Shropshire Council

Shropshire
Green Infrastructure Strategy

Final report
Prepared by LUC
July 2020

Shropshire Council

Shropshire
Green Infrastructure Strategy

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Ecology
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GIS & Visualisation

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Chapter 1
Introduction

Introduction

1.1 Green Infrastructure (GI) is increasingly recognised as a cornerstone of sustainable development and communities. It is a 'must have', due to the many economic, social and environmental benefits it offers. It is essential to the quality of life of residents and business, contributing towards creating places where people want to live and work. Shropshire Council commissioned LUC to prepare a Green Infrastructure (GI) Strategy for the county. The Strategy and the evidence underpinning it will inform land use planning and policy in Shropshire by identifying ways in which existing Green Infrastructure assets and networks can be protected and enhanced, as well as identifying opportunities for the creation of new Green Infrastructure.

What is Green Infrastructure and why is it important?

1.2 The National Planning Policy Framework (NPPF)[1] defines Green Infrastructure as:

> *"A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities"*

1.3 National Planning Practice Guidance[2] sets out that Green Infrastructure assets can include the following:

> *" Green Infrastructure can embrace a range of spaces and assets that provide environmental and wider benefits. It can, for example, include parks, playing fields, other areas of open space, woodland, allotments, private gardens, sustainable drainage features, green roofs and walls, street trees"*

1.4 It is important to note that Green Infrastructure can be in public or private ownership and be in any condition.

[1] MHCLG 2019 National Planning Policy Framework

[2] MHCLG 2019 Planning Practice Guidance for the Natural Environment; Paragraph ID 8-004-20190721.

1.5 A similar term 'blue infrastructure', refers to water related natural assets, such as rivers, canals, streams, sustainable drainage schemes and other open water. Within this Strategy, the term 'Green Infrastructure' includes all blue infrastructure assets.

1.6 Recognition of the multi-functional nature of Green Infrastructure is of paramount importance. Green Infrastructure assets often provide a range of benefits to people (both physical and mental well-being), biodiversity and landscape. Green Infrastructure can help to create high quality, attractive and functional places that will provide a setting for day-to-day living, enhance the character and diversity of the landscape and protect heritage assets that contribute to the area's unique sense of place and cultural identity. It can enrich the area's wildlife value by addressing the negative impact of habitat loss and fragmentation by promoting habitat enhancement and linkage. It can also play an important role in reducing local temperatures, climate change adaptation and mitigation, and alleviating flood risk and soil erosion.

1.7 As well as offering the afore-mentioned environmental benefits, Green Infrastructure can provide economic and social benefits through:

- supporting healthy lifestyles;
- improving physical and mental well-being, thereby reducing healthcare costs;
- connecting people to places by linking residents and visitors to leisure and work destinations along a network of safe and clearly defined routes;
- increasing the attractiveness of a local area; and,
- promoting tourism and recreation.

1.8 The benefits of Green Infrastructure can be felt at a local, regional and national scale and some of the benefits identified above are shown in **Figure 1.1**.

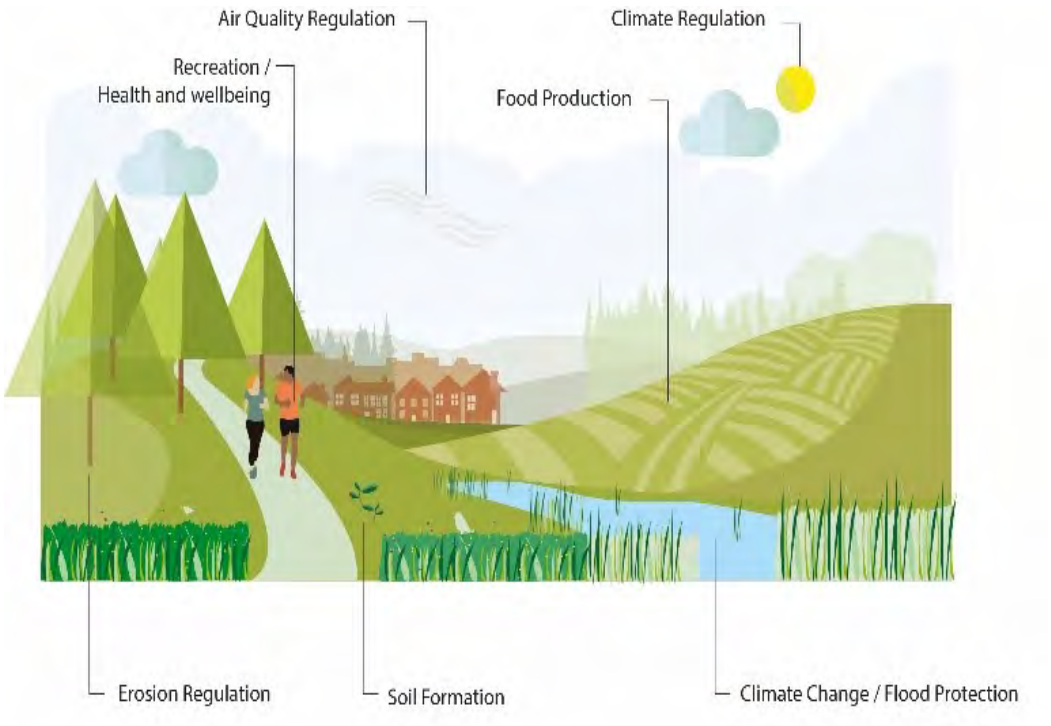


Figure 1.1: Multi-functional benefits of GI

1.9 It is increasingly understood that Green Infrastructure must be considered and planned for alongside other forms of infrastructure, such as 'grey' infrastructure. It is also now widely recognised that investment in nature-based solutions for issues that may need to be addressed during growth and development is a viable and beneficial alternative to highly engineered or 'hard' solutions that may have additional costs and not provide multiple benefits. 'Green Infrastructure Planning' is the concept that encapsulates these points, and reflects an approach which emphasises the importance of the natural environment and natural features in decisions about land-use planning.

Why is a Green Infrastructure Strategy needed?

1.10 Shropshire Council is in the process of reviewing its Local Plan. The National Planning Policy Planning Framework is clear that Local Plans should maintain and enhance Green Infrastructure networks and make sufficient provision for their conservation. NPPF also states that Green Infrastructure can support climate change adaptation, healthy lifestyles and improve air quality or mitigate impacts.

1.11 The Local Plan review provides an excellent opportunity to review Green Infrastructure assets in Shropshire and consider how these can be protected and enhanced, and identify where new high quality Green Infrastructure is needed that supports existing communities (people and wildlife) and benefits new communities, formed as a result of development proposals.

1.12 The provision of new Green Infrastructure can form part of a planning permission but Shropshire Council have also identified an opportunity to deliver new Green Infrastructure as part of their open space requirement for new development. In recent years, whilst developments in Shropshire have generally provided sufficient open space to meet policy requirements in terms of area, the quality of such spaces and their connectivity to existing Green Infrastructure has often been poor. A key challenge for this Green Infrastructure Strategy is therefore how to ensure the provision of open space related to new development delivers Green Infrastructure benefits.

How was the Strategy prepared?

1.13 As set out above, a key driver for this Strategy is to identify how development can contribute more effectively to providing high quality Green Infrastructure, in part as an element of the open space provision associated with new development[3]. In response to this specific issue, the Council decided to focus the Strategy on the areas where the greatest amount of development within Shropshire is proposed in the emerging Local Plan. These areas provide the greatest opportunities to ensure that the open space delivered through new development is provided in a way that both maintains and enhances the Green Infrastructure network wherever possible and improves its connectivity.

1.14 This Green Infrastructure Strategy therefore focusses on identifying Green Infrastructure opportunities within the following settlements:

- **Strategic settlement:** Shrewsbury;
- **Principal Centres:** Bridgnorth, Ludlow, Market Drayton, Oswestry and Whitchurch;
- **Key Centres:** Albrighton, Bishop's Castle, Broseley, Cleobury Mortimer, Craven Arms, Ellesmere, Highley, Much Wenlock, Shifnal, Wem and Church Stretton; and
- **Three Strategic Sites** proposed in the latest local plan consultations on strategic sites (2019): Clive Barracks, Ironbridge Power Station and RAF Cosford.

1.15 The Strategy identifies the key opportunities for Green Infrastructure protection and enhancement within these settlements and sites as identified through desk based research and consultation with key stakeholders. It is not suggested that all of the identified opportunities will necessarily be delivered, instead this Strategy provides a compendium of opportunities which Shropshire Council in association with its partners can review and consider if and how they should be progressed.

1.16 In addition, as required by the NPPF, this Green Infrastructure Strategy also identifies the county-wide Green Infrastructure assets and networks, to help inform decisions which may affect these.

[3] The standards for which are set out in the Shropshire Open Space Needs Assessment (2018)

What are the vision and objectives for this Strategy?

Vision

1.17 The following vision for this Green Infrastructure Strategy has been developed by Shropshire Council. The timescale of the vision matches that of the Local Plan Review.

"By 2038 the Green Infrastructure network in Shropshire is being actively maintained and extended to provide multiple benefits for both people and the natural environment.

The Green Infrastructure network is contributing towards climate change adaptation and mitigation, enhancing health and wellbeing, improving air and water quality, increasing opportunities for active travel and providing recovery of ecosystems.

Objectives

1.18 In order to achieve the Strategy Vision, the following objectives were defined by Shropshire Council:

- To identify the existing Green Infrastructure assets and networks at a Shropshire-wide scale;
- To identify the existing Green Infrastructure context within the main settlements within Shropshire including Shrewsbury as the Strategic Settlement, the Principal and Key settlements and the Strategic Sites as identified in the emerging Local Plan Review
- To identify opportunities to protect, strengthen and enhance existing assets, and deliver new Green Infrastructure in Shrewsbury, the Principal and Key Settlements and the Strategic Sites as identified in the emerging Local Plan Review in a manner which:
  - conserves, maintains and enhances existing natural features and networks;
  - addresses identified health and well-being needs;
  - supports adaptation to, and mitigation of, climate change in areas identified as being vulnerable;
  - improves air and water quality in areas where relevant limit values or national objectives are not being met;
  - respects and enhances historic environment assets;
  - increases opportunities for active travel, walking and cycling.

What does the Strategy cover?

1.19 The Strategy is structured as follows:

- **Chapter one** (this chapter) introduces the Strategy, provides a definition of Green Infrastructure and outlines why the Strategy is needed and how it was prepared. It also sets out the Strategy vision and objectives;
- **Chapter two** sets out the detailed methodology used to: assess the existing Green Infrastructure assets and constraints within Shropshire and identify the opportunities for new Green Infrastructure provision;
- **Chapter three** provides a summary of the context for this Strategy, including an introduction to Shropshire and an assessment of the current national, regional and local policy relevant to Green Infrastructure in Shropshire;
- **Chapter four** provides a description of the current Green Infrastructure context of Shropshire;
- **Chapter five** provides a summary of the key findings, conclusions and recommendations of this Strategy including recommendations in relation to delivery.

1.20 **The appendices** of this report enclose the following information:

- **Appendix A** includes the assessment proformas for the detailed settlement and strategic site assessments;
- **Appendix B** includes a summary of the evidence bases used to inform the production of this Green Infrastructure Strategy;
- **Appendix C** includes the Open Space Assessment which was undertaken to support the preparation of this strategy;
- **Appendix D** includes the attendees at stakeholder workshops undertaken to inform the production of this Green Infrastructure Strategy;
- **Appendix E** provides a summary of consultation of Town and Parish Councils to inform the production of this Green Infrastructure Strategy.

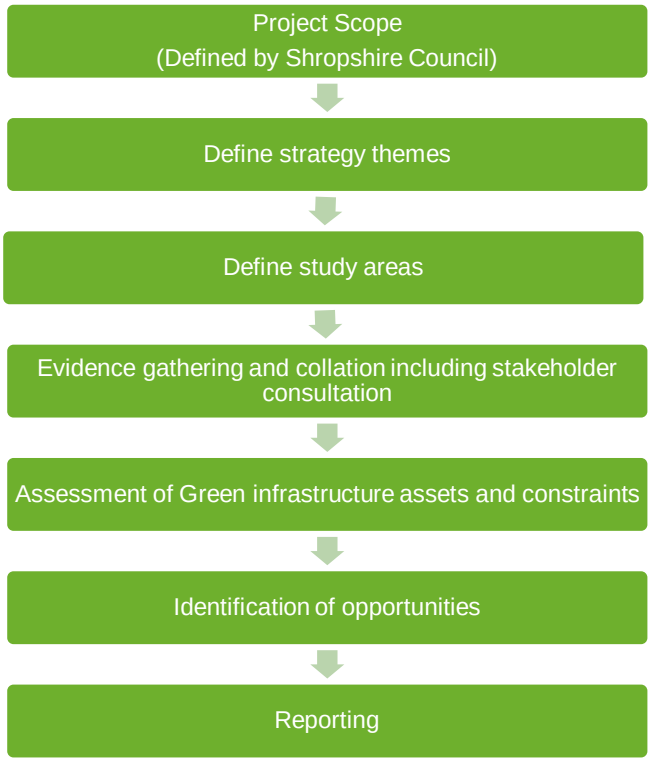
Chapter 2
Methodology

Introduction

2.1 This chapter sets out the methodology used to develop this Shropshire Green Infrastructure Strategy.

Summary of method

2.2 The approach to this Green Infrastructure Strategy is summarised below:



2.3 More detail on each of these stages is set out below.

Project scope

2.4 LUC was commissioned by Shropshire Council to prepare this Green Infrastructure Strategy in November 2019. The commission detailed the vision and objectives for this

Strategy (as set out in Chapter 1) as well as signposting the relevant evidence bases to be taken into account.

Green Infrastructure Strategy Themes

2.5 In order to structure the assessment and recommendations required by this Green Infrastructure Strategy, specific Green Infrastructure themes were developed. These were defined based on LUCs experience of undertaking Green Infrastructure assessments and informed by local factors, such as Shropshire Council's declaration of a Climate Change Emergency in May 2019. The themes are set out below with a brief description of the types of Green Infrastructure assets and factors considered as part of each theme (please note these summaries are not exhaustive):

1: Biodiversity and Geology

Why has this theme been defined?

Green Infrastructure can help to protect and enhance existing habitats and ecological networks. Green Infrastructure also provides a key opportunity to provide new areas of habitat and ecological networks, supporting wildlife and increasing the resilience of local ecosystems to challenges such as climate change.

What types of assets and evidence are considered under this theme?

International, national and local biodiversity designations; nature reserves (including those managed by Shropshire Council and other organisations such as the Shropshire Wildlife Trust and RPSB); Priority Habitat; features of the Shropshire Environment Network and Natural England Habitat Network Mapping; Ancient Woodland; Species Records; Designated geological designations including regionally important geological sites and local geological sites

2: Landscape, Heritage and Culture

Why has this theme been defined?

Green Infrastructure can help to restore degraded landscape character as well as the setting of historic features, enhancing their aesthetic value and promoting a sense of place. Green Infrastructure can also support economic growth by helping to make attractive places for people to live, learn, work or visit.

What types of assets and evidence are considered under this theme?

Designated Landscapes (for example Areas of Outstanding Natural Beauty); World Heritage Sites; landscape character assessment parcels; landscape sensitivity parcels; Scheduled Monuments; Conservation Areas; Listed Buildings; Green Belt

3: Water Resources

Why has this theme been defined?

Green Infrastructure can help to reduce flood risk and water pollution, providing both societal, health, economic and biodiversity benefits.

What types of assets and evidence are considered under this theme?

Rivers, streams, brooks and other watercourses; lakes and ponds; flood risk from fluvial and surface water sources; areas sensitive to water pollution such as Source Protection zones and Nitrate Vulnerable Zones; Sustainable Urban Drainage Systems (SUDS)

4. Active Travel, Access and Recreation

Why has this theme been defined?

Green Infrastructure can help to create and enhance active travel routes, improving accessibility and provide new recreational opportunities. This increases the potential for local residents to make healthier lifestyle choices, whilst also supporting economic growth and sustainable tourism.

What types of assets and evidence are considered under this theme?

National and locally promoted walking and cycling routes; Public Rights of Way; open spaces in Shropshire including parks, natural/semi natural greenspace, amenity space, children's play areas, outdoor sports facilities and allotments

5: Health and Wellbeing

Why has this theme been defined?

Green Infrastructure can help to provide areas and routes which allow people to engage in recreation involving, for example, physical activity, learning opportunities or quiet contemplation. such opportunities have been shown to help people to address physical and mental health issues.

What types of assets and evidence are considered under this theme?

Consideration of Indices of deprivation for Health and Disability Deprivation; childhood obesity; accessible natural greenspace.

6: Climate Change

Why has this theme been defined?

Green Infrastructure can help to mitigate the likelihood of climate change, through promoting new planting or enhanced habitat management to store carbon. Green Infrastructure can also help to mitigate the effects of climate change, by providing shade and shelter for more extreme weather, reducing flood risk and providing migration networks for species to use as the climate changes.

What types of assets and evidence are considered under this theme?

Consideration of climate change impacts in relation to Green Infrastructure, such as flood risk, vegetative coverage, habitat corridors

2.6 It is important to recognise that there is cross-over and inter-relation between the different themes due to the multifunctionality of Green Infrastructure assets, i.e. one asset may provide functions / roles which are relevant to several, or even all, of the themes.

Geographic focus and defining study areas

Focussing the assessment to specific areas

2.7 In accordance with the requirements of the national planning policy framework (2019) (NPPF), this Green Infrastructure Strategy applies to the whole of Shropshire Council's administrative area.

2.8 The strategy identifies the current Green Infrastructure context at a strategic, Shropshire-wide level. The manner in which this was undertaken is set out below, under the 'identifying the baseline' heading.

2.9 In accordance with the brief set by Shropshire Council, this Strategy also considers the specific baseline and potential opportunities for Green Infrastructure protection, enhancement and creation at a smaller scale, focussed on the locations in

Shropshire which are likely to experience the greatest amount of development over the coming years. This more detailed level of assessment was undertaken in recognition that whilst new development can have a significant impact on local Green Infrastructure, it also offers valuable opportunities to increase provision and connectivity, especially through open space provision and sensitive site design.

2.10 Using the settlement hierarchy set out in the 'Pre-Submission Draft Local Plan (2020)'[4], the Strategic Centre, Principal Centres and Key Centres were selected for this more detailed assessment. In addition, the three strategic sites included in this consultation document were also selected for this more detailed assessment, The settlements and strategic sites which were subject to this more detailed assessment are set out in **Table 1.**

Table 1: Detailed assessment locations

Settlement hierarchy / site	Settlements
Strategic Centre	Shrewsbury
Principal Centres	Bridgnorth, Ludlow, Market Drayton, Oswestry and Whitchurch.
Key Centres	Albrighton, Bishop's Castle, Broseley, Cleobury Mortimer, Church Stretton, Craven Arms, Ellesmere, Highley, Much Wenlock, Shifnal and Wem.
Proposed Strategic Sites	Clive Barracks, Ironbridge Power Station and RAF Cosford.

Defining boundaries for assessment

Detailed assessments of settlements and strategic sites

2.11 In recognition that Green Infrastructure assets are based primarily on natural features, they do not often follow political boundaries or settlement boundaries. As such, it was necessary to define specific study areas, to frame the detailed assessments.

2.12 The study areas were defined based on a consideration of the following:

- the settlement boundary as defined in the Preferred Sites Consultation (2018);
- strategic site boundaries as proposed in the Pre-Submission Draft Local Plan (2020);
- landscape sensitivity parcels identified for the Shropshire Landscape & Visual Sensitivity Assessment (2018)[5].

2.13 In order to identify the assets, constraints and opportunities that lie within close proximity of the relevant settlement / site boundaries and taking account of the surrounding landscape sensitivity and proposed allocations, the following standard buffer distances to the settlement / site boundaries were used (see **Table 2).**

Table 2: Study area extent for detailed assessments

Settlement hierarchy / site	Study area extent
Strategic Centre	All features within 2km of settlement boundary
Principal Centres	All features within 1.5km of settlement boundary
Key Centres	All features within 1km of settlement boundary
Proposed Strategic Sites	All features within 1km of site boundary

2.14 It should be noted that if there were notable Green Infrastructure assets just beyond the study areas, such as international designations, these were taken into account where deemed relevant, based on professional judgement.

2.15 The study area locations including the settlement boundaries and the relevant study area boundaries are shown in **Figure 2.1.** The assessments of the settlements and strategic sites are included in **Appendix A**.

[4] Please note the version available at the time of writing was the version which was considered by the Shropshire Cabinet Committee on 20 July 2020.

[5] Shropshire Landscape & Visual Sensitivity Assessment (2018) https://shropshire.gov.uk/planning-policy/local-planning/local-plan-partial-review-2016-2036/evidence-base/landscape-and-visual-sensitivity-study/

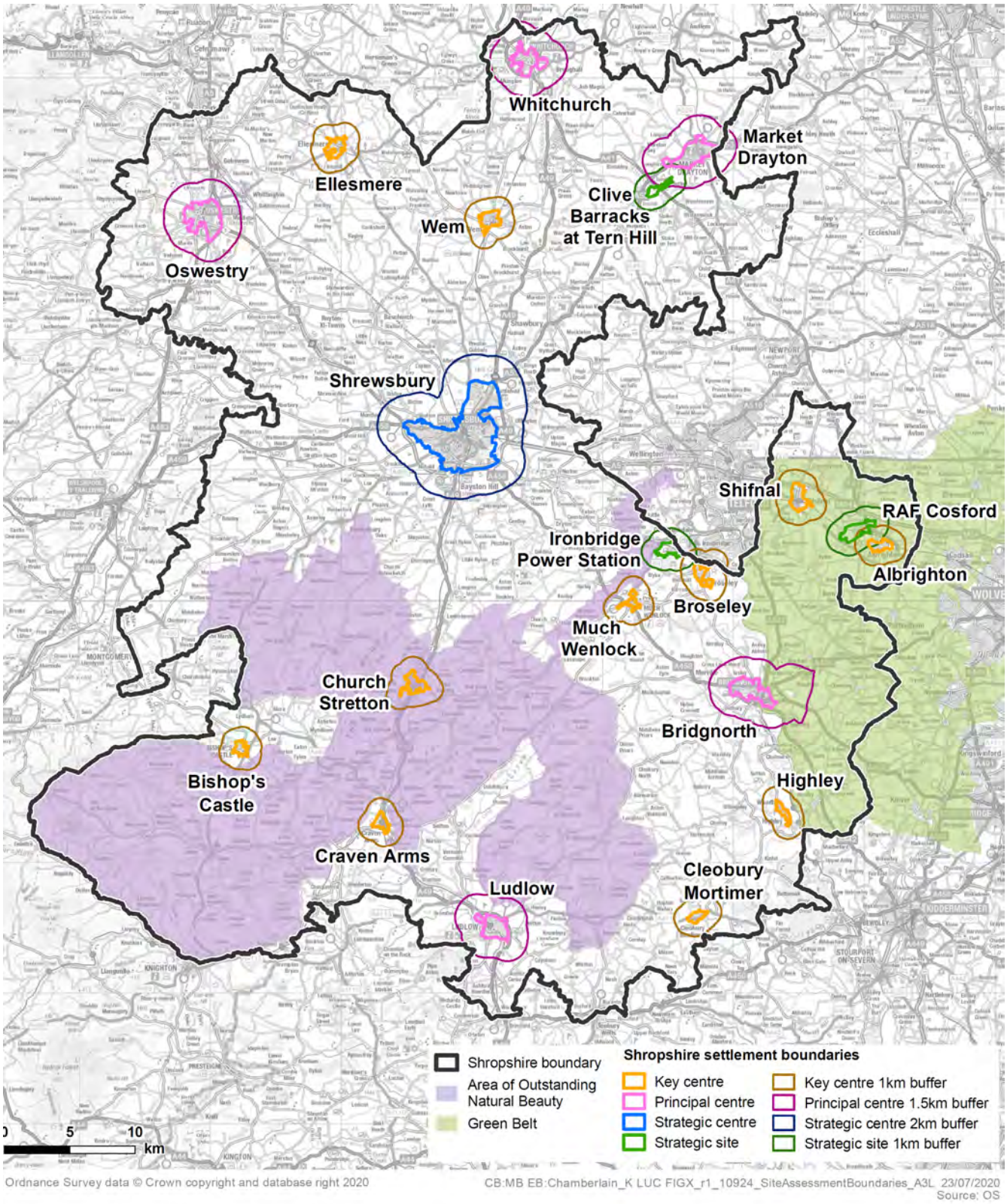


Figure 2.1: Study area locations

Shropshire-wide assessment

2.16 For the assessment of strategic, Shropshire-wide Green Infrastructure; key features both within Shropshire and in neighbouring council areas were taken into account. Due to the variance in the scale of influence of different assets, no specific buffer distance was applied to the identification of assets within neighbouring authorities.

2.17 The assessment of Shropshire wide Green Infrastructure is included in Chapter 4.

Evidence collection and collation

Literature review

2.18 A thorough desk-based literature review was undertaken of the Green Infrastructure context within Shropshire. This included reviewing relevant national, regional and local planning documents such as Acts of Parliament, government bills, local plan documents, Shropshire place plans, neighbourhood plan documents and other relevant information. This was used to inform this Green Infrastructure Strategy, including the planning context. The review is set out in **Chapter 3**.

2.19 A summary of the evidence bases which informed this Green Infrastructure Strategy is set out in **Appendix B**.

GIS data collection

2.20 In order to enable spatial analysis of Green Infrastructure assets in Shropshire, a database using geographic information systems (GIS) ESRI ArcGIS software was created.

2.21 This software provides a mapping tool which allows several different datasets to be grouped and layered, so that they can be viewed individually, or at the same time as other datasets. For example, in relation to biodiversity, it was possible to view several designations at the same time, such as Sites of Special Scientific Interest (SSSIs), national nature reserves and local nature reserves. It also enabled the review of datasets from different themes, for example Public Rights of Way alongside historic environment assets such as registered parks and gardens or scheduled monuments.

2.22 A summary of the GIS data collected and collated to inform this Strategy is set out in **Appendix B**.

2.23 Once collated, the GIS database was used by LUC to review key data and relationships; to inform the 'assets and constraints' and 'opportunity' elements of the assessment.

Bespoke open space assessment

2.24 As work on the Green Infrastructure Strategy progressed it became clear that evidence in relation to open space was not available at the appropriate spatial scale – a key issue being that the Open Space Needs Assessment (2018) provided information relating to place plan areas, which are much larger than the study areas used to assess the Green Infrastructure baseline and opportunities.

2.25 In order to address this, LUC prepared a bespoke Open Space Assessment to support this Green Infrastructure Strategy. This utilised the most up-to-date data from Shropshire Council in relation to open space boundaries and accessibility.

2.26 The report setting out the methodology utilised, findings and recommendations of the bespoke Open Space Assessment are included in **Appendix C.**

Stakeholder workshops

2.27 LUC undertook two stakeholder workshops to confirm the objectives of this Strategy and identify the issues and opportunities for Green Infrastructure in Shropshire.

2.28 The first stakeholder workshop took place on 18th December 2019. This included officers who work for Shropshire Council, including a representative of the health and wellbeing board. The principle aim of the workshop was to check and challenge the objectives of this Strategy, and to gain feedback on challenges the Council had faced in delivering Green Infrastructure to date. In addition, this workshop was used to identify additional evidence bases and datasets. Due to diary constraints, a separate meeting was held with the Shropshire Council Head of Development Management which addressed the same matters as the larger workshop. A list of those who were present at this workshop is set out in **Appendix D**.

2.29 The second stakeholder workshop took place on 10th February 2020 and included a wider range of stakeholders, including representatives from Natural England, and neighbouring authorities. The principle aim of this workshop was to check and challenge the draft assessments of the Shropshire wide existing Green Infrastructure assessment, and show a pilot example of a more detailed settlement assessment. In addition, the workshop was used to identify any additional evidence bases and datasets. A list of those who were present at this workshop is set out in **Appendix D.**

Site visits

2.30 In order to gain a greater understanding of the specific context of the settlements and proposed strategic sites reviewed under the more detailed assessment approach, and

to help to 'ground-truth' the assessment, a series of site visits were undertaken.

2.31 These were undertaken by two members of LUC professional staff. Whilst attending the settlements and proposed sites, LUC reviewed the key Green Infrastructure assets and constraints, and began to consider potential opportunities for the provision of new Green Infrastructure. This information was used to inform the findings set out in the settlement and strategic site assessments in **Appendix A**.

Town and Parish Council survey

2.32 In order to gather further information relevant to the more detailed assessment of the settlements and strategic sites, an online survey of the relevant town and parish councils was undertaken. This focussed the town / parishes within the study areas i.e. only those covering the Strategic Centre, Principal Centres, Key Centres or proposed Strategic Site.

2.33 The survey consisted of a small number of questions in order to ensure response requirements were not too onerous. In summary, the questions sought to identify which existing Green Infrastructure assets in each area were performing well, and which were underperforming, what the key opportunities were for Green Infrastructure in the area over the next five years and beyond, and to identify any initiatives or projects which may be relevant to the Green Infrastructure Strategy.

2.34 The survey was released on 12 February 2020 with a response deadline of 4 March 2020. This was extended on an individual basis where requested.

2.35 More details of the survey including those invited to participate and a summary of responses received is set out in **Appendix E**.

Identifying the Green Infrastructure assets and constraints

Shropshire-wide assessment

2.36 In order to identify the Green Infrastructure assets and constraints (i.e. the Green Infrastructure 'baseline'), the evidence base including regional and local planning documents was reviewed by LUC professional staff, in addition to the database of GIS datasets.

2.37 The assessment undertaken is structured by the different Green Infrastructure themes, as set out above.

2.38 A draft version of the assessment was provided at the second stakeholder workshop and attendees were asked to check and challenge this, which resulted in additional features being identified and included in the assessment.

2.39 It should be noted that as this is a strategic, Shropshire-wide context, only the most important features in terms of scale and those which provide wider connectivity were included within this assessment. This has been undertaken using professional judgement.

Detailed assessments of settlements and strategic sites

2.40 In order to identify the existing Green Infrastructure assets and constraints in the more detailed assessment study areas, LUC professional staff utilised information gathered from the literature review, GIS datasets, stakeholder workshops, site visits and the Town and Parish Council survey responses.

2.41 The assessment was undertaken framed by the different 'Green Infrastructure themes', as set out above.

2.42 The key assets and features were identified using professional judgement.

Identifying opportunities

2.43 The identification of opportunities for Green Infrastructure provision was undertaken only for the more detailed assessment of settlements and strategic sites, as these are the areas which face the greatest pressure and likelihood of change as a result of proposed development.

2.44 Following the identification of the assets and constraints for each study area, LUC planning, landscape and ecology specialists collaborated to identify specific opportunities for each study area. This was also informed by the Stakeholder consultation.

2.45 Opportunities were initially identified on a theme by theme basis, although recognising that some opportunities were likely to be relevant to several of the identified themes .

2.46 A number of existing evidence bases were reviewed to ensure that any relevant projects and proposals were identified, so that the Green Infrastructure Strategy could build on current proposals, and influence them to take better account of Green Infrastructure, if appropriate. In particular, the following evidence bases were particularly relevant to this process:

- Shropshire Core Strategy (adopted 2011), in terms of the policy expectations of all new developments;
- The Shropshire Site Allocations and Management of Development (SAMDev) Plan (adopted 2015), in terms of the settlement and site contexts, the policy expectations for current developments and requirements of the allocations set out therein;
- Local Plan Review: Consultation on Preferred Sites (2018), in terms of the settlement contexts and

requirements of the proposed sites set out therein (the Pre-Submission Draft Local Plan (2020) was reviewed to update this as necessary);

- Local Plan Review: Consultation on Strategic Sites (2019) in terms of the site contexts and requirements of the proposed sites set out therein (the Pre-Submission Draft Local Plan (2020) was reviewed to update this as necessary);
- The Shropshire Place Plans (various years), in terms of the specific Green Infrastructure interventions already being sought;
- The responses to the Town and Parish Council survey, in terms of the opportunities identified therein;
- Settlement / site specific documents such as the Shrewsbury Big Town Plan, Shifnal and Much Wenlock neighbourhood plans, other emerging neighbourhood plans and the visitor survey reports and management plans for Brown Moss and Cole Mere SAC/Ramsar sites.

2.47 Utilising the information gathered from the above and based on information gleaned from the site visits and GIS, a long list of initial opportunities were identified in accordance with the following 'guiding principles':

Guiding Principle 1: Making best use of existing assets

For example, identifying how existing open spaces could be enhanced, or made more accessible to the public; or considering ways to reduce impact on environmentally sensitive sites with special designations, such as Natura 2000 sites, particularly those which are in unfavourable status could be enhanced to achieve favourable status.

Guiding Principle 2: Enhancing connectivity

For example, identifying opportunities to link up areas of habitat to create continuous corridors, or recommending priorities for new active travel modes such as cycle infrastructure.

Guiding Principle 3: Delivering Green Infrastructure close to where people live and work

For example, identifying opportunities to allow people to experience the natural environment near to homes and employment (including allocated and proposed developments), such as providing open space within new developments or enhancing existing space.

2.48 When identifying opportunities for study areas in the Shropshire Hills Area of Outstanding Natural Beauty, a focus was also put on landscape interests and protection of the special qualities of the Shropshire Hills.

Reporting

2.49 The assessment of existing Green Infrastructure assets and constraints, and identified opportunities are set out in this report.

Shropshire-wide assessment

2.50 The assessment of strategic, Shropshire-wide context, is included in **Chapter 4.** This is presented on a theme by theme basis, followed by a summary.

Detailed assessments of settlements and strategic sites

2.51 Due to the more detailed approach taken for these assessments, the assessment and opportunities for the settlements and strategic sites are presented in consistent 'proformas', which are included in **Appendix A**. The headings and matters covered within the proformas are set out below.

Settlement/ Strategic Sites Assessment Proformas

Location

This section identifies the location of the relevant study area on an OS map and also using aerial photography, to illustrate the context of the site. These maps also include a marker to identify the location of the study area in the context of Shropshire.

Summary of Settlement Study Area and Location

This section includes:

- An introduction to the relevant study area, including its broad location and demographic information;
- A summary of the development sites which are allocated, and those which have been proposed in the Pre-Submission Draft Local Plan (2020) ;
- Photographs to illustrate the context of the study area.

Existing Green Infrastructure assets and key constraints

This section includes:

- A plan showing the key existing Green Infrastructure features within the study area;
- A theme by theme bullet-pointed appraisal of the Green Infrastructure current assets and constraints, or 'baseline' in the study area.

Green Infrastructure opportunities

This section includes:

- A plan illustrating the key Green Infrastructure opportunities which have been identified in the study area. It is important to note that where study areas are located close to other study areas, opportunities in both areas are presented on these maps, to help show the wider context.
- A theme by theme bullet-pointed list setting out the opportunities identified and the reasons that they have recommended.
- Due to the fact that some Green Infrastructure opportunities are likely to 'contribute', or otherwise be relevant to, more than one theme, the same opportunity may be repeated in the themes, albeit with the justification provided focussing on the relevant theme.

Summary of key opportunities

This section includes a table which identifies the key opportunities in a summarised format, for example if an opportunity is identified which relates to several themes, it is included only once. The summary table also identifies which themes are relevant to each opportunity.

It is important to note that this summary list forms the basis of the key opportunities map which is earlier in the proforma.

2.52 It is important to note that the opportunities identified form a 'long list' of potential opportunities which should be further investigated and researched in collaboration with local communities and stakeholders involved in delivery. The opportunities identified in the proformas, although thorough, are not exhaustive.

Chapter 3
The Context of this Strategy

Introduction

3.1 This chapter includes a brief introduction of the characteristics of Shropshire, as well as a review of policies and material considerations which relate to Green Infrastructure planning in Shropshire.

Introduction to Shropshire

3.2 Shropshire is a large, predominantly rural inland county in the West Midlands, on the border between England and Wales. The administrative area of Shropshire Council covers approximately 320,000 hectares with 94% classed as rural and the remaining 6% as urban. Almost 81,000 hectares (around 23%) is designated as the Shropshire Hills AONB. In the south east of Shropshire, land between the River Severn and the Shropshire border forms part of the West Midlands Green Belt.

3.3 The town of Shrewsbury is the Strategic Centre, as defined in the Local Plan Review, and contains about a quarter of the population of Shropshire. Bridgnorth, Ludlow, Market Drayton, Oswestry and Whitchurch are Principal Centres and another 11 market towns are Key Centres. Thirty nine smaller settlements are identified as Community Hubs in the Local Plan Review.

Characteristics of Shropshire

Population and Economy

3.4 According to the 2011 census, Shropshire had a population of 306,100 people of which 49.5% were male and 50.5% female. The census indicated that there is a higher percentage of over 65 year olds than the national average and a lower than average proportion of under 25 year olds.

3.5 Shropshire's economy in part reflects its rural nature, with dependences on agriculture and related sectors and lower levels of employment in knowledge-based industries. The main employment areas are located within Shrewsbury and the larger market towns.

Transport

3.6 Key transport corridors include the M54/A5 running east form Shrewsbury to Telford and the West Midlands, the A49 running north to south through the county and the A5 running north west from Shrewsbury to North Wales.

3.7 Shropshire benefits from an strategic rail and local bus network although accessibility is a key issue that has been highlighted in local plans and the local transport plan.

3.8 A number of National Cycle Network routes cross Shropshire, and Shrewsbury is one of 18 cycling towns / cities in the UK.

3.9 Shropshire has no commercial navigable waterways, but the River Severn, Shropshire Union Canal, Montgomery Canal and Llangollen Canal are in part navigable and provide recreational value. Shropshire has an extensive network of Public Rights of Way linking villages, towns and the wider countryside.

The Natural Environment

3.10 Shropshire has a varied countryside character with undulating landscapes in the north, low lying fertile valleys of the River Severn and its tributaries, and the hills and open moorlands of the south.

3.11 The Shropshire landscape is a key economic asset, forming the basis of an attractive place to live and an important tourist destination. The natural environment supports a wide range of habitats including areas of ancient woodland, upland heathlands and lowland raised peat bogs.

3.12 Numerous international, national and local designations apply to Shropshire, in recognition of the high-quality habitat the natural environment provides. There are five Special Area of Conservation designations, two RAMSAR site designations, 112 Sites of Special Scientific Interest, four national nature reserves 11 local nature reserves and 537 local or 'county' wildlife sites. There are also 293 regionally important geological and geomorphological sites[6].

The Water Environment

3.13 The River Severn and its tributaries play an important part in the water environment of Shropshire, with flood risk a key issue.

3.14 A declining groundwater level has had an adverse impact on watercourses and wetlands in the area and parts of north eastern Shropshire are designated as a Nitrate Vulnerable Zone. Source protection zones, related to drinking water aquifers, have also been identified.

The Historic Environment

3.15 The richness of Shropshire's historic environment is reflected in the 6,849 listed buildings, 437 Scheduled Monuments, 34 Registered Parks and Gardens, one Registered Battlefield, 120 conservation areas and other non-statutory heritage assets.

Planning Policy Review

National Policy

National Planning Policy Framework

3.16 The National Planning Policy Framework (2019) (NPPF) recognises the importance of protecting, planning for and delivering Green Infrastructure and provides the overarching rationale for this Green Infrastructure Strategy.

3.17 Paragraph 20 of the NPPF sets out that *'Strategic policies should set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision for… conservation and enhancement of the natural, built and historic environment, including landscapes and Green Infrastructure and planning measures to address climate change mitigation and adaptation*'.

3.18 Paragraph 91 is aimed at creating healthy, inclusive and safe communities and places; and highlights several possible means to achieving this including providing accessible Green Infrastructure, sports facilities and high-quality public space.

3.19 Paragraph 92 states that '*to provide the social, recreational and cultural facilities the community needs, planning policies and decisions should: plan positively for the provision and use of shared spaces, community facilities (including sports venues and open space) and other local services to enhance the sustainability of communities and residential environments'*.

3.20 Paragraph 96 requires planning policies to be based on '*robust and up-to-date assessments of the need for open space, sport and recreation facilities (including quantitative or qualitative deficits or surpluses) and opportunities for new provision'*.

3.21 Paragraph 149 states that Local Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for

[6] Natural Environment Supplementary Planning Document Scoping Draft (2014). https://shropshire.gov.uk/media/8451/ev86-natural-environment-spd-scoping-draft-july-2014.pdf

flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating from rising temperatures. Policies should support appropriate measures to ensure the future resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure.

3.22 Paragraph 150 adds to this and sets out that new development should be planned to avoid increased vulnerability from the effects of climate change. In vulnerable areas, risks should be managed through suitable adaptation measures, including through the provision of Green Infrastructure.

3.23 Paragraph 171 states that Local Plans to should take a strategic approach to maintaining and enhancing networks of habitats and Green Infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

3.24 Paragraph 174 states that Plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks;
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species;
- Identify and pursue opportunities for securing measurable net gains for biodiversity.

3.25 Paragraph 181 relates to the management of air quality, stating that 'Opportunities to improve air quality or mitigate impacts should be identified' including through 'Green Infrastructure provision and enhancement'. It continues that, as far as possible, provision and enhancement should be considered at plan making stage.

3.26 This Strategy has been prepared as an evidence base document to inform the Shropshire Local Plan Review, to help ensure that it is able to address the requirements of the NPPF set out above. Specifically, this Strategy identifies the key Green Infrastructure assets in Shropshire, at a Shropshire-wide level and for the Strategic Centre, Principal Centres, Key Centres and Strategic Sites which are identified in the Shropshire Local Plan Review consultation documents, specifically the Pre-Submission Draft Local Plan (2020).

Planning Practice Guidance

3.27 Planning Practice Guidance relating to the natural environment[7] recognises the need for a strategic approach to Green Infrastructure and encourages the preparation of council-wide Green Infrastructure strategies or frameworks. The guidance clearly states that an evidence-based approach should be employed which includes an assessment of current provision, gaps in the network, and opportunities for improvement; recognising the need to address cross boundary issues. Where appropriate, supplementary guidance may set out how Green Infrastructure will be delivered, including through infrastructure delivery plans and Community Infrastructure Levy (CIL) schedules.

3.28 This Green Infrastructure Strategy provides a strategic overview of the Green Infrastructure context, including assets which fall (wholly or in part) within Shropshire. It utilises a number of other evidence bases in order to provide recommendations for how Green Infrastructure assets can be protected and enhanced, and to identify the best opportunities to provide Green Infrastructure in future.

Natural Environment & Rural Communities (NERC) Act 2006

3.29 The NERC Act (2006) requires planning authorities to consider impacts on "species of principal importance for the conservation of biodiversity" when determining planning applications. The Council has an obligation to ensure that in exercising its functions, it has "regard… to the purpose of conserving biodiversity" (Section 40(1)). Section 41 lists habitats and species of principal importance in England ('S41' habitats and species), which are to be considered, irrespective of whether they are covered by other legislation. Section 42 (3)(a) requires that the Council "take such steps as appear to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section" or, Section 42(3)(b), "promote the taking by others of such steps".

3.30 This Green Infrastructure Strategy is an evidence base which will help to ensure that the Shropshire Local Plan Review achieves the relevant obligations under the NERC Act (2006), as set out above.

A Green Future: Our 25 Year Plan to Improve the Environment

3.31 HM Government's 25 Year Environment Plan (2018). It sets out that significant biodiversity decline has occurred in Britain over the past 50 years, and proposes a 'nature recovery network' to help reverse this. It also sets out the government's approach to protecting the environment and recognises the social, economic and environmental benefits of the provision of Green Infrastructure. The plan sets out

[7] Ministry of Housing, Communities & Local Government (2016) Planning Practice Guidance: Natural Environment

commitments to *'green our towns and cities by creating Green Infrastructure and planting one million urban trees'* and *'producing stronger new standards for Green Infrastructure'.*

3.32 The Plan highlights the general social benefits of access to greenspace and commits to further incorporate access to the natural environment into local Health and Well-being Board strategies. Under the Goal of *'Enhancing beauty, heritage and the natural environment'*, the Plan states that action will include: *'Making sure that there are high quality, accessible, natural spaces close to where people live and work, particularly in urban areas, and encouraging more people to spend time in them to benefit their health and well-being'*[8].

3.33 When given Royal Assent, the Environment (Principles and Governance) Bill (see below) will give the 25 Year Environment Plan Statutory status and support the delivery of the Government's manifesto commitments relating to the environment[9].

3.34 This Green Infrastructure Strategy is an evidence base which will help to ensure that the Shropshire Local Plan Review achieves the relevant objectives of the 25 Year Environment Plan (2018), as set out above.

Draft Environment (Principles & Governance) Bill 2018 (last updated July 2019)

3.35 The Bill mandates biodiversity net gain for development; under Schedule 7A, developers would need to submit a biodiversity gain plan to the local authority before seeking planning permission. This comes ahead of a future intention to "expand the net gain approaches used for biodiversity to include wider natural capital benefits, such as flood protection, recreation and improved water and air quality"7. The Government's ambition for the Bill is to mandate a 10% Biodiversity Net Gain for developments8. The DEFRA October Policy Statement affirms the role of local government in "responding to challenges at a local level, leading specific and locally appropriate responses and driving innovation".

3.36 This Green Infrastructure Strategy is an evidence base which will help to ensure that the Shropshire Local Plan Review meets the anticipated relevant obligations of the Environment Bill, once it receives Royal Ascent.

Regional policy

West Midlands Combined Authority

3.37 The West Midlands Combined Authority is comprised of 18 Local Authorities and three Local Enterprise Partnerships (LEP) who are working together to move powers from Whitehall to the West Midlands and its local elected politicians. They work together on projects which will deliver the vision of a more prosperous West Midlands.

3.38 The Authority sets out a number of priorities for the area, including transport, public service reform, productivity and skills, housing regeneration, economy, thrive and work and the environment.

3.39 The Annual Plan 2019- 2020[10] sets out a number of aims and ambitions for delivery in the year. That relating to the environment is to '*make a significant and positive impact on our environment and deliver clean growth that improves quality of life for everyone in the region*'. To contribute to this the Authority will '*focus on greenspaces and waterways by developing a natural environment infrastructure investment plan to help coordinate and attract investment to improve a network of Green and blue spaces'.*

3.40 Their document 'Tackling the Climate Challenge: A Status Update – November 2019[11]' sets out a number of actions that will be taken to lessen the environmental impacts of climate change. This includes improving natural capital, enhancing wildlife ways, designs for a West Midlands National Park, tree planting and supporting green improvements to the public realm. This Green Infrastructure Strategy identifies some of the specific opportunities to deliver the ambitions of this document.

3.41 In January 2020 the Authority published the West Midlands Design Charter. This is intended to promote, inspire and encourage great design initiatives and delivery high quality place-making across the region.

3.42 The Design Charter sets out 12 principles under six themes, the principles relevant to this Green Infrastructure Strategy are set out below:

- Principle 1: Regional Ambition. Developers will be expected to produce unique, innovative proposals that are grounded in a sound understanding of the local context and acknowledge the diversity of the West Midlands' communities and geography.
- Principle 2: Local Distinctiveness. New development should respond to the qualities that characterise the

[8] HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment
[9] DEFRA (2018) Draft Environment (Principles and Governance) Bill: Statement of Impacts
[10] https://www.wmca.org.uk/media/3367/wmca-annual-plan-2019-20-web-videos.pdf
[11] https://www.wmca.org.uk/media/3521/wm2041statusupdate.pdf

locality's 'spirit of place' for residents, businesses and visitors. Schemes should contribute to the creative and cultural identity of the local environment and benefit local communities.

- Principle 3: Regional Network. New development must contribute to enhancing regional connectivity by integrating effectively to existing and planned transport networks, thinking beyond both site and administrative boundaries.
- Principle 4: Modal Shift. Proposals should demonstrate an understanding of the changing face of transport and movement patterns across the West Midlands; promoting walking, cycling and public transport use.
- Principle 5: Climate Resilience. Developments should incorporate climate adaptation measures that respond to the short and long term impacts of climate change and address the environmental impact of the proposal across its lifecycle.
- Principle 6: Delivering Low Carbon Development. Development proposals should seek to reduce greenhouse gas emissions by making clear, specific commitments to carbon reduction. The potential for new schemes to meet zero net carbon should be considered from the outset.
- Principle 8: Building Active Communities. Development proposals should support healthy living environments and address health inequalities by providing access to nature and spaces for physical activity.
- Principle 9: Promoting Wellbeing. New development should promote wellbeing and good mental health by fostering community, identifying opportunities to reduce social isolation and minimise loneliness.
- Principle 10: Engagement. Consultation should reflect local social, economic and geographic diversity and enable key stakeholders to shape design solutions from an early stage.
- Principle 11: Stewardship. Public spaces and facilities should be designed to encourage long term civic pride in local places. Developers must give early consideration to management and stewardship of places and put long term sustainable solutions in place.
- Principle 12: Securing Social Value. WMCA expects developers to promote social value throughout the development process and will seek to align all housing and regeneration investment decisions with its inclusive growth objectives through its Single Commissioning Framework.

3.43 The publication of this Design Charter illustrates the imperative for high quality design of new development. Proper planning for Green Infrastructure will be a significant contributing factor in achieving all of the above principles.

3.44 This Green Infrastructure Strategy identifies some of the specific opportunities to deliver the principles of the Design Charter.

The Marches Local Enterprise Partnership

3.45 The Marches Local Enterprise Partnership seeks to drive economic growth across Herefordshire, Shropshire and Telford and Wrekin through investment in innovation, higher level skills, housing and business sites.

3.46 It's projects focus on housing, transport, broadband, inward investment and skills, and its aim is to improve the economic prosperity of the region. To achieve this, they work with local partners, stakeholder and businesses to identify barriers to growth, they then prioritise projects that will remove these barriers and drive growth.

3.47 The LEP seeks to emphasise the opportunities in the Marches area by highlighting links between future economic growth and natural capital.

3.48 The LEP have produced 'A natural prospectus for the Marches Local Enterprise Partnership'[12] which sets out the natural assets of the region and gives an insight into how organisations have used 'natural capital' for the social and economic benefit of those who live and work in the area and as a platform for growth.

3.49 This Green Infrastructure Strategy provides an evidence base which includes opportunities which reflect and build upon those already set out in this document.

The Marches Local Nature Partnership

3.50 The LEP is supported by the Marches Local Nature Partnership (LNP) which is an informal association between the Shropshire and Telford & Wrekin Local Nature Partnership and the Herefordshire Local Nature Partnership.

3.51 The 47 Local Nature partnerships across England originated in a vision set out in the Government's 2011 'Natural Environment White Paper' which identified the need to take greater account of the value of the environment when strategic decisions are being made which affect people and the local economy.

[12] https://www.marcheslep.org.uk/download/environment/Marches_LEP-Natural-Environment-Investment-Prospectus-Web.pdf

3.52 The key roles of the LNP include:

- Developing a shared environmental vision and identifying local priorities;
- Engaging communities and raising awareness of the vital benefits a healthy natural environment brings to people and the economy;
- Promoting the use of the natural environment to tackle public health issues;
- Working with the Marches LEP to help businesses to fulfil corporate responsibility objectives and develop new business opportunities linked to a green economy; and
- Influence Local Plan and policies.

3.53 The LEP and LNP have been responsible for the production of Ecosystem Assessments for the region as well as a natural prospectus and a booklet titled 'Nature's Worth' which sets out the worth of all environmental assets in The Marches. It is noted that this stood at £14.7 billion.

3.54 It is noted on the LEP website that a Marches Nature Partnership 'Marches Environment Strategy – Strategic visions and Priorities 2019 – 2023' document is currently being finalised.

3.55 This Green Infrastructure Strategy takes the evidence base reports prepared by the Marches LNP into account.

Local policy

Local Plan

3.56 The adopted Shropshire Local Plan is made up of several documents referred to as the Local Development Documents. Two of the key documents which make up the Local Development Framework are:

- The Core Strategy DPD – adopted 24th February 2011[13].
- The Site Allocations and Management of Development Plan – adopted 17th December 2015[14],(this plan is commonly referred to as the 'SAMDev').

3.57 These are supplemented and supported by the policies map and supplementary planning documents.

3.58 There are also Neighbourhood Plans which have been adopted in Shropshire, for Much Wenlock, Shifnal and Woore.

3.59 The Council is currently undertaking a partial review of the Local Plan, for which this study forms part of the evidence base. The plan period for the review is 2016 – 2038.

3.60 The current Local Plan contains a number of policies which relate to the protection and enhancement of Green Infrastructure and the delivery of new Green Infrastructure. These are set out below.

Core Strategy

3.61 Core Strategy Policy 17: Environmental Networks, sets out the requirement for development to identify, protect, enhance, expand and connect Shropshire's environmental assets to create a multifunctional network of natural and historic resources. It seeks to do this by ensuring that development:

- *'Protects and enhances the diversity, high quality and local character of Shropshire's natural, built and historic environment, and does not adversely affect the visual, ecological, geological, heritage or recreational values and functions of these assets, their immediate surroundings or their connecting corridors;*
- *Contributes to local distinctiveness, having regard to the quality of Shropshire's environment, including landscape, biodiversity and heritage assets, such as the Shropshire Hills AONB, the Meres and Mosses and the World Heritage Sites at Pontcysyllte Aqueduct and Canal and Ironbridge Gorge;*
- *Does not have a significant adverse impact on Shropshire's environmental assets and does not create barriers or sever links between dependant sites; and*
- *Secures financial contributions, in accordance with Policies CS8 and CS9, towards the creation of new, and improvement to existing, environmental sites and corridors, the removal of barriers between sites, and provision for long term management and maintenance. Sites and corridors are identified in the LDF evidence base and will be regularly monitored and updated.*

3.62 Core Strategy Policy 18: Sustainable Water Management requires developments to integrate measures for sustainable water management to reduce flood risk, avoid an adverse effect on water quality and quantity and provide opportunities to enhance biodiversity, health and recreation. One way in which this will be achieved will be for '*all developments, including changes to existing buildings to include appropriate sustainable drainage systems (SUDS) to manage surface water'.*

3.63 Policy CS2 states that in relation to Shrewsbury *'in recognition of the special character of the town and its particular environmental challenges, the development of the town will have regard to…the promotion, conservation and enhancement of the towns natural and historic features,*

[13] https://shropshire.gov.uk/media/8534/core-strategy.pdf

[14] https://shropshire.gov.uk/media/8503/samdev-adopted-plan.pdf

heritage assets, green corridors and spaces and environmental quality, including the corridors of the River Severn and its tributaries and the registered battlefield'.

3.64 Policy CS 7: Communications and Transport states that: *'A sustainable pattern of development requires the maintenance and improvement of integrated, accessible, attractive, safe and reliable communication and transport infrastructure and services. These need to provide a range of opportunities for communication and transport which meet social, economic and environmental objectives by improving accessibility, managing the need to travel, offering options for different travel needs and reducing the impacts of transport. This will be achieved by…Protecting and enhancing strategic and local cycling, footpath, bridleway and canal networks as local transport routes and for recreation and leisure use'.*

3.65 Policy CS 16: Tourism Culture and Leisure states that: *'To deliver high quality, sustainable tourism, and cultural and leisure development, which enhances the vital role that these sectors play for the local economy, benefits local communities and visitors, and is sensitive to Shropshire's intrinsic natural and built environment qualities, emphasis will be placed on:*

- *Supporting new and extended tourism development, and cultural and leisure facilities, that are appropriate to their location, and enhance and protect the existing offer within Shropshire;*
- *Promoting connections between visitors and Shropshire's natural, cultural and historic environment, including through active recreation, access to heritage trails and parkland, and an enhanced value of local food, drink and crafts;*
- *Supporting development that promotes opportunities for accessing, understanding and engaging with Shropshire's landscape, cultural and historic assets including the Shropshire Hills AONB, rights-of-way network, canals, rivers and meres & mosses. Development must also meet the requirements of Policy CS17;*
- *Supporting appropriate regeneration schemes and tourism development proposals that seek to enhance the economic, social and cultural value of canals and heritage railways;*
- *Promoting and preserving the distinctive historic, heritage brand and values of Shrewsbury, the Market Towns and rural areas;*
- *Supporting schemes aimed at diversifying the rural economy for tourism, cultural and leisure uses that are appropriate in terms of their location, scale and nature, which retain and enhance existing natural features where possible, and do not harm Shropshire's tranquil nature'.*

SAMDev Plan

3.66 Policy MD2: Sustainable Design states that for a development proposal to be considered acceptable it is required to … '*Contribute to and respect locally distinctive or valued character and existing amenity value by…Protecting, conserving and enhancing the historic context and character of heritage assets, their significance and setting, in accordance with MD13'.*

As well as *'Consider design of landscaping and open space holistically as part of the whole development to provide safe, useable and well-connected outdoor spaces which respond to and reinforce the character and context within which it is set, in accordance with Policy CS17 and MD12 and MD13, including.: i. Natural and semi-natural features, such as, trees, hedges, woodlands, ponds, wetlands, and watercourses, as well as existing landscape character, geological and heritage assets and; ii. providing adequate open space of at least 30sqm per person that meets local needs in terms of function and quality and contributes to wider policy objectives such as surface water drainage and the provision and enhancement of semi natural landscape features. For developments of 20 dwellings or more, this should comprise an area of functional recreational space for play, recreation, formal or informal uses including semi-natural open space; iii. where an adverse effect on the integrity of an internationally designated wildlife site due to recreational impacts has been identified, particular consideration will be given to the need for semi-natural open space, using 30sqm per person as a starting point. iv. ensuring that ongoing needs for access to manage open space have been provided and arrangements are in place for it to be adequately maintained in perpetuity'.*

3.67 Policy MD12: The Natural Environment, encourages development that '*appropriately conserves, enhances, connects, restores or recreates natural assets, particularly where this improves the extent or value of those assets which are recognised as being in poor condition'* and supports proposals which '*contribute positively to the special characteristics and local distinctiveness of an area, particularly in the Shropshire Hills AONB, Nature Improvement Areas, Priority Areas for Action or areas and sites where development affects biodiversity or geodiversity interests at a landscape scale, including across administrative boundaries'.*

Other relevant documents

3.68 The Local Plan documents described above are complemented by a number of other documents.

The Shropshire Open Space Needs Assessment 2018

3.69 The Shropshire Open Space Needs Assessment 2018, sets out typologies of open space. These are based on the typologies in previous Planning Policy Guidance - Note 17 (PPG 17)[15], which although has been superseded by the online NPPG resource, provides information which is still commonly used in planning for open space. The Shropshire Open Space Needs Assessment (2018) groups open spaces into the following typologies:

- Parks and gardens;
- Natural and semi natural green space;
- Green corridors;
- Amenity green space;
- Children's play areas;
- Provision for young people;
- Outdoor sports;
- Allotments, churchyards and cemeteries; and
- Civic spaces.

3.70 The Assessment sets out population-based benchmarks for different typologies of open space and provides a review of the surplus / deficit of each space typology for the whole of Shropshire.

3.71 The report also sets out the amount of open space to be provided through new development. It includes a requirement for 30 sqm of open space to be provided per person.

3.72 As set out in paragraph 2.24, bespoke open space assessment was undertaken to support the production of this Green Infrastructure strategy. This used data owned and provided by Shropshire Council, which is based in part on the dataset produced by this study.

Shropshire's Great Outdoors Strategy 2018-2028[16]

3.73 This sets out the strategic direction for the management and development of publicly accessible green space, Rights of Way and other access in Shropshire, aiming to inspire action to improve health, prosperity and happiness by cherishing Shropshire's Great Outdoors.

3.74 The vision of the strategy is that '*By the end of 2028, people will be happier, healthier and more prosperous by being better connected to Shropshire's Great Outdoors through safe and cherished publically accessible outdoor assets'.*

3.75 The Great Outdoors Strategy also includes mapping of accessibility to green spaces. The Shropshire Council mapping which informed this provides important evidence which has informed the production of this Green Infrastructure Strategy.

LDF Implementation Plan and Place Plans

3.76 These provide an evidence base for infrastructure investment activities, including the allocation and spend of CIL revenue and set out and prioritise the infrastructure and investment needs of Shropshire's 18 market towns.

3.77 The LDF Implementation Plan 2016-17 states that infrastructure can be funded through a variety of means:

- Public sector funding: e/g/ new homes bonus or LEP funding.
- Private sector funding: e.g. developer contributions.
- Combined / external funding.

3.78 The implementation plan and place plan have been used to inform the opportunities identified in this Green Infrastructure Strategy

Shropshire Hills AONB Management Plan 2016-2024[17]

3.79 This sets out actions and policies to conserve and enhance the natural beauty of the Shropshire Hills landscape.

3.80 The policy requirements of the management plan have been taken into account in the preparation of this Green Infrastructure Strategy.

Shrewsbury Big Town Plan 2018[18]

3.81 This sets out the vision for Shrewsbury and the framework for how and where change should happen.

3.82 One of the themes and goals of the plan is to 'nurture natural Shrewsbury' recognising it is a verdant town, renowned for its horticulture and with a number of green routes, wildlife corridors and valued green spaces.

3.83 It recognises the need to protect and enhance this network, especially in the context of growth, which is placing development pressure on the town.

3.84 The Shrewsbury Big Town Plan provides a useful evidence base for the town, which has been used to inform

[15] PPG 17: Sport and recreation formed one of the planning policy guidance notes that preceded the National Planning Policy Guidance (MPPG).
[16] https://shropshire.gov.uk/media/9703/sgo-strategy-final-draft.pdf
[17] https://www.shropshirehillsaonb.co.uk/Documents/Shropshire%20Hills%20AONB%20Management%20Plan%202019-24%20approved%20lo-res.pdf
[18] https://shrewsburybigtownplan.org/

the opportunities identified in this Green Infrastructure Strategy, specifically those in Shrewsbury.

Local Transport Plan 2011-2026[19]

3.85 The Local Transport Plan (LTP) sets out the Council's policies for the promotion and encouragement of safe, integrated, efficient and economic transport facilities and services. It covers all aspects of transport and highways including walking, cycling, public transport and car-based travel, freight and management and maintenance of highways.

3.86 The plan includes a number of policies which aim to promote walking and cycling as sustainable and healthy forms of transport. (Policies A9, A10 A11, and A12).

3.87 In addition, policy C9: Reducing environmental impacts states: '*We will minimise the impacts of traffic, roads and highways authority activities on Shropshire's landscape, townscape, heritage, biodiversity, water and soil quality; and seek to minimise use of non-renewable resources. This will include:*

- *Where affordable, taking opportunities to enhance the quality of public realm and setting for historic buildings and conservation areas, and to protect historic structures from potential collisions.*
- *Following roadside verge and hedgerow cutting practices which enhance habitats and minimise wildlife impacts.*
- *Taking opportunities to create new habitats as part of highway improvement schemes e.g. habitat for bats and sand martins in replacement bridge structures.*
- *Reducing severance of habitats and the possibility of road collisions through crossing provisions such as badger tunnels in upgraded or new highway infrastructure'.*

3.88 This Green Infrastructure Strategy takes account of the policy provisions of the LTP.

Neighbourhood planning

3.89 Neighbourhood Plans were introduced through the Localism Act (2011) and give local communities further influence over the type of development in their local area. Three Neighbourhood Plans have been adopted in Shropshire, which are described below.

Woore Neighbourhood Plan 2016 – 2036 (referendum version May 2019)[20]

3.90 Policy COM2: Recreation, Play and Outdoor Facilities states that: *'The following sports fields and play and recreation areas, will be protected and, where appropriate, enhanced: - REC1: Bowling Green Off Nantwich Road Private (private ownership) - REC2: Tennis courts Off London Road Woore Tennis Club (owned by Woore Tennis Club) - REC3: Cricket ground Off London Road Woore Cricket Club (owned by Woore Cricket Club) - REC4: Outdoor adult gym Off London Road Parish Council (owned by Parish Council) - REC5: Beech Avenue Play Area Beech Avenue Management Company (owned by a Management Company) - REC6: Phoenix Rise Play Area Phoenix Rise Management Company (owned by Management Company). Proposals for the enhancement of these facilities will be supported. Development for alternative uses will only be supported when: i) an assessment has been undertaken which shows the facility to be surplus to requirements; or ii) the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or iii) in the case of the loss of sports and recreation facilities, the development is for alternative sports and recreation facilities, the needs for which clearly outweigh the loss'.*

3.91 Policy COM3: Local Green Spaces states that*: 'The following sites are designated as 'Local Green Space' - LGS1 - Woore Village Green; - LGS2 – St Leonard's Way Play Area; - LGS3 – St Leonard's Churchyard Extension. These sites are thus protected from new development unless very special circumstances can be demonstrated'.*

3.92 Policy ENV1: Footpaths / Sustainable Transport states*: '1. Access to the countryside will be promoted through protection and maintenance of the existing Public Right of Way (PROW) network, its enhancement, where possible, and the safety of users of rural roads and lanes. 2. Developments that lead to the loss or degradation of any PROW, or any cycleway, will not be supported. 3. Proposals to divert PROWs or cycleways should provide clear and demonstrable benefits for the wider community. 4. New developments that provide easy, accessible traffic-free routes for non-motorised users (to include pedestrians, disabled people, people with prams or baby-buggies, cyclists and where appropriate equestrians) to village facilities, parks and open spaces, and nearby countryside will be supported; and the provision of any additional routes will be supported'.*

[19] https://www.shropshire.gov.uk/media/4132/provisional-ltp-strategy.pdf

[20] https://shropshire.gov.uk/media/13166/woore-neighbourhood-plan-adoption-version.pdf

3.93 It is important to note that Woore is not one of the settlements which was subject to a detailed assessment as part of this Green Infrastructure Strategy.

Shifnal Neighbourhood Plan 2014 – 2026 (referendum version June 2016)[21]

3.94 Policy EN1: Protection and maintenance of Local Green Spaces states that '*The following areas are designated as Local Green Spaces: 1. Wheatfield Drive Recreation Area 2. Jubilee Park Play Area 3. Curriers Lane Play Area 4. Idsall School and Shifnal County Primary School Playing Fields, Coppice Green Lane 5. Cricket ground, off Priorslee Road 6. Millennium Sensory Garden. Proposals for development on these Local Green Spaces will not be permitted unless it can be clearly demonstrated that it is required to enhance the role and function of an identified Local Green Space'.*

3.95 Policy EN2: Loss of public open space states that *'Proposals that would result in the loss of public open space will not be permitted unless alternative and equivalent public open space is provided. Alternative public open space provision proposed as part of such development proposals will be required to meet the following criteria: 1. the scale of the alternative provision must be of an equivalent scale to the existing public open space provision; and 2. the alternative site must be of at least an equivalent standard in terms of layout to the existing public open space provision; and 3. the location of the alternative provision must be generally accessible by foot and within or adjacent to the existing settlement boundary of Shifnal Town'.*

3.96 Policy LE3: Shifnal Town Park states that '*land in the centre of the new housing development (Thomas Beddoes Phase 2) is allocated for the provision of a town park. It is expected that such provision will address the following: The provision of a range of access points for pedestrians and cyclists, with routes through the park; the potential to create a nature reserve as part of the park; and play facilities for children'.*

3.97 This Green Infrastructure Strategy has been prepared using the context, policies and proposals relevant to Green Infrastructure, which are included in the Shifnal neighbourhood plan.

Much Wenlock Neighbourhood Plan 2013 – 2026.[22]

3.98 The Much Wenlock Neighbourhood Plan was adopted in July 2014.

3.99 Policy GOS1 states that *'Built development will not be permitted on the green and open spaces as shown on the Much Wenlock Town Map'.*

3.100 Policy GOS2 states that *'New development will include or contribute to the provision of recreational open space in line with standards set out by Shropshire Council'.*

3.101 Policy GOS 3 states that *'New housing and employment developments will be expected to establish publicly accessible links from development sites to the wider footpath network and green spaces wherever possible'.*

3.102 This Green Infrastructure Strategy has been prepared using the context, policies and proposals relevant to Green Infrastructure, which are included in the Much Wenlock neighbourhood plan.

3.103 It should be noted that in addition to the supporting documents described in detail above, the following are currently being prepared:

- Shropshire Playing Pitch and Outdoor Sport Strategy;
- Local Transport Plan v4 2020-2036;
- Active Travel Plan.

Summary and Conclusions

3.104 In summary, it can be seen that Shropshire has a wealth of Green Infrastructure assets, and that there a number of policies and strategies which provide for their protection and enhancement.

3.105 A number of Green Infrastructure opportunities have been identified already, and are defined within existing strategies and plans. These have been used to inform the production of this Green Infrastructure Strategy.

[21] https://shropshire.gov.uk/media/8544/shifnal-neighbourhood-plan-june-2016-referendum-version.pdf

[22] https://shropshire.gov.uk/media/8560/much-wenlock-neighbourhood-plan-adopted-version.pdf

Chapter 4
Shropshire's Current Green Infrastructure Context

Introduction

4.1 Shropshire has a wealth of environmental assets which contribute to its local distinctiveness. This chapter provides an appraisal of the existing Green Infrastructure assets within the County. This is presented on a theme by theme basis, however it should be noted that Green Infrastructure assets, due to their multifunctional nature can often relate to more than one of these themes. Where this is the case, the assets are mentioned against each relevant theme in turn. The assets identified are those that are strategically important at the Shropshire-wide level. Key assets have also been included in neighbouring local authority areas if relevant.

Review of current context

1. Biodiversity and Geodiversity

Shropshire's Biodiversity

Overview of strategic ecological areas and networks

4.2 This section includes a review of the international and national designations within and around Shropshire.

4.3 The River Severn and it's valley have a significant influence over the ecological characteristics of Shropshire, providing important havens for a variety of wildlife including at the Ironbridge Gorge. Part of the River is designated as the River Severn at Mountford Site of Special Scientific Interest (SSSI) (geology and hydrological processes). The River's catchment area also includes numerous other wildlife designations.

4.4 The River Clun, which discharges into the Teme in Herefordshire (and subsequently into the Severn) also has a significant role, and is one of three rivers in England designated as a European Special Area of Conservation (SAC) for freshwater pearl mussel. Much of the catchment area includes the Clun Forest. This historically provided hunting forest but now tree cover is found only within isolated

areas . The management of this area is key to help manage the Clun SAC from which draws its waters . As such the Clun Catchment is a Priority Area for Action in the Shropshire Biodiversity Plan. The River and its catchment area are the subject of a number of improvement workstreams including the River Clun Site Improvement Plan, the Nutrient Management Plan, Restoration Strategy and the Hydrological Study.

4.5 The River Teme itself runs along the western boundary of Shropshire, into Wales, is designated as a SSSI. The River Teme is the second largest tributary of the River Severn, draining a hilly, predominantly rural catchment of Silurian and Devonian rocks. The River is of special interest as a representative, near-natural and biologically-rich river type associated with sandstone and mudstones.

4.6 Downton Gorge SAC, lies adjacent to the Shropshire boundary but is almost wholly in Hereford and is located between the Clun SAC and Ludlow. This features a narrow ravine with a distinctive micro-climate, and provides woods of Ash, Wych Elm and Lime.

4.7 To the west, the Montgomery Canal, which extends from the Shropshire Boundary into Wales, is designated as an SAC and provides the largest and the most extensive population of floating water-plantain in Britain (a highly significant lowland population)[23]. This links to the Llangollen Canal which extends northwards into Shropshire, extending to the Meres and Mosses area near Ellesmere.

4.8 Other rivers, streams, brooks and ponds and the canal network across the north of Shropshire are influential at a local level, providing important freshwater habitat.

4.9 Upland areas elevated above the floodplain – particularly in the south and west of the county – support heath, wetland and woodland habitats. The Shropshire Hills Natural Area which extends all the way across much of the south of Shropshire includes the Long Mynd, Wenlock Edge, The Wrekin and The Clee Hills. This natural area is designated as the Shropshire Hills Area of Outstanding Natural Beauty (AONB).

4.10 The heathland, grassland, woodland and rivers of the Shropshire Hills AONB provide a mix of both upland and lowland wildlife including red grouse and dormouse. Important upland species such as merlin, snipe, whinchat, dipper, emperor moth, small pearl bordered fritillary and grayling butterflies, curlew and wood white butterflies can all be found here. The AONB is also significant for species of western oakwoods and a stronghold for species like skylark, black poplar and great crested newt.

4.11 Wenlock Edge, a narrow limestone escarpment near Much Wenlock in the south of the county, is a SSSI because of its geological features. This provides deciduous ancient woodland and flower rich limestone grasslands can be found along much of the steep slopes of the escarpment. Wenlock Edge provides a significant ecological corridor for Shropshire, as it runs for over 18 miles in length from Craven Arms to Ironbridge. A number of recreational walking routes are also associated with this feature.

4.12 The Stiperstones and The Hollies is an area of heathland that provides a transition between lowlands and uplands, and is designated as a SAC (three distinct areas), SSSI and national nature reserve. This is located in the north of the AONB. Due to a managed programme of rotational controlled winter burning and cutting, this SAC is in excellent condition[24].

4.13 An area known as 'The Bog' is located within the Shropshire Hills AONB just to the south of the largest area designated as the Stiperstones and The Hollies SAC, and also includes smaller areas of this designation. This former mining community is host to a number of undisturbed post mining remnants which provide a range of wildlife habitats, bird nesting opportunities in old buildings, bat roosting in old mining tunnels and reservoir and pond habitats for aquatic life.

4.14 The Long Mynd SSSI is the largest SSSI in the county and lies broadly parallel to The Stiperstones; together these flank the River East Onny. The Long Mynd captures an extensive upland plateau dominated by heathland; an important transitional position between the between sites in the south west and those in the north of the UK. This area is the subject of a significant habitat restoration project. The 'Stepping Stones' project, being undertaken by Natural England, DEFRA, Shropshire Hills AONB Partnership and Shropshire Wildlife Trust, the National Trust, National Farmers Union and the Countryside Land and Business Association, seeks to connect wildlife habitats by strengthening or creating stepping stones and corridors of habitat between the two core sites Long Mynd and the Stiperstones and beyond these sites connecting with Stapeley Hill in the west and with the Stretton Hills in the east.

4.15 The southern section of the county is characterised by a number of forest corridors which link wooded areas in the Shropshire Hills AONB to locations such as The Mortimer Forest. This area is made up of a single large forest block and a number of smaller areas in Hereford on the border with Shropshire. The forest is predominantly made up of conifer on ancient woodland and produces high quality Douglas fir and larch. Areas of remnant ancient semi-natural woodland do remain including oak, birch and beech. A number of scheduled

[23] JNCC. https://sac.jncc.gov.uk/site/UK0030213

[24] JNCC. https://sac.jncc.gov.uk/site/UK0012810. .

and unscheduled monuments and important trees scatter the forest whilst the areas of Lowland Mixed Deciduous Woodland provide a habitat for dormice, raptor and species associated with ancient and veteran trees. The area neighbours the Downton Gorge SAC and the forest is home to a number of nationally important species. The forest also supports a number of recreational uses from walking, cycling and horse riding.

4.16 Wrekin Forest, designated as The Wrekin and The Ercall SSSI, is located in the east of Shropshire and extends into Telford and Wrekin. This contributes to the wider woodland network and is included in the AONB designation.

4.17 Tick Wood & Benthall Edge SSSI (south west of Telford and Ironbridge) provides a significant woodland corridor and at a landscape scale, links Wenlock edge with the woodlands at the Ironbridge Gorge World Heritage Site.

4.18 Wyre Forest is designated as a SSSI and National Nature Reserve (NNR), located in the south east of the county and spanning across into neighbouring Worcestershire, is one of the largest remaining ancient woodlands in Britain. The forest is one of the largest areas of semi natural woodland in the UK and is home to a host of bird species among many other woodland animals and plants.

4.19 The lower lying north of Shropshire falls within the Meres and Mosses Natural Area, characterised by post-glacial meres and lowland bog habitats. The Meres and Mosses National Nature Reserve is a landscape of 'meres' ('glacial lakes) and 'mosses' (peat bogs) covering most of north Shropshire, south Cheshire and parts of west Staffordshire. The area contains the third largest lowland bog in Britain known as the Fenn's, Whixall & Bettisfield mosses. The range of elevations, soil types and land management has created a diverse habitat mosaic across the transition of from lowland England to the Welsh hills. The area provides vital habitat for many specialist and threatened species and a safe haven for more widespread but vulnerable species. Due to its significance, this area includes designations for SAC, Ramsar, SSSI and NNR.

4.20 The lower lying north belt of the county also supports SSSI designated fossil importance (Grinshill Quarries SSSI), together with lowland heath (Hodnet Heath SSSI, Prees Heath SSSI), fen meadow (Fernhill Pastures SSSI) and in the far north west, limestone grassland associated with the River Mawda corridor (Trefonan Marshes SSSI).

4.21 To the north and west of the Meres and Mosses lies the River Dee and Bala Lake SAC, which runs from Snowdonia, specifically the outflow of Llyn Tegid, which then runs, eastwards, for a significant distance through a catchment area which includes the Berwyn and South Clwyd Mountains SAC and Johnstown Newt Sites SAC in Wales, along part of the northern boundary of Shropshire and then directly northwards into Liverpool Bay in the north. This provides significant habitat for Atlantic Salmon, Brook Lamprey, Bullhead and Floating water Plantain[25]. This SAC is comprised of several SSSI units, the River Dee SSSI covers the area of the SAC which runs along the Shropshire Boundary.

Local Designations

4.22 Designations below the national level are described in this section, although their value may be attributed to 'county' or 'regional' if considered in the terms of impact assessment.

4.23 There are relatively few Local Nature Reserves (LNRs) within the county and the majority lie north of Shrewsbury. Ifton Meadows LNR and Corbett Wood LNR are reclaimed areas of former mining works including spoil heaps and quarries. Other LNR across the north of the county, typically comprise grassland with woodland and scrub. On the southern edge of Shrewsbury, the Rea Brook Valley LNR follows c3.5km of the watercourse and flanking terrestrial habitats. Further south in the Shropshire Hills, Coppice Leasowes LNR is a relatively small site of grassland, woodland and wetland areas.

Non-statutory Designations

4.24 There are a large number of Local Wildlife sites (LWS) in Shropshire and, in contrast to LNRs, occur in greatest density across the southern half of the county. Throughout the county sites are noted for woodland (both coniferous and broadleaf) quarries, grassland and meadows and wetlands in the form of ponds and meres. In the south, LWS are typically noted for upland habitats such as scree, upland grassland, upland flushes and heath. Heathland habitat is also a common feature of LWS in the north east.

Natural England Habitat Network Mapping

4.25 The Natural England Habitat Network mapping identifies areas of primary habitat (based on S41 Priority Habitat mapping), and areas for restoration, creation or enhancement.

4.26 The largest single section of priority habitat is found at The Long Mynd where a large portion of upland heathland is identified with grass moorland surrounding. An area of upland heathland is present approximately 4.5km north-west of The Long Mynd at Pennerley. Further upland heathland and grass moorland is found at Cleaton St Mary and Brown Clee Hill. The south-west of the County, in the area west of Clun, is

[25] Natural England.
http://publications.naturalengland.org.uk/publication/4660149109129216

dominated by multiple small areas of lowland dry acid, good quality semi-improved grassland and lowland heathland. A number of improved grassland areas are present surrounding The Long Mynd and Pennerley. A large single area and a number of surrounding areas of coastal and floodplain grazing marsh is present in the area surrounding Melverley and on the banks of the River Severn. A number of areas of good quality semi-improved grassland of varying sizes are found throughout the north of Shrewsbury, especially to the west of Oswestry. The largest section of lowland raised bog is found at the north of the County, to the west of Bettisfield. This area makes up a section of the Fenn's, Whixall and Bettisfield Mosses National Nature Reserve which is also designated as a SSSI and SAC and is one of the most southerly lowland raised bogs in the UK.

4.27 The most common and widespread of the priority habitats found in the county are deciduous woodland. This habitat is found in a number of different sized areas. Long sections of woodland are found in the east of the site, especially in the area surrounding Telford. The long stretches of woodland follow the River Severn corridor towards Bridgnorth and also along the Wenlock Edge escarpment along to Craven Arms. A large area of deciduous woodland is found in the south-east of the County which makes up the Wyre Forest SSSI. Large expanses of deciduous woodlands are present south of Pontesbury in the centre of Shropshire. To the south-west of Oswestry a number of areas of deciduous woodland form an almost continuous area of this habitat. A large proportion of the deciduous woodlands throughout the County follow river and tributary corridors.

Shropshire Environment Network

4.28 Shropshire Council has defined the Shropshire Environment Network (SEN)[26]. This builds on the national dataset to identify Core Areas, Corridors and Stepping Stones, Restoration Areas, Buffer Zones and Sustainable Land Use Areas. The Network and supporting planning policy (Core Strategy Policy CS17: Environmental Networks reflect the requirements of the 2012 NPPF paragraph 117 to minimise impacts on biodiversity and geodiversity.

4.29 The SEN is recognised in the Council Natural Environment Guidance Note 11[27]. This acknowledges the key role of the Network to protect the future health of the natural environment and sets out "*the approach and procedures to be followed in order to ensure sufficient survey, protection, mitigation and enhancement is put forward, where the natural environment may be affected by proposed development. All these details must be addressed and submitted with the planning application, or a planning decision cannot be made*."

4.30 Components of the SEN are summarised in **Table 3,** including the area each occupies of Shropshire.

Table 3: Description and Area of the SEN

SEN Component	Area (ha)	% cover of county
Core Area Designated sites, ancient woodland, priority habitats and areas known to support significant populations of protected or priority species.	25,299	7.9%
Corridors & Stepping Stones Provide functional connectivity between these, and comprise natural or semi-natural habitat such as linear watercourses, road verges and disused railway lines or stepping stone pools and copses.	71,938	22.5%
Restoration Areas Where measures planned or would most effectively be planned to restore functional high value habitats and species populations.	262	0.08%
Buffers Zones Attributed to designated sites, priority habitat (attributing greater buffer to wetlands) and habitat important for priority species.	228,480	71.4%
Sustainable Land Use Areas Designed to 'soften the matrix' outside the SEN, make it more permeable and less hostile to wildlife, including self-sustaining populations of species that are dependent on, or at least tolerant of, certain forms of agriculture.	146,829	45.9%

4.31 There are a number of core SEN areas, reflecting the national network mapping, and designations already described. The largest of these, by area, are in the south of

[26] https://www.shropshire.gov.uk/environment/biodiversity-ecology-and-planning/shropshire-environmental-network/

[27] https://www.shropshire.gov.uk/media/1872/guidance-note-11-environmental-networks-aug13.pdf

the county at The Long Mynd, Cleehill, Button Oak, Rushton and Pennerly. The whole of the River Severn flowing through the county is a SEN core area. The SEN corridors include extension of existing areas to absorb smaller core areas, and of linear connectivity along road and river corridors.

4.32 It should be recognised that hedgerows are only included in the SEN should they be of sufficient size and species mix. "Any hedgerow that consists of at least 80% native woody shrubs, and measures at least 20m in length, qualifies as 'priority habitat' and would therefore be classified as a core area of the SEN"[28].

Notable Species

4.33 Existing records can helpfully indicate presence of species, but the absence of records cannot be taken to represent absence of species. At the landscape scale, clustered distributions can be particularly helpful when overlaid with topography or habitat base-mapping to reveal important corridors, or indeed barriers within the ecological network.

4.34 There is a high density of protected species within Shrewsbury and following the road networks which spread from the town. The species include otter, polecat, badger and bat. These species are also seen following main roads in the wider context of the county, indicating that these are important dispersal corridors.

4.35 A high density of water vole records are found in the north around Whitchurch where there are a number of waterbodies. The wooded habitats of Wenlock Edge host a series of dormouse records from Much Wenlock to Craven Arms. There are further concentrations of dormouse at Pennerley upland heathland and south of Bishop's Castle.

4.36 A number of reptile 'hot spots' are present throughout the County. These are in a number of habitat types from the fens and wetlands of Fenn Moss, upland heathland of Pennerley and Cleeton St Mary, the city greenspace of Shrewsbury and the quarry near Uffington.

4.37 Records of protected plant species of Varnished Hook Moss are concentrated in the upland heathland of The Long Mynd.

4.38 Invasive species do not show as definitive groupings as protected species. There does appear to be a higher density of invasive species in Shrewsbury however in general the spread of invasive species is fairly even across the county.

Shropshire's Geology

4.39 The local geology is diverse with natural areas such as the Shropshire Hills AONB in the south and the Meres and Mosses to the north of the county.

4.40 The Shropshire Hills AONB has a great geological variety with a wide range of mineral resources and rocks representing most of the major divisions of geological time and the influences of the different rock types and structure in the area are clearly visible. The Stiperstones National Nature Reserve and SSSI is a distinctive hill within the Shropshire Hills AONB. A project called 'Back to Purple' is currently being undertaken to turn the slopes of the Stiperstones back into heathland through the removal of plantations and trees.

4.41 Wenlock Edge, a narrow limestone escarpment near Much Wenlock in the south of the county, is a site of special scientific interest because of its geological features. The Wenlock Edge runs for over 18 miles in length from Craven Arms to Ironbridge and features a number of walking routes.

4.42 There are a number of Geological Sites of Special Scientific Interest (SSSI), which are not already discussed above, including Tyr Ley Canal Cutting SSSI and a number of SSSI associated with watercourse corridors west of Telford are also geological designations, reflecting the rich fossil fauna.

4.43 The south east of Shropshire intersects the Abberley and Malvern Geopark, which is one of only 10 in the country. This area extends from Bridgnorth to Cleobury Mortimer, and both east and south of Shropshire. This area includes rocks that reflect 700 million years of Earth's history. The importance of this area is reflected in the significant amount of historic quarrying and mining.

2. Landscape, Heritage and Culture

Shropshire's Landscape, Heritage and Culture

Shropshire's key landscape features

4.44 Shropshire's towns and villages sit within a predominantly rural area with a varied landscape character. The Shropshire Hills AONB was designated in 1958 and covers roughly a quarter of Shropshire including the Long

[28] https://www.shropshire.gov.uk/environment/biodiversity-ecology-and-planning/shropshire-environmental-network/

Mynd, Stiperstones, The Wrekin and Wenlock Edge, the Clee Hills and the Clun Forest. The landscape is rich in wildlife and heritage, provides scenic quality and important views, as well as providing areas of tranquillity, culture and importance opportunities for employment.

4.45 The vision for the Shropshire Hills AONB and the various co-ordinated cross boundary actions to conserve and enhance it is set out through the Shropshire Hills AONB Management Plan 2019-24. This plan has been prepared by the AONB Partnership on behalf of Shropshire Council and Telford and Wrekin Council. The AONB Management Plan highlights that the character and quality of the AONB are of high importance but under pressures from declines in wildlife, water quality and catchment management, farming and economic factors such as increasing development pressures and reduced management resources.

4.46 Priorities of the Management Plan include development of Environmental Land Management Schemes, establishing a tree planting programme, developing the 'Stepping Stones' project for the Long Mynd and Stiperstones area, developing landscape and design guidance, engaging youths in the management of the AONB, and to support the contribution to a low carbon Shropshire Hills area.

4.47 The AONB is home to a number of valley environments from the Carding Mill Valley, the Long Mynd and the Stiperstones to larger expanses with flood meadows and dales such as Corve Dale and Ape Dale.

4.48 The River Severn, has a significant impact on the landscape of Shropshire as it carves its path through the county, creating a number of floodplain meadows, sloping valleys and gorges. Throughout the county, the numerous tributaries of the River Severn provide vital green corridors into the wider landscape. The river plays a significant role in the character of Shrewsbury, where the town centre is located within the loop of the river, whilst it also flows through the settlements of Ironbridge and Bridgnorth.

Shropshire's key historic environment features

4.49 Shropshire contains important heritage assets including parts of the Pontcysyllte Aqueduct and Canal World Heritage and the Ironbridge Gorge World Heritage Sites. Shropshire has a total of 6,906 listed buildings, 30 Registered Parks and Gardens and 127 Conservation Areas. It is also home to a major Roman City at Wroxeter.

4.50 A key attraction which neighbours Shropshire to the north west is the Pontcysyllte Aqueduct and canal World Heritage Site which is an important feature from the British Industrial Revolution and the canal age. The Aqueduct cross the Dee Valley at a height of 126 feet and is considered as a masterpiece of waterways engineering and iron construction. The area provides heritage and recreational value with canoeing and boat trips available along the canal route. Chirk Castle is located to the south of the Aqueduct and provides another heritage attraction on the border of Shropshire.

4.51 Ironbridge Gorge UNESCO World Heritage Site, located to the south east of Shrewsbury, is home to the first cast iron major bridge to be built in the world (1781). The bridge, a Grade I Listed Building and a key feature along the South Telford Heritage Trail, crosses the River Severn at the Ironbridge Gorge. The settlement of Ironbridge is located adjacent and all three features form the World Heritage Site. The area acts as a symbol of the Industrial Revolution and a key heritage feature in the landscape.

4.52 Many other ancient features can be found within the Shropshire landscape such as Offa's Dyke, Iron Age hillforts such as Caer Caradoc and Bury Ditches and medieval castles and fortified houses (Clun and Stokesay). The Shropshire Hills also has the greatest concentration of medieval case earthworks in Britain, ancient settlement patterns and lanes, villages, scattered hamlets and farms. The area is also characterised by stone and timber framed buildings in a variety of styles.

4.53 Offa's Dyke, a large linear earthwork roughly following the border between England and Wales, is the largest and most important single heritage feature in the Shropshire Hills AONB. A total of 17.5km in fourteen sections are protected as Scheduled Monument, comprising 19% of the total Scheduled length of Offa's Dyke. This is also a significant, multi-functional Green Infrastructure asset, as it is complemented by Offa's Dyke footpath, a long-distance route that follows the Wales-England border. This is one of Britain's National Trails, drawing walkers from around the world.

4.54 Ludlow Castle is ruined medieval fortification in the town of Ludlow, located in the south of Shropshire. It is a Scheduled Monument and a Grade I listed building. The Shropshire Core Strategy identifies the castle as a key day visitor attraction which helps to boost the tourist economy in the county.

Green Belt in Shropshire

4.55 In the south east of the county, land between the River Severn and the Shropshire border with Worcestershire and Staffordshire forms part of the West Midlands Green Belt. This provides a buffer from the expansion of nearby Birmingham, Wolverhampton, Dudley, Sandwell and Walsall to the east of Shropshire.

4.56 The Shropshire Green Belt, bordered to the West by the River Severn and the River Worfe, runs northwards through the centre of Green Belt land north of Worfield. These rivers incise through the landscape, the Severn dividing the Green Belt land from the remaining area of the County to the West,

and the Worfe separating the settlements of Shifnal and Albrighton. The land in the Green Belt then becomes more elevated west of Shifnal and east of Albrighton. In addition, a section of high land is present between Alveley and Enville.

4.57 The M54 crosses the northernmost part of the Green Belt in a broadly east to west direction, with the A442 running closely along the western border of the Green Belt in a roughly south to north direction. A number of A roads radiate outwards across the Green Belt from Bridgnorth to link with Wolverhampton (A454) Stourbridge (A458), Kidderminster & Telford (A442) with the A41 linking the M54 (and Albrighton) to Wolverhampton to the South east, the Green Belt land is predominantly classed as Agricultural Grade 2 or 3 and is predominantly arable land or grassland.

4.58 The Green Belt surrounds the settlements of Albrighton, Alveley, Beckbury, Claverley, Shifnal and Worfield, as well as Stanmore Industrial Estates (which are inset into the Green Belt).

4.59 According to the Green Belt statistics published by the DCLG, in 2015/16 Shropshire Council contained around 24,480 hectares of Green Belt land. This represents approximately 8% of the total area of Shropshire, which is 319,728 hectares, and approximately 1.5% of the total Green Belt Land in England, which is 1,635,480 hectares.

4.60 In accordance with local plan consultations, Shropshire Council is currently reviewing the Green Belt designation to ascertain whether certain areas should be released to provide for development needs.

3. Water Resources

Shropshire's Water Resources

Shropshire's key waterways

4.61 Shropshire has a number of key rivers located across the Plan area including the River Severn, River Clun, River Corve, River Teme and the River Onny along with many smaller rivers and streams. The Strategic Flood Risk Assessments for Shropshire identify key fluvial risks such as the River Severn floodplain at Shrewsbury and Bridgnorth with less extensive floodplains in the north west and south of the county and the River Corve and River Teme at Ludlow.

4.62 The Shropshire Union Canal including the Llangollen Canal and Montgomery Canal sections are located in North Shropshire and provide significant environmental corridors stretching across Staffordshire, Shropshire and Cheshire. The canal system also provides important recreational functions. Shropshire Council supports plans to restore the Montgomery Canal, to provide rural regeneration, protect the canal's unique environment and heritage, increase access for all and provide enhanced interpretation through promotion and educational use.

4.63 The Shrewsbury and Newport Canal is a key cross boundary restoration project by the Shrewsbury and Newport Canal Trust. The ultimate aim of the restoration project is to restore a continuous navigable waterway linking Norbuy Canal Junction in neighbouring Staffordshire to Shrewsbury. Norbury Junction is the point where the Newport branch of the canal leaves the main line of the Birmingham and Liverpool Junction Canal (the Shropshire Union). The canal route still has a number of lock features and remaining buildings associated with the canals lost history and the route encompasses a number of tunnels and aqueducts in various states of repair. The Trust have secured Heritage Lottery Funding to date towards the restoration works at Wappenshall Junction near Telford which is 14.5 miles along the route to the east of Shrewsbury.

Flooding in Shropshire

4.64 In early 2020, flood events in Shropshire were widespread due to the significant levels of rainfall experienced in the previous weeks and months. Temporary flood defences were installed and in several locations, failed – due to the significant water volume flowing down the rivers. Events such as this in settlements along the River Severn were national news stories. However, it is important to recognise that flooding has historically been an issue in Shropshire, due to the close relationship of development to the watercourses.

4.65 The Shropshire Council Level 1 Strategic Flood Risk Assessment (SFRA) (2018) identifies a number of sources of flooding that pose a risk to parts of Shropshire. The main sources include:

- Fluvial flooding along the River Severn and its tributaries. The Severn's floodplain is extensive through Shrewsbury and Bridgnorth with less extensive floodplains in the north west and south of the county due to higher land.
- Surface water flooding which follows overland flow routes and follow topographical paths of existing watercourses or dry valleys.
- Sewer flooding around settlements such as Shrewsbury, Ludlow and St Martins.
- Groundwater flooding with areas in the north of the county at greater risk.

- Canal flooding on the Llangollen, Montgomery and Shropshire Union Canals as they interact with other watercourses and become flow paths during flood events.

4.66 The effective management of Shropshire's water resources can help to reduce the impact of flooding events on the local community. Management helps to maintain the quantities of water in the environment whilst maintaining and enhancing water quality, biodiversity and opportunities for amenity value.

4.67 Parts of the north of Shropshire are at a higher risk of groundwater flooding than southern parts of the county whilst surface water flooding risks generally follow the topography of existing watercourses or dry valleys with some isolated ponding in low lying areas. As a result, areas at the base of hills in the south of the county have a higher risk of surface water flooding than other areas in the county.

4.68 Areas of Shrewsbury are dependent on agricultural flood embankments further upstream in Wales which act as interconnected flood storage areas. The SFRA for Shropshire recommends the use of natural flood management in rural areas and the use of SUDs in both new development and retrofitting into existing urban areas. River restoration projects should also be considered to help manage and mitigate against flood risk in the county.

4.69 The topography of Shropshire is characterised by high elevations in the south, with lower elevations in the north and the valley of the River Severn running south east through the County. The majority of bedrock and superficial deposits in the north west, central and eastern parts of the county are permeable and can therefore provide a level of water storage. Lower permeability of the bedrock in the south western and north eastern parts of the county result in higher runoff levels.

Abstraction and treatment

4.70 A declining groundwater level has had an adverse impact on watercourses and wetlands in the county and parts of north eastern Shropshire are designated as a Nitrate Vulnerable Zone.

4.71 The Shropshire Outline Water Cycle Study was completed in 2010 and the updated Water Cycle Evidence for the Shropshire Local Plan was published in 2014. These studies highlighted that Shropshire falls within Severn Trent Water's supply area and sources are supplied by a mixture of river abstraction, groundwater boreholes/wells and from surface water reservoirs. With predicted growth across the county, it is expected that water quality will become an issue and so measures to address this should be explored. Numerous Surface Water Management Plans cover the county including for Shrewsbury, Oswestry, Much Wenlock and Shifnal.

4. Active Travel, Access and Recreation

Shropshire's Active Travel, Access and Recreation

Engagement in active travel and recreation

4.72 Nationally, 19% of men and 26% of women are 'physically inactive' whilst 33% of men and 45% of women are not active enough for good health. Trends indicate that as children grow older their levels of physical activity decrease with only 21% of boys and 16% of girls aged 5-15 achieving recommended levels of physical activity. Walking trips also decreased by 30% between 1995 and 2013.

4.73 The Natural England Monitoring Engagement in the Natural Environment Survey (2009-19) indicates that the majority of visits made by people surveyed were to woodland areas and to urban parks within the county with other locations such as rivers/lakes/canals and foot and cycle paths also proving popular. Principle motivations to visit such places predominantly were for health and exercise, fresh air and relaxation purposes.

Active travel networks and key assets

4.74 Shropshire has a Public Rights of Way network of over 5,600km, making it the third largest network in England. 77% of the network is comprised of footpaths, with bridleways comprising the majority of the remaining network (restricted byways and byways open to all traffic make up a small proportion of the network)[29].

4.75 The county has a number of National Cycle Network routes and Shrewsbury is one of 18 cycling towns and cities in the UK. The public Rights of Way network is extensive in Shropshire, with around 5,600km of routes which help to link villages, towns and the wider countryside[30].

4.76 The canal and river networks also provide significant opportunity for active travel and recreation, providing water based activities and recreational walking / cycling routes such as the Severn Way.

[29] Shropshire Council (2017). https://www.shropshire.gov.uk/media/10847/appendix-2-network-assessment-2017.pdf

[30] Promoted routes can be found at the Shropshire Great Outdoors website: http://www.shropshiresgreatoutdoors.co.uk/

4.77 The Shropshire Core Strategy promotes the recreational value of the environmental, heritage and active travel networks in the county through references in a number of policies. Shropshire currently has no commercial navigable waterways, although the River Severn, the Shropshire Union Canal and the Montgomery Canal are navigable in parts and provide recreational boating opportunities.

4.78 The Shropshire Great Outdoors Strategy (2018-28) identifies circa 13,000ha of publicly accessible Country parks and Heritage Sites, canals and waterways and the Public Rights of Way network.

4.79 Open spaces within and near settlements provide a number of functions such as formal and informal recreation or amenity space and areas such as allotments can improve health and wellbeing, combat obesity and improve opportunities for social inclusion.

4.80 The Ironbridge Gorge is a key recreational asset with a large number of footpath, country lanes and bridleways allowing for active travel and recreational pursuits.

4.81 The Shropshire Hills provides a number of rights of way and significant amount of open access land in Shropshire, plus a wide variety of cultural sites and features and many promoted routes.

4.82 It is estimated that these outdoor assets bring in over £100 million to the local economy and employ at least 2,200 people. The Strategy outlines that there will be a number of challenges to address moving forward with a population increase in the county and development pressures likely to add strain on already limited maintenance and improvement resources. Additional sources of funding, grants and membership fees will need to be sought in order to boost resource capacity and there will be a greater reliance on the volunteer network. There is a need to improve accessibility to natural greenspace in the north and east of the county where deficiencies currently exist. The level of visitors and recreational users in areas of cultural or environmental sensitivity will need to be managed with additional greenspace created and promoted to reduce the need for people to visit these areas.

4.83 It is important to note that due to the nature of many of Shropshire's Green Infrastructure assets, many locations within these are not accessible to those with restricted mobility.

Proposals for the future

4.84 The Shropshire Outdoors Strategy (2018-28) seeks to deliver a host of projects including: a new family cycling hub at Dudmaston Estate, extensions of visitor facilities at Severn Valley Country park, delivery of the Montgomery Canal Landscape Partnership Scheme, improved co-ordination of volunteering opportunities, improved biodiversity monitoring, development of 'Healthy Outdoors' for schools, the remediation of Furbers site at Whixall Fenn, development of the canal in Market Drayton as an economic asset, the launch of the Shropshire Way Main Route (long distance path of 200 miles) in the north of the county and securing new funding for Shropshire Wild teams and Walking for Health.

5. Health and Wellbeing

Shropshire's Health and Wellbeing

4.85 Shropshire, as a whole, falls roughly halfway on the scale between Most Deprived and Least Deprived Local Authority areas on the Index of Multiple Deprivation 2019 (listed as number 165 of 317). Income Rank (182), Employment Rank (178), Education, Skills and Training Rank (182) and Health and Disability Rank (192) are roughly in the middle section of the various deprivation domains listed. The County has a fairly high crime ranking (246) but Shropshire's high-quality environment is reflected through its Living Environment Rank (76).

4.86 The central section of the county is relatively less deprived than the far extremities of the County (north, south, east and west edges) indicating that Shrewsbury and areas surrounding the town are predominantly less deprived than more rural areas of the County.

4.87 Life expectancy and healthy life expectancy for both males and females is higher in Shropshire than the National average. Nationally, physical inactivity directly contributes to one in six deaths in the UK with around a quarter of the population failing to achieve a minimum of 30 minutes of activity a week. In Shropshire, the percentage of adults classified as overweight or obese is higher than the national average. The Shropshire Great Outdoors Strategy (2018-28) identifies that access to outdoor facilities significantly improves mental and physical wellbeing.

4.88 Open space provision in Shropshire provides important opportunities for people to support their physical and mental wellbeing. For example, amenity open space can provide landscaping, trees, buffer zones and environmental enhancement. However, access to these spaces is key. Accessibility assessment work undertaken by Shropshire

Council[31] identifies accessibility to open spaces which are greater than 2Ha. It identifies significant disparity between the southern and northern parts of Shropshire, with the southern part having significantly greater access to open spaces compared to the north. Having said this, access to open space is generally better in the north within and surrounding Shrewsbury, and the Principal Centres of Oswestry, Market Drayton and Whitchurch.

6. Climate Change

Climate change in Shropshire

4.89 The Shropshire Council Climate Change Strategy Framework (2019) provides a route map to a zero-carbon future for Shropshire. Through this it is highlighted that impacts from the ongoing climate crisis are very real now with financial implications from flash flooding, water damage, surface water drainage and road maintenance costs impacting on the Council management budgets and the wider county economy and communities. An identified risk for Shropshire is that, with a warming climate, drying peat bodies (such as the moss lands of Fenn's and Whixall National Nature Reserve) will emit more carbon than they currently soak up leading to a reinforcing feedback loop and a risk of burning.

4.90 The Shropshire Strategic Flood Risk Assessment highlights the likely impact that climate change will have on flooding events in the County. It anticipates that average summer rainfall is expected to decrease by 25% by 2080 but that winter rainfall is expected to increase by 24% in the same period. It is likely that Shropshire will experience increased rainfall intensity in the summer months which will exacerbate flash flooding events and that these impacts will create more short duration extreme weather events such as storms and flooding.

4.91 The Flood risk assessment also includes modelling which considers the likely changes to current flood zones. This suggests that flood zones are likely to expand, resulting in greater impacts on communities in the vicinity of watercourses.

Shropshire's response to climate change

4.92 The Shropshire Council Climate Change Strategy Framework (2019) identifies a number of key principles and action points will be required to manage and mitigate expected impacts, these include:

- Prioritising actions so as to avoid exacerbating impacts, adapting to a changing climate and reducing energy use in buildings and street lighting.
- Support clean and inclusive growth by transitioning to a green economy that is zero carbon and abides by circular economy principles.
- Investing in Climate Action through significant financial investment to achieve net zero emissions, investment in low carbon technologies, prioritising interventions to ensure value for money and return on investment and focusing on projects that can generate co-benefits.
- Promoting collaborative working through the development of a Climate Action Partnership of stakeholders and the wider community, working with schools to introduce climate topics into the curriculum and engage with local communities to develop opportunities for their involvement.
- Influencing the behaviours of others by assessing the carbon footprint of council procurement choices and leading by examples to positively influence purchasing power or funding allocations of others.
- Assembling evidence to identify the most effective targets for intervention and investment.

4.93 It is expected that these key principles and action points will be enacted across sectors such as transport and travel (transport is the single biggest contributor to Shropshire's carbon footprint, with 50% of all CO2 emissions), renewable energy generation, sustainable land management and clean and inclusive growth.

4.94 The Shropshire Council report 'Towards Zero Carbon' lists a number of low carbon projects that the Council are delivering including improving the energy efficiency of Council and public buildings, street lights, sustainable transport and active travel (including pool bikes), recycling and reuse improvement strategy, use of green energy on Council sites and investment in solar photovoltaics.

4.95 The Meres and Mosses in the north of Shropshire are a natural feature which provides a vital carbon storage function through its peat-based characteristics. The Marches Mosses Boglife (LIFE) project aims to restore an area of lowland raised bog within the Fenn's, Whixall & Bettisfield Mosses and Wem Moss NNRs through the use of Heritage Grants and European funding.

[31] Shropshire Council. https://www.shropshire.gov.uk/media/10848/appendix-3-accessible-natural-green-space-mapping.pdf.

Summary and conclusions

4.96 This section summarises the above thematic appraisal, and draws out how key features in Shropshire contribute to a strategic Green Infrastructure network, which covers Shropshire and beyond.

4.97 Due in a large part to the underlying geology, Shropshire has a very varied, and hugely significant number of features which contribute to the natural environment, landscape character and heritage of Shropshire.

4.98 In particular, the Shropshire Hills AONB encompasses a large area in the south of Shropshire, and features a number of significant Green Infrastructure assets. These include the Clun Forest in the southwest of Shropshire, which forms the catchment area for the River Clun, an SAC which runs south out of Shropshire. To the east of this the AONB also features the Stiperstones and the Hollies heathlands which are designated as a SAC and NNR, and to the south of them, the Long Mynd, an extensive upland plateau, also providing heathland, which is the largest SSSI in Shropshire. Further southeast of this begins Wenlock Edge, an 18 mile long narrow limestone escarpment which runs northeast to Much Wenlock. This features deciduous woodland and flower rich limestone grasslands and is designated as a geological SSSI. To the northeast of Wenlock Edge is The Wrekin, an isolated hill, surrounded by Wrekin Forest, which also includes a SSSI. The deciduous woodland along Wenlock Edge is also linked, via the Tick Wood and Benthall Edge SSSI, and to important heritage assets, namely the Ironbridge Gorge World Heritage Site.

4.99 These significant natural features create a landscape scale network of important geological and wildlife sites which extends across the whole of southern Shropshire. Furthermore, due to the density of walking and cycling routes including Public Rights of Way in the AONB area, these areas also provide for significant recreation opportunities, which in turn supports the local tourism industry.

4.100 In the west of Shropshire, Offa's Dyke is a linear earthwork which provides a significant heritage asset (it is a Scheduled Monument), natural feature and is a significant asset for access and recreation, due to the related Offa's Dyke Pontcysyllte Aqueduct National Trail. This extends along the eastern edge (passing in and out of Shropshire), from the Clun Forest to the and Canal World Heritage Site. Both of these assets are key attractions which help to boost the local tourism industry.

4.101 The River Dee, which is designated as the River Dee and Bala Lake SAC passes through the World Heritage Site and crosses Offa's Dyke. This provides significant connectivity in the region, extending from Snowdonia in the west and running into Liverpool Bay in the north.

4.102 Significant natural assets can also be found in the north, with the Meres and Mosses natural area which is subject to a number of designations including SAC, Ramsar, SSSI and NNR. This provides important habitat not only for wildlife, but also has an important role in carbon sequestration.

4.103 Offa's Dyke also crosses the Montgomery Canal SAC, which provides connectivity into Wales. The Montgomery Canal links to the Llangollen Canal which is carried over the River Dee by the Pontcysyllte Aqueduct. This canal extends eastwards, linking to the Meres and Mosses in the north of Shropshire. The wider canal network provides important freshwater habitat and also opportunities for active travel, through water based transport and on tow paths where these exist.

4.104 The canals in Shropshire are fed by, and drain into, the river network in Shropshire. The River Severn is a key asset in Shropshire, extending from the midway along the western boundary, the River passes through Shropshire on a meandering south-easterly course. The River Severn and its valley provide a significant natural asset within Shropshire, which passes through and influences significant historic assets such as the Ironbridge Gorge World Heritage Site. It also provides an important recreational routes, for water-based travel and most significantly by the adjoining Severn Way, although there are other walking routes in its vicinity.

4.105 The River Severn is a key ecological corridor, but one that also contributes significantly to flood risk. Climate change modelling suggests that relationships between existing communities and watercourses are likely to be even more challenging in future.

4.106 Throughout Shropshire, there are significant opportunities for active travel and recreation, however such opportunities are not accessible to all in an equal manner, as there is significantly more open space provided in the south of Shropshire compared to the north. In addition, much Green Infrastructure is not accessible to those with restricted mobility.

Chapter 5
Summary, Findings and Recommendations

Summary

5.1 This Green Infrastructure Strategy Report provides a review of the Green Infrastructure context for Shropshire, identifying that it is characterised as a rural area with Shrewsbury as the largest town and only 'Strategic Centre'. Compared to the national average, the population comprises a larger proportion of older persons, and a smaller proportion of younger persons. However, people benefit from a longer than average life expectancy (and healthy life expectancy). The economy largely reflects the rural character of the area.

5.2 This Strategy identifies the current context in relation to the Green Infrastructure. In summary, it identifies that the natural environment in Shropshire is varied and very special. Key features include the Shropshire Hills AONB (within which lie several important assets); the Meres and Mosses in the north; the river and canal network; as well as significant heritage assets. It is also identified that although there are significant opportunities for active travel and recreation at a Shropshire wide level, such opportunities are not accessible to all, in an equal manner.

5.3 This Strategy has also undertaken a review of the Green Infrastructure assets and constraints (baseline) at a much smaller geography, specifically at the Strategic Centre, Principal Centres, Key Centres and Strategic Sites as proposed in the emerging Local Plan Review. Following the appraisal of this baseline, a number of potential Green Infrastructure opportunities have been identified, in accordance with the guiding principles of 'Making best use of existing assets'; 'Enhancing connectivity' and 'Delivering Green Infrastructure close to where people live and work'. It is important to note that the opportunities identified form a 'long list' of potential opportunities which should be further investigated and researched in collaboration with local communities and stakeholders involved in delivery. The opportunities identified, although thorough, are not exhaustive. These baseline assessments and opportunity lists are included in **Appendix A**.

Findings and recommendations

Settlement and site assessments

5.4 Whilst the opportunities identified are individual to each study area, a number of the objectives cover similar themes. These are summarised below:

Enhanced management of water corridors

- In many locations, it is recommended that watercourses should be better managed and viewed more strategically as Green Infrastructure 'corridors', to help improve their condition, for example by undertaking appropriate habitat management within and alongside the watercourse, seeking to reduce pollution and runoff rates with new planting alongside watercourses, control invasive species, provide local flood management and where possible provide public access.

Planting new, or strengthening existing habitat corridors to provide connectivity

- In a number of locations, opportunities to strengthen and expand habitat networks are identified. These are primarily along transport corridors and along historic hedgerow alignments, however not in all cases.
- Strengthening and expanding habitat networks is a key factor in reducing biodiversity decline, and providing migration opportunities for wildlife, which is a key issue in terms of climate resilience, is recommended.

Increasing access to existing open spaces

- In several locations, poorer access to accessible open space (indicated by Shropshire Council mapping) was found amongst populations with greater levels of health deprivation. In a number of the study areas, it is considered that allowing access to existing open spaces, for example school fields, could help to make recreation opportunities more accessible to these areas, which in turn is considered likely to help reduce health inequality.

Provision of open space within new developments

- A significant number of areas which are allocated in the current Local Plan and which are proposed for new development in the Local Plan Review have been reviewed. In all of these cases, given the scale of the areas identified, new open space is recommended in each one.
- In a number of locations, recommendations as to how these should link to the surrounding Green Infrastructure are provided.
- New open space delivered as part of new development offers key opportunities for people to access nature and recreation opportunities, and also provides development with the opportunity to respect and enhance the existing and surrounding Green Infrastructure network.
- As set out above, in several locations, poor access to accessible open space (indicated by Shropshire Council mapping) was reflected in areas with greater levels of health deprivation. Open space in new developments offers the chance to redress this balance and provide existing communities with access to open space.
- Open space can also provide facilities for children and teenagers, as well as food growing opportunities.

Provision of enhanced active travel infrastructure within settlements

- In a number of locations, the transport infrastructure for active travel modes, particularly for cycling within settlements, should be improved. This is particularly where use of these modes is likely to increase due to development pressures and as a result of the Climate Change Strategy and Local Transport Plan objectives to increase active travel.

Urban greening

- Planting of new trees and other urban vegetation in settlements is recommended in a number of locations, to help create more biodiverse settlements, and to help address the impacts of climate change, such as hotter summers.
- Planting of species which are more resilient to climate change is a key recommendation.

5.5 The delivery of these opportunities will require a significant amount of collaborative work and investment from various stakeholders including Shropshire Council, local Town and Parish councils and Neighbourhood Planning bodies, landowners, the development industry, Natural England, the Environment Agency, and other local environmental groups. However, this is not to say that such work is unachievable. These Green Infrastructure initiatives provide a key opportunity to reverse the national decline in biodiversity , and address health deprivation and inequality in Shropshire. Moreover, achieving these opportunities will improve people's quality of life, and will help to mitigate, and increase the resilience of communities and wildlife, to the effects of climate change.

Embedding Green Infrastructure into the Shropshire Local Plan Review

Overview

5.6 As set out in the introduction to this Strategy, Shropshire Council are in the process of undertaking a Local Plan Review. The NPPF (2019) and legislative context provides strong support for enhancing Green Infrastructure because of the wide range of benefits it affords.

Recommendations on future planning policy development

5.7 Shropshire Council has a duty to act on climate change, generate employment, maintain healthy functioning ecosystems, maximise physical and mental well-being, as well as protect and promote cultural and heritage assets. The Green Infrastructure opportunities identified in this Strategy will help achieve these duties. Green Infrastructure can form part of the open space for planned site allocations and will also be central to any future development that comes forward for determination.

5.8 Providing strong policies for Green Infrastructure, protection, enhancement and creation are fundamental to the delivery of high quality Green Infrastructure. Additionally, frontloading the planning process, that is, providing planners and developers with relevant information, and setting clear expectations early on in the planning process, is vital. Development proposals should appraise likely effects on Green Infrastructure and make these clear during pre-application consultation and within planning submissions.

5.9 The existing Green Infrastructure network should be clearly defined and mapped within the Local Plan Review to ensure that it can be protected. A digital version of this should be included on the Council's website, so that it can be updated as new Green Infrastructure features are created. This would build on the environment network mapping previously undertaken.

5.10 Ideally the Local Plan Review will include some spatial expression of Green Infrastructure opportunities. The proforma for each settlement and Strategic Site prepared as part of this Strategy include Green Infrastructure opportunity maps. These are supported by tables giving more details of specific opportunities to improve Green Infrastructure. These proforma should be used by applicants and development management officers in the preparation and consideration of planning proposals respectively, to provide guidance on the Green Infrastructure features that could be incorporated within a new development (subject to viability considerations- see below also). These will vary depending on the nature and type of development, however the opportunities highlighted within the proforma provide recommendations on what could be expected and where.

5.11 The opportunities sections of this Strategy may also provide a useful starting point for other work carried out by the Council and may help guide activities carried out by a wide range of voluntary sector and other partner organisations.

5.12 The Local Plan Review will form the strategic framework in which Neighbourhood Plans will sit and so this Green Infrastructure Strategy should also be used to inform the preparation of Neighbourhood Plans – helping local communities to identify and realise key Green Infrastructure opportunities within their local area. The content of this Green Infrastructure Strategy will aid in this process.

5.13 A key issue for Shropshire Council however will be the implementation and affordability of these measures and the extent to which it affects the viability of developments being proposed. This can only be determined on a case by case basis, but it is essential, recognising the multi-functional benefits that it can deliver, that Green Infrastructure is not treated simply as a 'nice to do' feature in the list of requirements for new developments.

Recommendations for securing funding through development

5.14 There are two main mechanisms by which financial contributions to Green Infrastructure can be secured from new development through the planning process: Section 106 agreements and the Community Infrastructure Levy (CIL). Section 106 (of the Town and Country Planning Act) can be used when it can be reasonably demonstrated that a development directly affects a community or Green Infrastructure feature, therefore investment in Green Infrastructure is needed as part of the mitigation package. The Community Infrastructure Levy was introduced through the Planning Act (2008) as a levy payable by developers towards the cost of local and sub-regional infrastructure to support development. This can apply to strategic council-wide

projects, and does not need to be directly related to the proposed development.

Section 106 agreements

5.15 Developer contributions under Section 106 of the Town and Country Planning Act 1990 provide a mechanism for securing funding for the Council's Green Infrastructure priorities. Section 106 agreements are a tool which makes a development proposal acceptable in planning terms, when it would not otherwise be acceptable. There are three legal tests which must be met, in order for a Section 106 agreement to be appropriate:

- Must be necessary to make the development acceptable in planning terms;
- Must be directly related to the development; and,
- Must be reasonably related in scale and kind to the development.

5.16 The limitation of Section 106 in the past had been that contributions could not be pooled (beyond 5 developments) to deliver more strategic benefits. However, the Government lifted this restriction in 2019. This means that S106 agreements could now be used to enhance or promote the wider Green Infrastructure network, and could fund Shropshire-wide opportunities and Green Infrastructure priority projects.

Community Infrastructure Levy

5.17 The Council operates the Community Infrastructure Levy (CIL) for residential development. The use of CIL by the Council is a vital component in the funding of essential infrastructure projects across Shropshire. The Council has the opportunity to include Green Infrastructure projects in the CIL Infrastructure Funding Statement.

5.18 Regular updating of this Statement will be key as infrastructure projects are completed and new projects are added. This will allow for continued delivery of priority projects throughout the Plan period.

Wider Funding

5.19 Beyond funding from developer contributions, Green Infrastructure opportunities could be delivered from a diverse range of funding mechanisms. Funding will be dependent on the type of scheme, its origins and functions. Some proposals will need capital funding to establish a Green Infrastructure asset and subsequently revenue funding to secure its long term management. A new sustainable urban drainage installation, for example, will require capital investment to initially create the scheme as part of development proposals, as well as revenue funding for its long-term maintenance and management to secure its functionality. Potential sources of funding for different forms of Green Infrastructure could include: Agri-environment schemes; woodland grant schemes; endowments, community management trusts, parish councils and the local authority.

5.20 The capital and revenue costs of Green Infrastructure will be determined by the requirements of any individual scheme. Green Infrastructure can be a cheaper and a more viable alternative to investment in more traditional grey infrastructure. The multi-functional characteristics of Green Infrastructure, often mean that it delivers well on value for money in comparison to other options.