



# **Strategic Green Infrastructure**

## **Corridor Mapping Project**

### Methodology and Audit Report

## **South Gloucestershire Council**

**Draft final report**

Prepared by LUC

July 2023

Version	Status	Prepared	Checked	Approved	Date
1	Draft for Council input	G Tooze	M Cooke	D Manson	20.10.2021
2	Draft (Chapters 5-13 inclusive)	G Tooze L Jewitt I King	M Cooke	D Manson	11.11.2021
3	Final Draft (Chapters 1-14)	G Tooze	M Cooke	D Manson	14.12.2021
4	Final Draft	G Tooze	M Cooke	D Manson	21.01.2022
5	Consultation Report	G Tooze	M Cooke	D Manson	04.02.2022
6	Stage 2 update following consultation – interim final draft	R Hammonds L Jewitt	R Hammonds	D Manson	03.04.2023
7	Stage 2 update following consultation – final draft	R Hammonds	R Hammonds	D Manson	10.07.2023



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Strategic Green Infrastructure Corridor Mapping Project

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# Executive Summary

Green Infrastructure (GI) is defined in the National Planning Policy Framework (NPPF) as "A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity."

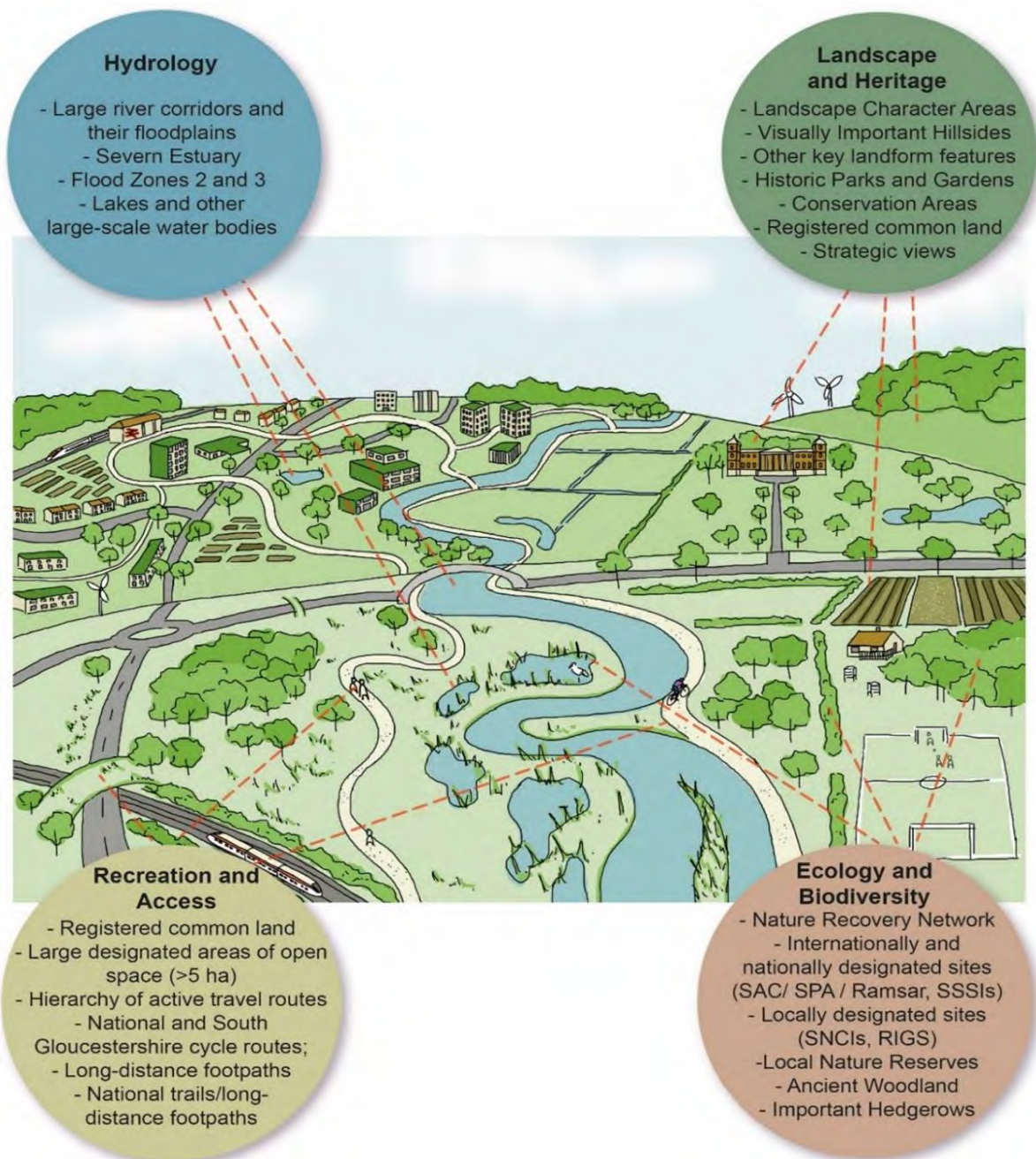
GI is defined by its multifunctionality and its ability to provide numerous benefits to people, wildlife and the wider environment, as highlighted below. It is this variety of environmental, social and economic benefits which makes it essential for sustainable growth and resilient futures.





GI is not to be confused with Green Belt, which is a statutory planning designation of land around cities to restrict inappropriate development and retain openness. Parts of South Gloucestershire fall within the Bristol and Bath Green Belt and a number of the strategic GI corridors pass through it.

Strategic GI, when planned effectively, can create a sustainable network of natural and semi-natural landscapes which intersperse and connect across South Gloucestershire and into neighbouring authorities. Connectivity of the strategic network is essential for reducing fragmentation and severance between groupings of strategic GI assets, those of which are considered within this study are shown below.





To better define the level of strategic GI corridor information presented in Core Strategy Policy CS2: Key Strategic GI Network, South Gloucestershire Council (SGC) have commissioned this study to spatially delineate the strategic GI corridors using boundary features present on Ordnance Survey (OS) 1:25,000 mapping. The strategic GI network will be shown on the new Local Plan Policies Map and will provide the overarching framework for the council's emerging Local Nature Recovery Strategy (LNRS), as well as supporting other local and regional environmental objectives. The strategic GI corridors will help identify opportunities to enhance the management of existing and new GI assets, whilst also being used as a positive planning tool which reinforce landscape-led schemes that respond to the surrounding GI network for design cues. SGC will continue to engage with adjacent local planning authorities to ensure that the strategic GI network positively interacts across borders.

Nine strategic GI corridors have been identified within South Gloucestershire. They are labelled from A-I and can be seen on the map on page 15. Four of these are green infrastructure corridors, which predominantly relate to the land-based GI assets such as Visually Important Hillside, associated designated sites, and the strategic woodland and grassland network. Five are blue-green infrastructure corridors, meaning they predominantly relate to key rivers or the estuary / foreshore of the River Severn and the associated strategic wetland network, as well as adjoining habitat areas. The nine corridors are as follows (*Note: names in italics cross reference to descriptions within the Greener Places: Green Infrastructure Strategy 2021*):

- Corridor A: Shepperdine-Oldbury on Severn-Severn Beach (*Severn Estuary and Levels*)
- Corridor B: Charfield-Alveston-Hallen (*Western Scarp / Severn Ridges*)
- Corridor C: Winterbourne-Kendleshire-Yate (*River Frome Corridor*)
- Corridor D: Wickwar-Westerleigh-Biton (*Westerleigh Vale / Oldland Ridge / East Fringe*)
- Corridor E: Hawkesbury-Upton Cheyney-Ashwicke (*Cotswold Scarp and Ashwicke Ridges*)
- Corridor F: Hanham Green-Hanham Abbots-Biton (*Avon Valley*)

- Corridor G: Wickwar-Iron Acton (*Ladden Valley*)
- Corridor H: Hinton-Doynton-Bitton (*Boyd Valley*)
- Corridor I: Huntingford-Charfield-Wickwar (*Little Avon River Corridor*)

The process of identifying the nine strategic GI corridors was initiated in 2020 when SGC developed the Pilot Study. This utilised GI data information held by the council for designated sites and features, as well as the West of England Nature Partnership's NRN mapping data. LUC collaborated with SGC in updating this information and formalising new strategic data (e.g. visually important hillsides) to develop the first draft of this Strategic GI Corridor Mapping Project, which spatially defines the strategic GI corridors within South Gloucestershire seeking to encompass and link the majority of the identified strategic GI assets. The findings of this project then formed part of the Stage 2 Local Plan Consultation. In response to feedback from the consultation process, the scope of this project and accompanying report has been updated and refined in the Spring of 2023. For example, Corridor E now takes in all of the prominent landform features and associated GI assets within the western and southern margins of the Cotswold National Landscape (CNL).

Given the quantum of strategic GI assets, information is organised into four themes: Landscape and Heritage; Ecology and Biodiversity; Hydrology; and Recreation and Access. Four main criteria were used for the rationalisation of the nine corridor boundaries, namely they should:

- Follow OS mapped features which are recognisable on the ground;
- Seek to contain a given designated area within a single corridor, rather than bisecting them;
- Relate well to a given landscape character area boundary; and
- Follow defined settlement edges, including larger areas of recently consented development.

In some cases, it has been necessary to diverge from these criteria and these are set out within Chapter 3 and Appendix C.



### Strategic Green and Blue-Green Infrastructure Corridors

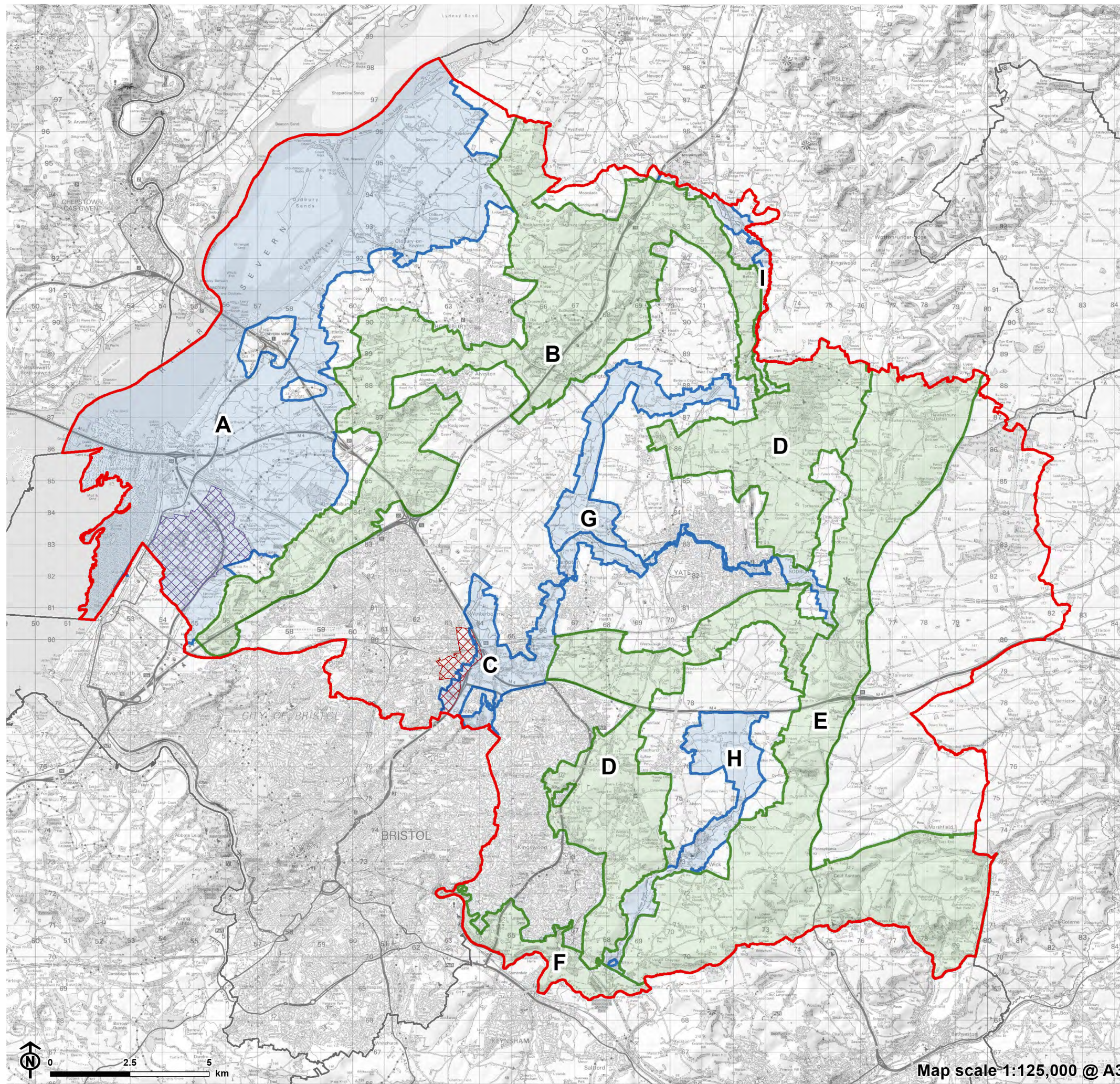
- South Gloucestershire
- Neighbouring local authority
- Green Infrastructure Corridor
- Blue-Green Infrastructure Corridor

#### Corridor name

- A Shepperdine-Oldbury on Severn-Severn Beach (*Severn Estuary and Levels*)
- B Charfield-Alveston-Hallen (*Western Scarp/Severn Ridges*)
- C Winterbourne-Kendleshire-Yate (*River Frome Corridor*)
- D Wickwar-Westerleigh-Bitton (*Westerleigh Vale/Oldland Ridge/East Fringe*)
- E Hawkesbury-Upton Cheyney-Ashwicke (*Cotswold Scarp and Ashwicke Ridges*)
- F Hanham Green-Hanham Abbots-Bitton (*Avon Valley*)
- G Wickwar-Iron Acton (*Ladden*)
- H Hinton-Doynton-Bitton (*Boyd Valley*)
- I Huntingford-Charfield-Wickwar (*Little Avon River Corridor*)

The committed development area of Severnside (South Gloucestershire Policy CS35) is located within the boundary of Corridor A.

The committed development area of East of Harry Stoke (South Gloucestershire Policy CS27) overlaps with the western end of Corridor C



*Names in italics cross reference to descriptions within the Greener Places: Green Infrastructure Strategy 2021, which highlight the key geomorphological features that the corridors are associated with.*



In delineating the strategic corridor network, it has not been possible to readily incorporate all the strategic GI assets within South Gloucestershire within a corridor. Therefore, several 'outliers' have been identified which comprise a designation or a group of GI assets which, whilst important to the GI network, their geographical location does not justify inclusion within the strategic corridors without also including large swathes of intervening 'white land'. Outliers are still protected through other policies and designations.

The CNL is a nationally designated landscape area, and therefore, its whole extent has statutory protection. Corridor E seeks to highlight the prominent landform features and associated GI assets within its western and southern margins, however, there are groups of other outlying strategic GI assets within the adjoining eastern plateau areas.

The designation of the strategic GI network does not seek to exclude new development areas from a given corridor, instead the intention is to ensure that new development and land use change is appropriate, does not cause unjustifiable fragmentation and severance, and instead responds to the context and requirements of the surrounding GI network.

# Chapter 1

## Introduction

**1.1** This report and its associated mapping has been updated in the Spring of 2023 to respond to feedback from the SGC Local Plan Stage 2 consultation process.

## Defining Green Infrastructure

**1.2** The National Planning Policy Framework (NPPF) July 2021 [\[See reference 1\]](#) defines green infrastructure (GI) as "A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity.

**1.3** South Gloucestershire Council (SGC) wish to refine the level of strategic GI network information presented in Core Strategy Policy CS2: Key Strategic GI Network, Figure 1. The aim is to provide spatial expression to the proposed strategic GI corridors by clearly delineating their boundaries with reference features identified on the Ordnance Survey (OS) mapping. The new strategic GI network will form part of the new Local Plan Policies Map. SGC will continue to engage with adjacent local planning authorities to ensure that the strategic GI network positively interacts across borders.

**1.4** Green infrastructure differs from Green Belt land in that GI is *not* a statutory designation. Green Belt is land designated around certain cities and large built-up areas to restrict inappropriate development and maintain openness, and the NPPF attaches high importance to the protection of Green Belt land. The NPPF highlights five purposes of Green Belt, which are:

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns merging into one another;

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- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns; and
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

**1.5** Within South Gloucestershire, the extent of the Bristol and Bath Green Belt was formally designated in the 1960s. The South Gloucestershire Core Strategy [\[See reference 2\]](#) (Adopted December 2013) Policy CS5: Location of Development, and Policy CS34: Rural Areas, seek to protect the Green Belt from inappropriate development in line with the NPPF, alongside the Policies Sites & Places Plan (Adopted November 2017) PSP7: development in the Green Belt [\[See reference 3\]](#).

**1.6** Similarly, the Cotswold National Landscape (CNL), formerly the Cotswolds Area of Outstanding Natural Beauty, is a nationally designated landscape area, and therefore, its whole extent has statutory protection. This is reinforced within paragraph 176 of the National Planning Policy Framework (NPPF) which states, *'Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty which have the highest status of protection in relation to these issues.'*

**1.7** The CNL is a valued core area of the nature recovery network and falling outside of a strategic GI corridor does not overlook this. The CNL will continue to be designated for protection from development through separate policies at the local level, including the Local Plan and Cotswold National Landscape Management Plan (2023-25 version currently in Consultation Draft) [\[See reference 4\]](#), as well as at the national level, including in the NPPF. Corridor E seeks to highlight the prominent landform features and associated GI assets within its western and southern margins, however this does not lessen the statutory protection afforded to the adjoining eastern plateau areas or the associated designated sites protected by national and local plan policy.

**1.8** Nine strategic GI corridors have been identified in South Gloucestershire, parts of which cross Green Belt land. The designation of these corridors does

not affect the statutory planning policy protection afforded to Green Belt or the CNL, or alter their boundaries or geographical extent within South Gloucestershire. As explanatory paragraph 5.19 in existing Policy CS2: Green infrastructure states: *'The concept of GI looks beyond existing designations, seeking opportunities to enhance the physical and functional connectivity of assets, and extend the benefits for people (such as access, recreation and sport, health and well-being, space to grow food, and economic), biodiversity, and natural ecological processes (including responding to climate change, air quality and sustainable water management).'*

## Benefits of Green Infrastructure

**1.9** GI is defined by its multifunctionality, with a single asset having the ability to provide a number of benefits to both people, wildlife and wider environmental functions, as shown in Figure 1.1. It is this variety of societal, environmental, and economic benefits that play an important role in the delivery of sustainable growth and should be achieved in mutually supportive ways.

**1.10** Planning Practice Guidance for the natural environment **[See reference 5]** states that *"GI is a natural capital asset that provides multiple benefits, at a range of scales. For communities, these benefits can include enhanced wellbeing, outdoor recreation and access, enhanced biodiversity and landscapes, food and energy production, urban cooling, and the management of flood risk. These benefits are also known as ecosystem services."*

**1.11** Ecosystem services include:

- **Provisioning services** – food, fibre, fuel, biomass, and clean water;
- **Regulating services** – climate control, flood regulation, carbon storage, pest control, air quality and pollination;
- **Cultural services** – recreation, tourism, spiritual, education and aesthetic value; and

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- **Supporting services** – soil formation, nutrient cycling, photosynthesis, biodiversity.

**1.12** Natural capital accounting approaches are rapidly developing to overcome the historical inability to value GI, aiming to account for the social, environmental, and economic contribution and value of GI in ways that can help inform decision making and investment. Traditional business case metrics are unable to measure the benefits resulting from complex interactions (the multifunctionality of GI), environmental externalities or benefits that cannot be readily measured in monetary terms (e.g. cultural or social capital).

**1.13** Strategic GI when planned effectively can create a sustainable network of natural and semi-natural landscape and habitat areas, river corridors and other water bodies, heritage features, linked walking and cycle routes, recreation and leisure areas and green spaces that intersperse and connect villages, towns and urban areas within South Gloucestershire as well as linking with adjoining authority areas.

**1.14** At a more local level, community spaces and parks, village greens, orchards, churchyards, smaller nature sites, local footpath and cycle routes all complement and link with the overarching strategic GI. Where development and land changes respect the GI network and are coordinated to enhance it with connectivity and functions in mind, there can be wide ranging benefits: for people, nature, adaptation to climate change, resilience to flood risk by suitable natural flood storage, improved visual amenity, and the quality of places and development in South Gloucestershire. Therefore, when investigating locations for new growth within South Gloucestershire it is important to plan for both development of homes, jobs and infrastructure as well as enhancement to green and blue-green GI assets, in a co-ordinated way.



Figure 1.1: The multifunctional benefits of GI



## GI Corridor Mapping – Project Aims

1.15 The project aims to refine the level of strategic GI corridor information presented in the:

- Local Plan Core Strategy Policy CS2: Key Strategic GI Network: Figure 1 (see Figure 2.1 in this report) **[See reference 6]**;
- GI Guidance for New Development Supplementary Planning Document (SPD) **[See reference 7]**;
- Indicative strategic GI corridors identified by an analysis of overlaying the local Nature Recovery Network (NRN) with CS2 Policy Figure 1, as illustrated by Figure 2. in this report; and

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- GI Strategy 2021: Greener Places. This corporate, non-statutory strategy brings together the council and our partners' ambitions, obligations, priorities, and commitments for new and existing green infrastructure in South Gloucestershire, to deliver a vision for '*greener places where people and nature thrive*' [See reference 8].

**1.16** The overarching aim of this project is to give spatial expression to South Gloucestershire's strategic GI corridors by clearly delineating their boundaries on the Ordnance Survey (OS) based Local Plan Policies Map in order to:

- Support the Council's wider Local Nature Recovery Strategy (LNRS) and delivery of environmental objectives including Climate Emergency adaption and resilience, public open space provision and commercial GI functions;
- Inform and support the council's contribution to regional GI work and commitments including the Joint GI Strategy, West of England Nature Recovery Strategy, Forest of Avon Plan and Bristol Avon Catchment Plan;
- Contribute to the evidence base that will support the Council's new Local Plan, which will cover the period 2024 to 2042 by expressing the Local Plan policy framework for establishing and maintaining the GI and ecological connectivity and functionality of this strategic network, together with informing the emerging spatial strategy;
- Support the development of the related Interactive GI Map which will be a live working tool bringing together and presenting evidence and data; and
- Help inform the enhancement and management of existing and new GI assets in relation to both Council owned sites and areas of new development (or land use change), as well as the Council's wider climate change and strategic GI objectives as set out in the Climate Change Action Plan and the GI and Nature Recovery Action Plan of the Green Infrastructure Strategy 2021: Greener Places. Further information on the planning policy background and the context for this project is provided in Chapter 2.

**1.17** The intent is that the designation of the strategic GI corridors, the boundaries of which are clearly defined by 'on the ground' features, will be a

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positive planning and decision making tool. This approach will allow for better functioning with other workstreams, such as nature recovery objectives and in understanding the contribution development can have in enhancing the GI network. The strategic GI corridors should act as receptors for appropriate projects and help to create business cases for their implementation.

**1.18** The overarching objective is to promote and support the integrity and resilience of the strategic GI network and associated local NRN to future changes and to optimise the multiple and stacked benefits of the strategic GI network and associated assets to deliver across priorities. Therefore, potential development (and land use change) sites that are identified as lying within an identified strategic corridor will need to demonstrate that they respect the integrity of the GI network, will not adversely impact on designated sites, and will not fragment the NRN. Where the principle of new development (or land use change) is acceptable within a strategic GI corridor, its location and extent should focus on where the benefit to the South Gloucestershire GI network will be the greatest.

**1.19** The project builds upon the Pilot Study undertaken by the Council in 2020 for one of the strategic GI corridors (D - Wickwar-Westerleigh-Bitton). The Pilot Study established the approach and technical methodology for this project, as well as identifying where external consultant input would be required to support the team of South Gloucestershire Council (SGC) officers, who have led this project and provided specialist topic and background planning knowledge.

**1.20** Eight of the nine identified strategic green and blue-green GI corridors lie outside the boundary of the Cotswold National Landscape (CNL), with the ninth (Corridor E) taking in the visually important scarp area along the western edge of the CNL and the network of valleys and ridges within its southern margin including St Catherine's Valley. These strategic GI corridors are interdependent and interconnected with the Council's local NRN, as required by paragraph 175 of the NPPF (2021) which identifies the importance of mapping and safeguarding components of local wildlife rich habitats and wider ecological networks, and together will form part of the evidence base for the new Local Plan.

## The role and function of the GI corridor network

**1.21** The new and updated strategic GI corridor network will be safeguarded as part of the new Local Plan. A linked strategic policy together with other local policies will manage the approach to protecting the integrity of the network but at the same time facilitating appropriate change and development.

**1.22** The proposed strategic GI network contains sites and designations that are already protected from development through separate designations in the Local Plan; for example, Sites of Special Scientific Interest (SSSIs), Sites of Nature Conservation Interest (SNCIs), Ancient Woodland, Conservation Areas, Registered Historic Parks and Gardens, designated Local Green Spaces, and Public Rights of Way (PRoW). Other parts of the GI network are protected by legislation and the planning system such as Common Land. Outside of the proposed strategic GI network, the protection of nationally and locally designated sites and important green and blue-green assets, such as the wider area of the Cotswold National Landscape (CNL) will still exist. The CNL is a valuable core area for the nature recovery network and areas falling outside of strategic GI corridors does not mean this is overlooked.

**1.23** The strategic network also identifies areas where connectivity and function are needed on a wider scale, especially in relation to the NRN. For this purpose, protection buffers have been identified around ecologically designated sites together with potential connectivity corridors between them, which will also offer opportunities for enhancement of the strategic network of woodlands, grasslands, and wetlands. Designation of the strategic GI corridor network is not intended as a 'stop and block' to development. Instead, it reinforces the need for landscape-led developments which respond to the needs and character of the surrounding GI network. Appropriate forms of development may be permitted in such areas, including new housing, employment, and infrastructure sites together with other uses, providing they respect the integrity of the strategic GI network by enhancing and maintaining the function and connectivity of the section of the network they are in. The strategic GI corridors are intended to

raise awareness of the positive contribution development can have in enhancing GI, including both its local and strategic connectivity.

**1.24** In order to ensure the GI network is fully considered across borders (i.e. beyond South Gloucestershire Authority boundaries) South Gloucestershire Council will continue to engage with adjacent Local Planning Authorities and the Cotswold National Landscape Conservation Board to ensure the strategic GI network positively interacts with policies in adjacent areas and to achieve consistency across the West of England Combined Authority (WECA) region.

## Defining Strategic Green Infrastructure in South Gloucestershire

**1.25** The focus of this project is to spatially define strategic GI corridors that operate across South Gloucestershire at the local authority level. The intent is that the network of corridors encompasses and connects the main concentrations of strategic GI assets as well as identifying existing or future opportunities for enhanced GI function and connectivity, closely associated with the local NRN. By doing so the council is giving spatial expression to the requirements of the NPPF (paragraph 174) to contribute to and enhance the natural and local environment. Paragraph 179 of the NPPF further identifies that 'To protect and enhance biodiversity and geodiversity, plans should: (a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks.'

**1.26** Appendix 3 of the Core Strategy distinguishes between strategic and more local scale GI assets and has been used in conjunction with the list of GI assets given in the GI SPD to provide a definitive list for this project. The range of strategic GI assets considered within this project are categorised as district and regional and sub-regional assets as listed below and shown in Figure 1.2. Appendix D lists GI assets at all scales including local/site scale and neighbourhood scale which are non-strategic and therefore not considered in this study.

## Chapter 1 Introduction

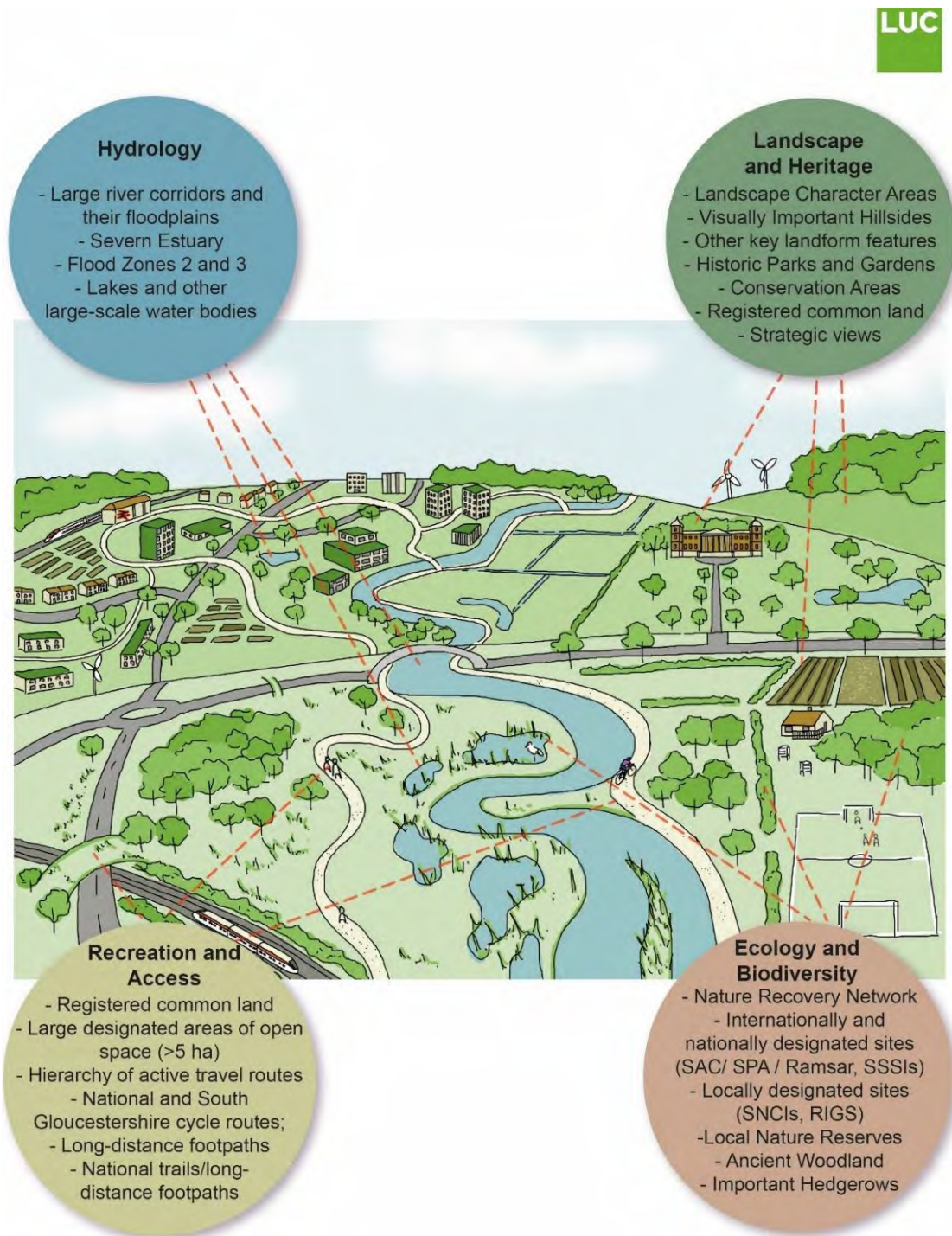
- District scale: Local Nature Reserves (LNRs); larger river corridors and their floodplains (e.g. River Boyd and Ladden Brook); locally designated sites (e.g. SNCIs and Regionally Important Geological Sites (RIGS)); ancient woodlands; important hedgerows; larger designated areas of open space (larger than 5 hectares); strategic footpath and cycleway network; Conservation Areas; registered historic parks and gardens; notable landscape character area (LCA) features such as Visually Important Hillside; and registered common land.
- Regional and sub-regional scale: Internationally and nationally designated sites (e.g. Cotswold National Landscape, The Severn Estuary Special Protection Area (SPA)/Special Areas of Conservation (SAC), SSSIs); West of England NRN mapping and ecological corridors for woodlands, grasslands and wetland areas; hierarchy of active travel routes; national trails/long-distance footpaths; National and South Gloucestershire cycle routes; major river corridors (e.g. Avon, Frome) and the Severn Estuary and their floodplains.

**1.27** As represented in the GI SPD these district and regional scale GI assets have been divided into the following 6 broad groups:

- Semi-Natural Habitats: SSSIs, SNCIs, and European Sites;
- Woodlands and Trees: Ancient woodland, veteran trees, TPO trees and woodland, and tree cover from aerial photography;
- Historic and Cultural: Conservation Areas, Historic Parks and Gardens, Scheduled Monuments, and common land;
- Landscape: Significant hillsides from contour data, key landmarks, and key viewpoints to be added where recorded in SGC publications etc;
- Water: Rivers, flood zones and lakes; and
- Recreation: PRoW, cycleways, playing fields, parks, local green spaces, allotments, and public open space.



Figure 1.2: Strategic GI assets considered within this study



## Structure of the Report

1.28 The remainder of this report is structured as follows:

- **Chapter 2: Study context** – sets out the planning policy context for this study and links to wider internal and external projects and programmes.
- **Chapter 3: Methodology** – sets out how the approach builds on and takes forward the method developed during the Pilot Study. This includes details on the use of GIS and stakeholder involvement to refine the corridor boundaries.
- **Chapter 4: Strategic GI Corridors** – presents an outline map of the nine refined strategic GI corridors and four overview thematic GI maps.
- **Chapter 5: Designated Sites** – summarises the policy/legislative context of designated sites considered as strategic GI assets within the study.
- **Chapters 6 to 13: Strategic GI Corridor Audit Reports** – sets out nine audit reports for each of the strategic GI corridors which detail the strategic GI assets within each corridor and present this spatial information through a series of thematic maps for each corridor.



# Chapter 2

## Study Context

### South Gloucestershire Planning Policy Context

**2.1** National planning and environment legislation and frameworks underpin the statutory context for South Gloucestershire Planning Policy including the NPPF and the Environment Act 2021.

**2.2** Locally, the South Gloucestershire Council Plan 2020-2024 [\[See reference 9\]](#) sets out the priorities for work across the council including planning policy. It recognises the overarching need to work together in response to the challenges of the climate and nature emergency and to reduce the inequality gap across all our work and influence, stating "Action on the climate and our environment is a fundamental challenge which must inform and influence all our priorities and commitments."

**2.3** South Gloucestershire's Local Plan Core Strategy 2006-2027 Policy CS2: Green Infrastructure sets out the background and statutory policy framework to this Strategic GI Corridor Mapping Project.

**2.4** The South Gloucestershire GI Strategy 2021: Greener Places is a corporate strategy which sets out how South Gloucestershire will contribute to the regional GI priorities of the West of England Joint Green Infrastructure Strategy (JGIS) [\[See reference 10\]](#) which was published in June 2020.

**2.5** South Gloucestershire Local Plan Core Strategy Policy CS2: Green Infrastructure states:

*'The Council and its partners will ensure that existing and new Green Infrastructure (GI) is planned, delivered and managed as an integral part of creating sustainable communities and enhancing quality of life, considering the following GI objectives:*

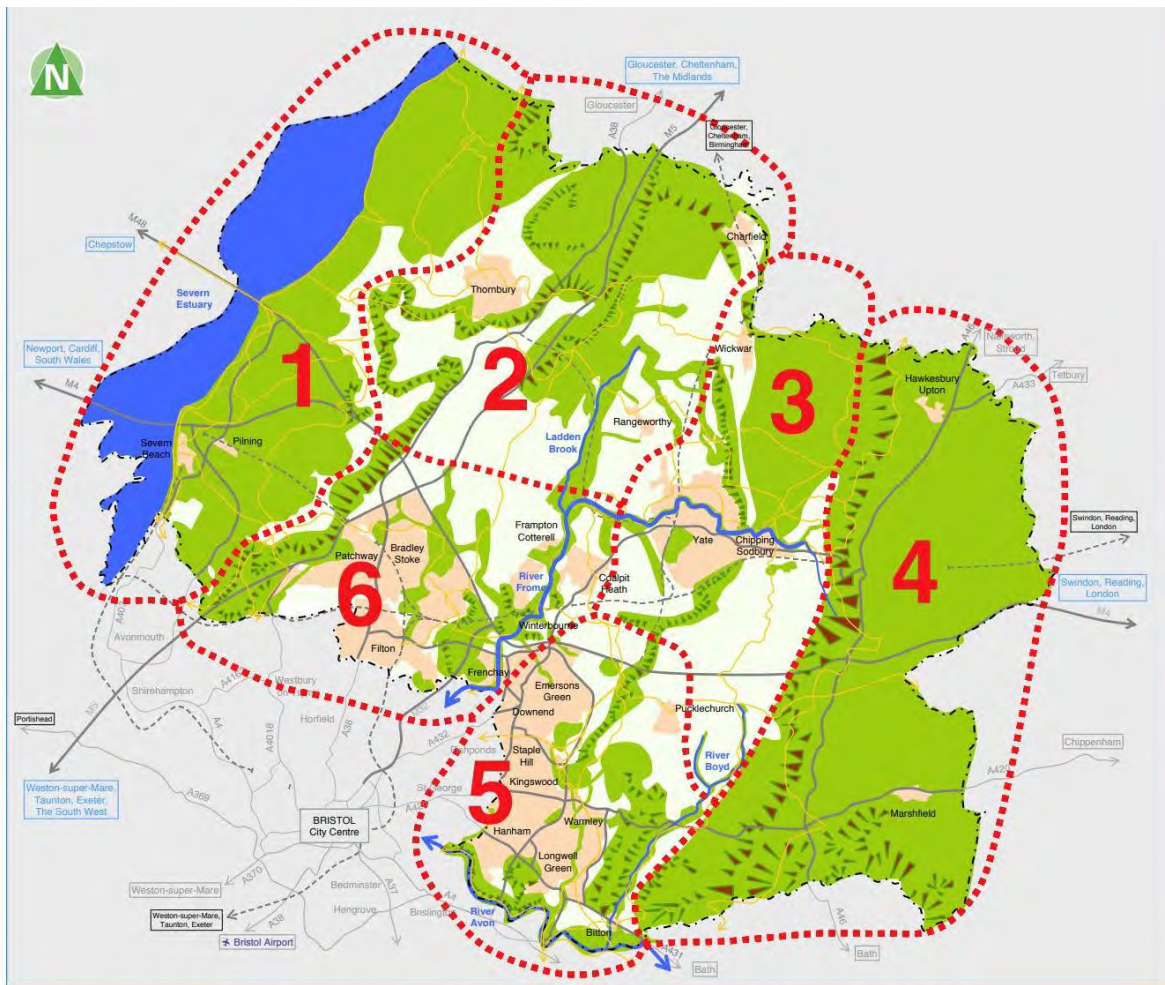
- 1. realising the potential of Green Infrastructure to assist with mitigation of, and adaption to, climate change*
- 2. delivering high quality multi-functional and connected open spaces (including Green and Blue Infrastructure)*
- 3. protecting, creating and improving recreational, play, access and local food cultivation opportunities*
- 4. protecting and enhancing species and habitats, and creating new habitats and wildlife linkages between them*
- 5. conserving and enhancing landscape character, historical, natural, built and cultural heritage features*
- 6. securing ongoing management and maintenance and creation of GI assets*
- 7. joint working with partners, including neighbouring local authorities.*

*The Strategic Green Infrastructure Network (figure 1) displays those current and potential GI assets which are important at a strategic scale. Some of these assets are protected by existing development plan policies, whilst other areas provide opportunities to extend (through the creation of new*

*assets) and enhance the network. Opportunities to enhance, connect with and extend the strategic network will be taken.'*

**2.6** The strategic GI network shown on Local Plan Core Strategy Policy CS2 Figure 1 (reproduced as Figure 2.1 below), is illustrative at the scale presented, and does not confer a formal land-use designation in terms of the geographical extent of the proposed strategic GI network or the corridors it comprises. As explained in Chapter 1 (paragraphs 1.8-1.9) this project collates evidence for the refinement and mapping of the proposed GI corridors for the Local Plan policies map with the objective to give spatial expression to defining the GI corridor network on an OS based Local Plan Policy Map to support the Council's new Local Plan. The new and updated strategic GI corridor network will be safeguarded as part of the new Local Plan (as explained in Chapter 1, paragraphs 1.13-1.15).

Figure 2.1: Policy CS2 Key-Strategic GI Network (Figure 1)



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- South Gloucestershire Council Boundary
- Strategic Green Infrastructure
- ▲ Visually Important Hillsides
- Strategic Recreation & Cycle Routes
- Main Water Courses
- Railways
- Main Roads

■ ■ ■ ZONES

- ZONE 1**  
 Severn Estuary; SPA/SAC/RAMSAR; Floodzones 2&3; Strategic Nature Areas; Severn Way, Monarch's Way & Jubilee Way; Landscape Character Areas 19,20,21
- ZONE 2**  
 Strategic Nature Areas; SNCIs; Open Access Areas; Ladden Brook; Floodzones 2&3; Visually Important Hillsides; Historic Parks & Gardens; Strategic Paths & Cycleways; Landscape Character Areas 7,8,9,10,17,18
- ZONE 3**  
 Commons; Local Nature Reserves; Strategic Nature Area; SSSI; Lower Woods Nature Reserve; Frome Valley; Floodzones 2&3; Strategic Paths & Cycleway; Visually Important Hillsides; Historic Parks & Gardens; Landscape Character Areas 5,6,8,12

- ZONE 4**  
 Cotswold AONB; Strategic Nature Area; Historic Parks & Gardens; Visually Important Hillsides; National Trail; SSSIs; Open Access Lane; Landscape Character Areas 1,2,3,4
- ZONE 5**  
 Visually Important Hillsides; Strategic Paths & Cycleways; Local Nature Reserves; Commons; Overscourt Wood; Warmley Forest; Hanham Hills; River Boyd; Avon Valley; Floodzones 2&3; Landscape Character Areas 6,11,12,14,16

- ZONE 6**  
 Visually Important Hillsides & Landscape; Commons, Frome Valley; Strategic Paths; Local Nature Reserve; M32 Corridor; Haw Wood; Stoke Park; Historic Parks & Gardens; Landscape Character Areas 13,15,18

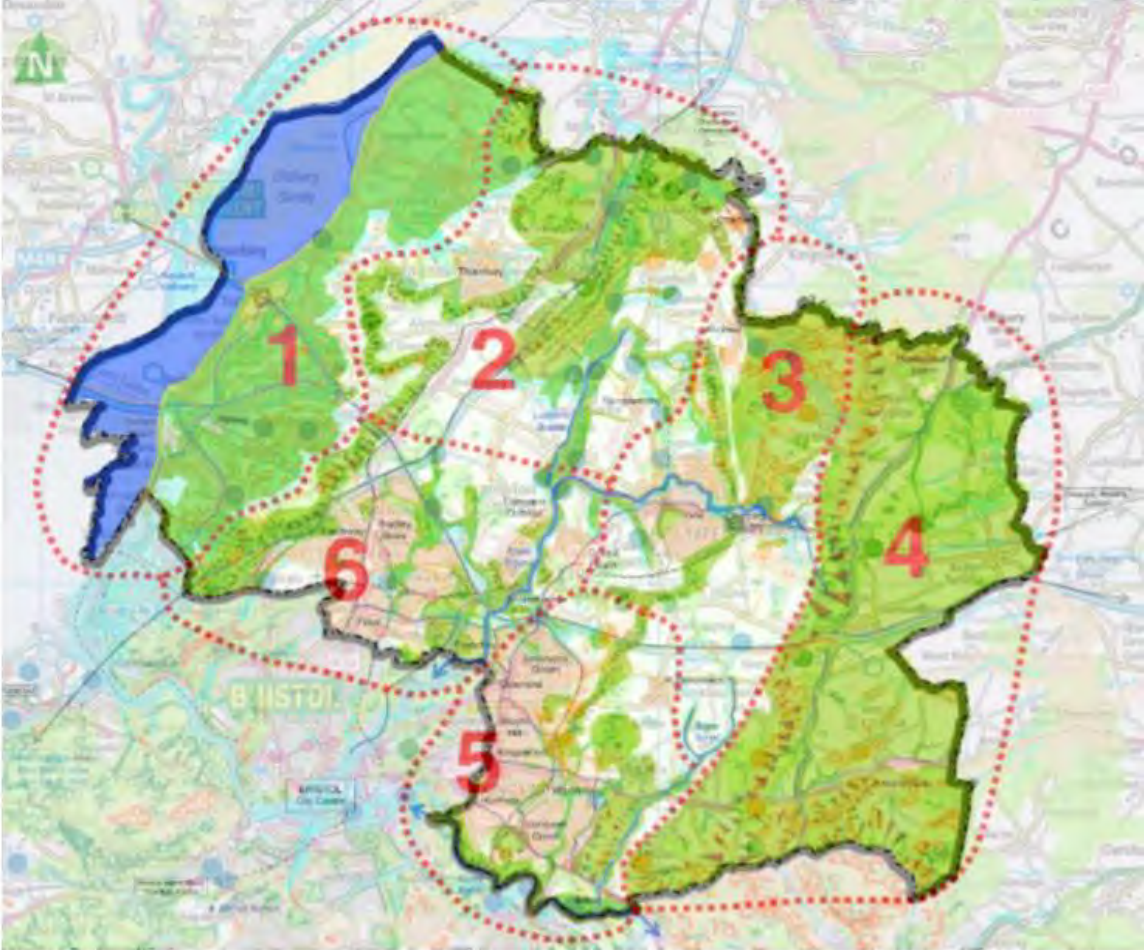
## Chapter 2 Study Context

**2.7** The South Gloucestershire GI Guidance for New Development SPD [See reference 11] was adopted in April 2021. The purpose of the GI SPD is to ensure that green (and blue-green) infrastructure is adequately conserved and enhanced throughout the development process. The document provides supporting guidance to Local Plan Policy CS2, as well as policies CS1 and CS24 and policies PSP1, PSP2 and PSP3. In common with the Joint Green Infrastructure Strategy (JGIS) 2020, one of the principal objectives of this SPD is to ‘champion’ the significance of GI as critical infrastructure to create bigger, better, and more joined-up functioning green spaces and ecological networks at the regional and local level.

**2.8** Figure 2.2 below is taken from the GI SPD and overlays the Policy Key-Strategic GI Network (*Figure 1*) onto the West of England / South Gloucestershire NRN mapping. There is a strong interrelationship between the NRN and strategic GI network. However, although linked, these networks are separate entities, and therefore the associated corridors diverge as well as overlap.



**Figure 2.2: The South Gloucestershire Nature Recovery Network overlaid with CS2 Policy Key-Strategic GI Network**



*The South Gloucestershire Nature Recovery Network overlaid with CS2 diagram*

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**2.9** The initial background research undertaken for the GI SPD indicated that there were potentially nine strategic GI corridors within South Gloucestershire. These nine corridors formed the starting point for this Strategic GI Corridor Mapping Project (see Chapter 3 and Chapter 4 for more information).

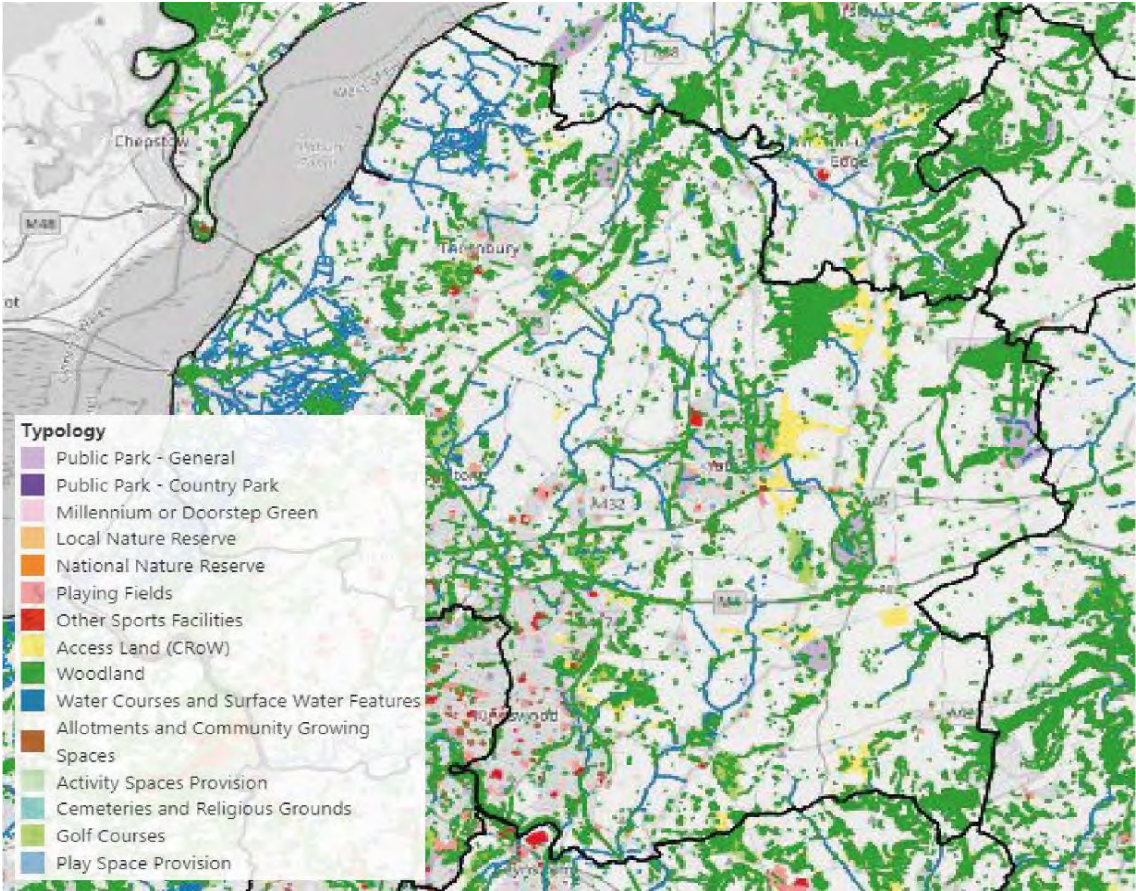
## Natural England Green Infrastructure Framework

**2.10** In February 2023, Natural England launched the full Green Infrastructure (GI) Framework [See reference 12]. The aim of the framework is to support equity of access to green and blue spaces across the country, whilst also helping to provide health and wellbeing benefits for people and wider biodiversity enhancements. The framework will work alongside other existing and forthcoming planning tools, such as local nature recovery strategies (LNRS) and design codes to make a positive contribution towards good quality greenspace and nature recovery.

**2.11** The framework is comprised of five elements, GI Principles, GI Standards, GI Maps, GI Planning and Design Guide, and GI Process Journeys. All five of these elements guide users through why GI is important, how we plan for strategic GI, where GI should go, what GI should look like, and how we apply and embed GI within decision making.

**2.12** The GI framework, including its mapping, was reviewed and incorporated as part of the evidence base to inform this project. An extract from the Natural England GI Map can be seen in Figure 2.3.

**Figure 2.3: Natural England GI Map showing 'All Green and Blue Infrastructure' layer**



*Screenshot from Natural England Green Infrastructure Mapping Tool  
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## West of England Nature Recovery Network

**2.13** The ecological (habitats) network of South Gloucestershire has been mapped through the West of England Local Nature Partnership (WENP) in response to the recommendations contained in Defra's 'Making Space for Nature' review (2010) [See reference 13]. In order to reverse the decline in biodiversity and realise nature's recovery at a landscape scale, the Local Plan strategies and policies need to embed the Lawton principles of 'Bigger, Better, More and Joined Up'. This means protecting and enhancing the existing natural habitats of South Gloucestershire as well as making them bigger, creating new



## Chapter 2 Study Context

areas of species-rich habitat, and, critically, ensuring they join up to create a functional and resilient ecological network that enables nature and people to thrive.

**2.14** The Government's 25 Year Environment Plan published in January 2018 [See reference 14] includes a commitment to "*develop a Nature Recovery Network to protect and restore wildlife, and to provide opportunities to re-introduce species that we have lost from the UK countryside.*" This has subsequently been reinforced by the Environmental Improvement Plan published in January 2023 [See reference 15] which notes the apex goal as being 'improving nature', through which the Nature Recovery Network (NRN) and Local Nature Recovery Strategies (LNRS) will be fundamental. The Environment Act (2021) underpins the Government's approach to establishing the NRN and forthcoming new statutory requirements to prepare a LNRS and to deliver Biodiversity Net Gain (BNG) where appropriate through the planning process. The Government has now published LNRS regulations [See reference 16] and statutory guidance [See reference 17] which work together to establish the 'rules' to enable high quality and consistent LNRSs to be prepared by 'responsible authorities' across England.

**2.15** The West of England NRN identifies the areas of core habitat, the best connectivity opportunities between them, and existing gaps in ecological connectivity for woodland, grassland, and wetland. The map is based on a model that identifies appropriate buffers to the core network, many of which do not currently follow OS mapping boundaries such as field boundaries. When taking forward an opportunity to create or restore habitat, it is important to consider the trade-offs of different types of habitat, and whether it is possible to create mosaic habitat, in addition to contributing to the wider landscape setting.

**2.16** The NRN mapping is shown in Figure 2.4 below.

Figure 2.4: West of England Nature Recovery Network Map



2.17 Natural England is currently developing a national habitat network map. This identifies habitat groups and opportunities for habitat restoration and creation to reduce fragmentation. This mapping will help sense-check data and priorities.

## South Gloucestershire New Local Plan

2.18 This report, its methodology, the evidence collected, and output in the form of the proposed strategic GI corridor mapping will all inform the new South Gloucestershire Local Plan. The proposed strategic GI network will form part of the next Local Plan consultation in that it will develop and spatially define the illustrative GI strategy shown on the existing Policy CS2 Figure 1, reinforce existing GI and ecology designations and their protection, and seek to improve the connectivity between them. The intent is that the strategic GI corridor

## Chapter 2 Study Context

mapping project will form part of the Local Plan technical evidence base, which will be used to guide projects, development and change within and around the strategic GI network using the principles of connectivity, function and improving our natural environment. This report provides the background method and steps taken to construct the strategic GI network on the polices plan.

**2.19** The evidence and information collected in this report will be used to inform the review and drafting of existing and new planning policies relating to GI, including CS2, CS9, PSP2, PSP3 and others.

**2.20** Also, this evidence base will provide a framework for developing future projects, enhancement plans, and local activity within South Gloucestershire, as well as engagement with adjacent local planning authorities in terms of ensuring that the strategic GI network positively interacts across borders.

## Links to Regional Projects and Programmes

### West of England Nature Recovery Network

**2.21** Updating of Policy CS2: Green Infrastructure and preparation of the associated strategic GI spatial map through this Strategic GI Corridors Mapping Project is closely linked to the Council's emerging LNRS, which will complement the NRN mapping that has been undertaken by the WENP and Natural England (as discussed in paragraphs 2.10-2.14).

**2.22** WENP are in the initial stages of developing their own LNRS which has started with a review of existing knowledge and extensive stakeholder engagement. WENP have also developed a NRN Prospectus [\[See reference 18\]](#). This aims to bring together programmes and projects in the region that would make a strategic contribution to the NRN and acts as a reference for partners to inform decision making and investment. The most recent Prospectus

was published in July 2022 and identifies six Strategic Nature Recovery Network Project Areas. Three of these relate directly to South Gloucestershire, the Severn Vision, Lower Woods Connectivity and Buffer, and Cotswolds Scarp. A wider list of projects and programmes are proposed alongside these Strategic Nature Recovery Network Project Areas to support the delivery of the Partnership's ambitions.

## West of England Joint Green Infrastructure Strategy 2020-2030

**2.23** The West of England Combined Authority (WECA), alongside the local authorities, have developed the Joint Green Infrastructure Strategy (JGIS) 2020-2030 [See reference 19] to secure investment in GI planning and provision. To assist assessment of GI at a more localised level below West of England, 22 GI Areas have been identified and mapped covering the whole West of England area, including South Gloucestershire.

**2.24** GI Area Profiles have been drafted for each Area following a format set out in the Strategy. Work to update and develop these further is currently underway. The aim of the Area Profiles is to provide a written narrative summary of the relevant Landscape Character Assessments, with an overview list of key assets, issues, opportunities, and projects (both current and potential) within the GI Areas. The intention is for the Area Profiles to be updated on a regular basis and potentially be linked to an interactive map layer and database of projects being developed by partners.

**2.25** Where South Gloucestershire's strategic GI corridors adjoin adjacent local authority boundaries, the aim is that the strategic GI network will link with that prescribed by the adjacent Councils. For example, Bath and North-east Somerset (BANES) have identified strategic GI corridors within their Valuing People, Place and Nature GI Strategy (2013) [See reference 20] with relevant policies in their Core Strategy (adopted July 2014) including Policy CP7: Green Infrastructure and Policy NE1: Development and Green Infrastructure.

**2.26** The JGIS also sets out higher level priorities and commitments for the planning, design and management of GI to contribute to other regional strategies including the Forest of Avon Plan, Bristol Avon Partnership, Cotswold National Landscape Strategy as well as regional strategies regarding Climate Change adaptation and resilience, Regeneration and Health and Wellbeing.

## Links to Wider Council Projects and Programmes

### Local Nature Recovery Strategy (LNRS)

**2.27** The strategic GI corridor mapping work has been informed by the West of England NRN habitat mapping (see Figure 2.2) and in turn will form the basis for the development of South Gloucestershire's LNRS, including the identification of potential sites for habitat creation and enhancement and BNG off-setting (as described below).

**2.28** This LNRS will utilise the strategic GI corridor mapping to create a locally agreed, evidence-based map that depicts the most valuable existing areas for nature along with specific proposals for creating or improving habitat for nature and wider environmental goals. These include nature-based solutions like carbon sequestration to mitigate climate change or managing flood risk.

### Biodiversity Net Gain (BNG)

**2.29** The Environment Act (2021) sets the mechanism for mandatory Biodiversity Net Gain (BNG), which is an approach to development such as new buildings or construction that leaves biodiversity in a better state than before. Where a development has an impact on biodiversity, developers will need to provide an increase in appropriate natural habitat and ecological features over



## Chapter 2 Study Context

and above that being affected. The aim of the initiative is to halt biodiversity loss and restore ecological networks.

**2.30** The Council is actively progressing its approach to supplying sites into a local 'Habitat Bank', which alongside other providers can support developments where BNG cannot be achieved on individual development sites. However, in recognising the multifunctional benefits of GI and the broader remit of Council's beyond biodiversity, including carbon offsetting and flood mitigation, South Gloucestershire is seeking to 'bundle or stack' these benefits as part of a portfolio of sites for investment where the benefit is likely to be a combination of social, environmental, and economic return, with the financial element being hypothecated into the development of a rolling programme.

**2.31** The Council is actively progressing its approach to BNG offsetting, including strategically identifying sites and working on council-led nature recovery projects. The council is also working alongside other third-party habitat brokers to support developments where BNG cannot be achieved on development sites. In recognising the multifunctional benefits of GI and the broader remit of Council's beyond biodiversity, including carbon offsetting and flood mitigation, where possible, biodiversity offsetting will aim to benefit a combination of social, environmental, and hypothecated economic returns.

**2.32** In optimising the outcomes from future investment, it is important to build an evidence base to inform where the greatest positive impact can be had. The Council is in the process of establishing the most suitable metrics against which these decisions can be made, and the spatial expression of the South Gloucestershire strategic GI network helps to define the areas of search within which these metrics are most likely to achieve greatest value.

## GI Strategy 2021: Greener Places

**2.33** The adopted South Gloucestershire Green Infrastructure Strategy - Greener Places (2021) [See reference 8], brings together the Council and partners' ambitions, obligations, priorities, and commitments for new and

## Chapter 2 Study Context

existing green infrastructure in South Gloucestershire, to deliver a vision for '*greener places where people and nature thrive*'.

**2.34** The strategy explains why there is a need to improve GI and contains an Action Plan, which sets out how this will be implemented. The strategy highlights the 'green thread' which links work and action in South Gloucestershire to contribute to regional, national, and global commitments regarding the environment. This includes how the Council will contribute to the outcomes of the regional JGIS [\[See reference 19\]](#).

**2.35** Key areas of work set out in the GI Strategy and associated GI and Nature Recovery Action Plan include:

- Creation of more habitat for nature;
- Maximising the resilience and contribution of green infrastructure for adaptation, resilience and mitigation to the changing climate;
- Improving management of Council owned assets including public open space and green networks;
- Setting GI at the heart of new statutory strategic and local development planning;
- Optimising the role of GI to contribute to sustainable water management; health and wellbeing for all; conservation of heritage and landscapes; local and sustainable food production and a green and resilient economy;
- Scaling up investment in GI and progression of the Council's strategic GI programmes;
- Preparation for the requirements of the Environment Act; and
- Strengthening partnerships.

**2.36** The Strategic GI Corridor Mapping Project forms part of the critical evidence base, which informs existing GI priority programmes and supports the identification of new projects for the strategic GI pipeline. As part of the new Local Plan evidence base and in readiness for new statutory requirements through the Environment Act (2021), the mapped strategic GI corridors will be

## Chapter 2 Study Context

key to informing robust decision making and the delivery of high-quality GI at the heart of placemaking, thereby helping to give future projects strategic focus and alignment with wider corporate objectives to support nature recovery, and adaptation and resilience to the changing climate.

**2.37** With the need to scale up investment in GI to deliver Climate and Nature Emergency goals, the project will also inform how Council owned assets are managed, together with providing guidance for new funding mechanisms and priorities for investment.

**2.38** At the time of this report being written, a portfolio of larger scale GI programmes are ongoing or under consideration as future initiatives within South Gloucestershire, and these are listed in Appendix A. Their main geographical focus has been cross-referenced to the individual strategic GI corridors (in Chapters 6 to 14), which are shown on Figure 4.1 (Chapter 4).

**2.39** This chapter provides an overview of the local, regional, and national policy context of GI in South Gloucestershire. This variety of policy tools and drivers is important to remember when considering 'outliers' to the nine identified strategic GI corridors. Outliers may comprise a designated site or group of strategic GI assets / features which do not fall within a strategic GI corridor but are still considered to be of importance to South Gloucestershire's GI network. Outliers are not any less protected through other local, regional and national policies and designations. Further explanation of outliers and examples within South Gloucestershire are given in the following chapter.

## Local Nature Action Plans (LNAPs)

**2.40** SGC is working with Parish and Town councils to develop Local Nature Action Plans (LNAPs) which seek to protect, enhance and link GI assets, as identified at a local and community level, which will complement the strategic GI network strategy. South Gloucestershire's database will be regularly updated as new LNAPs are produced, so that these can be referred to alongside those already in existence.

## Chapter 3

# Methodology

**3.1** This chapter first sets out the approach to identifying the nine strategic GI corridors and summarises the analysis work undertaken within the Pilot Study by SGC in 2020.

**3.2** This is followed by the approach undertaken by LUC for this study, including:

- GIS data setup;
- Criteria for defining boundaries;
- Collaboration between SGC and LUC; and
- Assumptions, qualifications, and limitations.

**3.3** This report and its associated mapping has been updated in the Spring of 2023 to respond to consultation feedback from the Local Plan Stage 2 consultation process. Detail of amendments to the methodology as part of this update can be found at the end of this chapter.

## High Level Identification of Strategic GI Corridors – Pilot Study

**3.4** Using the WENP mapping data as a base, work is now progressing towards a South Gloucestershire GI and LNRS, to be produced in line with the Councils new Local Plan and revised GI policy. Although at an early stage, the ‘gaps’ identified in the NRN are being analysed and projects developed to enhance connectivity and biodiversity.

## Chapter 3 Methodology

**3.5** The WENP mapping illustrates the importance of connectivity in order to reduce fragmentation and severance. Fragmented green and blue space results in poorly functioning landscapes with highly negative impacts on the ecosystem services we depend on. This in turn can have significant impacts on flood and drought risk, which can cause more far-reaching repercussions on existing and proposed development. Well designed and high-quality GI can protect and enhance as well as improve connectivity for access and sense of place.

**3.6** The Councils CS2 diagram is being developed, using the WENP mapping and the NRN data to incorporate the other elements of GI. The overlapping information can be seen in Figure 2.2 (Chapter 2). There is a strong interrelationship; however, the NRN and GI corridors, although linked, are separate entities - therefore sometimes the corridors diverge as well as overlap.

**3.7** The GI SPD informed the 2020 Pilot Study in terms of building on the West of England mapping data sets, and identifying six main GI Strategic elements, to complement the information found in Appendix 3 of the Core Strategy. This allowed the identification of nine potential strategic GI corridors as part of an overarching strategic GI network, which will continue to be protected by the existing and emerging new SGC Local Plan Policy CS2. These GI corridors are a further development of the CS2 Figure 1- 6 zones and the WENP NRN data and have been located with the aim of managing the issue of fragmentation, by suggesting how the different habitats might be linked to provide a bigger, better and more-joined GI network and NRN as promoted by 'Making Space for Nature'.

**3.8** This forms the evidence base and has been used to develop the findings of the 2020 Pilot Report as part of this Strategic GI Corridor Mapping Project.

**3.9** The geographical extent of the proposed strategic GI network has been determined by considering both the illustrative GI zones presented on Local Plan Policy CS2 Figure 1, the ecological (habitat) network mapping undertaken by WENP, supporting information in the GI Guidance for new Development SPD, and location of GI related designated sites. This information was collated and refined through the Pilot Study undertaken by the Council in 2020 resulting



## Chapter 3 Methodology

in the spatial definition and refinement of nine proposed green and blue-green strategic GI corridors, which take in the majority of identified GI assets within South Gloucestershire, together with a few, small complementary outlying areas. The nine strategic GI corridors are shown on Figure 4.1, in Chapter 4.

**3.10** The Pilot Study also selected one strategic GI corridor (corridor D) to provide a more detailed level of analysis, and to further ‘test’ the adopted methodology to identify any specific issues relating to its application, together with assessing opportunities for the delivery of strategic and local GI objectives.

**3.11** Given the quantum of GI assets it was decided at the pilot stage to categorise and sub-divide the GI assets into four topic groups ('themes'), as follows:

- Landscape and Heritage;
- Ecology and Biodiversity;
- Hydrology; and
- Recreation and Access.

## GIS Data Sets

**3.12** Several data sets were collated from a range of sources for this study, as follows:

- Natural England: International and national nature conservation designations, registered common land and open access land, ancient woodland inventory, national trails, AONBs and local nature reserves (LNRs).
- Historic England: World Heritage Sites, Scheduled Monuments and Registered Parks and Gardens.
- Environment Agency: Flood Zones 2 and 3; and the assessment of flood risk in the 'South Gloucestershire Council – Level 1 Strategic Flood Risk Assessment' (2021) [[See reference 21](#)].

## Chapter 3 Methodology

- Sustrans: National and Regional Cycle Network.
- Ordnance Survey: Base mapping, OS Open Greenspaces, golf courses, rivers, rhines, and waterbodies.
- WENP: NRN layers.
- Long Distance Walkers Association: Long distance walking routes.
- SGC: Active travel routes, Conservation Areas, LCAs, Visually Important Hillside, strategic viewpoints, SNCIs, Flood Zone 3b, open spaces, important hedgerows, and key PRow.

**3.13** Several datasets required work to digitise, update and verify, or categorise. Examples of these include:

- Important hedgerows: Three hedgerow data sets have been combined for the project, two of which were based on appropriately collected and collated data. The third data set was found to be less complete with some inaccuracies, and therefore the decision was taken to identify 'Important Hedgerows' as those containing more than seven woody species as defined and listed in the Hedgerow Regulations 1997.
- Key strategic (and local) viewpoint locations were provided as a series of annotated maps. These were digitised and following a period of review by SGC officers refined to include illustrative view angles and differentiation between strategic and local viewpoints. A subsequent review of these has taken place, resulting in an updated list of strategic and local viewpoints, as detailed further in paragraph 3.14. The finalised strategic viewpoints are listed in Appendix B.
- Strategic open space areas have been deemed to be green space 5ha or greater in size and include natural/semi-natural green space, general amenity space, playing fields, and parks. Golf courses are not included as public open space when assessed against Policy CS24. However, they are relevant to the strategic GI network where the Ordnance Survey 25,000 base map shows at least one public right of way passing through them, and because many of these areas are valuable for their existing and potential habitat value.

- The location of large areas of recently constructed (e.g. around Thornbury) and committed development identified in the Local Plan (e.g. Severnside, Bradley Stoke) have also been taken into consideration.

# Strategic Viewpoints

**3.14** 37 Strategic Viewpoints were initially identified by SGC based on information included within the LCA SPD and other published guidance, as well as SGC officer knowledge. As part of the LCA SPD Refresh update currently being undertaken, the strategic viewpoints have been reviewed and assessed against criteria under the following themes:

- Popularity, access and facilities;
- Relationship with the Cotswold National Landscape; and
- Quality, value and features of the view.

**3.15** Each selected viewpoint has been characterised and evaluated with a short description of the viewpoint location, its context and composition in terms of type and viewers, landscape character area(s) within in the view, important landscape elements and habitats, historic landscape character and heritage features, tranquillity and dark skies, and special qualities associated with the view.

**3.16** Further detail on the methodology and selection criteria for identifying and assessing Strategic Viewpoints can be found in Annex II of the South Gloucestershire Landscape Character Assessment SPD (2023) [\[See reference 22\]](#). Where a proposed development site falls within the viewing corridor of a strategic viewpoint, a landscape and visual impact assessment (LVIA) or landscape and visual appraisal (LVA) is likely to be required in accordance with GLVIA3 [\[See reference 23\]](#).

## Visually Important Hillsides

**3.17** Visually Important Hillsides (VIHs) are identified through South Gloucestershire Policy CS2 and are generally mapped in the adopted SGC LCA SPD. As part of the LCA SPD Refresh, VIHs have been assessed against criteria to define their character, prominence and extent as a key landform feature, and their relationship with the South Gloucestershire LCAs. The criteria are set out under the following headings:

- Distinctiveness and identity;
- Visual prominence; and
- Character and value.

**3.18** Further detail on the methodology for identifying and assessing Visually Important Hillsides can be found in Annex I of the South Gloucestershire Landscape Character Assessment SPD (2023). Where a proposed development site may impact on a Visually Important Hillside, a landscape and visual impact assessment (LVIA) or landscape and visual appraisal (LVA) is likely to be required in accordance with GLVIA3.

**3.19** Within South Gloucestershire, the Cotswold Scarp is the most 'important' VIH as it forms part of the nationally designated Cotswold National Landscape; and also, the most visually prominent in many views across South Gloucestershire.



# Refining Strategic GI Corridor Boundaries

## Interactive Web Viewer

**3.20** From the outset of the Strategic GI Corridor Mapping Project, LUC created an interactive web viewer with OS 1:25,000 as the base map. This included all relevant layers of data (as outlined above in GIS data sets) to enable detailed assessment of the corridor boundary lines and interrogation of data layers showing multiple strategic GI assets. The web viewer enabled the team to draw updated boundaries which were subsequently digitised in ArcGIS.

**3.21** The strategic GI data layers used to inform boundary rationalisation are listed below and grouped by the four key themes (see paragraph 3.10) identified through the Pilot Study:

1. **Landscape and Heritage:** landscape character areas; designated landscapes (e.g. Cotswold National Landscape); Visually Important Hillside; other notable landform features; strategic viewpoints; registered common land; Conservation Areas; historic landscapes; and, registered historic parks and gardens.
2. **Ecology and Biodiversity:** designated ecological sites (e.g. SPAs, SACs, SSSIs, SNCIs, LNRs, RIGS); West of England NRN and ecological corridors for woodlands, grassland, and wetland areas; ancient woodlands; and important hedgerows.
3. **Hydrology:** network of important watercourses and corridors; Severn Estuary; associated flood zones; and large-scale water bodies (e.g. lakes).
4. **Recreation and Access:** open access land; large green spaces (larger than 5 hectares); active travel routes (district and neighbourhood scale);

national cycle network routes; national trails (e.g. Cotswold Way); and long-distance footpaths (e.g. Frome Valley Walkway, Monarch's Way).

# Criteria for Boundary Rationalisation

**3.22** Clear criteria guided the process of boundary rationalisation and ensured a methodical and consistent approach was applied. The four primary criteria are discussed below (and illustrated in Figure 3.1), together with examples of where there were valid but significant exceptions to the criteria. The decision-making behind boundary rationalisation for individual corridors where there were small-scale examples of deviation from the criteria is recorded in Appendix C.

**Criteria 1:** follow OS mapped features, which are recognisable on the ground, including transport and river corridors, and defined field boundaries. In determining suitable boundary features, those in closest proximity to a given GI asset/feature were selected, unless it was deemed beneficial to include additional land for GI and LNRS connectivity, functionality or enhancement purposes. The main exception to Criteria 1 is:

- Where blue-green corridors run through settlements (e.g. Corridor C through Yate and Frampton Cotterell) the boundary has been 'snapped to' the curtilage of buildings and gardens.

**Criteria 2:** the intent has been to include the full extent of designated areas (e.g. SSSIs, SNCIs, LNRs, Cotswold National Landscape - prominent western scarp, Registered Historic Parks and Gardens, Conservation Areas (CAs), Visually Important Hillside) within a single corridor, rather than bisected. The main exceptions to Criteria 2 are:

- Bitton CA which lies at the junction of Corridors D, E, F and H, and has been split between Corridors F and H following the road/landscape character area boundary. Likewise, Iron Action CA has been split into corridors C and G.

## Chapter 3 Methodology

- Visually Important Hillside – given some of these are interlocking features, some fall within two corridors as opposed to being entirely within one corridor (e.g. Oldland Ridge).
- SNCIs – some have been bisected where their boundary lies near two adjoining corridor boundaries. This has occurred as the SNCI does not follow a recognisable OS mapped boundary, therefore criteria 1 has been adhered to, snapping the adjoining corridor boundary to the nearest OS mapped feature. This means a designated area falls into two corridors, rather than a single corridor.
- Cotswold National Landscape (CNL) – corridor E is focused on the visually prominent western Cotswold Scarp and the series of valleys and ridges lying with the southern margin of the CNL (including St Catherine's Valley). The remaining easterly plateau areas of the CNL are considered to be equally important to the strategic GI and local NRN, furthermore, the whole of the CNL is afforded statutory protection. The exception to the Corridor E boundary is from the south of Wick where it extends west to join with the Corridor H boundary and encompass important landscape features (Oldland Ridge, Mount Pleasant, and Mill Hill) associated with the Visually Important Hillside.

**Criteria 3:** relate well to a given landscape character area boundary (e.g. the Cotswold Scarp).

**Criteria 4:** follow defined settlement edges including large areas of recently consented development, which have been built or are under construction (e.g. around Thornbury). The main exceptions to Criteria 4 are:

- Instances where a settlement is included in a corridor as it was not possible to exclude it due to the location of the settlement in the context of the corridor and other strategic GI assets requiring inclusion (e.g. Hawkesbury Upton, Wick, part of Frenchay, Redwick / Severn Beach).

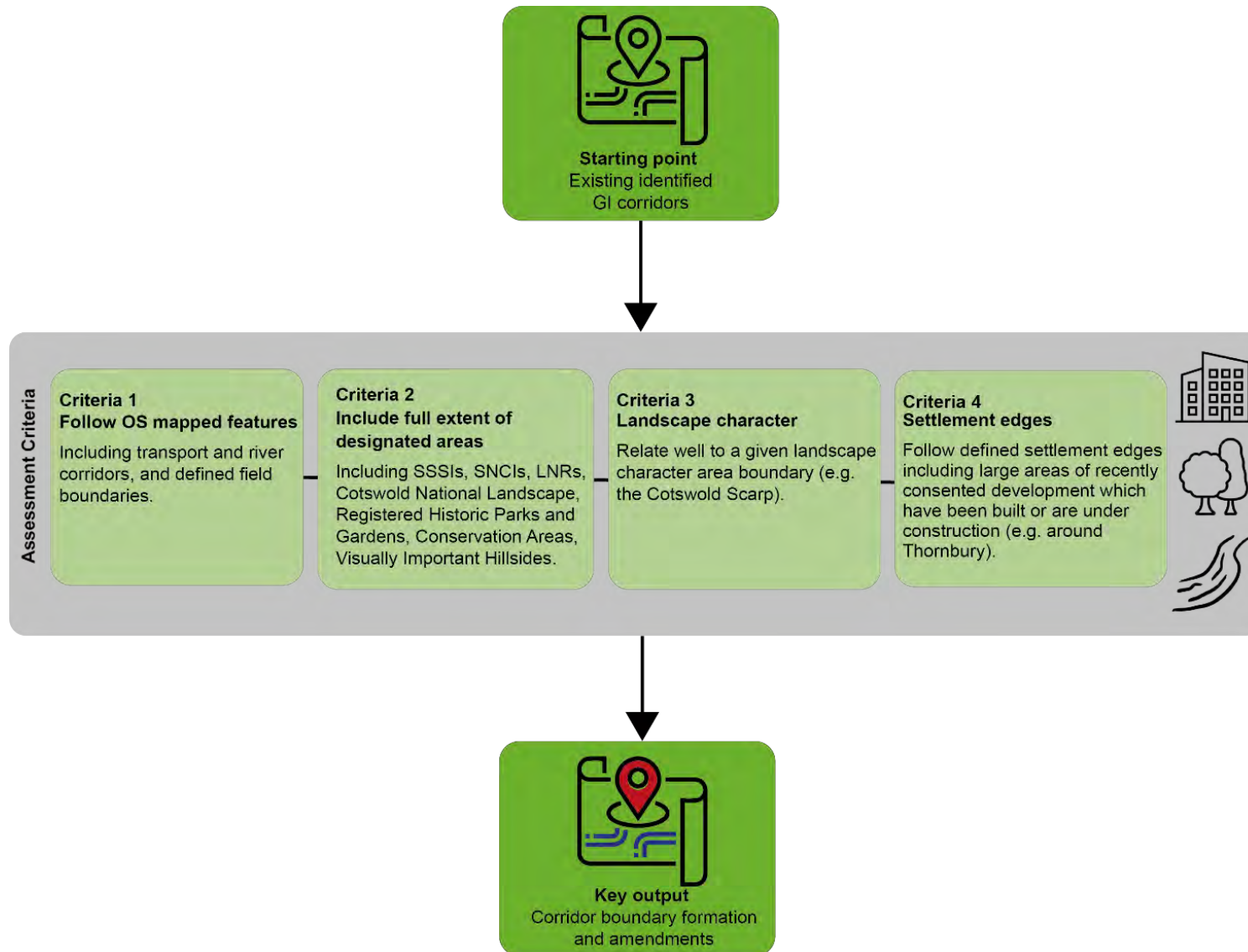
**3.23** The following criteria or features were not used to define boundaries, given they tend not to relate to recognisable features on the ground:

## Chapter 3 Methodology

- Public Rights of Way (unless they happen to coincide with a field boundary to ensure corridors do not cut across individual fields);
- Contours (often cut across fields and settlements);
- Flood zones (Flood zone 2 was used to guide rationalisation of the blue-green corridor boundaries, but as this tends not to follow recognisable/mapped features, it was used only as a guide in selecting the nearest OS mapped boundary feature);
- West of England NRN - strategic woodland, grassland, and wetland networks (these habitat networks were vital in guiding the location and extent of GI corridors, but the current boundaries do not follow recognisable/mapped features, so it was therefore used only as a guide in selecting the nearest OS mapped boundary); and,
- Strategic wetland habitat buffers along river corridors, where these cut through designated sites, and built settlement area, for example.

**3.24** Strategic GI corridor boundaries do not solely relate to the West of England NRN strategic networks (including land between designated ecological sites for habitat creation), as the scope of South Gloucestershire's strategic GI assets also includes designated landscape and heritage areas. In most cases, the corridors are drawn to OS boundary features, with one main exception being where a river corridor is followed through a settlement area, for example in the case of Corridor C.

Figure 3.1: Criteria for boundary rationalisation





## Collaborative approach

**3.25** The boundaries were refined in a collaborative and iterative approach between LUC's project team and SGC Officers, as follows:

1. SGC officers provided initial strategic GI corridor boundaries as developed through the Pilot Study.
2. LUC's project team refined the boundaries using the interactive web viewer, which enabled multiple data layers to be interrogated concurrently. The refined corridor boundaries were digitised and electronically sent to SGC Officers on A1 figures and accompanied by four 'themed' figures (on an OS 1:25,000 base map) to enable decision-making regarding further refinement of the boundaries to be guided by the location of strategic GI assets within a given corridor.
3. SGC officers held a series of internal workshops to further refine boundaries, and further test the criteria for prescribing their spatial definition.
4. Any further queries to produce the final corridor boundaries were addressed in virtual meetings between LUC's project team and SGC officers.
5. During the Stage 2 update to this project, both boundary and text amendments were addressed through a collaborative process of workshops, including the LUC project team and SGC Officers. Updates undertaken during this stage are described further in paragraph 3.44.

## Assumptions and limitations

### GIS Data Sets and Mapping

**3.26** In addition to the GIS data collation and update discussed above, several technical issues related to production of thematic figures for each corridor as set out below:

- Not all features within locally held GIS data sets were clearly labelled in terms of sub-categories etc., and therefore, other publicly available data was consulted to identify such features; for example, Sustrans information to supplement locally held active travel route data to identify definitive national and regional cycle network routes;
- Some GIS data sets recorded a large quantum of GI assets on a single layer, and therefore, those elements relevant to the study have been extracted, as practical;
- Some GI asset boundaries vary between data sets depending on end user requirements, and e.g. in consultation with the Council, the most definitive has been used (e.g. registered common land rather than common land areas captures for Policy CS24 purposes); and
- For some physical features such as rivers, manual interpretation was needed to identify 'strategic' rivers within Ordnance Survey datasets.

### Boundary Rationalisation

**3.27** The process to rationalise boundaries was iterative and collaborative between LUCs project team and SGC Officers.

**3.28** Although a clear and consistent approach / hierarchy was developed, some deviation from the criteria was necessary (as described above and illustrated in Appendix C).

**3.29** The strategic GI corridors seek to encompass the largest concentrations of strategic GI assets within South Gloucestershire as practical, together with areas of key strategic habitat. Where additional ‘outlier’ strategic GI assets fall outside of the nine identified corridors, this does not limit their role, importance or need to be protected, conserved and/or enhanced.

## Strategic GI Corridor Audit Reports

**3.30** The web viewer was used to manually identify the strategic GI assets within each corridor to produce the audit reports set out in Chapters 6 to 14 inclusive. The web viewer allowed multiple layers to be presented, showing the information contained within the attribute tables for each data layer (e.g. information on size in hectares of a designated site).

**3.31** No information has been included in the audit reports on the condition of assets (e.g. Heritage at Risk, SSSIs in unfavourable condition).

## Corridor Boundaries and GI Assets

### Heritage Assets

**3.32** Setting of heritage assets such as Conservation Areas (CAs) and Registered Historic Parklands is defined within the glossary of the NPPF under the “Setting of a heritage asset” heading as *“The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral”*.

**3.33** The geographical area of a CA setting will vary depending upon its context within a given townscape of landscape. Whilst the setting itself is not usually included within the designated area, its attributed importance depends upon the

contribution it makes to the significance of the CA, or the appreciation of this heritage asset.

**3.34** Therefore, where a boundary of a strategic GI corridor is drawn close to the edge of a heritage asset, or where a heritage asset lies outside a strategic corridor, protection of its setting needs to be considered in accordance with section 72(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990; NPPF; South Gloucestershire Core Strategy Policy CS9 and Policies, Sites and Places Policy PSP17; and the adopted Conservation Area appraisals.

### Setting of Cotswold National Landscape

**3.35** The Cotswolds National Landscape was designated as an Area of Outstanding Natural Beauty (AONB) in 1966, in recognition of its special landscape character. Consideration of the setting of the Cotswold National Landscape is important in the protection and appreciation of its scenic beauty and landscape character. Within South Gloucestershire, it is the Cotswold Scarp that is most widely visible in 'external' views across the district (see Corridor E on Figure 4.1), and conversely has some of the most important strategic viewpoints looking out from its upper slope. Consequently, the adjacent landscape character areas often form an integral part of its setting, as does much of Westerleigh-Wickwar-Bitten Corridor D, which is described further in Chapter 9.

### Ecological Designated Sites

**3.36** Where boundaries of the strategic GI corridors are drawn close to the edge of a designated ecological site, or where such a site lies outside a strategic corridor, consideration will need to be given to any associated Impact Risk Zones (IRZs) which extend beyond the boundary of the site itself, as prescribed by legislation. These defined zones around SSSIs reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. Local

## Chapter 3 Methodology

planning authorities have a duty to consult Natural England before granting planning permission on any development that is in or likely to affect a SSSI. The SSSI IRZs can be used by LPAs to consider whether a proposed development is likely to affect a SSSI and determine whether they will need to consult Natural England to seek advice on the nature of any potential SSSI impacts and how they might be avoided or mitigated.

**3.37** The River Severn estuary is an example of a European level protected site within South Gloucestershire given its various designations (see Chapter 6: Corridor A). Therefore the estuary is protected by the Conservation of Habitats and Species Regulations 2017 as amended (known as the Habitats Regulations), which require local planning authorities to complete habitats regulations assessments (HRA), to test if a plan or project proposal could significantly harm the designated features of such sites. At the time of writing this report the HRA, which will agree the regional level strategic mitigation measures for the Severn estuary, is still in development.

## Outliers

**3.38** In some instances, clusters of green and green-blue infrastructure assets which are important for the GI network are not included within the strategic GI corridors, these are referred to as 'outliers'. The strategic GI corridors are intended to capture and link the main concentrations of assets. The geographical location of identified outlying GI assets means that their inclusion within a given corridor would result a significant extension including large swathes of 'white land' which lack any notable GI assets. Strategic GI outliers will still be protected through other local, regional and national policies and designations, as appropriate, as highlighted in Chapter 2.

**3.39** Notable examples of strategic GI outliers which form an important node in the network, but do not fall within one of the strategic GI corridors, include:

- Three Brooks Local Nature Reserve in Bradley Stoke, including Webbs Wood and Bradley Stoke Lake SNCI, Savages Wood SNCI / Ancient Woodland and part of the Community Forest Path promoted walking route.



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- Part of Stoke Park Registered Park and Garden which includes Long / Hermitage Woods Ancient Woodland, Stoke Park Woodland SNCI, Sims Hill Visually Important Hillside and a Strategic Viewpoint from Dower House.
- Badminton House Registered Park and Garden which includes Great Badminton and Little Badminton Conservation Areas, Swangrove Wood SNCI and Ancient Woodland, Bodkin Wood SNCI and Ancient Woodland, and Field south of Centre Walk Break SNCI. This main outlier also forms part of the woodland strategic network.

**3.40** More locally important GI outliers may comprise a single designated site or group of local designations, and examples of these include:

- GI around Engine Common, including a number of SNCIs (Fields south of Engine Common, Fields at Mission Road / North Road, and Engine Common Lane).
- Westerleigh Common SNCI and open access land, Thornbury Castle Registered Park and Garden and Thornbury Conservation Area.
- Broadmead Brook and associated SNCIs (Fields beside Broadmead Brook and Harcombe Farm & Broadmead Brook).
- Part of the area around Sodbury, Yate and Dodington are important to the local GI networks. SGC is in discussion with a number of Parish and Town councils regarding identifying such areas within Local Nature Action Plans (LNAPs) to develop complimentary strategies for protecting, enhancing and linking GI assets.

## Development Sites

**3.41** Strategic GI corridors are not intended to be a 'stop and block' to development. If a proposed development area falls within a strategic GI corridor, it will need to be proven, for example, that it constitutes appropriate development, that it does not cause unjustified severance or fragmentations, and that instead it is a landscape-led scheme which responds to the needs and

character of the surrounding GI network. Sites located within strategic GI corridors should look to their surrounding corridor for GI design cues, whilst also looking to reinforce the function of the corridor in which it occupies and help deliver the council's related environmental objectives.

### Strategic Viewpoints

**3.42** Strategic viewpoints have been identified across South Gloucestershire as shown on the illustrative map in Appendix B and described in the accompanying schedule. The designation of these has been reviewed further through the LCA SPD Refresh, the process of which is described in paragraph 3.14. Where strategic viewpoints lie within the strategic corridors, these have been noted through this report (Chapters 6 to 14) and identified through the various corridor maps generated. The angle of the available view from a given viewpoint is shown indicatively. Any development (or land use change) site that comes forward, and is likely to be seen from these viewpoints, will need to be supported by a visual analysis. This should determine whether the proposals will be visible, and if so, if they will have an unacceptable impact on the quality, character and composition of the view, and whether any adverse effects can be successfully mitigated.

## Methodology Updates Following Stage 2 Consultation

**3.43** Following the Stage 2 Local Plan consultation process, a number of minor adjustments to the methodology were applied to respond to arising queries. This included:

- Location specific boundary amendments were made in response to feedback from the consultation. A detailed list of all changes made and a brief reasoning for this change is provided in Appendix C.
- An update to all figures to include the Ordnance Survey 1:25,000 base map to better show the relationship between the strategic GI corridors and

## Chapter 3 Methodology

physical features on the ground, such as field boundaries, which are not included on the 1:50,000 OS base map which was used previously.

- A district-wide urban edge interface review was undertaken to ensure a consistent approach to urban edges. This involved:
  - Removing small areas of settlement or streets, which did not justify inclusion within the strategic GI corridor, also as identified by more detailed OS mapping.
  - Reviewing the boundaries against an updated list of active and consented large development sites. Where appropriate, boundaries were amended to accommodate development areas and areas of proposed GI.
- A district-wide review of all strategic GI corridor boundaries was undertaken to ensure a consistent approach. This involved:
  - Snapping boundaries more uniformly to physical features on the ground.
  - Reviewing the justification for inclusion of areas of 'white land'. This involved examining the functionality of the area within the corridor, including its relationship with the WENP woodland, wetland and grassland strategic networks and associated areas / links for habitat creation, as well as designations such as Visually Important Hillside, Conservation Areas and other ecological designations. Where areas of 'white land' were identified and not considered to be of strategic importance, they were removed.
- A review of existing GI projects and programmes within South Gloucestershire was undertaken in January 2022 as part of the first draft of this work. A review of these projects was undertaken in March 2023 to provide an update on progress and also to refresh the list with any new emerging projects or programmes as part of the West of England Nature Partnership Prospectus, July 2022.
- As part of the LCA SPD Refresh, the previously identified Strategic Viewpoints and Visually Important Hillside have been further reviewed against an updated methodology, as follows:

## Chapter 3 Methodology

- The Strategic viewpoints have been reviewed against criteria to evaluate the type of view (e.g. views that illustrate the special qualities of the area, sequential views, or views focused on specific landmark features), also considering their popularity (i.e viewpoints that are promoted or known to be well visited) and where relevant, their visual relationship with the Cotswold National Landscape.
- The Visually Important Hillsides have been characterised and assessed against criteria to evaluate their prominence and extent as a key landform feature, and the relationship with each of the South Gloucestershire LCAs.

## Chapter 4

# Strategic GI Corridors and Theme Maps

**4.1** The nine refined strategic GI corridors labelled A-I are shown on Figure 4.1 and have been given dual naming to reflect firstly the places and settlements they generally extend between, and secondly the key landscape features they are associated with such as Visually Important Hillside or main river corridors; with names relating to the latter given in brackets below.

**4.2** There are four green infrastructure (GI) corridors (outlined in green on Figure 4.1) which predominantly relate to land-based GI assets associated with Visually Important Hillside, commons and the associated strategic woodland and grassland strategic network. These GI corridors are:

- Corridor B: Charfield-Alveston-Hallen (*Western Scarp/Severn Ridges*)
- Corridor D: Wickwar-Westerleigh-Bitton (*Westerleigh Vale/Oldland Ridge/East Fringe*)
- Corridor E: Hawkesbury-Upton Cheyney-Ashwicke (*Cotswold Scarp and Ashwicke Ridges*)
- Corridor F: Hanham Green-Hanham Abbots-Bitton (*Avon Valley*)

**4.3** There are also five 'blue-green' infrastructure (BGI) corridors (outlined in blue on Figure 4.1). These predominantly relate to strategic and larger river courses and the estuary/foreshore of the River Severn. They take in the associated strategic wetland nature network, as well as adjoining habitats. These BGI corridors are:

- Corridor A: Sheppardine-Oldbury on Severn-Severn Beach (*Severn Estuary and Levels*)
- Corridor C: Winterbourne-Kendleshire-Yate (*River Frome Corridor*)



## Chapter 4 Strategic GI Corridors and Theme Maps

- Corridor G: Wickwar-Iron Acton (*Ladden Valley*)
- Corridor H: Hinton-Doynton-Bitton (*Boyd Valley*)
- Corridor I: Huntingford-Charfield-Wickwar (*Little Avon River Corridor*)

**4.4** As discussed in Chapter 3, GI assets data sets were grouped into four key topic themes: Landscape and Heritage; Ecology and Biodiversity; Hydrology; and Recreation and Access, with each corridor subsequently mapped on four plans alongside the GI assets of each theme. Given the varied extents of the nine corridors, two mapping scales have been adopted for the thematic maps to ensure, as far as is practical, these can be read alongside each other with ease. Figures 4.2, 4.3, 4.4 and 4.5 provide an overview picture of the corridors in the context of each of the four key topic themes.

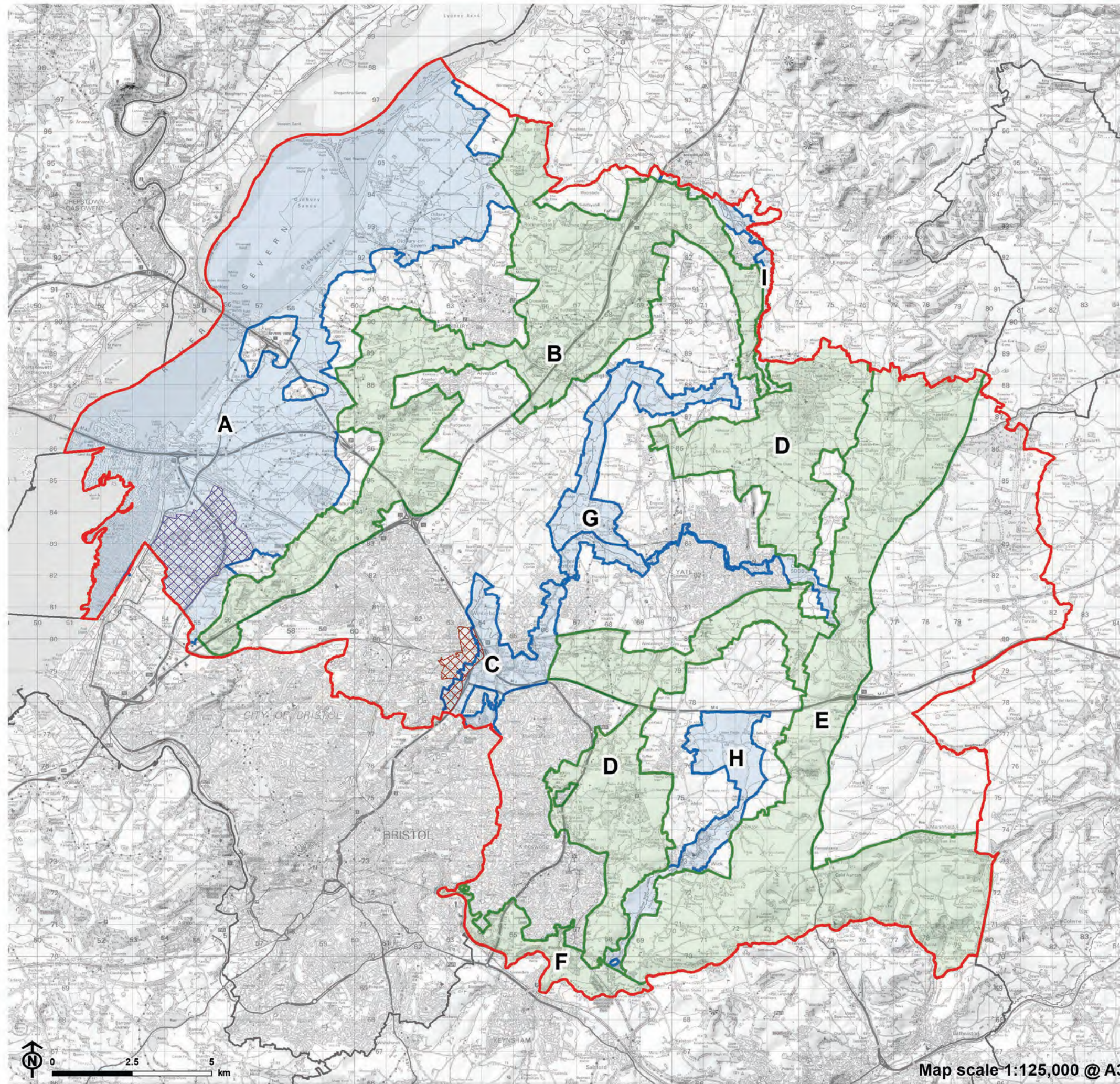
**4.5** Chapter 5 outlines the policy/legislative context and importance of designated sites considered as strategic GI assets within each of the four theme groups.

**4.6** A commentary on each corridor and the GI assets located within them (organised by theme) is set out in Chapters 6 to 14 inclusive. Each chapter follows the same structure:

- Corridor Location Plan
- Importance and purpose of the corridor – this is intended to be a brief overview rather than a comprehensive description of all its related functions and features.
- Supporting figures
- Landscape and Heritage
- Ecology and Biodiversity
- Hydrology
- Recreation and Access
- Summary



**Figure 4.1: Strategic Green and Blue-Green Infrastructure Corridors**



- South Gloucestershire
- Neighbouring local authority
- Green Infrastructure Corridor
- Blue-Green Infrastructure Corridor

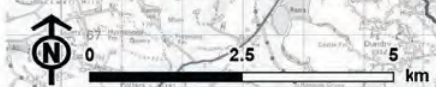
**Corridor name**

- A Shepperdine-Oldbury on Severn-Severn Beach (*Severn Estuary and Levels*)
- B Charfield-Alveston-Hallen (*Western Scarp/Severn Ridges*)
- C Winterbourne-Kendleshire-Yate (*River Frome Corridor*)
- D Wickwar-Westerleigh-Bitton (*Westerleigh Vale/Oldland Ridge/East Fringe*)
- E Hawkesbury-Upton Cheyney-Ashwicke (*Cotswold Scarp and Ashwicke Ridges*)
- F Hanham Green-Hanham Abbots-Bitton (*Avon Valley*)
- G Wickwar-Iron Acton (*Ladden*)
- H Hinton-Doynnton-Bitton (*Boyd Valley*)
- I Huntingford-Charfield-Wickwar (*Little Avon River Corridor*)

The committed development area of Severnside (South Gloucestershire Policy CS35) is located within the boundary of Corridor A.

The committed development area of East of Harry Stoke (South Gloucestershire Policy CS27) overlaps with the western end of Corridor C

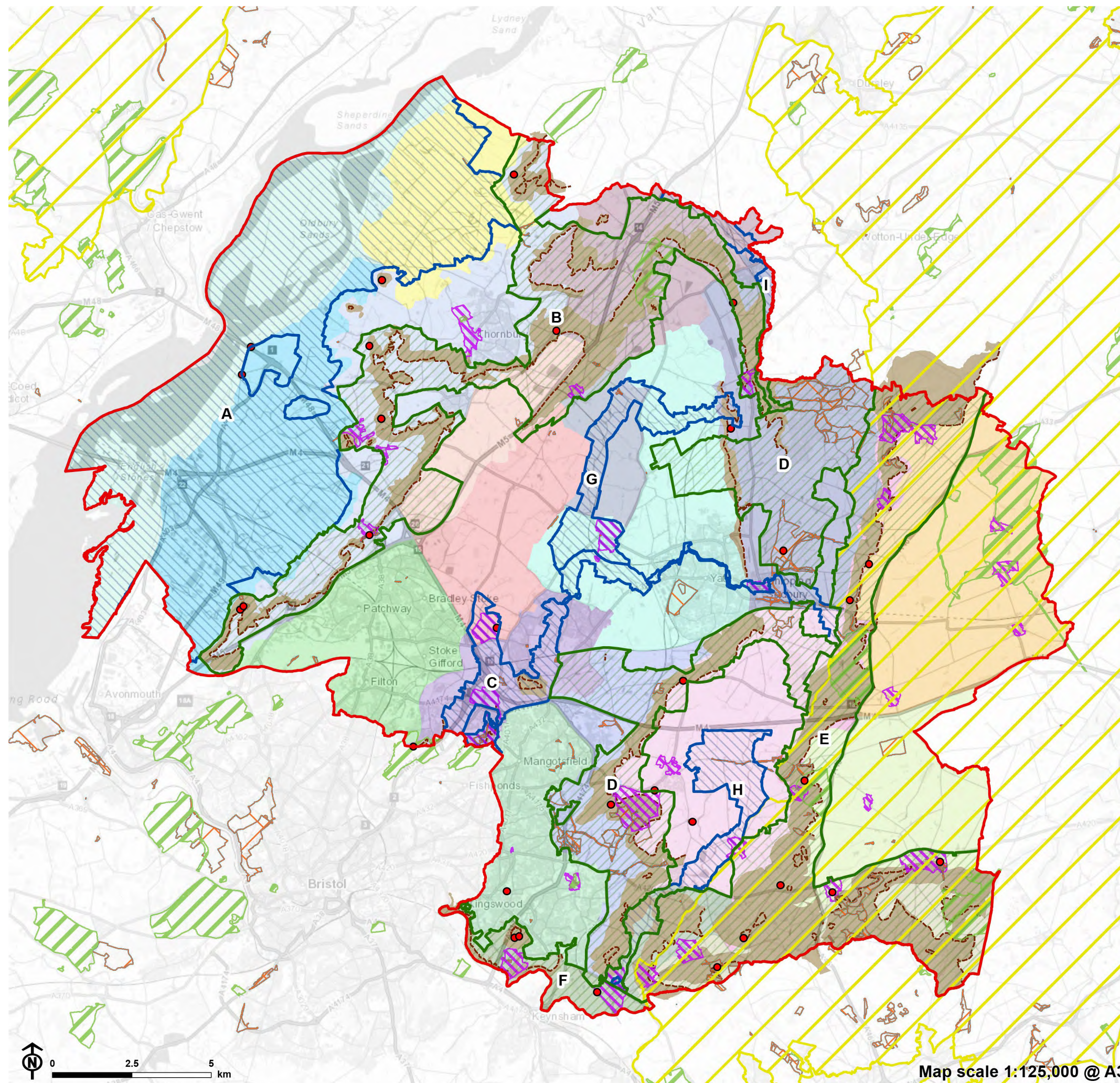
*Names in italics cross reference to descriptions within the Greener Places: Green Infrastructure Strategy 2021, which highlight the key geomorphological features that the corridors are associated with.*



Map scale 1:125,000 @ A3



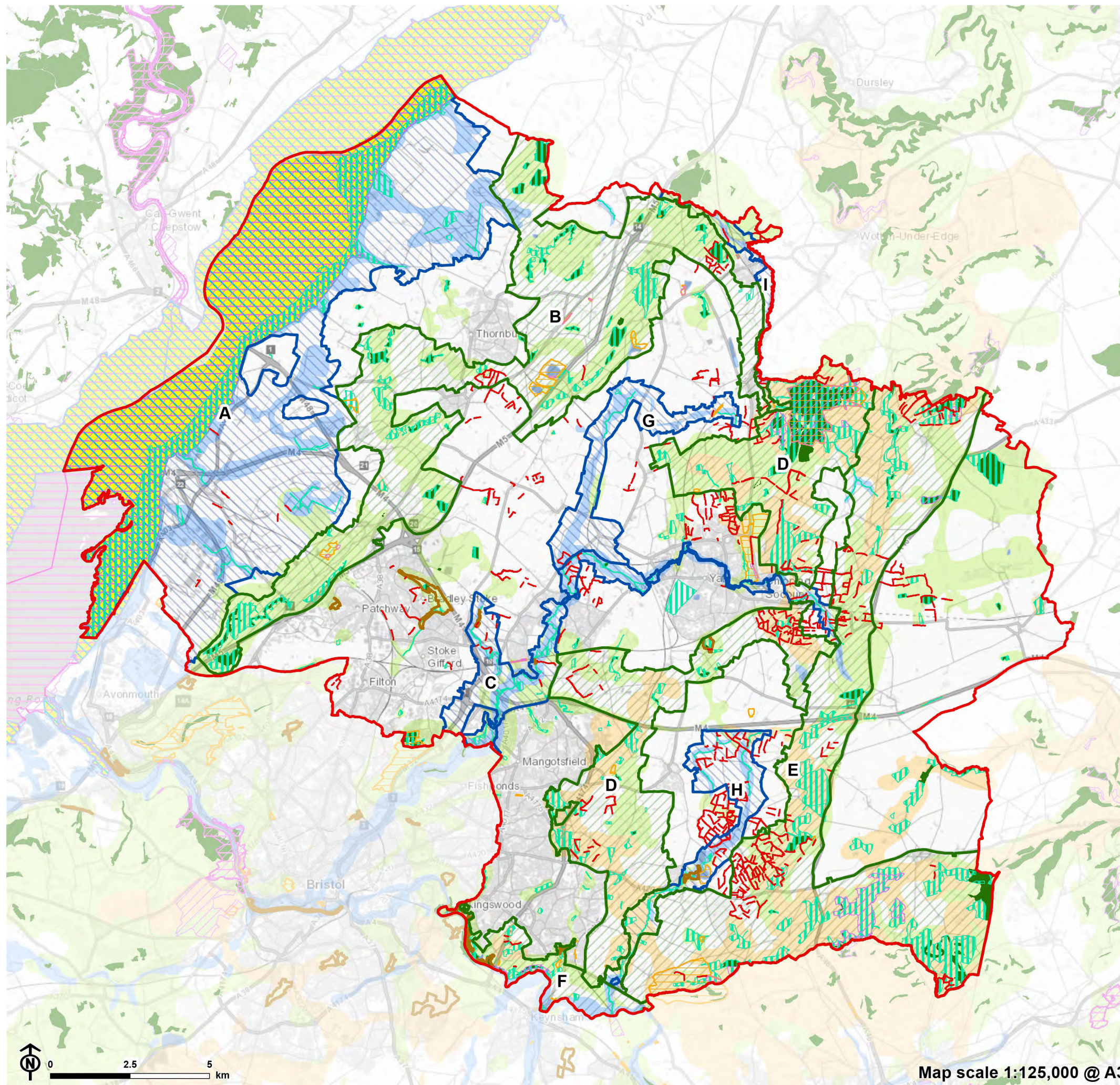
**Figure 4.2: Landscape and Heritage**



- South Gloucestershire
  - Green Infrastructure Corridor
  - Blue-Green Infrastructure Corridor
  - Strategic viewpoint
  - Visually Important Hillside
  - Visually Important Hillside top of slope
  - National Landscape
  - Conservation Area
  - Registered Park or Garden
  - Registered Common Land
- Landscape Character Area**
- 1: Badminton Plateau
  - 2: Marshfield Plateau
  - 3: Ashwicke Ridges
  - 4: Cotswold Scarp
  - 5: Wickwar Ridge and Vale
  - 6: Pucklechurch Ridge and Boyd Valley
  - 7: Falfield Vale
  - 8: Yate Vale
  - 9: Tytherington Plain
  - 10: Earthcott Vale
  - 11: Golden Valley
  - 12: Westerleigh Vale and Oldland Ridge
  - 13: Frome Valley
  - 14: Kingswood
  - 15: Patchway and Filton
  - 16: Avon Valley
  - 17: Rudgeway and Tytherington Ridge
  - 18: Severn Ridges
  - 19: Oldbury Levels
  - 20: Pilning Levels
  - 21: Severn Shoreline and Estuary



Figure 4.3: Ecology and Biodiversity

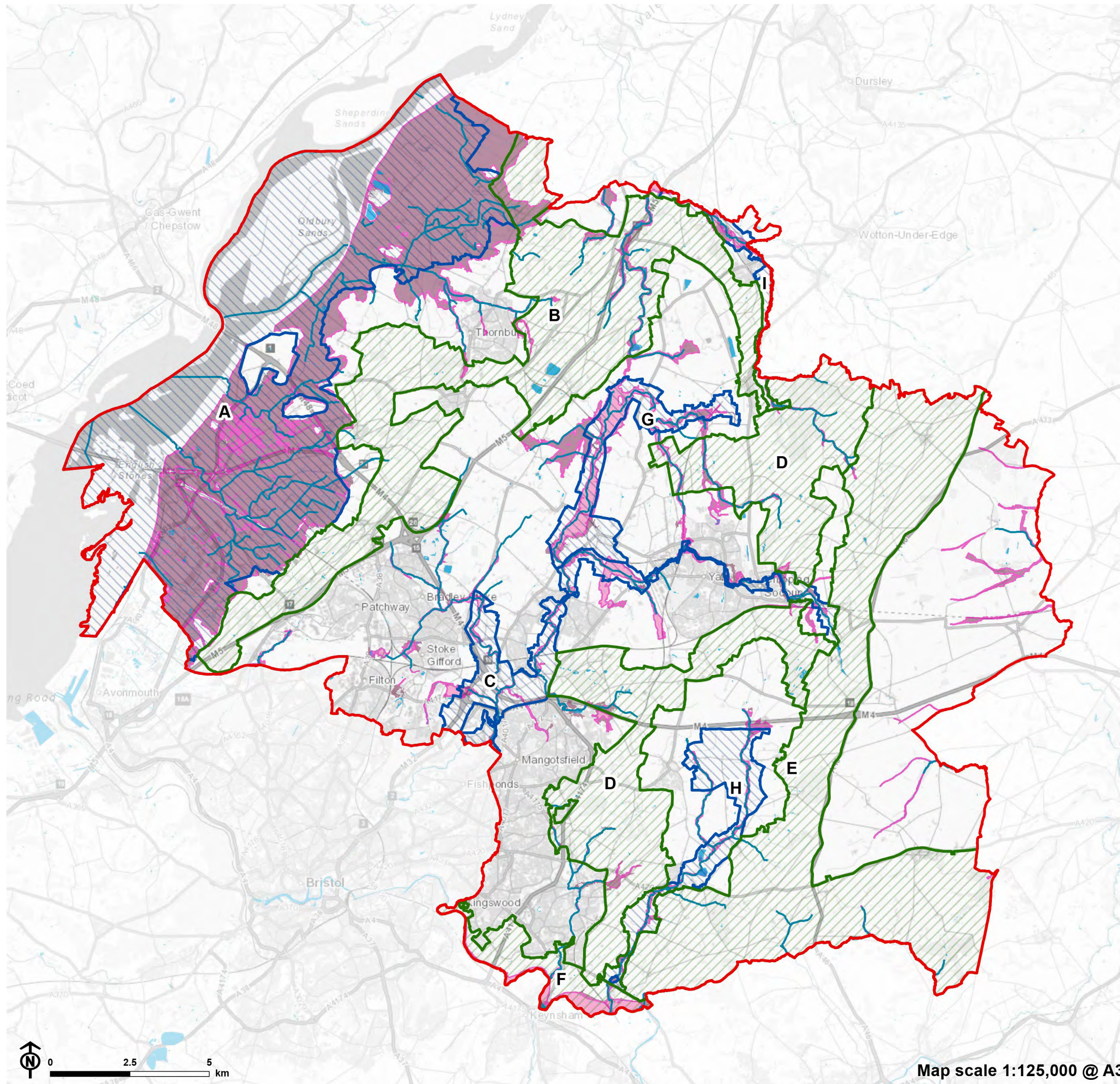


- South Gloucestershire
- Green Infrastructure Corridor
- Blue-Green Infrastructure Corridor
- Site of Special Scientific Interest
- Special Protection Area
- Special Area of Conservation
- Ramsar site
- Local Nature Reserve
- Regionally Important Geological Site
- Site of Nature Conservation Interest
- Ancient woodland
- Woodland Strategic Network
- Wetland Strategic Network
- Grassland Strategic Network
- Important Hedgerow

Map scale 1:125,000 @ A3



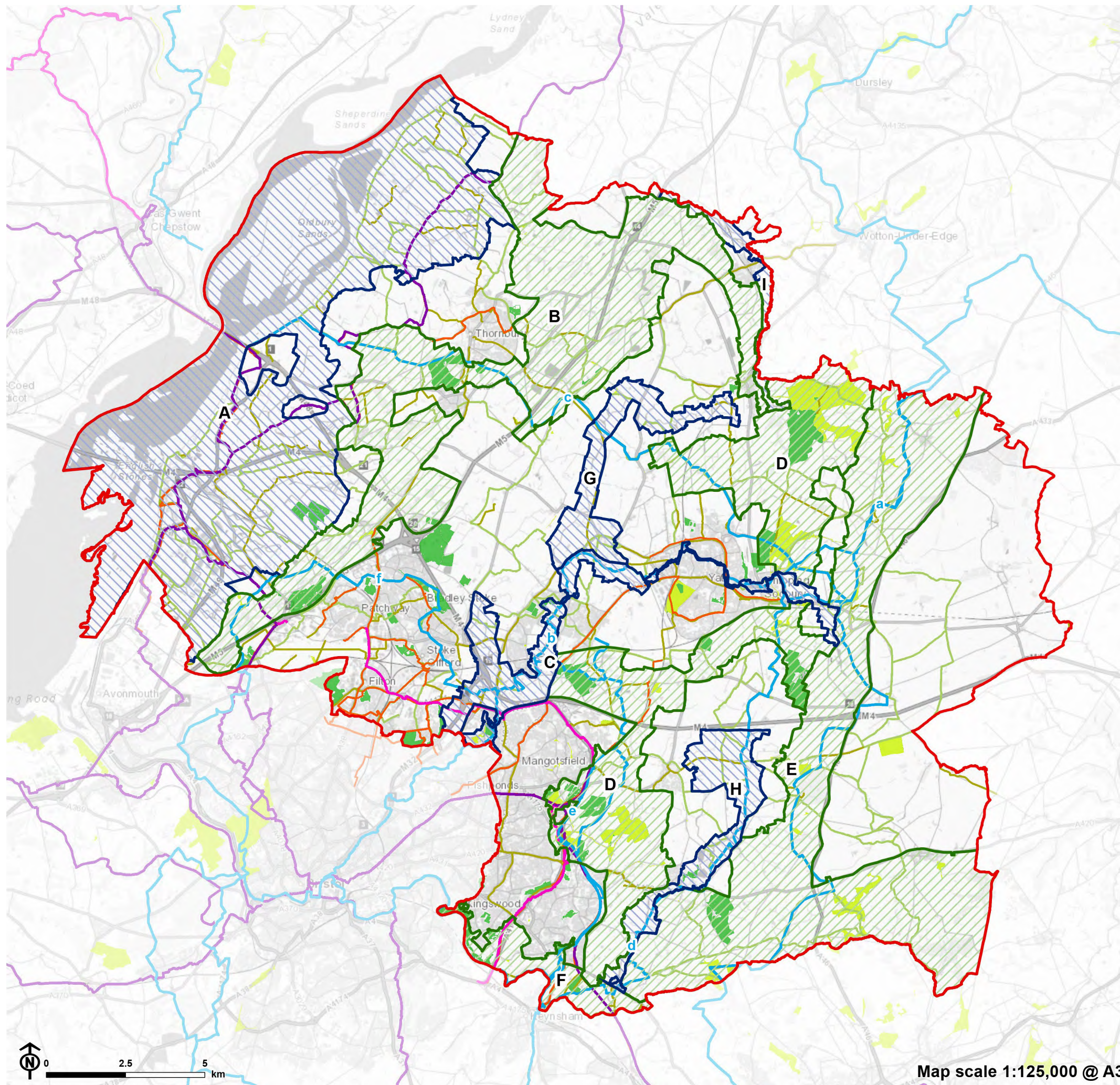
Figure 4.4: Hydrology



- South Gloucestershire
- Green Infrastructure Corridor
- Blue-Green Infrastructure Corridor
- Waterbody
- River
- Flood zone 2
- Flood zone 3a
- Flood zone 3b



**Figure 4.5: Recreation and Access**



- South Gloucestershire
- Green Infrastructure Corridor
- Blue-Green Infrastructure Corridor
- Large green space
- Open access land
- National Trails and Long Distance Footpaths
  - a: Cotswold Way
  - b: Frome Valley Walkway
  - c: Jubilee Way
  - d: Monarch's Way
  - e: The Dramway
  - f: Community Forest Path
- National Cycle Network
- Regional Cycle Network
- Other strategic and major cycle route
- South Gloucestershire Active Travel Route

Note:  
Registered Common Land can be seen on the Landscape and Heritage maps.



## Chapter 5

# Designated Sites

**5.1** This chapter sets out the legislative context and importance of designated strategic GI assets included in each of the strategic GI corridors (Chapters 6-14 inclusive), by theme. This includes reference to international and national legislation, and to relevant policies within both the South Gloucestershire Local Plan Core Strategy (adopted 2013 with policy abbreviations 'CS') and South Gloucestershire Local Plan Policies, Sites and Places Plan (adopted 2017 with policy abbreviations 'PSP'). The overarching planning policy context for the project is set out in Chapter 2.

**5.2** As explained in Chapter 1 (paragraphs 1.13-1.15), the new and updated strategic GI corridor network will be safeguarded as part of the new Local Plan. A linked strategic policy together with other local policies will manage the approach to protecting the integrity of the network but at the same time facilitating appropriate change and development.

## Landscape and Heritage

### Landscape Character Areas

**5.3** Policy PSP2: Landscape, seeks to conserve and enhance the quality, amenity, distinctiveness, and special character of the landscape.

**5.4** The South Gloucestershire Landscape Character Assessment SPD (2023) identifies 21 Landscape Character Areas (LCAs), each with its own identity, unique physical characteristics, and distinctive attributes that contribute to a particular “sense of place”.

**5.5** A summary table is included within each strategic GI corridor (Chapters 6-14) describing the LCAs which fall within a given corridor.

### Cotswold National Landscape

**5.6** The Cotswolds National Landscape (CNL) is the new name for the Cotswolds Area of Outstanding Natural Beauty (AONB). The new name takes forward one of the proposals of the Government-commissioned 'Landscapes Review' to rename AONBs as 'National Landscapes'. The AONB was designated in 1966 in recognition of its special landscape character. The outstanding natural beauty of the area is derived from its remarkable visual unity, and yet scenic diversity. The unifying factor is its underlying geology. Although Corridor E focuses on the more prominent landform features of the western and southern margins of the CNL, the whole of the CNL contributes towards the strategic GI local nature recovery networks.

**5.7** The NPPF (paragraphs 176 and 177) confirms that AONBs are equivalent to National Parks in terms of their landscape quality, scenic beauty and planning status. At the heart of the NPPF (paragraph 11) is a presumption in favour of sustainable development which sets out how local planning authorities must protect such areas through plan-making and decision-taking. It goes on to say that specific policies indicate development should be restricted, with footnote 7 of paragraph 11 clarifying that 'specific policies' include those relating to AONBs.

### Visually Important Hillside & Other Key Landform Features

**5.8** Visually Important Hillside are identified through South Gloucestershire Policy CS2: Green Infrastructure (see Chapter 2, Figure 2.1 of this document) and are assessed in greater detail in the Landscape Character Assessment SPD (2023) Annex I. The main watercourses are also identified as key landform

## Chapter 5 Designated Sites

features in the landscape. The Cotswold Scarp is considered to be the most 'important' VIH within South Gloucestershire as it forms part of the nationally designated Cotswold National Landscape, and also is prominent in many views across the district.

**5.9** A summary table is included within each strategic GI corridor (Chapters 6-14 inclusive) to describe how Visually Important Hillside (as key landform features), together with other topographical features (e.g. main watercourse valleys) relate to each of the South Gloucestershire LCAs as well as informing the spatial definition of the strategic GI network.

## Strategic Viewpoints

**5.10** The Strategic Viewpoints comprise a combination of those recorded on OS mapping and other publications as being of scenic importance, views that are identified within the South Gloucestershire Landscape Character Assessment SPD (2023), or recognised as providing important and panoramic views towards and from key landmarks within the district. Twenty-nine strategic viewpoints have been identified within South Gloucestershire, together with an additional nine as local viewpoints. These provide locally-important views and allow for interpretation of the district's landscape character, but do not fulfil the criteria to be defined as a Strategic Viewpoint. Further detail on the criteria and methodology can be found in the South Gloucestershire Landscape Character Assessment SPD (2023) Annex II.

**5.11** The strategic viewpoints are listed in Appendix B with the corresponding identification number included in the audit for each corridor (Chapters 6-14 inclusive) and are annotated on the corresponding Landscape and Heritage maps in each corridor audit.

## Conservation Areas

**5.12** South Gloucestershire Policy PSP17: Heritage Assets and the Historic Environment seeks to protect, and where appropriate, enhance or better reveal the significance of heritage assets and their settings, which includes Conservation Areas (CAs). They should be conserved in a manner that is appropriate to their significance.

**5.13** As discussed above in Chapter 3 under Assumptions and Limitations (Corridor Boundaries and GI Assets), development within or affecting the setting of a CA will be expected to preserve or, where appropriate, enhance those elements which contribute to their special character or appearance, as well as to pay particular attention to opportunities to enhance negative parts of CAs and to draw on local character and distinctiveness.

**5.14** Each strategic GI corridor (Chapters 6-14) list the CA's which fall within a given corridor and provide a summary of the relevant SPD which outlines the reason for designation.

## Historic Parks and Gardens

**5.15** Historic Parks and Gardens are those which are included on the Historic England Register of Parks and Gardens of Special Historic Interest in England.

**5.16** South Gloucestershire Policy PSP17: Heritage Assets and the Historic Environment seeks to protect, and where appropriate, enhance or better reveal the significance of heritage assets and their settings. They should be conserved in a manner that is appropriate to their significance.

**5.17** Development proposals will be expected to protect, and where appropriate, enhance the design, character, appearance and settings of historic parks and gardens, as well as to safeguard those features which contribute to their significance, character or appearance.



# Common Land

**5.18** Commons are registered under the Commons Register Act 1965 and protected under the Commons Act 2006. Where South Gloucestershire has freehold ownership or management responsibilities for commons, they are also protected by specific byelaws (e.g. Siston Common, Goose Green and Webbs Heath).

**5.19** Commons also fall under South Gloucestershire Policies CS2: Green Infrastructure and CS24: Green Infrastructure, Sport and Recreation Standards owing to their open space function. In addition, a number of commons are designated SSSIs or SNCIs, and are protected by related South Gloucestershire policies as described under the Ecology and Biodiversity theme below.

## Ecology and Biodiversity

### International Designations

**5.20** In recognition of its importance for wildlife in South Gloucestershire, the Severn Estuary is subject to a series of international nature conservation designations, as follows:

- Special Protection Area (SPA) under Directive 2009/147/EC on the Conservation of Wild Birds (known as ‘the Birds Directive’).
- Special Area of Conservation (SAC) under Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora (‘the Habitats Directive 1992’), implemented in Britain by the Conservation (Natural Habitats & c) Regulations 2012 (known as ‘the Habitat Regulations’).
- Ramsar Site under the Ramsar Convention 1971 - it is Government policy that these are subject to the same legal protection and statutory provisions as SPAs and SACs.

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- Also, protected by South Gloucestershire Policy PSP18: Statutory Wildlife Sites, European Sites and SSSIs.

### Sites of Special Scientific Interest

**5.21** Sites of Special Scientific Interest (SSSIs) constitute the best examples of a variety of wildlife habitats, geological features and rare species of flora and fauna in Britain. They are statutory sites of national importance for nature conservation and are notified and legally protected under the Wildlife and Countryside Act 1981 (as amended), which local planning authorities have a statutory duty to protect. They are protected by South Gloucestershire Policy PSP18: Statutory Wildlife Sites - European Sites and Sites of Special Scientific Interest.

### Sites of Nature Conservation Interest

**5.22** Sites of Nature Conservation Interest (SNCI) are non-statutory sites of substantive local nature conservation value and included under South Gloucestershire Policy PSP19: Wider Biodiversity.

**5.23** Owing to the legal status of SNCI sites, this Strategic GI Corridor Mapping Project:

- Identifies any SNCIs that overlap with SSSIs or Ancient Woodland, and quotes the SSSI and Ancient Woodland names in such instances; and
- States the total number and area (in hectares) covered by SNCIs within a given corridor and confirms where these predominantly relate to grassland/woodland/wetland habitat areas.

## Local Nature Reserves

**5.24** Where there is an opportunity for a local site to make a contribution to education and involve the local community they can be further designated as Local Nature Reserves (LNRs). These are non-statutory sites and are included under South Gloucestershire Policy PSP19: Wider Biodiversity.

## Ancient woodland

**5.25** Ancient woodland is a unique habitat that has evolved over centuries, with a complex interdependency of geology, soils, hydrology, and flora and fauna. Ancient woodland is a finite resource within South Gloucestershire and included under South Gloucestershire Policies PSP3: Trees and Woodland and PSP19: Wider Biodiversity. The site on which an ancient tree resides may have legal protection of its own (e.g. as a SSSI).

## Regionally Important Geological Sites

**5.26** Regionally Important Geological Sites (RIGS) are non-statutory sites which reflect important geological features. They are included under South Gloucestershire Policy PSP19: Wider Biodiversity.

## Hydrology

### Flood Zones

**5.27** Flood Zone 2 (medium probability) is identified as the area along rivers with a between a 0.1 and 1.0% chance of flooding in any year and tend to cover a greater geographical distance from the rivers they are associated with. Flood

## Chapter 5 Designated Sites

Zone 3a (high probability) includes areas of 1% or higher chance of annual flooding from rivers within South Gloucestershire and tend to comprise a smaller geographical area than Flood Zone 2, but the depth of flooding is often deeper. Flood Zone 3b (functional Floodplain) is land where water has to flow or be stored in times of flood.

**5.28** Flood zones are included under South Gloucestershire Policy PSP20: Flood Risk, Surface Water and Watercourse Management and assessed within the South Gloucestershire Council – Level 1 Strategic Flood Risk Assessment (2021).

## Recreation and Access

### Green Space, Sport and Recreation

**5.29** Informal Recreational Open Space, outdoor sports facilities, Provision for children & young people, allotments, and natural and semi-natural green space are included under South Gloucestershire Policy CS24: Green Space, Sport and Recreation Standards. As described in Chapter 23 the data gathered on these spaces has been reviewed to include only those sites of 5 hectares or greater in size, for strategic GI network purposes.

**5.30** Due to their landscape-scale, golf courses are also included as strategic GI assets. Although these areas are not always widely publicly accessible, they do represent large green spaces with potential GI and ecological habitat benefits.

### Active Travel Routes

**5.31** The term Active Travel Route (ATR) is an umbrella term that describes any Public Rights of Way (PRoW) or other route specifically catering for travel by pedestrians, cyclists or horse riders, or any combination of these user groups.

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South Gloucestershire Policy PSP10: Active Travel Routes seeks to safeguard existing and proposed routes.

**5.32** National trails and long-distance footpaths are also important strategic ATRs in terms of the recreational enjoyment and access to the countryside they provide. Although these are less likely to be used for commuting purposes, some sections may form part of people's daily transport route.