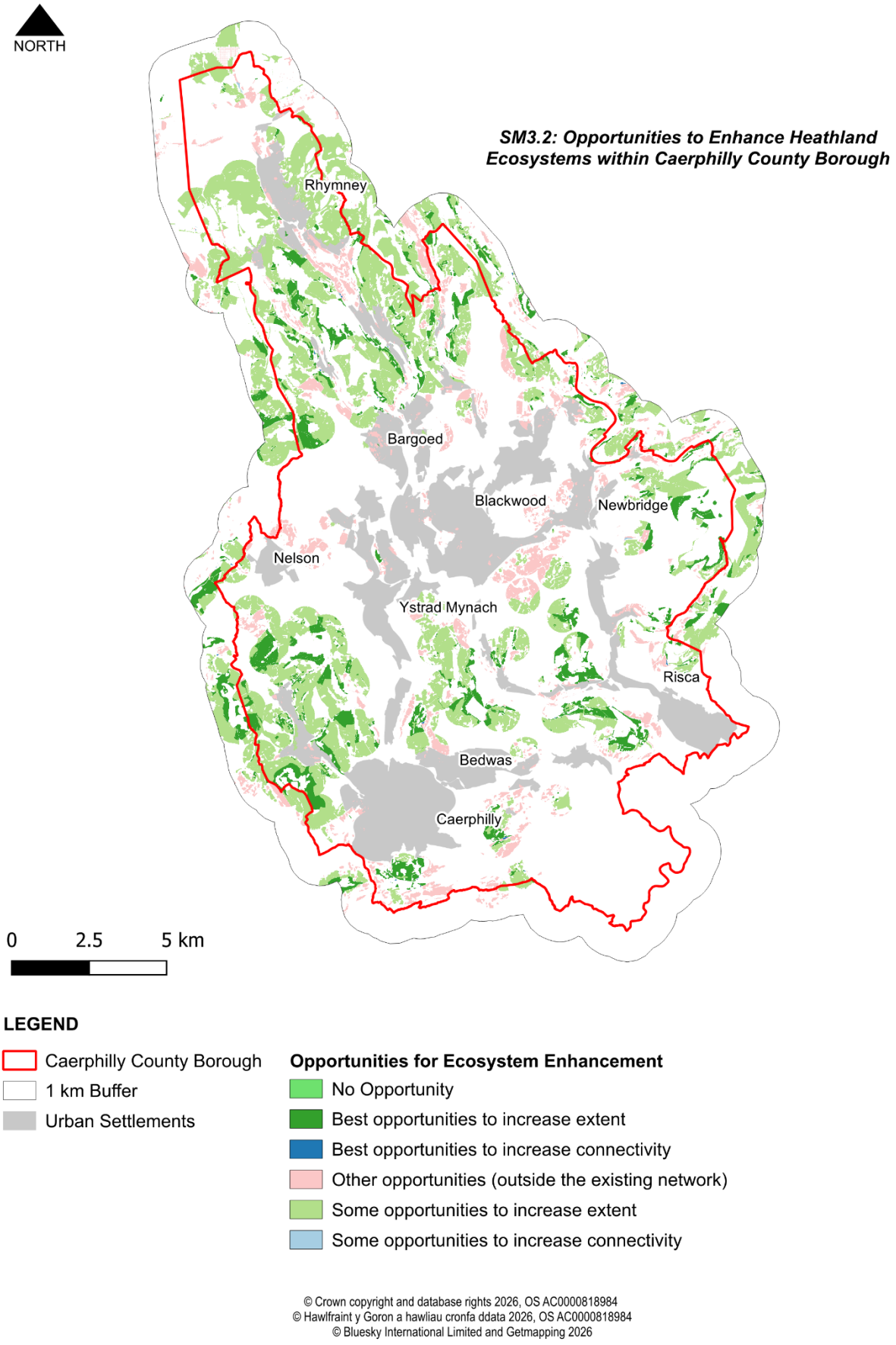
9.3 SM3.1 – SM3.4 identifies areas of the County Borough where there are opportunities to improve the extent, condition, and connectivity of woodland, heathland, wetland, and semi natural grassland habitats.

Figure 2 - Opportunities to enhance woodland ecosystems within the County Borough



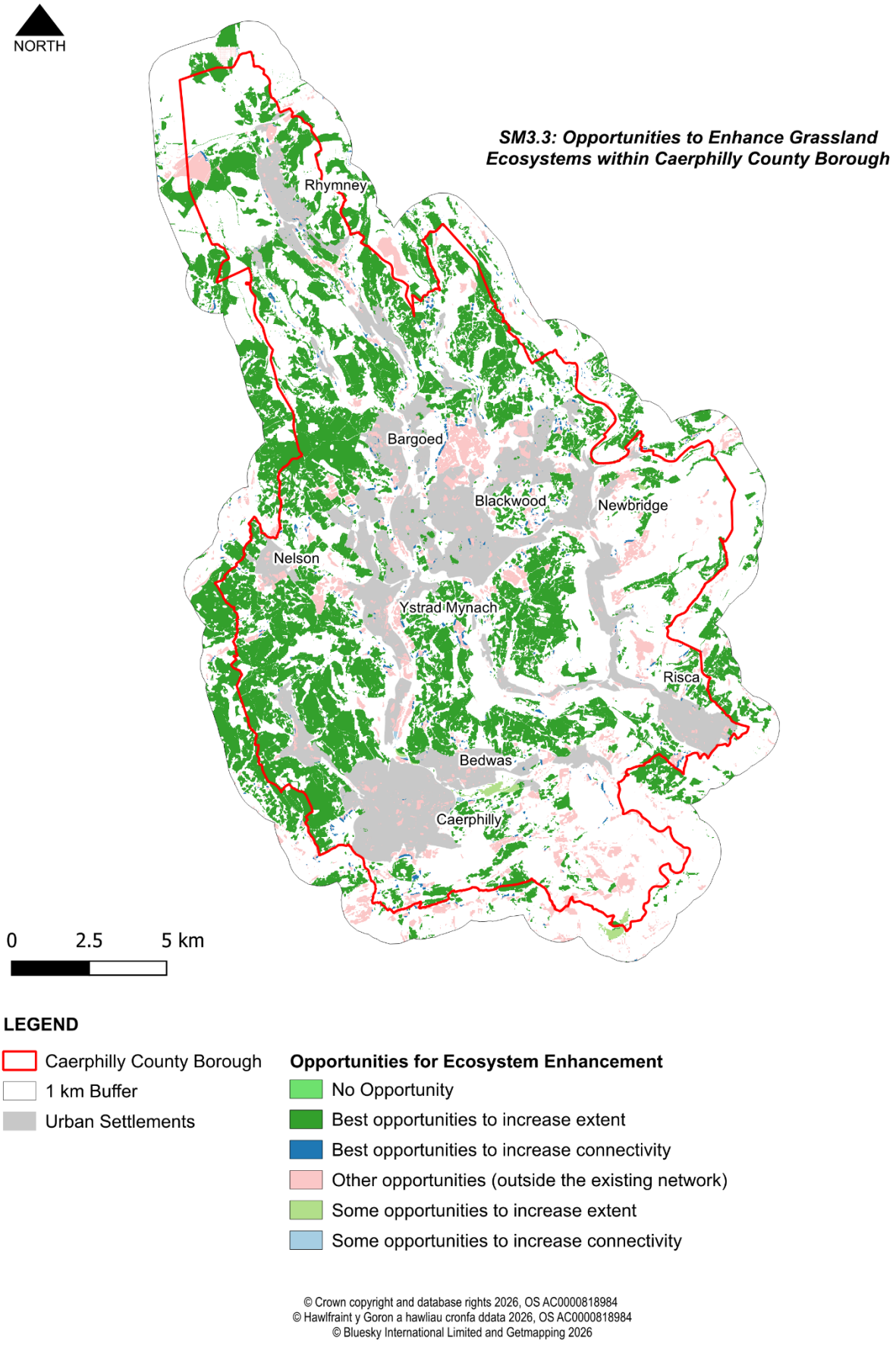
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Figure 3 - Opportunities to enhance heathland ecosystems within the County Borough



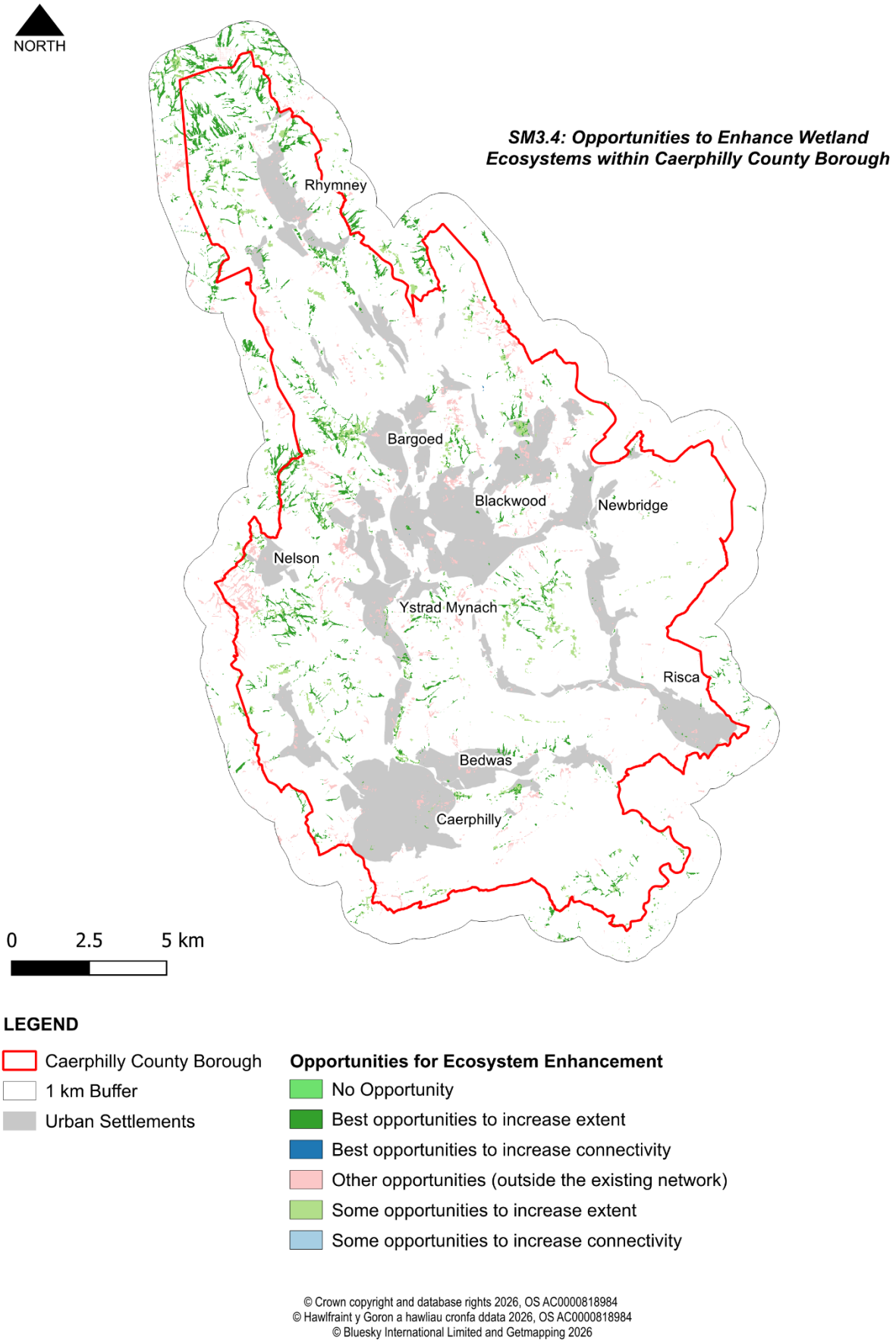
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Figure 4 - Opportunities to enhance grassland ecosystems within the County Borough



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Figure 5 - Opportunities to enhance wetland ecosystems within the County Borough



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Other Broad Habitats

9.4 The WINS data published by NRW identifies the following opportunities for the enhancement of broad habitats outside of PENs within the County Borough.

Woodlands

9.5 Woodlands offer substantial opportunities to enhance biodiversity, ecosystem resilience and climate change mitigation. The County Borough contains significant potential for woodland creation, including catchment woodland (6,342 Ha) on drained land, catchment woodland within sensitive areas (753 Ha), catchment woodland within drained areas (1,502 Ha), and floodplain woodland (162 Ha) in areas at greater risk of flooding.

9.6 These opportunities represent one of the most significant nature-based interventions identified across the County Borough and would provide a wide range of benefits including carbon sequestration, flood attenuation, habitat creation, improved landscape connectivity and enhanced ecosystem resilience. Woodland expansion, delivered in appropriate locations and integrated with wider habitat networks, would make a substantial contribution to the long-term enhancement of the area's GBI network.

Enclosed Farmland

9.7 Enclosed farmland presents significant opportunities to enhance the multifunctional role of GBI through more sustainable land management practices. Within the County Borough, substantial opportunities exist for hedgerow planting (878 Ha), widening existing hedgerows (443 Ha), retention of winter stubbles (683 Ha), and other forms of habitat restoration (843 Ha).

9.8 These interventions would strengthen ecological connectivity, improve soil health, support pollinator networks, reduce diffuse agricultural pollution and enhance landscape resilience. The protection and restoration of habitats, combined with sustainable agricultural practices and nature-based solutions, would help deliver multiple ecosystem services while supporting productive and environmentally sustainable farming systems.

Freshwater Environments

9.9 Freshwater environments offer considerable opportunities for GBI enhancement through the protection, restoration and creation of aquatic and riparian habitats. Within the County Borough there is potential for riparian planting (413 Ha) and river bank enhancement (1,610 Ha) alongside catchment woodland creation in strategically located areas that could contribute to improved water quality, natural flood management and habitat connectivity.

9.10 These opportunities support a catchment-based approach to natural resource management by reducing surface water runoff, stabilising riverbanks, improving

ecological corridors and increasing biodiversity. Nature-based solutions delivered across freshwater environments have the potential to enhance ecosystem resilience while simultaneously addressing flood risk and climate adaptation objectives.

Urban Environments

9.11 Urban areas present significant opportunities to strengthen GBI networks and improve the quality of life for local communities. Although many of the identified nature-based initiatives are located within the wider rural landscape, interventions such as hedgerow planting, habitat restoration, riparian corridor enhancement and woodland creation can provide important benefits for nearby settlements by improving access to nature, reducing flood risk and enhancing environmental quality.

9.12 The delivery of these nature-based solutions throughout urban areas within the County Borough would contribute to climate adaptation, biodiversity recovery, sustainable drainage and improved community wellbeing. Integrating these opportunities with sustainable transport, urban greening and accessible open space networks would further enhance the resilience and liveability of urban environments.

Policy Based Opportunities

9.13 GBI presents significant policy opportunities to deliver multiple environmental, social, economic and cultural benefits through the planning system. The protection, enhancement and creation of interconnected networks of green spaces, watercourses, woodlands, public open spaces and ecological corridors can support biodiversity recovery, climate change adaptation, flood risk management, sustainable drainage, active travel and improvements to health and wellbeing.

9.14 GBI also offers opportunities to strengthen landscape character, enhance ecosystem resilience, improve access to nature and contribute to placemaking objectives by creating attractive, healthy and sustainable communities. Therefore, based on the findings of this assessment, a range of criteria and area specific policies have been included with the Deposit Plan of the 2RLDP. Further information on these policies can be found in the Conclusion and Recommendations section of this report.

10. CONCLUSION AND RECOMMENDATIONS

10.1 This concluding chapter draws together the findings of the GIA to provide recommendations for the Deposit Plan of the 2RLDP. This builds upon the review of the policy context, strategic, and local assessments undertaken across the County Borough. These identified the relevant extent, condition, connectivity and multifunctionality of existing GBI features, alongside the key threats, challenges and opportunities.

Assessment Conclusion

10.2 This GIA has provided a comprehensive evidence base assessment to inform the 2RLDP Deposit Plan, evaluating the extent, condition and functionality of GBI assets across Caerphilly County Borough. The assessment demonstrates that the County Borough contains a diverse and well-connected network of environmental, recreational and cultural assets, including internationally and nationally important ecological sites, extensive woodlands, river corridors, open countryside, valued landscapes, public open spaces and historic environments. Collectively, these features make a significant contribution to biodiversity conservation, ecosystem resilience, climate change adaptation, landscape character, flood risk management, health and wellbeing, recreation and sustainable placemaking.

10.3 The assessment also identifies a range of challenges, including biodiversity decline, habitat fragmentation, climate change, flood risk, pollution, development pressures and constraints on the long-term management of environmental assets. Despite these challenges, substantial opportunities exist to strengthen the County Borough's GBI network through habitat restoration, ecological connectivity, woodland creation, sustainable water management, enhanced access to nature, and the delivery of nature-based solutions.

10.4 The findings demonstrate that GBI should remain a central component of the spatial strategy for the 2RLDP, providing a framework for maintaining and enhancing natural features whilst supporting resilient ecosystems, sustainable growth and the wellbeing of current and future generations.

10.5 Based on the findings of this assessment the following policy recommendations should be considered for the Deposit Plan.

Climate Change

10.6 The assessment highlights climate change as a key consideration for future development and demonstrates the need for a dedicated policy within the 2RLDP. A strategic policy for a ‘climate ready Caerphilly’ would provide a clear framework for addressing climate mitigation and adaptation, ensuring that developments contribute to reducing carbon emissions, managing flood risk, enhancing biodiversity, strengthening GBI networks, and improving resilience to extreme weather events. Therefore, the following strategic policy is recommended.

SP4: Climate Change

Development proposals must make a positive and proportionate contribution towards addressing the causes of, and adapting to the impacts of, climate change by demonstrating that the design of the development has taken account of the need to:

- *A Maximise resource efficiency and utilise sustainable construction techniques using locally sourced materials;*
- *B Promote low/zero carbon energy requirements;*
- *C Reduce energy use and promote energy efficiency;*
- *D Maximise the opportunities for renewable energy technology and repowering where applicable;*
- *E Maximise the opportunities for co-locating developments and promote sustainable transport, in accordance with the sustainable transport hierarchy;*
- *F Be resilient to, and mitigate for, the impacts of climate change in terms of design;*
- *G Promote decarbonisation;*
- *H Avoid increasing flood risk and mitigate any residual flood risks;*
- *I Maximise water efficiency and minimise adverse impacts upon the quality of water resources;*
- *J Promote resilience through maximising the opportunities for enhancing green infrastructure as part of the design of the development.*

Nature Based Approach

10.7 The assessment highlights the importance of maintaining and enhancing biodiversity and ecological resilience and demonstrates the need for a dedicated strategic policy within the 2RLDP setting out the Councils nature-based approach towards development. The policy would provide a clear framework for maintaining and enhancing features of value, whilst delivering a net benefit on development sites. Therefore, the following strategic policy is recommended.

SP5: Biodiversity, Ecosystem Resilience and Habitat

Where relevant, development proposals must maintain and enhance biodiversity and demonstrate a net biodiversity benefit, whilst contributing towards improved ecosystem resilience and habitat connectivity.

Placemaking

10.8 The assessment identifies GBI as a fundamental component of sustainable placemaking and demonstrates the need for a dedicated policy within the 2RLDP. This policy would ensure that development integrates high-quality green spaces, blue infrastructure, active travel connections, urban greening and nature-based solutions from the outset. This would help create attractive, healthy and resilient places, strengthen local character and sense of place, enhance biodiversity and climate resilience, and improve opportunities for recreation and community wellbeing. Therefore, the following strategic policy is recommended.

SP6: Placemaking Principles

Where relevant to the nature, scale and location, development proposals must enhance overall well-being through the protection and enhancement of the economic, social, environmental and cultural aspects of the County Borough and contribute towards the following strategic placemaking principles:

- *A Creating a rich mix of compatible uses;*
- *B Providing a variety of housing types and tenures;*
- *C Building places at a walkable scale, with homes, local facilities and public transport within walking distance of each other;*
- *D Increasing population density, seeking development densities of 50 dwellings per hectare in urban areas and higher densities in town centres and close to transport nodes;*
- *E Developing at urban densities that support the provision and improvement of public transport and local facilities;*
- *F Establishing a permeable network of streets, with a hierarchy that informs the nature of development;*
- *G Promoting a plot-based approach to development, which provides opportunities for the development of small plots, including for custom and self-builders; and*
- *H Integrating new and existing green and blue infrastructure, informed by the planning authority's Green Infrastructure Assessment.*

Local Sites for Nature Conservation

10.9 The assessment identifies local sites such as SINCs, LNRs and RIGS as an important component of the area's ecological and geological network and demonstrates the need for a dedicated policy within the 2RLDP. A detailed policy would provide a framework for the protection, and enhancement of non-statutory sites, recognising their contribution to biodiversity, habitat connectivity and ecosystem resilience. It would help ensure that development avoids adverse impacts on locally important

habitats and species, supports nature recovery objectives. Therefore, the following detailed policies are recommended in relation to local sites.

NA1: Local Sites for Nature Conservation

The following areas are designated for their nature conservation value as:

NA1.1: Sites of Importance for Nature Conservation (SINC)

NA1.2: Local Nature Reserves (LNR)

NA1.3: Regionally Important Geodiversity Sites (RIGS)

NA2: Development Affecting Local Sites for Nature Conservation

Development that would have an adverse impact upon designated Local Sites for Nature Conservation will not be permitted except where:

A *It can be clearly demonstrated that the benefits of the development outweigh the potential adverse impact; or*

B *Any loss of existing features can be mitigated against, and the compensatory measures provided on site where possible to deliver a net benefit for biodiversity.*

Green and Blue Infrastructure

10.10 The assessment identifies GBI as a critical element that underpins environmental quality, biodiversity, climate resilience and community wellbeing across the County Borough, highlighting the need for a dedicated policy within the 2RLDP. The policy would provide a critical framework for the protection, enhancement and creation of multifunctional GBI networks, ensuring that development contributes positively to habitat connectivity, sustainable drainage, active travel, landscape quality and access to natural green spaces. Therefore, the following detailed policy is recommended.

GI1: Green and Blue Infrastructure

Development proposals will be expected to maintain, and enhance green and blue infrastructure networks and will only be permitted where they:

A Maintain and integrate existing green and blue infrastructure assets through an appropriate design and site layout.

B Enhance the quality, extent, connectivity and multifunctionality of the green and blue infrastructure network.

Trees, Woodlands, and Hedgerows

10.11 The assessment identifies trees, woodlands and hedgerows as fundamental components of the County Boroughs GBI network, highlighting the need for a dedicated policy within the 2RLDP to ensure their protection where necessary. The policy will provide a basis for the protection, management and enhancement of these important landscape and ecological assets where it is required. Therefore, the following detailed policy is recommended.

NA3: Trees, Woodlands, and Hedgerows

Development proposals on sites that contain, or are bordered by, trees, woodlands and hedgerows, will be assessed in line with the appropriate British Standard and will only be permitted where:

A Development proposals have made all reasonable efforts to retain, protect and integrate trees, woodlands or hedgerows present within the development site.

B Where arboricultural surveys and Arboricultural Implication Assessments are required, they are submitted as part of a planning application and include all mitigation, compensation, enhancement or management requirements necessary to address the impacts of the proposed development.

C The design of the proposed development protects the root systems of retained landscape features, and the developer adequately protects them for the duration of all development activity on site.

D *Where trees, woodlands or hedgerows are removed, suitable replacement provision is made as part of the proposed development.*

Leisure, Recreation, and Open Space

The assessment identifies leisure, recreation, and open space as important features of the area's GBI network, highlighting the need for detailed policies within the 2RLDP. These policies would provide a basis for the protection, enhancement and expansion of recreational open spaces, parks, public rights of way, active travel routes and other leisure facilities, recognising their contribution to health and wellbeing, community cohesion, sustainable travel and quality of life. Therefore, the following policies are recommended.

LE1: Open Space and Leisure Facilities in New Housing

All housing developments of 10 units or more or greater than 0.3ha in size, should provide leisure facilities to meet the Fields in Trust Standards as part of the proposed development.

This provision should be delivered on-site where possible. Where provision on-site is not possible, off-site provision, or a contribution towards the appropriate upgrading of an existing facility, may be appropriate where:

- *A The location of the provision is within reasonable walking distance of the site; and*
- *B The level of provision is suitable for the size of the development.*

LE2: Protection of Open Space

Development proposals resulting in the loss, reduction, or deterioration of existing open space will only be permitted where it can be demonstrated that:

- *A The amount of open space remaining in the neighbourhood would still be adequate to serve local needs; and*
- *B The open space does not have significant amenity value as part of the design and layout of the area; or*
- *C Equivalent or better-quality replacement open space, in terms of size, function, accessibility and environmental value, is provided in a suitable location to serve the same community.*

LE3: Protection of Formal Leisure Facilities

Proposals which would adversely affect or result in the loss of existing or proposed recreation or leisure facilities will not be permitted, except where:

A *A replacement facility of equivalent community benefit is provided by the developer within the community at a sustainable, easily accessible, alternative location; or*

B *It can be demonstrated that the existing facility is no longer required for the current or any other recreation or leisure use; or*

C *There is an excess of such provision in the area, and the loss of the facility would not result in a deficit in provision.*

LE5: Protection of Country Parks

Country parks that contribute to the Valleys Regional Park are protected at the following locations:

LE5.1 *Bryn Bach Park, Rhymney/Tredegar*
LE5.2 *Parc Cwm Darran, Deri*
LE5.3 *Parc Coetir Bargod, Bargoed*
LE5.4 *Parc Penallta, Ystrad Mynach*
LE5.5 *Penyfan Pond, Croespenmaen*
LE5.6 *Sirhowy Valley Country Park, Ynysddu/Crosskeys*

Landscapes

10.12 The assessment identifies our landscapes as important features of the County Boroughs natural and cultural environment, highlighting the need for a protective policy within the 2RLDP. The policy would provide an element of protection and facilitate the enhancement of our landscapes recognised for their local distinctiveness, scenic quality, cultural value and contribution to sense of place. Therefore, the following policies for local non statutory landscape designation are recommended.

LS1: Special Landscape Areas (SLAs)

The following areas are designated as Special Landscape Areas:

LS1.1 Upper Rhymney Valley
LS1.2 Gelligaer
LS1.3 Mynydd Eglwysilan
LS1.4 North Caerphilly
LS1.5 South Caerphilly
LS1.6 Mynyddislwyn

Relevant proposals within designated Special Landscape Areas will only be permitted where they meet the following criteria:

A *The proposal must conserve or enhance the distinctive character and qualities of the SLA.*

B *The design must respect the local vernacular in terms of form, materials, and detailing, and sensitively integrate the development into the surrounding landscape.*

LS2: Visually Important Local Landscapes (VILLs)

The following areas are designated as Visually Important Local Landscape (VILLs):

LS2.1 Northern Rhymney Valley

LS2.2 Manmoel

LS2.3 Abercarn

LS2.4 Rudry

Relevant proposals within designated Visually Important Local Landscapes will only be permitted where they maintain or enhance the distinctive visual and sensory landscape features or characteristics of the VILL.

Environmental Pollution

10.13 The assessment identifies pollution, contamination, invasive non-native species and wider environmental health issues as important considerations for sustainable development, highlighting the need for a detailed environmental protection policy within the 2RLDP. The policy would provide a framework for preventing and managing adverse impacts associated with air, noise, water and soil pollution, land contamination, waste management, invasive species and other public safety

concerns. It would help ensure that development protects environmental quality, human health, ecological integrity and the functionality of GBI networks, whilst promoting remediation, resource efficiency and environmental resilience where issues are identified. Therefore, the following policy is recommended.

EP1: Public Health and Environmental Protection

Development will only be permitted where it can be demonstrated that it will not introduce, or exacerbate an unacceptable risk of harm to public health or the environment due to:

A Water, air, noise, dust or light, pollution;

B Invasive and non-native species;

C Land contamination;

D Land instability;

E Waste management and disposal;

F Any other significant risk to public health and/or safety.

Critical Drainage Areas

10.14 The assessment identifies three critical drainage areas within the County Borough. These areas are critical blue infrastructure features which provide critical drainage functions and require key consideration when assessing development proposals. Therefore, these areas should be identified within the 2RLDP. As a result, the policy below is recommended.

EP2: Critical Drainage Areas

The following areas are designated as critical drainage areas:

EP2.1: Rhymney River, Upper Reach

EP2.2: The Nant Tywn Harris Catchment

EP2.3: Porset Brook Catchment

Development proposals that are likely to impact upon these areas will require a Flood Consequence Assessment (FCA) which clearly addresses any potential risks and impacts.

Dark Skies and Sensitive Lighting

10.15 The assessment identifies dark skies and sensitive lighting as an important consideration for protecting environmental quality, landscape character and biodiversity, highlighting the need for a detailed policy within the 2RLDP. The policy would provide a framework for minimising light pollution and ensuring that lighting associated with new development is appropriately designed, located and managed to avoid adverse effects on residential amenity, ecological networks, tranquillity and the night-time character of the landscape. Therefore, the following policy is recommended.

EP3: Dark Skies and Sensitive Lighting

Development proposals involving external artificial lighting must be accompanied by appropriate lighting details and, where proportionate, a lighting strategy. Proposals will be expected to demonstrate that:

A Lighting is essential for the proposed development;

B The type, intensity, and extent of lighting is the minimum necessary;

C Light spillage beyond the site boundary is minimised;

D Glare is prevented and the amenity of neighbouring uses is respected;

E The visual and landscape character of both the built and natural environment is preserved;

F Dark skies are maintained in open countryside locations;

G Adverse impacts on biodiversity and ecological connectivity are avoided or minimised; and

H *Cumulative and in-combination lighting effects are assessed and mitigated.*

10.16 For further information on any of these policies or their reasoned justification, please consult the Deposit Plan Written Statement.