Green Infrastructure Framework 2:
Environmental Character Areas

July 2019

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worcestershire county council

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2. INTRODUCTION

2.1 Worcestershire Green Infrastructure Partnership

The Worcestershire Green Infrastructure Partnership (GI Partnership) is a cross-disciplinary partnership of statutory agencies, voluntary organisations, Worcestershire's city, borough and districts councils and the county council. The purpose of the GI Partnership is to optimise planning and delivery of green infrastructure (GI) in Worcestershire. It works to integrate multifunctional GI into developments and projects across the county in order to maximise its benefits to the natural and built environment. The partners represent a diverse range of interests, all focused on the natural and historic environment but encompassing sustainability, recreation, health and transport.

2.2 Worcestershire Green Infrastructure Strategy & Evidence base

The GI Partnership developed the Worcestershire Green Infrastructure Strategy 2013-18 as a non-statutory county-wide guidance document setting out high-level priorities to be further investigated and delivered at the local and site level. The Strategy has been adopted and endorsed through some of the District Councils' Local Plans. It has also been supported and promoted by the Worcestershire Local Nature Partnership and Worcestershire Local Enterprise Partnership. The Strategy aims to direct and drive the delivery of GI in the county and inform relevant strategies and plans prepared by partner organisations.

The Worcestershire GI Strategy is informed by four evidence base documents and additional guidance notes. More information on GI Framework evidence can be found in the GI Framework Document 1 and on the Worcestershire County Council's webpages.

2.3 Context

Ecosystem services

GI is often described as multifunctional, providing a range of environmental and social services or 'ecosystem services'.

The ecosystems approach is essentially about shifting the focus of policy-making and delivery away from looking at natural environment policies in separate 'silos' - e.g. air, water, soil, biodiversity - and towards a more holistic or integrated approach based on whole ecosystems.

Ecosystem services are the benefits that a healthy environment provides for people, either directly or indirectly and four broad types of ecosystem service are usually recognised:

Table 1: Types of ecosystem services

Provisioning services	Products obtained from ecosystems, including food, timber, woodfuel, fresh water, biodiversity, genetic resources, biochemicals, natural medicines and pharmaceuticals
Regulating services	Benefits obtained from the regulation of natural processes, including: the regulation of air quality, climate, flooding and erosion; water purification; disease and pest control; pollination; and buffering pollution
Cultural services	The non-material benefits people obtain through spiritual enrichment, cognitive development, reflection, recreation and aesthetic enjoyment.
Supporting services	Services that are necessary for the production of all other ecosystem services, including soil formation, photosynthesis, primary production, nutrient cycling and water cycling

The ecosystem approach means recognising that regardless of its current main use, any area of land has the potential to deliver a very wide range of services (such as flood management, biodiversity or recreation) and it is important that the diversity of these services is recognised in policy and decision making. There is however a limit on the extent to which multifunctionality can be pursued without impairing the delivery of one or more of the services involved. For example, there may be trade-offs to be made between archaeology and diversity of wildlife or flood management.

Natural capital

The multifunctional nature of GI means that it can deliver value for money by utilising these natural environment elements also referred to as 'natural capital' whilst maintaining and enhancing its assets.

Natural capital refers to those elements of the natural environment which benefit services to people by underpinning the provision of clean air, clean water, food, recreation and a plethora of high value and often essential goods and services[1]. The services derived from natural capital are generally not accounted for and difficult to measure in terms of market prices. This is why they are often prone to over-exploitation and degradation leading to erosion of this capital, sometimes irreversibly, in the longer term.

The natural capital approach aims to ensure that the present UK natural capital is maintained and enhanced in perpetuity by providing either an economic value or equating to an economic value to ensure that it supports increased economic growth and an improved quality of life for communities. The main goals of this work are to achieve economic, health and wellbeing benefits.

The National Planning Policy Framework (2019)[2] document states that planning policies and decisions should contribute to and enhance the natural and local environment by, for example, recognising the wider benefits from natural capital and ecosystem services. The 25 Year Environment Plan[3] published in January 2018 sets out the Government's actions to understand the full value of benefits offered by the environment and cultural heritage to the overall economy and then use these findings in informing any future policy and decision making. In the future, a set of metrics for natural capital will be developed in cooperation with scientists, economists and environmentalists to assess the progress towards a better environment.

[1] Natural Capital Committee (2015) Advice to Government on Research Priorities
[2] Ministry of Housing, Communities and Local Government (2019) National Planning Policy Framework https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf
[3] HM Government (2018) A Green Future: Our 25 Year Plan to Improve the Environment https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf

2.4 Purpose

This document is one of a suite of GI evidence base papers prepared to support the Worcestershire GI Strategy and the wider work of the GI Partnership. It is a guidance document which provides strategic interpretation of data relating to key GI themes and establishes spatial priorities for GI delivery based on this analysis.

The analysis of data and the spatial mapping of GI priorities presented in this document aim to enable the integration of the themes into a cohesive county-wide GI Framework that shows how future patterns of land use and development might create a landscape which utilises our local natural capital to provide a wide range of ecosystem services.

This is a review of the original (2012) document. The original report was reviewed and, where relevant, updated using the up-to-date evidence base. Whilst some detailed background information needed refreshing, it did not affect the strategic analysis of GI assets and the GI Environmental Character Area mapping and objectives.

2.5 Audience

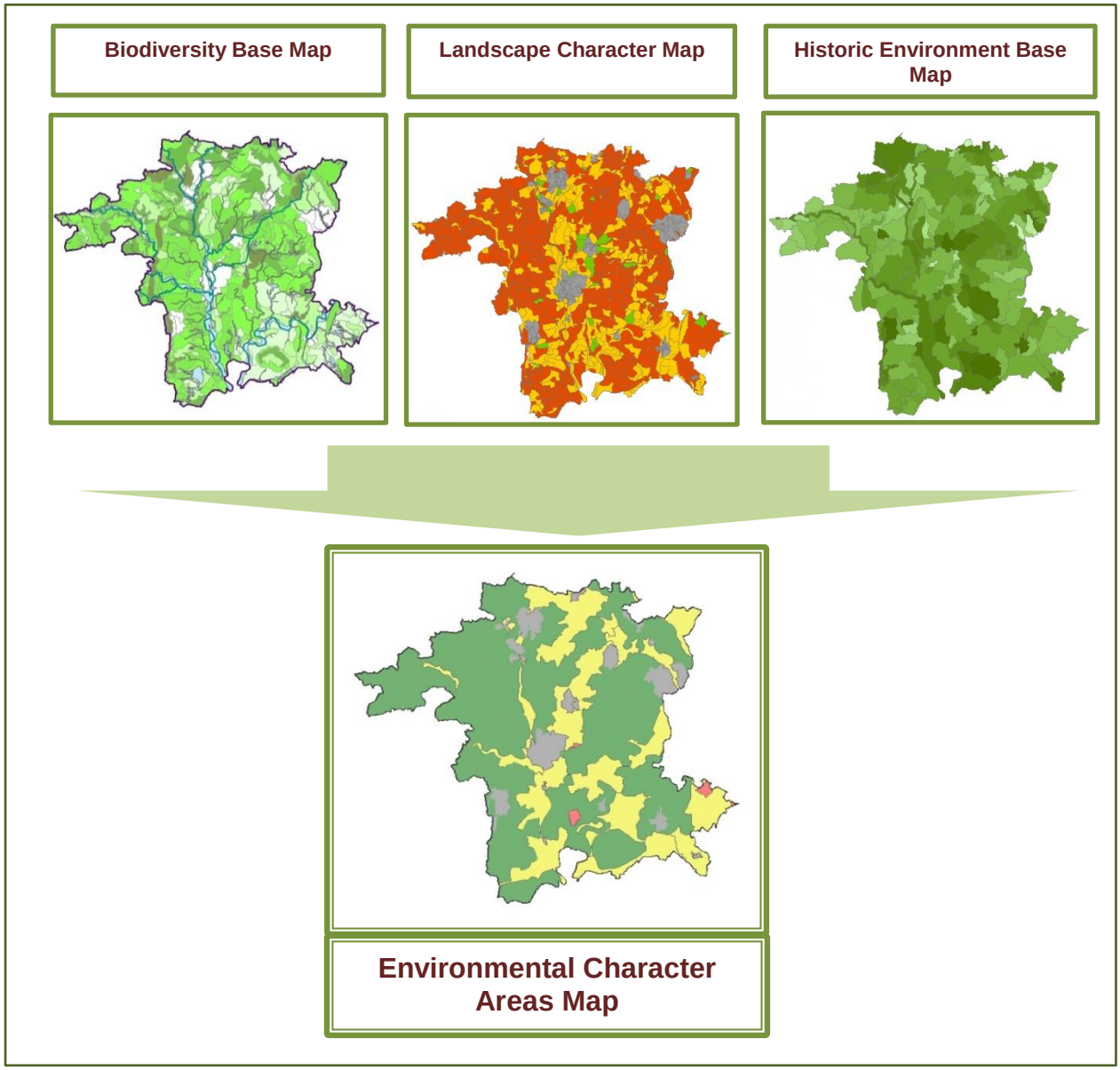
This document is intended to support members of the GI Partnership, including Local Planning Authorities (LPA) and other organisations involved in the development of GI policies and strategies. It also aims to inform the strategies and wider projects undertaken by the wider community and stakeholders including Parish Councils, schools and interest groups. Additionally, it supports the work of the Worcestershire Local Nature Partnership and Worcestershire Local Enterprise Partnership and aims to help developers interpret GI issues, and to assist in site masterplanning.

3. ENVIRONMENTAL CHARACTER AREAS

The Green Infrastructure (GI) Environmental Character Areas map (Figure 2) is informed by the analysis of merged datasets: the Landscape Character Assessment (LCA), Biodiversity and Historic Environment Base maps. Landscape Description Units (LDU) provided the background spatial framework of the ECA mapping. LDU polygons were then modified with Biodiversity and Historic Environment datasets.

The supporting text and individual theme maps in the technical evidence chapter (see chapter 4: Technical Evidence) provide the critical detail required to interpret the GI Environmental Character Areas map.

Figure 1: The process of devising the Environmental Character Areas



The Environmental Character Areas (ECAs) have been placed into one of three categories based on their overall score for GI. These are:

1. Protect and enhance
2. Protect and restore
3. Restore and create

This is based on the underlying broad set of environmental characteristics relevant to GI, which are identified in the merged LCA, Biodiversity and Historic Environment Base map. These characteristics were assessed and each attribute scored, with the amalgamated score for all the characteristics being used to determine the category for each ECA. The ECA map is based upon a range of data, including aerial photograph interpretation of the county[4], supplemented by ground survey information. The quality and quantity of data will change over time as new surveys are undertaken. Therefore, this map will be subject to change as more detailed / updated data become available. Urban areas of the county on the maps are currently classified as un-surveyed, due to fragmented data available, this does not mean, however, that those areas do not have GI value. Approach to urban areas will be reviewed in the future and the findings will be represented in a separate evidence document addressing GI in urban areas once completed.

The boundaries shown on the map are intended to be soft edged and indicative and do not define firm boundaries on the ground. Further county, district and local level green infrastructure planning work will be required to extract the local level of detail required for implementation at the district, local, neighbourhood and site scale.

The GI ECA's are of strategic importance as they provide an opportunity to maintain and enhance the connectivity of GI between the individual districts / boroughs, and link with adjacent areas at a county scale. A series of strategic objectives and high level interventions have been identified for each of the areas shown on the ECA map.

The individual character areas and their over-arching objectives are summarised in the table below:

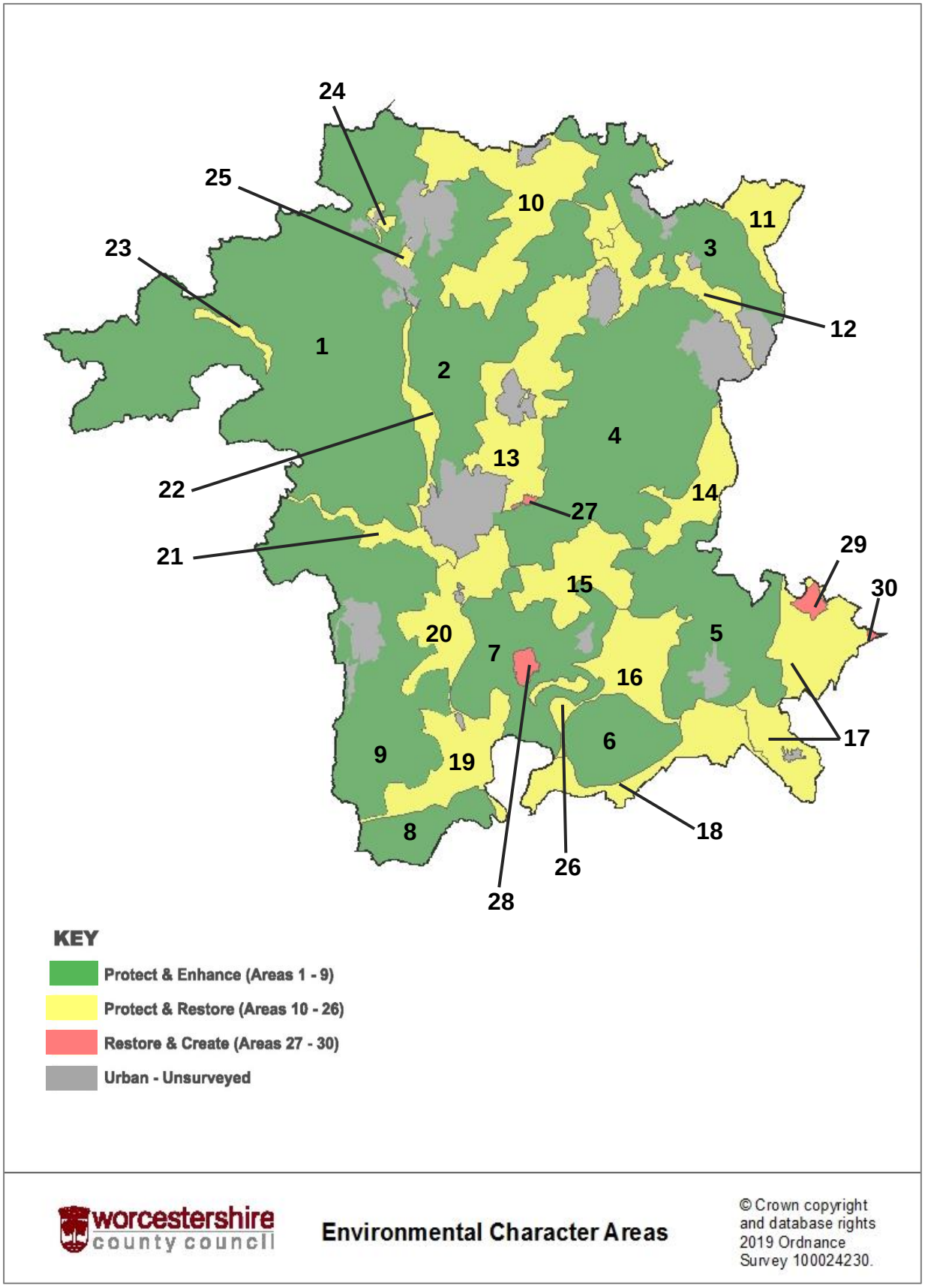
[4] The ECA map was based on 2005 aerial imaginary and more up-to-date data is currently available (2017), however this analysis remains relevant.

Table 2: Worcestershire GI Environmental Character Areas

Character Area	Name	Objective
1	Teme Valley & Wyre Forest	Protect and enhance
2	Severn Valley North	Protect and enhance
3	North Worcestershire Hills	Protect and enhance
4	Forest of Feckenham & Feckenham Wetlands	Protect and enhance
5	Lenches Ridge	Protect and enhance
6	Bredon	Protect and enhance
7	Severn Valley South	Protect and enhance
8	Bushley	Protect and enhance
9	Malvern Chase & Commons	Protect and enhance
10	Hagley Hinterland	Protect and restore
11	Hollywood & Wythall	Protect and restore
12	Bromsgrove - Redditch Corridor	Protect and restore
13	Mid - Worcestershire Corridor	Protect and restore
14	East Wychavon	Protect and restore
15	Bow Brook South	Protect and restore
16	Evesham Valley	Protect and restore
17	Broadway & Cotswold Corridor	Protect and restore
18	Carrant Brook Corridor	Protect and restore
19	Longdon Hinterland	Protect and restore
20	Kempsey Plain	Protect and restore
21	River Teme Corridor	Protect and restore
22	Severn Meadows Corridor	Protect and restore
23	Eardiston	Protect and restore
24	Bewdley Fringe	Protect and restore
25	Birchen Coppice	Protect and restore
26	Birlingham	Protect and restore
27	Bredicot	Restore and create
28	Defford	Restore and create
29	Bickmarsh	Restore and create

30	Long Marston	Restore and create

Figure 2: Worcestershire GI Environmental Character Areas Map



4. TECHNICAL EVIDENCE

4.1 Biodiversity

Appropriate consideration of biodiversity will be essential if we are to achieve sustainable development and ecologically viable GI. Biodiversity, within fully functioning and robust ecosystems, provides many of the raw materials (such as timber or fresh water) and ecosystem services (see Section 2.3 Context) upon which our continued health, prosperity and quality of life depend.

This chapter aims to describe the landscape-scale patterns in Worcestershire's biodiversity and, in broad terms, the likely levels of constraint and opportunity that are associated with discrete areas of the county, as illustrated by the *Worcestershire Biodiversity Analysis 2009 Biodiversity Base* Map (Figure 3) The county is exceptionally biologically rich as it encompasses the southern limit of many northern plant and animal species, and the northern limit of many southern species. There are two European Special Areas of Conservation (SAC), four National Nature Reserves (NNR), 103 biological Sites of Special Scientific Interest (SSSI),[5] and over 550 Local Wildlife Sites (LWS) in Worcestershire, which collectively cover approximately 5% of the county[6].

The nature and scale of the actual biodiversity constraints and opportunities associated with specific strategic development sites should be ascertained through comprehensive Ecological Impact Assessment (EcIA) of the development sites and their surroundings, within their landscape context. The EcIA should include exploration of the likely mitigation, compensation and enhancement measures that will be required to ensure appropriate biodiversity net gain; and should be undertaken prior to allocation of sites for development (in accordance with UK Government policies and guidance[7]). EcIA

[5] Of the 113 SSSIs in Worcestershire, 99 are biological SSSIs, 10 are geological, and four are both biological and geological. They cover a combined area of over 5,300ha.
[6] 8,600ha
[7] Paragraphs 174 – 177 National Planning Policy Framework 2019 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf
Paragraph: 009 Reference ID: 8-009-20140306 (06 03 2014) Planning Practice Guidance: Natural Environment https://www.gov.uk/guidance/natural-environment

should be undertaken in accordance with British Standard BS42020:2013 and the Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018) and will likely require the following elements:

- An ecological assessment and/or survey of the potential development site and of areas outside of the site which are within the predicted zone of influence.
- Protected and *notable*[8] habitat and species surveys and assessments.
- Assessment and discussion of the site in a landscape ecological context; including identification of existing ecological networks and of new networks that will be required to maintain and enhance landscape scale ecological function.

A Worcestershire context

Worcestershire sits on a glacial outwash zone; a zone of material deposited by glaciers during and after the last ice age. The county has a complex mixture of topography, solid geology and drift deposits, overlain with a similarly complex 'confusion' of soils. This complexity has in turn provided conditions for the development of a rich variety of habitats and corresponding richness of botanical diversity. Superimposed upon this landscape are the patterns of farming and settlement created by human activity.

In Worcestershire the clearance of the original post-glacial 'wildwood' happened comparatively slowly and incrementally and significant areas of natural woodland remained in the county long after it had been all but eradicated from other areas. At the time of the Doomsday Book (1086) Worcestershire had retained around 40% cover of woodland and wood pasture compared to 15% nationally.

[8] *Notable habitats and species* are those listed within one or both of the following:

- Office Of The Deputy Prime Minister, Circular 06/2005 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf
- The Natural Environment and Rural Communities Act (2006) Section 41 list of species that are of principal importance for nature conservation in England.
- Worcestershire (Local) Biodiversity Action Plan (LBAP)
- CIEEM, Biodiversity Net Gain – Principles and Guidance for UK Construction and Developments https://cieem.net/i-am/current-projects/biodiversity-net-gain/

Large areas of Worcestershire have also retained an ancient countryside character where blocks of ancient woodland are supported by a robust framework of sinuous, non-geometric field boundaries, ancient hedgerows, shelter belts, ravine sides, wooded watercourses, steep slopes and banks, green lanes, hollow-ways, floristically rich road verges and ancient trees. The species-rich hedgerows found in these landscapes are woodland remnants retained as people created clearings (assarts) in the original wildwood for their crops and livestock. The degree to which ancient woodland and ancient woodland features have survived varies considerably within the county. For example the areas of relatively intact ancient countryside west of the Severn and Stour have retained far more ancient woodland elements and character than the 'planned countryside' of the east and south eastern parts of the county. Here, the ancient woodland was eradicated much earlier and replaced by intensive crop production or animal pasturage. The cleared landscape was then later overlain by planned, geometric field enclosure patterns.

The Worcestershire Habitat Inventory (WHI) records 16,800ha of woodland in the county today (outside of urban areas and excluding wet woodland). This is about 9.5% of the county area, just slightly below the England average of 10%.[9] However, the county has a relatively high proportion of ancient woodland cover: the Ancient Woodland Inventory records 5336ha of ancient semi-natural woodland (ASNW) or 3% of the county area, slightly higher than the UK figure of 2%. Included in this ASNW figure is 2167ha of Plantation on Ancient Woodland Sites (PAWS), or 1.2% of the county area. PAWS are ancient woodlands that have been felled and re-planted with commercially exploitable species. They frequently retain considerable ancient woodland interest, for example in their ground flora, mycology and soils, and they are generally restorable to semi-natural condition. According to these data ASNW represents 31.7% of all the woodland in the county[10].

The Wyre Forest, straddling the Worcestershire-Shropshire border, is the largest contiguous expanse of woodland in England. Over 1,700ha of the ancient semi-natural woodland component of the forest are designated as a SSSI: the Greater Wyre area,

[9] Forest Research (2018). *Forestry Statistics 2018*. Forestry Commission https://www.forestresearch.gov.uk/tools-and-resources/statistics/forestry-statistics/forestry-statistics-2018/

[10] Natural England, Ancient Woodland (England) Dataset 2019 https://naturalengland-defra.opendata.arcgis.com/datasets/ancient-woodlands-england

including substantial areas of PAWS, covers around 2,400ha. The re-declaration of the Wyre Forest NNR to encompass all of the land owned and managed by Natural England and Forestry Commission will create the largest woodland NNR in England[11]. Other significant ancient woodland sites in Worcestershire include Chaddesley Wood NNR and the Tiddesley Wood, Grafton Wood, Monkwood and Shrawley Wood SSSIs.

Worcestershire is recognised nationally as an important county for ancient and veteran trees and they make a significant contribution to local landscape character. Particularly notable are the thousands of willow pollards found throughout the major floodplains and along ditches and watercourses and also the density of hedgerow trees in some parts of the county, especially oak and ash. The commons in the south east of the county are notable for their black poplar pollards, a nationally scarce tree. Ancient and veteran trees are of particular value for the fungi, lichens, bryophytes and huge range of saproxylic (dead wood-dependent) invertebrates (c.2000 species in Britain) associated with dead or decaying timber[12]. Since ancient and veteran trees are often hollowing, they are also important nesting and roosting sites for bats and birds.

Many of our ancient woodlands have a history of coppice management and ancient coppice stools are frequently found. Ancient and veteran trees, often pollarded, are also found as boundary trees at the perimeter of ancient woodland or in the hedgerows associated with former woodland boundaries. For example, Grafton Wood has 20–30 of these trees along its boundary and ancient and veteran wild service and small-leaved lime trees occur on the boundary of Monkwood. In the Teme Valley and other dingle woodlands, there are an unknown number (but probably hundreds) of pollards of small-leaved lime and the nationally scarce large-leaved lime.

Worcestershire is also nationally important for its remaining traditional wildflower-rich hay meadows. In the region of 97% of England's meadows are believed to have been lost between 1930 and 1984[13], largely to intensive agriculture and development: the remaining resource is estimated at 7282ha[14], meaning that nationally around 2.3 million hectares may have been destroyed in the last century. The total extent of the

[11] Forestry Commission and Natural England, Wyre Forest and NNR Management Plan https://consult.forestryengland.uk/forest-districts/wyre-forest-and-nnr-management-plan/
[12] Ancient Tree Forum http://www.ancienttreeforum.co.uk/ancient-trees/ancient-tree-ecology-wildlife/invertebrates/
[13] English Nature (2004) State of nature report http://publications.naturalengland.org.uk/file/118017
[14] Joint Nature Conservation Committee http://jncc.defra.gov.uk/page-5848

Worcestershire resource is believed to be between 1500 and 2000ha[15], so the county may support 25% of all the wildflower meadows remaining in England. Although many of these sites are small they are hugely important wildlife habitats, both for their diversity of plants and for their invertebrate, fungal and microbial fauna. They also have special cultural significance and have been celebrated in art, music and literature through the ages. Some of the county's best meadows are protected and managed as nature reserves, including those at the Knapp and Papermill SSSI, Penorchard Meadows SSSI and the Foster's Green Meadows NNR. A significant number of others have been listed as LWS.

The floodplains of the Severn and Avon Vales in the south of the county also contain a scattering of rare lowland flood meadows often referred to as 'lammas' meadows or 'hams'. These meadows support a unique suite of plant species rarely seen elsewhere. Less than 1500ha of this habitat remains in the UK[16] and Worcestershire may hold approximately 5% of this resource.

Traditional orchards are another habitat for which Worcestershire has a rich history and heritage. From the late 1800s to the mid-1900s there was a steady increase in the amount of orchard planted in Britain. With soils and climate well-suited to fruit growing Worcestershire was at the heart of this industry; canning, jamming and shipping fresh produce by rail around the country. The post-war intensification of agriculture, the impacts of changing agricultural policy and competition from foreign fruit imports led to the abandonment and removal of many orchards. UK agricultural statistics show that from over 100,000ha in the 1950s the amount of orchard in the UK rapidly declined until stabilising in the last decade at around 24,000ha, of which just under 7,500ha was in the West Midlands[17]. However, these statistics reflect the area of land under commercial crop production and therefore don't present a full picture of the extent of non-commercially productive orchard (the 'traditional orchard') that remains.

A national inventory of traditional orchards, completed in 2011 by the People's Trust for Endangered Species, mapped 16,990ha of this habitat in England. Just over 2000ha was

[15] Worcestershire Wildlife Trust (pers. comm)
[16] Floodplain Meadows Partnership (2016) Technical Handbook. http://www.floodplainmeadows.org.uk/floodplain-meadow-technical-handbook
[17]Department for Environment Food & Rural Affairs, Agriculture in the United Kingdom statistics (last updated May 2018) https://www.gov.uk/government/collections/agriculture-in-the-united-kingdom

within Worcestershire, representing almost 12% of the national resource[18]. Due to often decades of neglect, these old orchards support many features of high value for wildlife. Fruit trees are relatively short-lived compared to other tree species (less than 100 years in most cases) and as a consequence produce decaying wood more quickly than most native hardwoods. This makes them important refuges for saproxylic invertebrates, hole-nesting and insectivorous birds and bats. The trees are also valuable hosts for mistletoe, fungi and lichens. Worcestershire is one of the national strongholds for mistletoe, which is host to several important species in its own right.

As a county, Worcestershire has a number of species of priority conservation status including, but not limited to:

- The noble chafer beetle, which is probably more widespread in Worcestershire than anywhere else in Britain. A saproxylic fruit tree specialist whose distribution mirrors the extent of surviving traditional orchard.
- The violet click beetle, recorded from only three sites in Britain, and for which Bredon Hill was designated as a SAC. A saproxylic beetle recorded in ancient and veteran ash trees.
- The slow-worm, for which the allotments and nature reserves within the city of Worcester are a national stronghold.
- The great crested newt, a species that benefits from the high-density network of ponds in Worcestershire's landscape. One such 'pondscape', the Lyppard Grange ponds in Worcester, are designated a SAC for the numbers of great crested newts that they contain.
- The pearl-bordered fritillary butterfly, where landscape-scale conservation work undertaken by partners within the Wyre Forest has helped to reverse a national, long-term declining population trend.
- The brown hairstreak butterfly, for which woodlands and hedgerows in the Forest of Feckenham area of east Worcestershire are fast becoming the butterfly's fourth national stronghold.

[18] Natural England Traditional Orchards HAP (England) dataset 2018. http://naturalengland-defra.opendata.arcgis.com/datasets/2cc045a05b4348a3b444254810bcddad_0

- The black poplar, where a lack of female trees threatens the future of the species country-wide. In Worcestershire, Castlemorton Common is notable for its black poplar pollards and the county may have 10% of the trees occurring in Britain[19].

The continued existence of these habitats and species, particularly in the face of climate change, is dependent on the conservation and enhancement of the surviving framework of semi-natural habitats. As such it is essential that we understand and safeguard our semi-natural habitat networks and wherever and whenever possible, seek to reduce their isolation and fragmentation.

The Biodiversity Base Map

The Biodiversity Base Map (Figure 3) provides a visual interpretation of the relative existing biodiversity importance of discrete parts of the county. The units of landscape used for the map analysis are Landscape Description Units (LDU); further information on the derivation of these and other landscape divisions is available from Worcestershire County Council's *Landscape Character Assessment* website[20]. Darker colours on the map represent areas that have achieved a greater cumulative score for the 'importance' of the existing biodiversity value, as indicated by the various data analyses. The process of developing the map included:

- Analysis of a number of data sources, including the Worcestershire Habitat Inventory, species records held by Worcestershire Biological Records Centre and datasets linked to the county Landscape Character Assessment including the Landscape Description Unit Ecological Profiles.
- A determination of how intact the habitat networks were in each LDU (a measure of connectivity vs fragmentation) and therefore how easily key species might disperse across the landscape.
- Prioritising watercourses and their floodplains for GI provision, whatever their current level of biodiversity importance. This is because watercourses and their floodplains are
    i. Largely unsuitable for development;

[19] Worcestershire Biological Records Centre http://www.wbrc.org.uk/
[20] http://www.worcestershire.gov.uk/info/20014/planning/1006/landscape_character_assessment

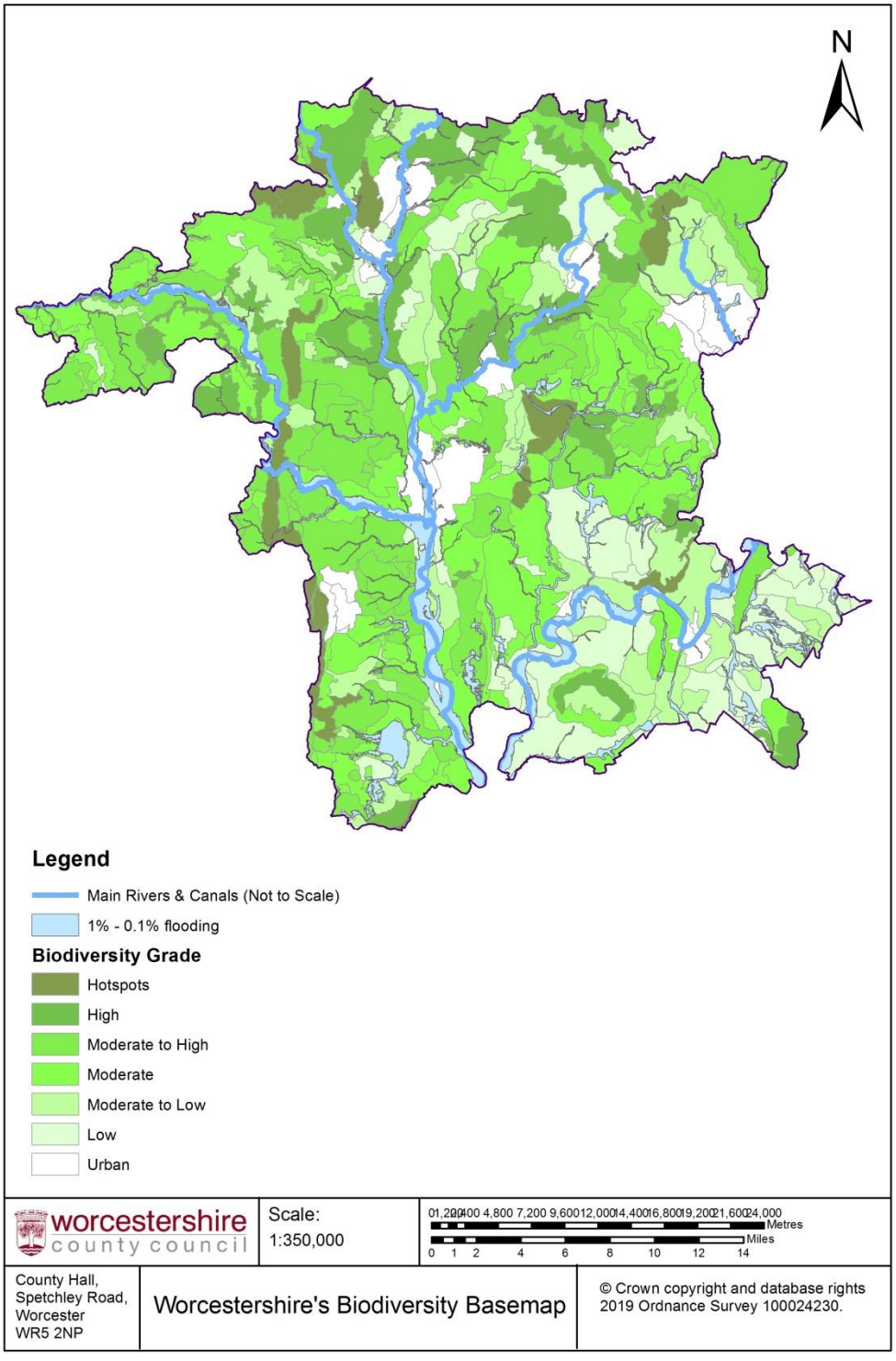
ii. Geographically fixed features that, according to legislation, should not be developed, should be protected from the impacts of development and require biodiversity enhancement;

iii. Contain considerable areas of farmland that is marginal, as a result of high water tables and increasingly frequent flooding, and therefore provide considerable potential for restoration to semi-natural habitat and GI opportunities;

iv. Provide considerable ecosystem function benefits, such as water cycling and flood amelioration, which can be further enhanced by restoration to semi-natural condition;

v. Provide considerable opportunities and potential for multiple GI benefits.

Figure 3: Worcestershire Biodiversity Analysis 2009 Biodiversity Base Map



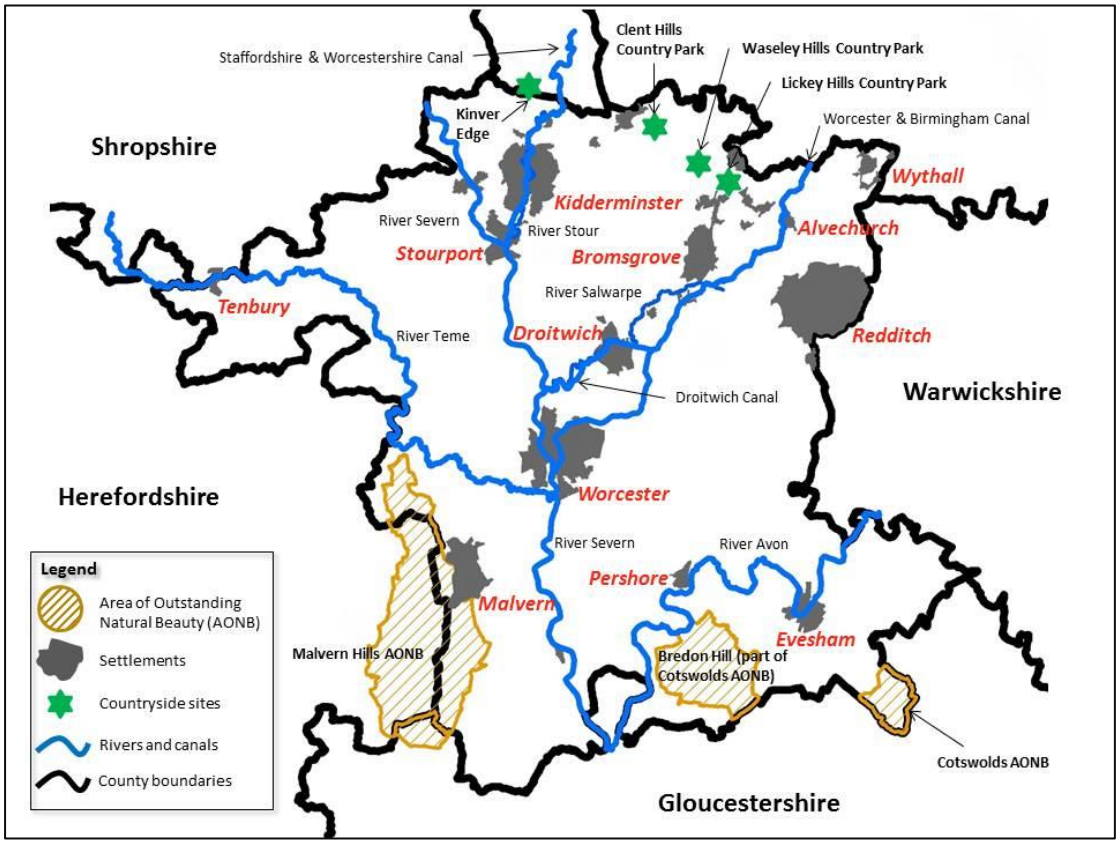
Landscape Scale Patterns of Biodiversity

This section describes landscape scale patterns of biodiversity which are represented on the Biodiversity Base Map (Figure 3) and the geographical context map below (Figure 4).

West Worcestershire (west of the rivers Stour and Severn) contains large areas of relatively intact ancient countryside, much of which is of high biodiversity importance. When considered in a wider landscape context, this swathe of countryside is likely to form a critical element of a nationally important ecological network that stretches from the south west via the Severn corridor and Forest of Dean, through west Gloucestershire, east Herefordshire and west Worcestershire, and on into Shropshire and Cheshire.

A significant exception in west Worcestershire is the Longdon Basin at the southern end of Malvern Hills district. The impacts of agricultural intensification and particularly of drainage have been considerable here. As such, the area offers considerable restoration potential, particularly for wetland habitats.

Figure 4: Landscape scale patterns of biodiversity – geographical context map



The southern and central River Severn flood plain and terraces form the central spine of the county. These areas have suffered greatly from modern agricultural intensification, but offer considerable potential for semi-natural habitat restoration and re-creation. To the north of Worcester the Severn Valley becomes considerably more interesting, with areas of biodiverse countryside, largely associated with river valley sides, interspersed with large areas of intensive cultivation. As the valley narrows, it becomes more biodiverse.

Also north of Worcester there is an east-west zone of a more diverse nature, with the River Salwarpe at its centre, that links the ancient countryside of west Worcestershire with another relatively intact area of ancient countryside, the historic Forest of Feckenham, which forms much of central east Worcestershire.

The Forest of Feckenham is encircled (in clockwise order) by the city of Worcester, Droitwich, Bromsgrove, Redditch, the Warwickshire boundary zone and the Avon Vale [21].The ancient countryside of the Forest of Feckenham contains a nationally important stronghold of traditional, wildflower-rich neutral (with calcareous influence) hay meadows. These are frequently isolated fields, within a framework of ancient hedges, and small ancient woodlands. The area also has a considerable, but largely un-surveyed, old grassland resource, and many old marl pits on the mudstones, with consequent high likelihood of healthy great crested newt meta-populations. The Forest of Feckenham can be broadly divided north and south. The north is an area of relatively intact ancient countryside with a strong ancient wooded character provided by many ancient woodland blocks and intact ancient hedgerow networks. The south, around North Piddle, Kington and Naunton Beauchamp, is less well wooded and more affected by modern intensive agriculture.

The Severn Valley swathe of relatively denuded countryside creeps intermittently away from the river around the eastern edge of Worcester and, after the Salwarpe zone of relatively higher biodiversity interest, continues and fans out across the Bromsgrove

[21] The boundary has been determined and adopted by the local and regional biodiversity partnerships for the purpose of confirming priority landscape areas. It should be noted that the boundary is a historical reference to this part of the county and not a true reflection of the boundary of the ancient forest.

sandstones, to fill much of the gap between the Stour Valley and Bromsgrove, until it reaches the Clent/Lickey Hills.

A significant exception to this pattern is the Chaddesley/Dodford area; a swathe of relatively intact ancient countryside to the west and northwest of Bromsgrove, which is of particular importance for ancient woodlands and traditional grasslands.

The Kinver and Habberley area, to the northwest of Kidderminster and Stourport, is well wooded. It features significant heathland and wooded heath remnants on nutrient poor, acidic soils over varied topography. These habitats and remnant features provide local strongholds for several nationally-rare plants. The Kinver area is more geologically complex, providing additional semi-natural habitat and botanical interest.

The Kidderminster sandlands have been considerably impacted by intensive agriculture, but there remain some excellent examples of nutrient-poor acidic pastures, which have unusual plant communities and provide habitat for the nationally-notable hornet robberfly.

The Clent, Waseley and Lickey ridge of hills is dominated by semi-natural habitats. The area is of particular importance for acidic grasslands, heaths and wetland/watercourse microfeatures. Past tree planting has had a considerable detrimental impact on some of these important habitats.

The far north east (Alvechurch to Wythall) contains some interesting pockets of ancient countryside. Ancient woodland is sparse, although well represented in boundary features, hollow ways, byways and marl pits, all of which are frequent.

The hills around Redditch contain a significant ancient woodland resource. Fluvial-glacial sand and gravel deposits provide interesting areas of acidic flora amongst otherwise largely neutral habitats on the lower lying mudstones. There are many old marl pits on the mudstones, with consequent high likelihood of healthy great crested newt populations.

The countryside to the east of the Forest of Feckenham towards the Warwickshire border generally becomes more intensively farmed and correspondingly less biodiverse. The Lenches, at the intersection of the Warwickshire border country and the Vale of Evesham, are a topographically interesting area of ancient countryside. They have significant ancient woodland cover, traditional orchards and much old grassland,

including areas of calcareous flora. The area also has much semi-natural habitat interest in its road verges and a relatively intact ancient hedgerow network.

With several notable exceptions, the southeast quarter of the county largely comprises planned (rather than ancient) countryside and contains some of Worcestershire's least biodiverse countryside. The Vale of Evesham in particular has a long history of intensive cultivation which, together with 20th century agricultural intensification has left little room for semi-natural habitat. It is important to note however that the Evesham area does contain important concentrations of traditional orchards and orchard fragments, as well as scattered and largely isolated areas of old grassland, some of which are botanically rich.

Intensive agriculture has considerably impacted the River Avon Vale, which is generally of low biodiversity importance in a county context. Little wetland survives outside of the immediate river corridor. The river itself is a Local Wildlife Site and has botanically rich aquatic and bank vegetation. On the lower terraces, some ancient relic river channel features have survived and these frequently retain wetland and wet woodland. Little semi-improved or unimproved floodplain grassland and grazing marsh has survived. However a considerable old grassland resource remains, and this offers wet grassland and wetland restoration potential. Restoration of old grassland and of arable land that is marginal, as a result of increased frequency of flooding, would bring benefits for biodiversity and for flood attenuation.

The Pebworth and Honeybourne area appears to be of relatively low biodiversity importance in a county context, but the area has a considerable amount of old grassland that requires survey. Occasional brownfield sites in this part of the county are of considerable value for invertebrates.

Other notable exceptions in the south east quarter of the county are Bredon Hill and the Cotswold Scarp and their hinterlands, both of which have considerable biodiversity importance, as reflected by their statutory nature conservation and AONB status.

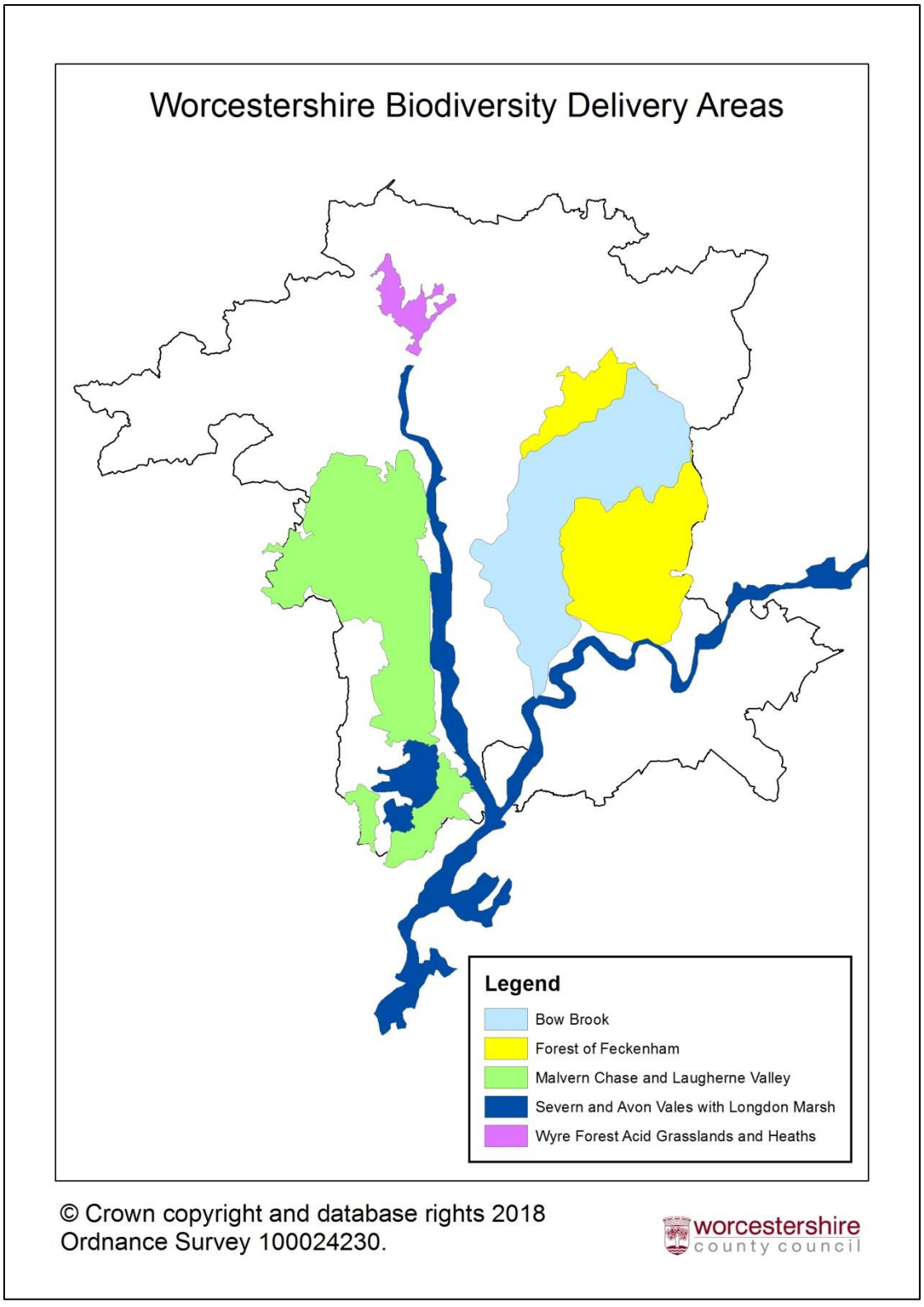
Biodiversity Action Plan

The Worcestershire Biodiversity Action Plan (BAP) 2018-27 contains Action Plans for seventeen of Worcestershire's key wildlife habitats and twenty six species. The definition of Biodiversity Action Plan quality habitat was given by the original UK BAP and subsequently used in Section 41 of the Natural Environment and Rural Communities

(NERC) Act 2006. Worcestershire BAP species have been selected because of their threatened status or because important national strongholds occur in Worcestershire, or both. In addition three Generic Action Plans are presented for common themes that permeate most aspects of biodiversity conservation in the county. The Worcestershire BAP can be found at http://www.worcestershire.gov.uk/biodiversity.

In 2016, the Worcestershire Biodiversity Partnership refined a suite of Biodiversity Delivery Areas within the county (see map at Figure 5). These areas are those within which the Partnership believes the most benefit for biodiversity conservation can be achieved given the available or predicted resources.

Figure 5: Worcestershire Biodiversity Delivery Areas



4.2 Landscape

Worcestershire is located between the wooded pastoral margins of the Welsh border and limestone Cotswold uplands, the rolling arable farmlands of the Warwickshire and former industrial heartlands of the Black Country. These distinctive landscapes all influence both the physical and cultural characteristics of Worcestershire across its borderlands. Within this setting, the county is distinctive for its relationship with the Rivers Stour, Teme and Avon; all tributaries of the River Severn. It is, perhaps, the rivers that define how the heartlands of Worcestershire have evolved with the Stour, Teme and Severn Valleys north of Worcester giving way to the Severn and Avon Vales south of the City. The county is further characterised to the west where the Malvern Hills rise above lowland farmlands and scattered commons; to the south with the rich soils and horticulture of the Vale of Evesham, and to the north where the ancient Wyre Forest frames the northern reaches of the Severn Valley. These features have greatly influenced evolution of the landscape at large, yet at the local scale there are many variables in geology, geomorphology, settlement and land use that have combined to create diverse and distinctive landscape character.

Landscape therefore provides the spatial context and essential framework within which to deliver the multifunctional opportunities defined as GI. There is a value that can be assigned to existing networks and places where GI opportunities can be developed in harmony with landscape character. This, however, is not an isolated concept. There is a duality whereby existing landscape features and settings can also be ascribed a value derived from their essential attributes that combine to be measured as character.

Landscape Character Assessment (LCA) is an established methodology that is widely used to map and assess landscapes systematically and objectively. LCA is a two-phase process which:

- identifies landscape units and classifies these into areas of similar character known as Landscape Types, according to a number of landscape indicators, and
- performs subsequent analyses that ultimately determine the sensitivity of different landscapes to change.

This allows LCA to be used as a robust and defensible strategic decision-making tool.

Landscape Character Assessment is, therefore, a spatial assessment of physical attributes that are a result of human interaction with the environment. Variations in landscape character reflect different processes in land use history that have subsequently created areas of landscape that are distinctive from one another. Society has responded to both constraints and opportunities present in the landscape. These can be a result of responses to physical factors: geology, soils and topography; cultural forces, such as economic activity, designation, settlement evolution, and the exploitation or conservation of nature. It is these differences that are mapped and categorised. Human interaction with the landscape is a long-term process and what is observed at any given time. It is not static, but changing at different rates dependent on the current land use and land management practice.

LCA Mapping and Guidance

In addition to the ECA mapping, the LCA also underpins a suite of guidance documents that are aimed at informing assessment and design, and should be referred to when preparing masterplans, their associated landscape plans that should include a presentation of GI opportunities. Landscape Cover Parcels (LCP), a much smaller-scale unit of LCA assessment, and HLC mapping are then used in GI concept plans and concept statements to identify constraints and opportunities for development sites and their setting. The Landscape Character Assessment Supplementary Guidance was adopted by Worcestershire County Council in 2012[22]. This should be used, in all cases, in conjunction with the Guidelines for Landscape and Visual Impact Assessment (at the time of writing GLVIA3)[23]. The Supplementary Guidance is supplemented further by a collection of Landscape Character Advice (Third Edition at the time of writing) sheets produced for each major Landscape Type that set out details of the signature characteristics of each Landscape Type and provide related guidance for development[24] and land management[25]. Trees and Woodlands in Worcestershire: Biodiversity and landscape

[22] Worcestershire County Council (2012) Landscape Character Assessment Supplementary Guidance
[23] Landscape Institute (2013) Guidelines for Landscape and Visual Impact Assessment (GLVIA3)
[24] Worcestershire County Council (nd) Landscape Type Advice Sheets for Planning and Development http://www.worcestershire.gov.uk/downloads/download/809/planning_and_development_advice_sheets
[25] Worcestershire County Council (nd) Landscape Types Advice Sheets for Land Management http://www.worcestershire.gov.uk/downloads/download/810/land_management_advice_sheets

guidelines for their planting and management[26] is a cross-discipline document that sets out advice for existing and new woodland for each Landscape Type.

Landscape Condition

A key component of LCA has been the assessment of landscape condition. Condition can be defined as the degree to which the inherent landscape character is represented today on the ground. Condition should be clearly distinguished from character, because is a measure of how far removed a landscape is from its optimal state (i.e. a state in which all the features that contribute to the character of that landscape are well represented and maintained). Although landscape character can change over time, such changes are usually gradual and measured in decades rather than years. The condition of a landscape, on the other hand, can change much more rapidly, due to the impact of external factors such as land use change, agricultural intensification or neglect. Thus, badly maintained and gappy hedgerows should be regarded as an indicator of poor condition rather than as a contributor to landscape character. Obviously, where change is of sufficient magnitude and particularly if it is sustained over a long period of time, this will ultimately lead to a change in landscape character.

The baseline condition assessment was carried out in 2008 using aerial photographic coverage of the county from 2005. Two fundamental components were defined:

- **Representation** – which considers how well the landscape attributes are represented today and if there has been any loss or deterioration
- **Modification** – which considers how the landscape may have been modified e.g. with incongruous, uncharacteristic additions

LCA condition assessment provided the background for a specific condition assessment tailored for the Green Infrastructure Framework and assessed using three indicators: tree cover pattern, enclosure pattern and field boundaries. In landscape types, such as unclosed land, where these criteria were not applicable, an assessment of current land use was used.

Each of the indicators was assessed in relation to the optimum state of that indicator in each Landscape Type. Initial assessment addressed the representation of the indicator's

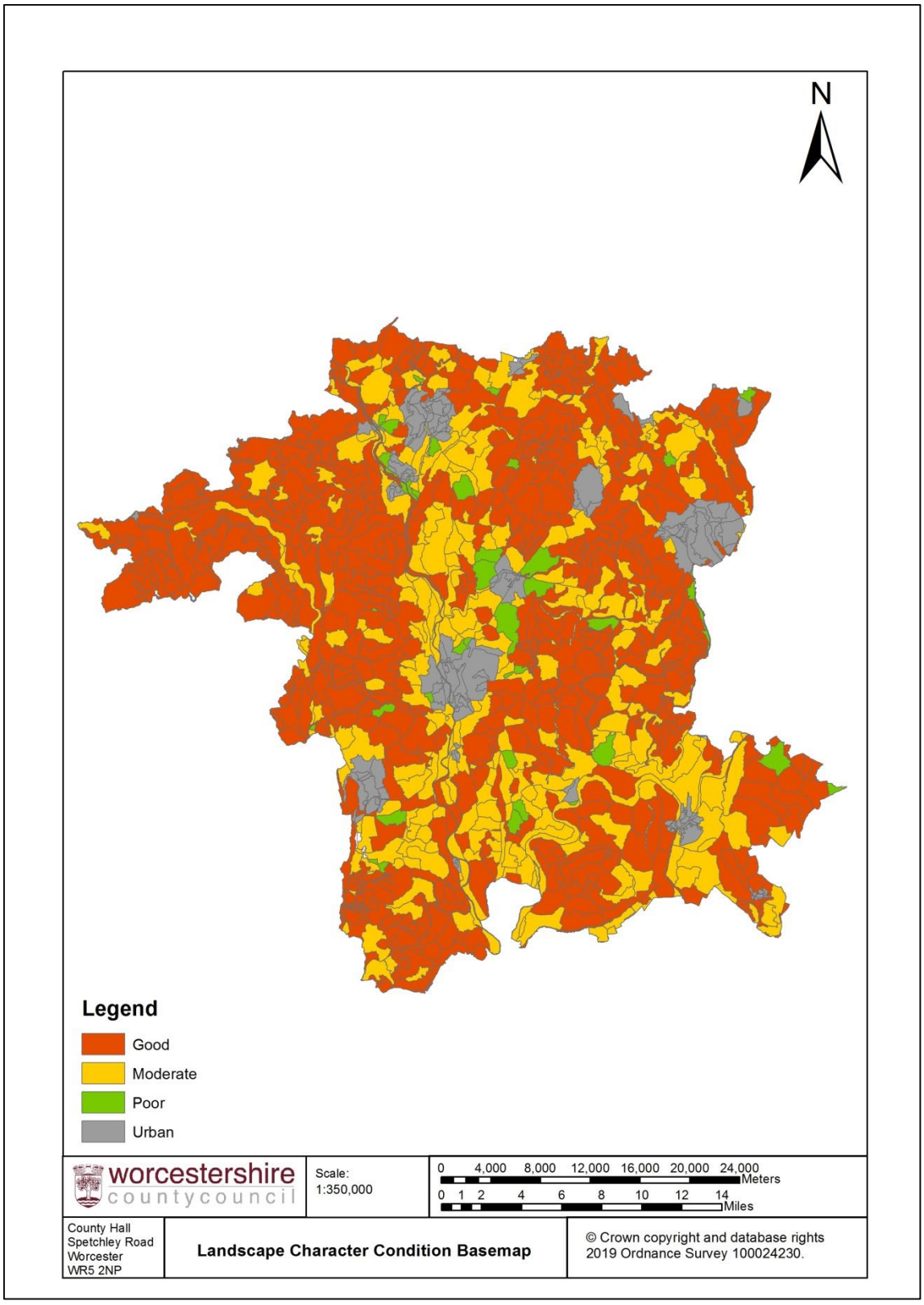
[26] Forest Commission, Worcestershire County Council (2010) Trees and Woodland in Worcestershire: Biodiversity and Landscape Guidelines for their planting management http://www.worcestershire.gov.uk/downloads/file/4790/woodland_guidelines

attributes, its quantity, quality and the degree of loss. Subsequently the attribute was assessed with regard to the impact of any uncharacteristic additions. Therefore, hedgerows, which are one attribute of the field boundary indicator, were assessed on their intactness, the amount of fragmentation and gappiness, their thickness and general overall quality. In other words, their representation. Any addition of fences would be an uncharacteristic modification and would detract from the representation score.

The condition assessment analysis was further refined by assessing the capacity of the landscape to accept built development, based on the settlement pattern of the landscape type. Unsettled landscapes were thus categorised as restricted for built development; those landscapes that have a strongly dispersed and sparse settlement pattern were categorised as suitable for limited development ; those landscapes that are categorised by nucleated or clustered development, or are otherwise reasonably densely settled were categorised as being preferred for development. The scores for each of the three indicators have been summed for each unit, giving an overall score which can then be categorised as having a high, medium or low contribution to GI from a landscape character perspective (see Figure 6).

The full methodology is explained in greater detail in the LCA technical handbook, available for download from the WCC website.

Figure 6: Landscape Condition of Green Infrastructure



Geographical Trends in Landscape Green Infrastructure

It is evident from the map that there are broadly two bands of land across the county whose landscape units fall into the lower categories of landscape GI condition. The first is seen as a corridor that, loosely, links the major settlements on the north-south axis of the county, with Worcester at its centre. The second is seen as the swathe of land that runs horizontally from Malvern in the west to Evesham in the east. It is clear that condition of the GI landscape indicators in these bands is more disrupted. The attrition of landscape characteristics may be connected to the intrusion/expansion of settlement and associated infrastructure but is also commonly associated with changes in agricultural practices. New development provides an opportunity to restore, enhance or create landscape features and networks that can, in addition to delivering multifunctional GI within the confines of the development, can also enhance existing GI and landscape character. Informed and well-designed green infrastructure can ensure that new development is sited and planned with connectivity, permeability and character of landscape features in mind.

4.3 Historic Environment

The historic environment is an integral part of green infrastructure. It is defined in NPPF (2019) as: "All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora[27]".

Worcestershire has geological deposits dating from the Pre-Cambrian, Ordovician, Silurian, Devonian, Carboniferous, Permian, Triassic and Jurassic periods. The county has varied soils and topography with many local areas of deeply stratified, waterlogged organic and environmental deposits including nationally significant areas of potential Palaeolithic remains. The Severn and Avon rivers have long been recognised as foci for all periods in terms of transport, settlement and resource exploitation, and more recent research has suggested that they may also represent cultural boundaries on a more regional/national scale. There are extensive areas of later prehistoric and Romano-British occupation and the modern landscape preserves extensive evidence of post-Roman rural and urban land use. The county has a varied pattern of settlement which is evident in the distribution and character of many villages, hamlets and farmsteads. There is a broad division between areas of dispersed settlement, across most of the county compared with nucleated settlement, in the south-east, Vale of Evesham area. However, across Worcestershire, considerable settlement diversity is apparent, with many subtle contrasts evident between small settlements and their landscape context.

Worcestershire has important archaeological deposits relating to early industry including salt production at Droitwich, the beginnings of the industrial revolution including metalworking, needle manufacture in Bromsgrove and Redditch and carpet production in Kidderminster. This period was a time of new infrastructure development, firstly with the cutting of a canal network in the mid-18th century with construction of the railway network beginning in the first half of the 19th century.

Worcestershire Historic Environment Record (HER) is the primary database that houses all known records of archaeological sites, features, deposits, historic buildings, designed

[27] Annex 2: Glossary, National Planning Policy Framework, Ministry of Housing, Communities & Local Government, 2018

landscapes and the county Historic Landscape Characterisation mapping. The HER is a constantly evolving and expanding resource that informs all other historic environment assessments and research. This includes the Historic Environment Assessment (HEA) and its component mapping of Historic Environment Character Zones (HECZ). The HEA was originally produced between 2009 and 2010 as an integrated evidence base for a number of district planning authorities local development plans. The key aim was to draw together spatial data from the HER along with ancient woodland mapping and amalgamate it with Landscape Character Landscape Description Units (LDU). The objective was not to simply assemble data as an empirical exercise, but rather to assess the data within each LDU against a set of seven measures originally developed by Historic England and applied more broadly in a number of historic environment assessment projects. These measures were:

- **Survival** – of know historic environment assets based on land use and impact of existing development and land use history
- **Potential** – assessment of the likelihood that further historic environment assets may be present (e.g. below ploughsoil)
- **Documentation** – the extent of previous investigation, field survey, research and historic documentation for assets within the HECZ
- **Diversity** – assesses the range of assets by date/period, or evidence type
- **Group value** – identifies patterns of coherence by date/period or evidence type
- **Amenity value** – identifies the potential that historic environment assets can contribute towards GI or benefit from the conservation opportunities that GI can provide
- **Sensitivity to change** – identifies sensitivity to change based on the impact of medium to large-scale development or land use change

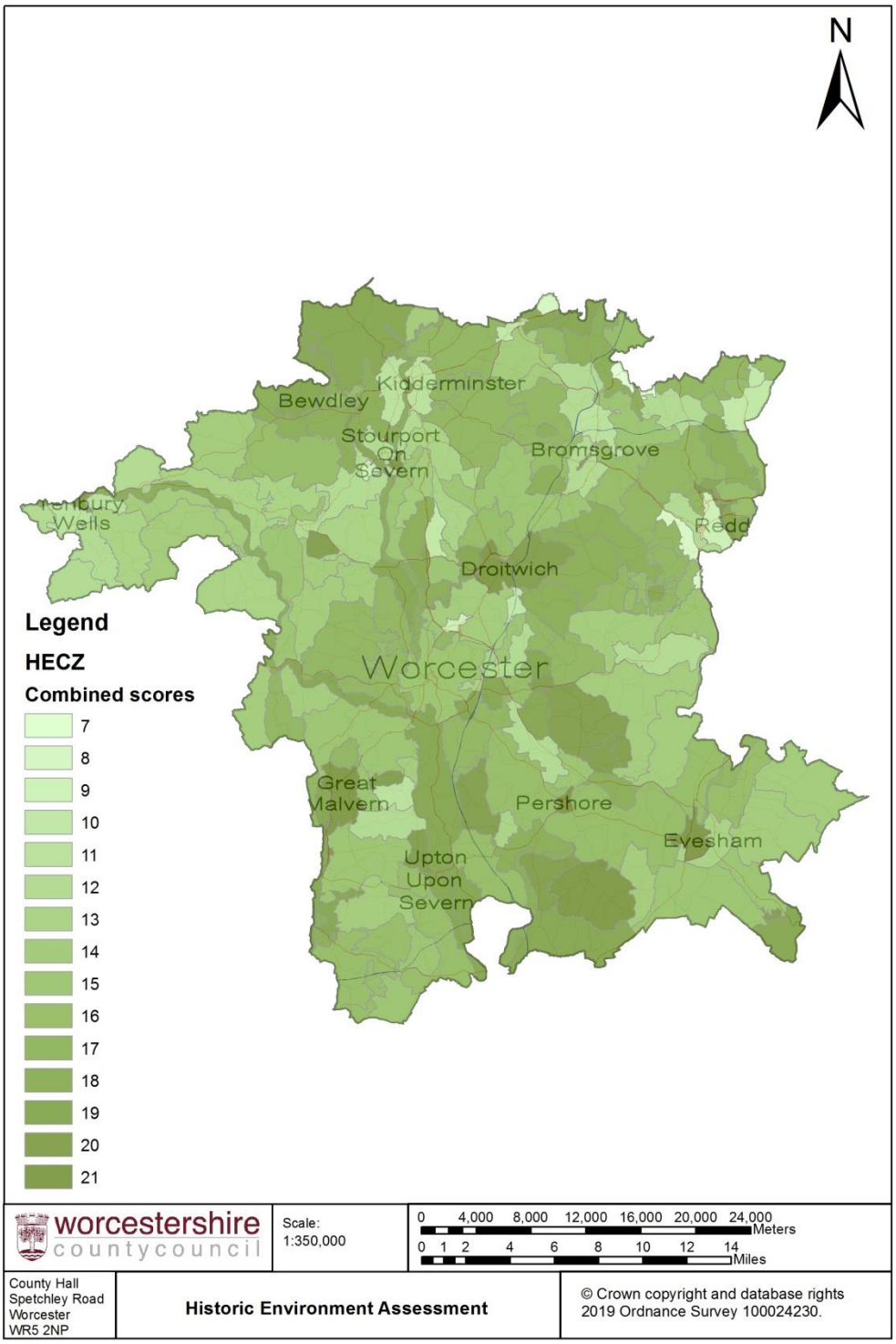
This approach led to some LDUs being amalgamated or subdivided based on the variations and patterns of character of historic assets present within the landscape. The strategic scope of the HEA meant that it was considered suitable for integration with other environmental datasets to create the Environmental Character Areas, the primary evidence base in the Worcestershire GI Framework. One area of deficiency at that time

was the absence of HEA data for Wyre Forest District. The Wyre Forest District HEA assessment was carried out in 2018 along with the correction of some minor discrepancies identified in the original mapping, the results of which are presented below.

Historic Environment: HEA combined scores

Figure 7 below illustrates the combined scores for all seven historic environment measures. The higher scoring areas represent landscapes that have a wide range of surviving historic environment assets, areas of high group value (for example, large areas of ridge and furrow earthworks associated with historic farmsteads or settlements), a high potential for further (currently unknown) historic environment assets, with many examples of archaeological investigations that have contributed towards the HER. It should be noted, however, that lower scoring areas are not of comparatively low historic environment potential. Lower combined scores sometimes reflect circumstances were there are fewer records in a particular area. For example, the western reaches of the Teme Valley have been less affected by development and have a higher proportion of pastoral land use. This has resulted in a lower number of archaeological investigations. A similar result can be observed in parts of north east Worcestershire, although here it is partly due to green belt restrictions. Urban areas were included in the study as they are considered to be of equal historic environment significance to rural areas. Existing landscapes of high value and potential are presented in a strategic setting that also identifies networks. There is a clear synergy with GI networks and the map should inform assessment and design that will deliver conservation opportunities for historic environment assets that contribute towards the distinctive character of not only the site, but also the wider network.

Figure 7: Historic Environment Character Zones – combined scores



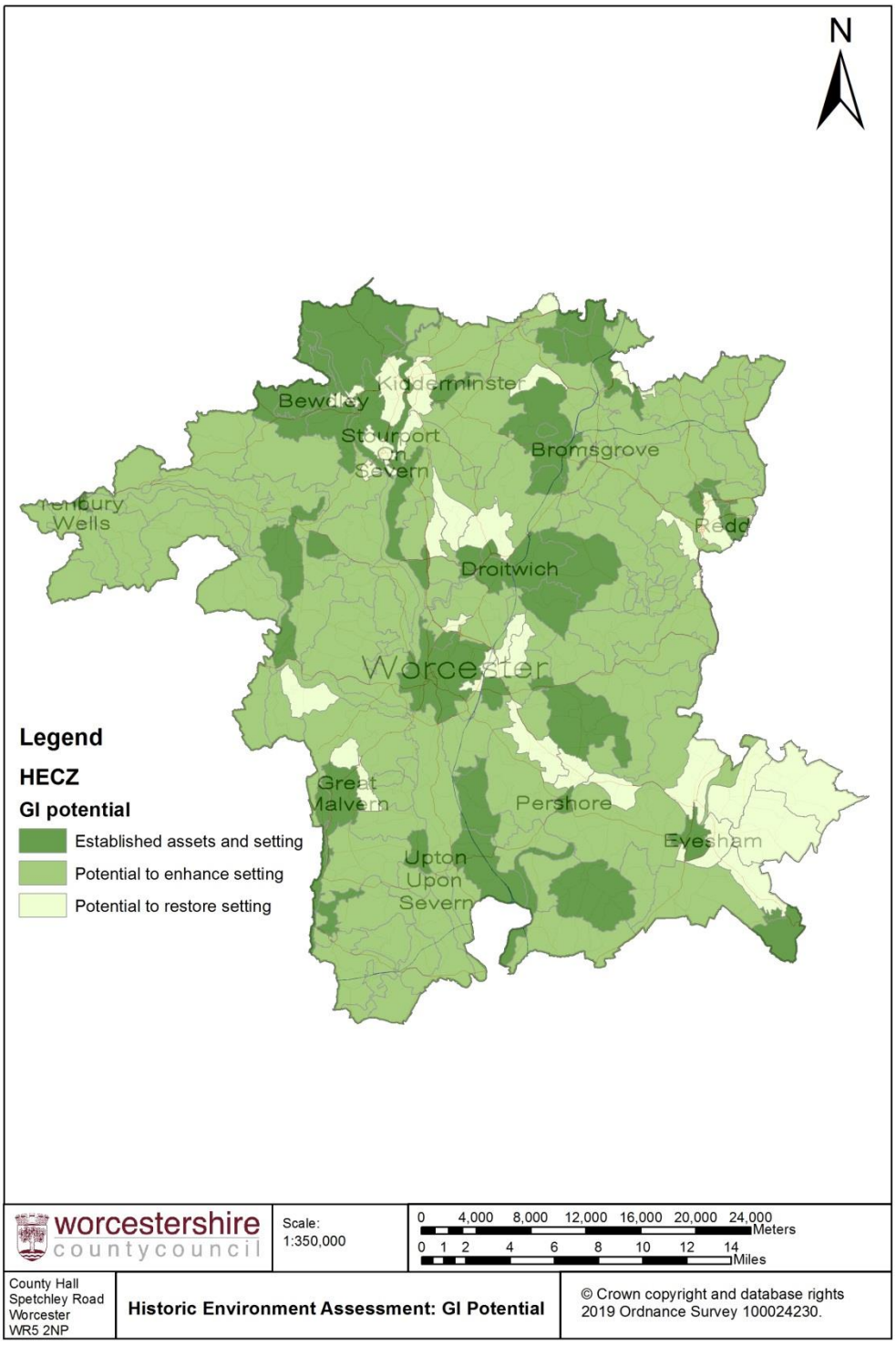
Historic Environment: HEA GI potential assessment

The GI potential map is based on scores derived from the HEA measure of 'amenity'. The category of 'amenity' was originally defined as a way of measuring how historic environment assets contribute towards public enjoyment and interpretation of the past through the experience of historic places. Obvious examples would include historic parklands and other designed landscapes or ancient woodland. However, there is also a case for including landscapes that have distinctive historic landscape character and are accessible via the Public Rights of Way network or have a potential for permissive access. In the context of green infrastructure, the 'amenity' assessment can therefore be viewed as an indication of where landscapes (with higher scores) contain assets that are established and already delivering multifunctional value or by contrast are landscapes (with lower scores) where new green infrastructure opportunities could deliver enhancements to the setting of historic assets, perhaps where land use change has eroded the inherited landscape character. The assessment is strategic and indicative of historic assets and settings that have the potential to both contribute towards functional GI networks or historic assets that would benefit from enhancements to their setting as a result of GI enhancements or creation.

Table 3: Strategic GI opportunities in the context of the HEA

Established assets and setting	Areas identified with established, large-scale (or groups/networks of) historic assets/historic landscapes of high GI value
Potential to enhance setting	Areas with established assemblages of historic assets and HLC that contribute towards GI, but would benefit from enhancements to setting
Potential to restore setting	Areas that as a result of development or land use have fewer assets and networks where GI-led restoration would contribute towards setting and HLC

Figure 8: Historic Environment Character Zones – GI potential



There is inevitably a bias in the data where particular landscapes have a high incidence of recorded heritage assets that are the result of investigations linked to previous development or areas of focused research. Therefore, an area such as the Teme Valley, might be considered underrepresented as a result of its distinctly rural character and historically lower development pressure. Conversely, there is a clear synergy between areas that are defined as having 'established (heritage) assets and setting' and some of the significant landscapes in the county, such as Wyre Forest, Bredon Hill or parts of the former Feckenham Forest area east of Worcester. However, it should not be assumed that development in those landscapes will be devoid of opportunities as, once again, it is necessary to stress the strategic scale of the HEA assessment, and therefore, the unique circumstances of each site should be assessed to develop GI opportunities.

This highlights the need for any development proposal to carry out appropriate and proportionate investigations of the site and its setting as part of the pre-application process. The production of a 'heritage statement' is required by NPPF and larger developments benefit further when GI concept statements or concept plans that set out constraints and opportunities are produced early in the design process to both inform a dialogue with planning officers and inform masterplanning.

Issues and Opportunities

In terms of how the historic environment contributes towards existing GI, it is important to recognise that, as with biodiversity and landscape, the historic environment is, to some measure, integral to all landscapes, settlements and places. Essentially, all parts of the physical environment. Indeed, the relationship between, physical, natural and cultural factors has been stressed in the Landscape section of this document and is worth repeating here because the result of those relationships defines a degree of existing multifunctionality, which has the potential for further enhancement. GI can conversely also deliver enhancements to the setting of historic assets as part of a tailored enhancement of an asset's immediate environ (e.g. pollarding mature trees and restoring the water supply to a moat) or through reinstatement or restoration of wider historic landscape features (replanting native hedgerows or restoring wildflower hay meadow). The scope should not be prescriptive, however, some examples of historic assets that relate to both making a contribution towards GI and that can benefit from GI related enhancements include:

- Networks: hedgerows, green lanes, canals, disused railway lines
- Landscape and places: orchards, designed landscape (e.g. parkland), permanent pasture with earthworks (e.g. ridge and furrow), land with extensive below ground archaeology, ancient semi-natural and ancient replanted woodlands.
- Water features: ponds, water filled quarries and clay pits, canals, bogs, palaeochannels and alluvial soils

4.4 Blue Infrastructure

The water environment (or blue infrastructure) forms a key component of GI. GI can play an important role in sustainable drainage, drought mitigation, and in flood and water stress reduction, through providing opportunities for attenuation or infiltration that can help to recharge aquifers as well as to maintain levels in watercourses or other blue infrastructure. GI interventions can influence water quality through limiting diffuse pollution and controlling water levels in watercourses.

Under the Water Framework Directive (WFD)[28] legislation the UK will have to ensure that there is no deterioration in the status of our water bodies, and that all water bodies achieve good ecological status by 2027. The Environment Agency has produced River Basin Management Plans (RBMP)[29] for each of the eleven River Basin Districts (RBD) covering England and Wales. These plans set out the practical actions needed to enable the UK to meet our obligations under the WFD.

Whilst it is the Environment Agency's responsibility to write the RBMPs it will be the responsibility of other organisations, including the Local Authorities, to achieve the targets set out in the Plans. Local Authorities have a duty to have regard to the plans once they are formally adopted[30].

Worcestershire County Council (WCC) as the Lead Local Flood Authority (LLFA) for Worcestershire, has a duty to manage flood risk from surface water, groundwater and ordinary watercourses across the county. The Local Flood Risk Management Strategy[31] sets out the policies and priorities for co-ordinating flood risk across Worcestershire.

WCC have carried out a strategic, countywide assessment of flood risk from all sources, not just surface water, and identified priority locations for further action based upon these findings. It was also decided to identify and undertake quick win projects in parallel with the longer term strategic exercise. A Countywide Surface Water Management Plan (SWMP) was produced in partnership with all risk management

[28] The EU Water Framework Directive 2000 http://ec.europa.eu/environment/water/water-framework/
[29] River Basin Management Plans https://www.gov.uk/government/collections/river-basin-management-plans-2015
[30] S17 of the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003
[31] Worcestershire County Council (2016) Local Flood Risk Management Strategy 2015 – 2021 file:///C:/Users/mdziudzi/Downloads/FINAL_PUBLISHED_LFRMS_2016.pdf

authorities (RMAs[32]) which are organisations responsible for delivering national flood risk policies. RMAs are organisations that have a key role in flood risk management. The SWMP guides the future allocation of resources to local schemes and forms part of the evidence base for the Local Flood Risk Management Strategy. The strategy is intended for use principally by the RMAs operating in Worcestershire. It will also be of interest to others including the Local Planning Authorities (LPAs), infrastructure planners, developers and anyone impacted by surface water flooding.

The WCC Sustainable Drainage Design & Evaluation Guide[33] provides information to residents, LPAs, developers and other authorities on SuDS in Worcestershire and the requirements of the LLFA in regards to planning applications. It also contains useful information on the best practice of SuDS including construction and maintenance.

Water Supply and Quality

Groundwater levels vary in response to rainfall, amounts abstracted and aquifer characteristics. The map at Figure 9 identifies where the groundwater protection sites are present. Groundwater Source Protection Zones (SPZs) indicate those areas where groundwater supplies are at risk from potentially polluting activities and accidental releases of pollutants. The shape and size of a groundwater SPZ depends on numerous factors including: groundwater abstraction rate; recharge; aquifer permeability; effective porosity; aquifer thickness; and, hydraulic gradient and direction of groundwater flow. The final boundary of the SPZ is strongly based on model outputs, but may be modified to allow for uncertainty, information or local knowledge. SPZs comprise three zones: SPZ1 – Inner Protection Zone, defined as the 50 day water travel time from any point below the water table to the source and has a minimum radius of 50m; SPZ2 – Outer Protection Zone, defined by a 400 day travel time from a point below the water table and has a minimum radius of 250m or 500m, depending on the size of the abstraction; and, SPZ3 – Source Catchment Protection Zone, defined as the area around a source within which all groundwater recharge is presumed to be discharged at the source. Groundwater SPZs are largely based in the north of the county extending towards Droitwich. However, there are numerous small potable sources primarily in

[32] Risk Assessment Management Authorities (RMAs) include Environment Agency, Lead Local Flood Authorities, District and Borough Councils, Coast protection authorities, Water and sewerage companies, Internal Drainage Boards, Highways authorities.
[33] Worcestershire County Council (2018) Sustainable Drainage Design & Evaluation Guide

secondary aquifers in rural areas, for which it is not practicable to publish formal SPZs; these supplies are always assumed to have a default minimum SPZ1 with a radius of 50m. Long-term trends in groundwater levels could indicate an impact of climate change or changes in abstraction policy and licensing.

The map at Figure 10 shows the available water for abstraction in the county, through Catchment Abstraction Management Strategies (CAMS).

In the north and the centre of the county water is over-abstracted (existing abstraction is causing unacceptable environmental impacts at low flows). A small area on the southern boundary of the county is over-licensed (the current actual abstraction is resulting in 'No Water Available' at low flows and if all licences were used to their full allocation they could cause unacceptable damage to the environment during low flow periods). Flood attenuation measures in these areas should be designed to recharge ground water levels. Flood attenuation, through the use of SuDS and natural flood management should be used to hold back the water in times of flooding and then release it slowly to recharge the watercourses, particularly in those areas described above. Where groundwater protection sites are present careful design must be used to prevent the pollution of the groundwater protection zones.

Figure 9: Groundwater Source Protection Zones in Worcestershire

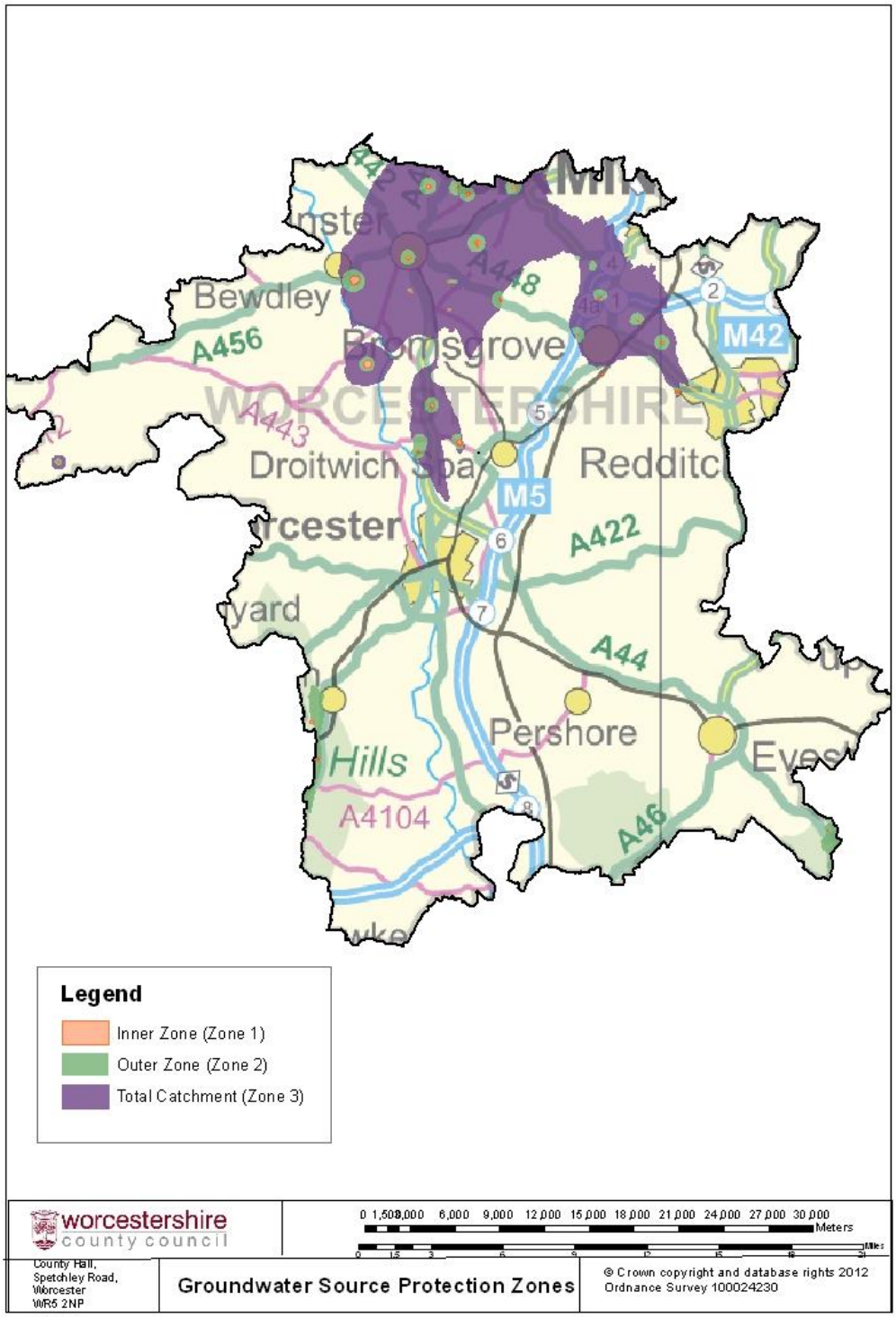
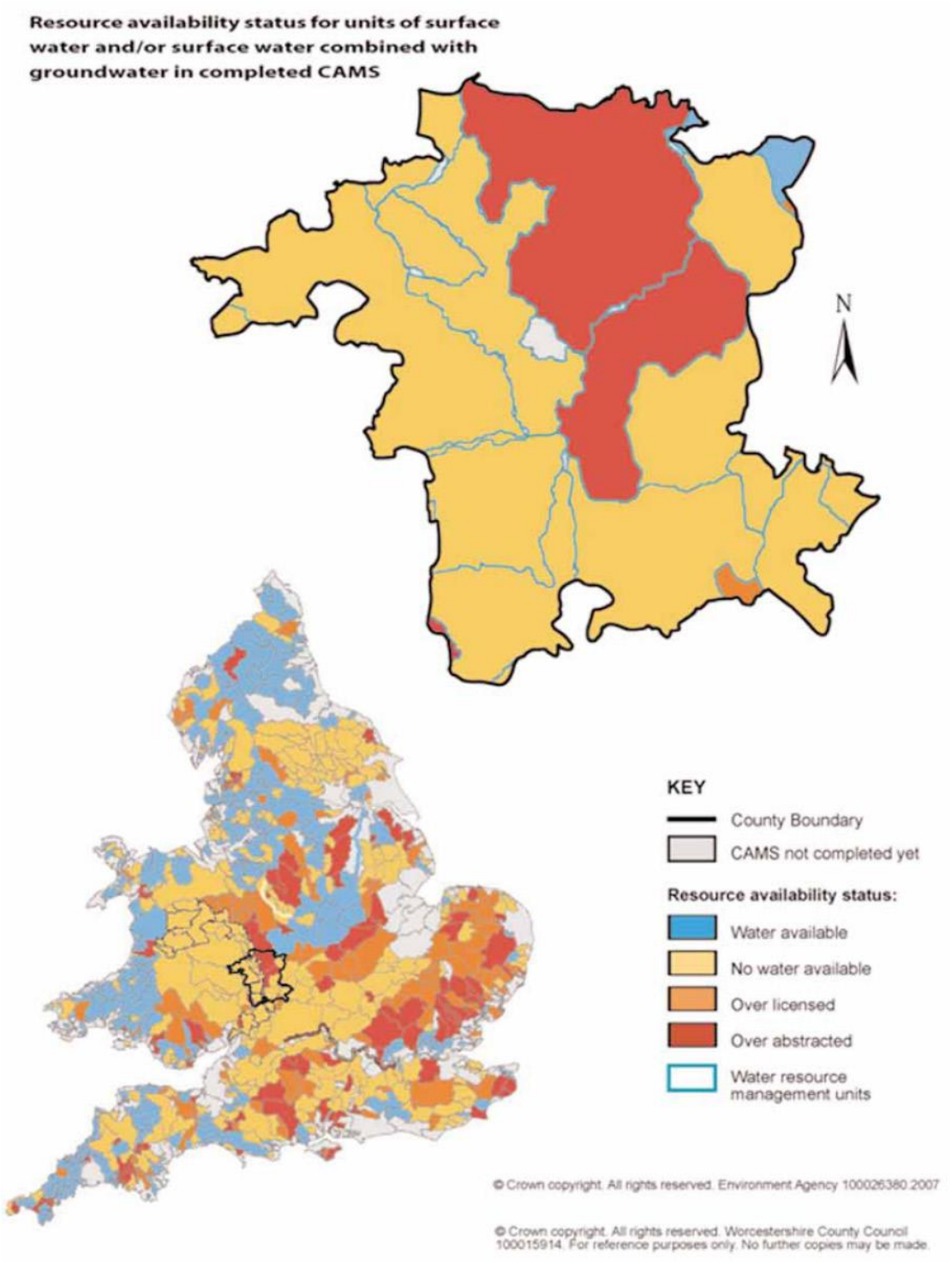


Figure 10: Coverage of Catchment Abstraction Management Strategy within the Severn River Basin District.



The Water Framework Directive (WFD[34]) has set a target that all surface and ground waters should aim to reach 'good status' by 2027. According to the WFD results[35], the vast majority of all watercourses across the region are at risk of failing the WFD requirements. As with the regional result, the results from Worcestershire for surface water bodies, such as rivers, lakes and canals show that the vast majority of them are at risk of not meeting this target, as their 'Overall Status' is either 'moderate' or 'poor', in that order. A few water courses in Worcestershire do have a 'good' status and these are located in the districts of Wyre Forest, Malvern Hills and Wychavon. The maps below show the current status for both surface and ground water quality. The Groundwater Overall Quantitative Classification across the majority of the county is 'good'. Groundwater quality is 'poor' in the north of the county, in particular in Wyre Forest and Bromsgrove district but it also spreads towards northern part of South Worcestershire[36].

The reasons for not achieving good status across Worcestershire are wide ranging and complex. The waterbodies in Worcestershire are affected by pollutions and modifications that fall outside the county. Reasons for not achieving good status are largely attributed to the water industry; agriculture and rural land management; urban sources (including transport) and physical modifications[37].

[34] The EU Water Framework Directive 2000 http://ec.europa.eu/environment/water/water-framework/
[35] Environment Agency, Catchment Data Explorer https://environment.data.gov.uk/catchment-planning/RiverBasinDistrict/9/Summary
[36] As above
[37] Environment Agency (pers. comm.)

Figure 11: Water Framework Directive Rivers – Surface Water Bodies and Rivers Overall Status

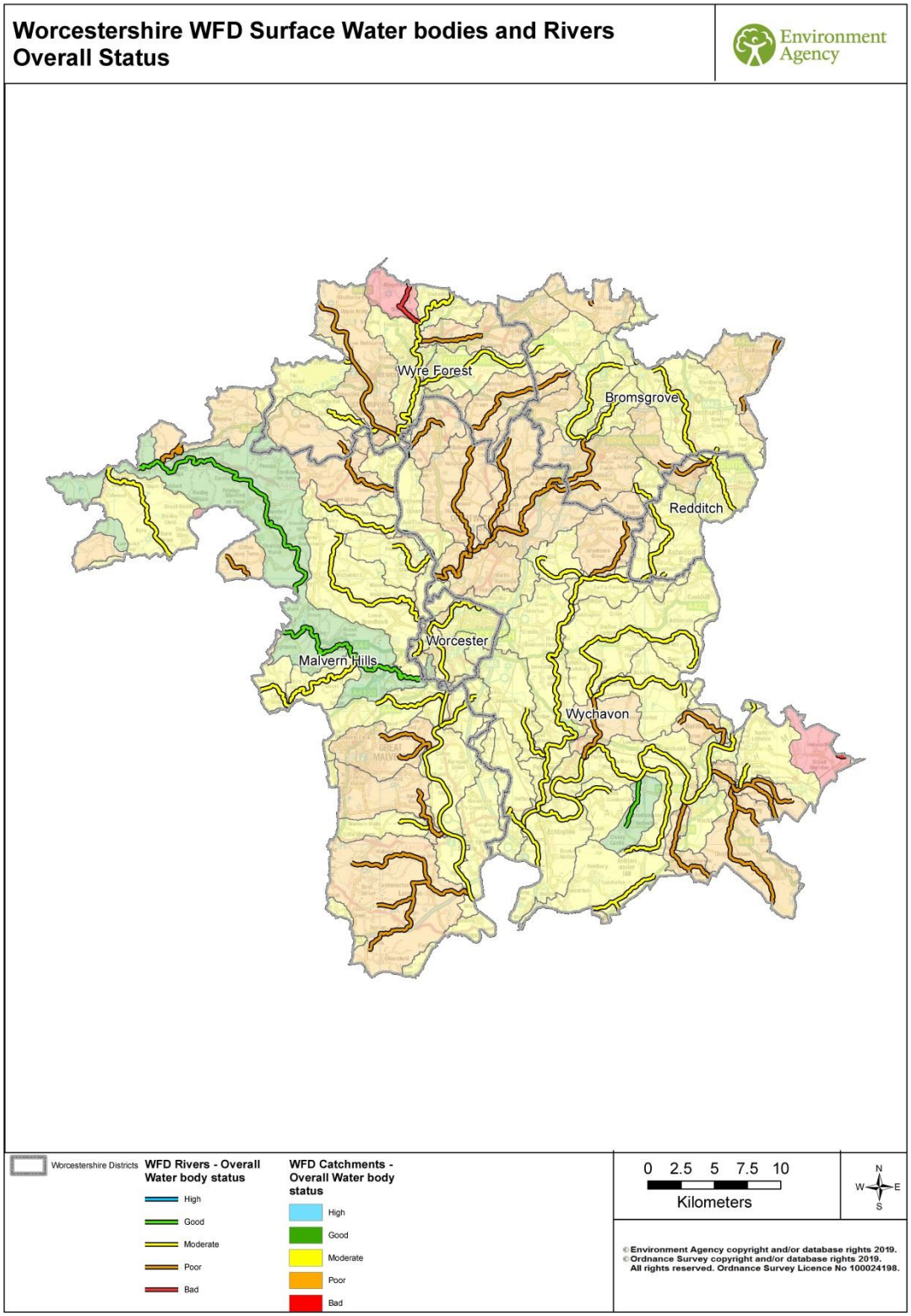
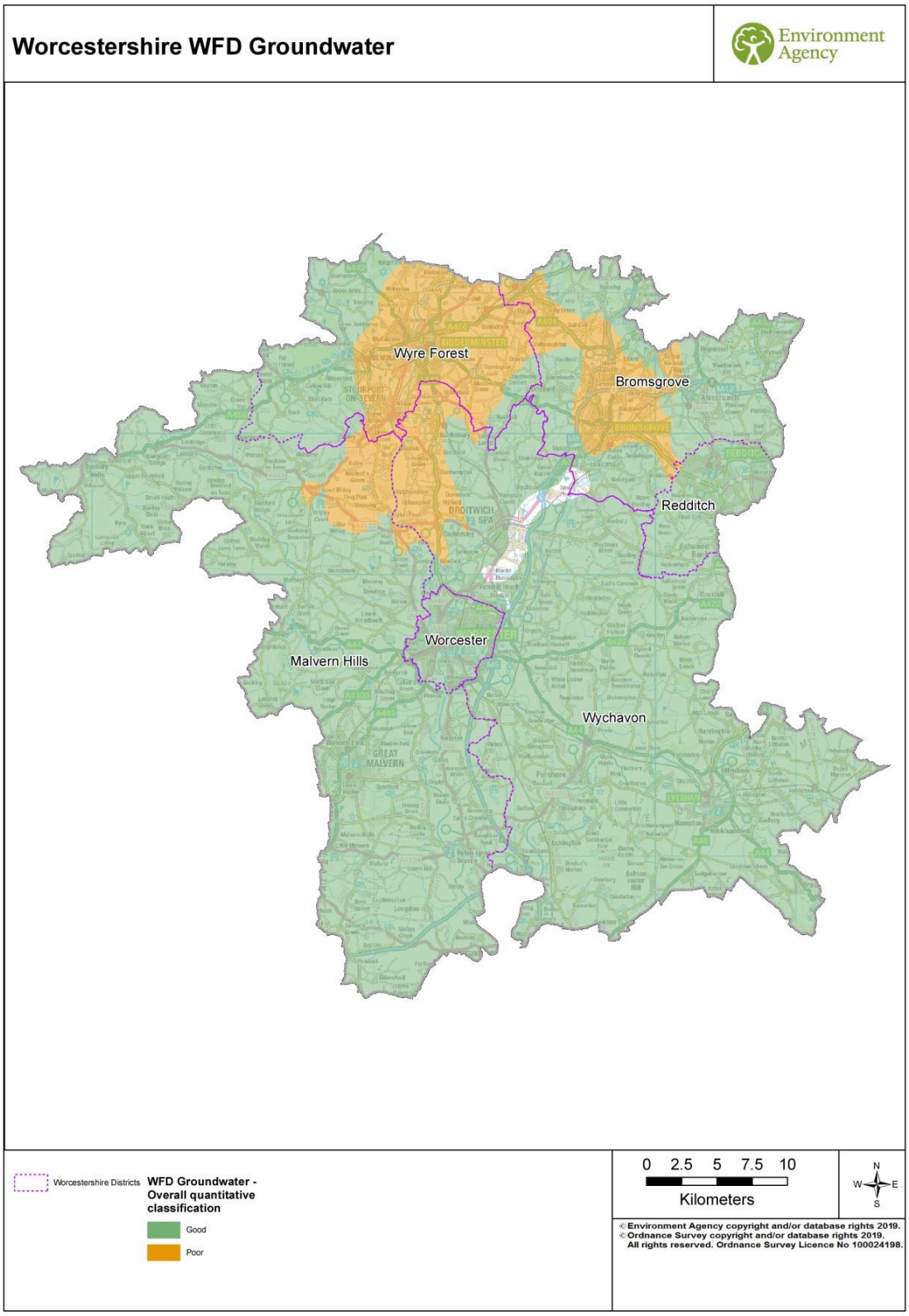


Figure 12: Water Framework Directive Groundwater – Overall quantitative classification



Flooding and Sustainable Drainage Systems

Parts of Worcestershire are particularly prone to river flooding. Many of our towns and villages, for example Stourport-on-Severn, Kidderminster, Tenbury Wells, Worcester, Bewdley, Upton upon Severn, Pershore and Evesham are built on the banks of large rivers with a long history of flooding. Figure 13 shows Floods Zones 2 and 3 across the County.

The Environment Agency established a tool (Communities at Risk), which using modelled data, identifies areas of residential and commercial properties at flood risk and provides a strategic steer on where these risks may need to be managed. These Communities at Risk in Worcestershire are represented on Figure 15.

The Surface Water Management Plan Floodspots Map (Figure 14) demonstrates areas and locations in Worcestershire known to have been impacted by surface water flooding. There are approximately 1400 floodspots across the county.

The flood amelioration benefits of semi-natural habitats have been largely overlooked and undervalued in the past. Land that previously absorbed and slowly released rain and floodwater has been replaced with less permeable intensive agricultural land-use and impermeable urban surfaces. As a consequence rain and flood water tends to be quickly diverted into artificial channels and highly modified and constrained watercourses, which have limited capacity to cope with severe rainfall and flood events.

Conventional drainage systems, i.e. pipes and sewers, are designed to take surface water quickly away from properties and roads, discharging it to watercourses and sewers. However, during intense or prolonged rainfall, drainage systems can become overwhelmed by surface run-off and discharge into water courses, resulting in a greater risk of fluvial flooding down-stream, or flooding of properties with sewage.

Future development within the county will increase the proportion of impermeable surfaces, coupled with predicted climate change related increases in the intensity of rainfall and this will lead to more drainage systems failing to cope. Surface run-off from urban areas carries a range of pollutants from roads and roofs. Misconnections of foul sewage to the surface water drainage system can also result in pollution of watercourses. These pollutants affect water quality, amenity and biodiversity and are

very difficult to remove. Sustainable drainage systems (SuDS) can help to resolve these issues.

SuDS mimic nature and typically manage rainfall close to where it falls. This reduces the volume and flow of water from storms flowing into sewers and watercourses, providing a more sustainable approach to draining surface water.

The nature of SuDS with their ‘soft engineering’, low velocities and storage characteristics means that normal and extreme levels of rainfall can be better managed, and pollutants can be retained and where possible broken down within the system, improving water quality. There are a wide range of SuDS techniques, including permeable paving (including roads), swales, ponds and wetlands, which can create attractive multi-functional green spaces in urban areas.

Natural Flood Management (NFM) measures hold back water in upstream areas by applying natural methods in order to 'slow the flow' of water. It is thought that by applying a catchment based approach, rather than just looking at river flow independently will have a positive effect on reducing flooding. NFM is applied in a number of ways, but primarily by the use of three methods:

- Physical Barriers: Such as a succession of leaky dams to upstream areas of a watercourse (large trees placed across a watercourse to give a damming effect)
- Attenuation: Allowing low lying areas to flood upstream – holding back the water and so slowing the time water takes to travel down the river's course
- Infiltration: Simple methods, such as tree planting are thought to greatly increase the infiltration rate, or using soakaways in upstream areas should the ground conditions allow.

Figure 13: National Flood Zones 2 & 3

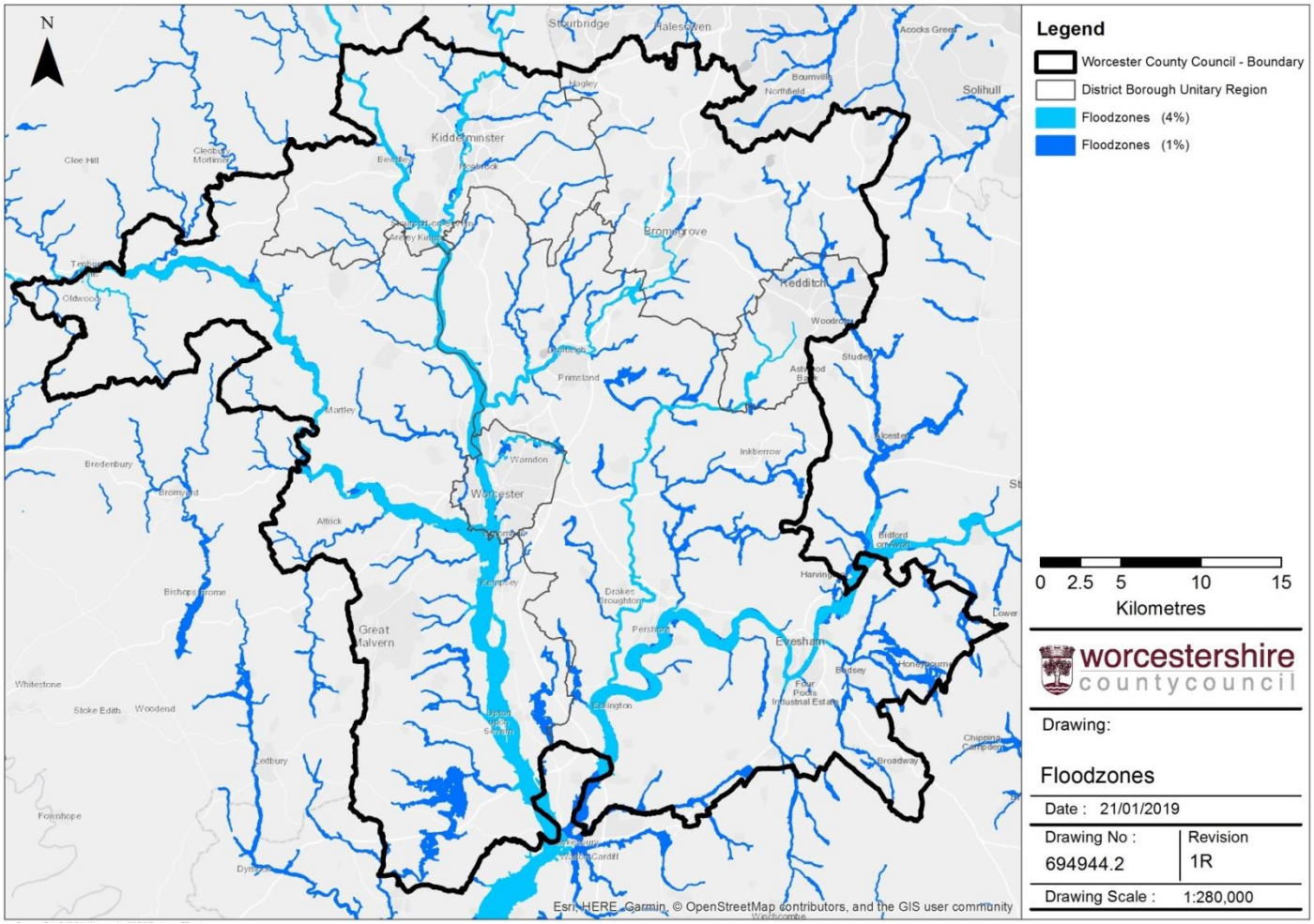


Figure 14: Surface Water Management Plan Floodspots Map

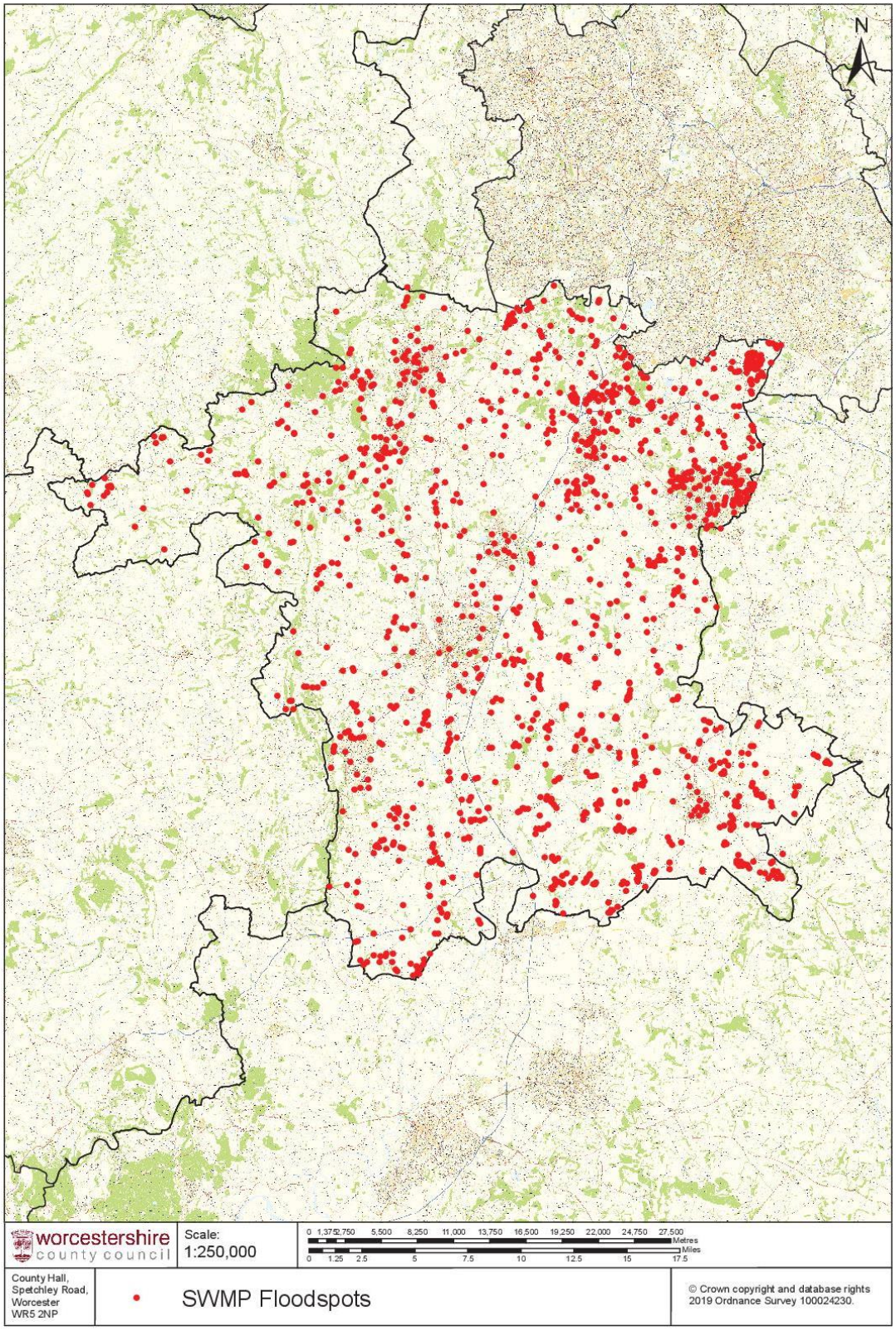
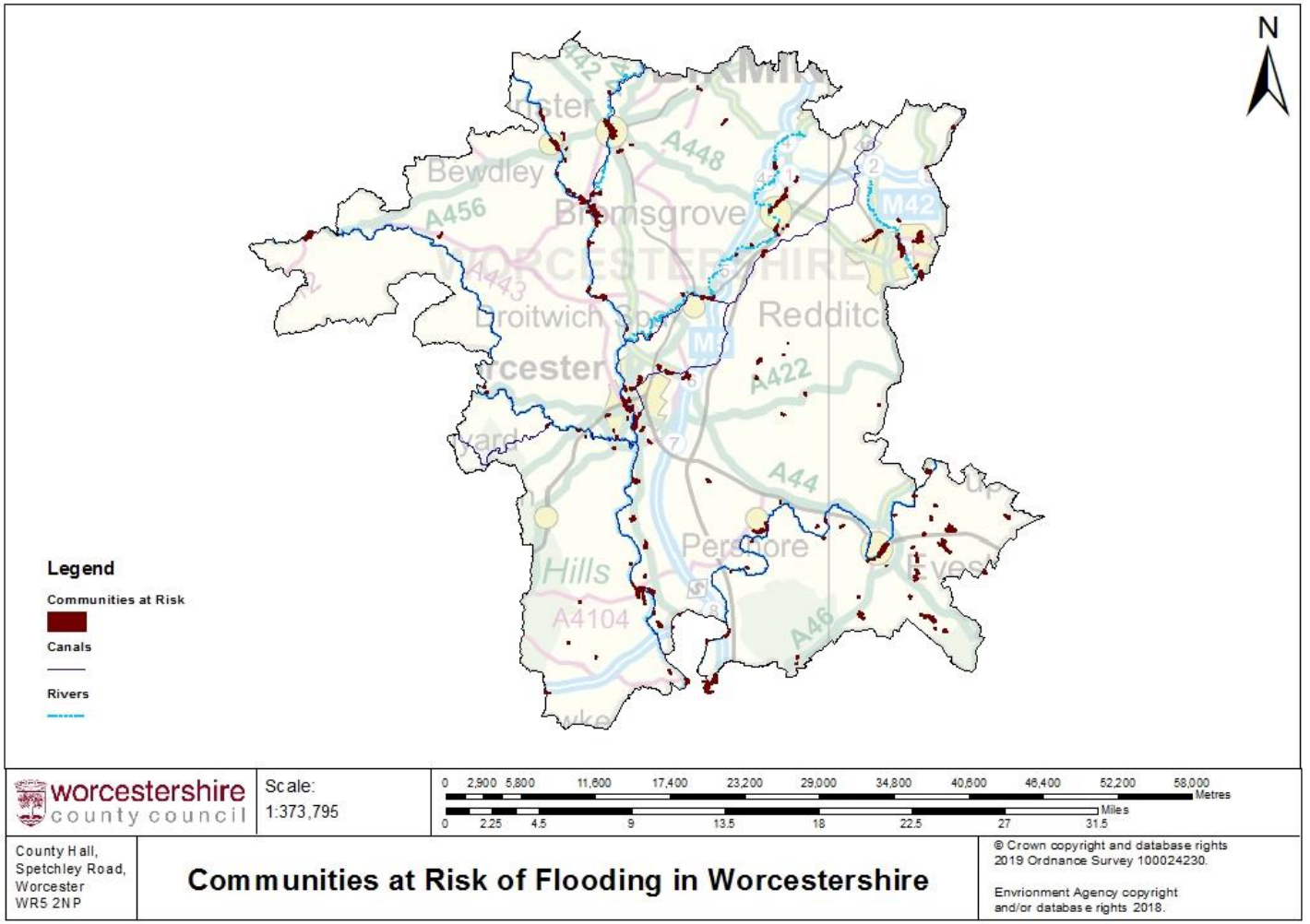


Figure 15: Communities at Risk of Flooding in Worcestershire



4.5 Access and Movement

Transport infrastructure incorporates a large quantity of associated GI. The relevant types of transport infrastructure include railways, highways/roads, walking and cycling routes and waterways.

Whilst GI integrated into highway or railway networks may not always be accessible for the physical use of the public due to health and safety, it performs other important functions such as connectivity, habitat creation or landscape and visual qualities. There are vast opportunities for these types of networks. The current national resource includes 32,000 km (20,000 miles) of green corridors as part of the rail network and 30,000 hectares of land in the ownership of the Highways Agency.

Walking and cycling routes are integral part of multifunctional GI networks. The propensity to walk or cycle may be influenced by the quality of the experience, i.e. where surroundings are more attractive, safe and stimulating, there is a greater propensity to walk or cycle. In designing routes consideration should be given to a variety of factors including passive surveillance (through sight lines or appropriate lighting) as well as making routes open, safe and attractive to encourage their use.

For linear routes including roads, new planting should be integrated into street layout, softening the street scene, improving air quality and providing other benefits to residents and the wider community, such as the provision of shading in hotter temperatures, reduction in air pollution, improving visual attractiveness of the place etc.

Existing trees and other GI may already occupy a substantial part of a development site and will influence the design and layout of sustainable transport routes, especially if they are protected by Tree Preservation Orders.

Parks, woodlands, river/canal corridors and gardens and wider network of green spaces should be linked via safe and attractive routes that connect to the surrounding pattern of streets and encourage people to travel to work and school or to access local services on foot or by bicycle.

Highway networks should incorporate wildlife mitigation and enhancement measures. It is important that new and altered roads do not risk fragmentation of natural habitats. Instead contributing to the creation of new and enhanced habitats linked to wider

wildlife corridors. This should include avoiding and mitigating lighting impacts, retaining and planting trees to create hop-over and creating mammal passes, inset kerbs, tunnels and drains with wildlife exit routes (including gully ladders). Hedges and wildflower verges should be incorporated to enhance the permeability of the landscape for species to connect with other habitat types such as woodlands, grasslands and networks of ponds. The design of roads in the built environment should also incorporate water-sensitive solutions such as rain gardens, tree planting etc.

Detrimental effects on the landscape character and historic environment should be avoided. To address this, a full assessment of the existing character and its ability to accept change needs to be established. Highways design should ensure the protection and enhancement of the varied landscape character types and local historic landscape character.

Worcestershire County Council's Streetscape Design Guide[38] contains advice in relation to embedding green infrastructure into the highways design.

Local Transport Plan

The many duties imposed on upper tier local authorities, including the development of Local Transport Plans, provide the stimulus to allow GI to be more comprehensively integrated with road infrastructure at a local level.

The Department for Transport's Local Transport Note 1/04 ("Policy, Planning and Design for Walking and Cycling")[39] establishes a hierarchy of users. This places pedestrians at the top, followed by cyclists then public transport, with unaccompanied private car-users last. The objective of this hierarchy is to ensure that the needs of the most vulnerable road users are fully considered. However, adhering to this guidance will also help to shape, and then deliver, attractive, well-connected and vibrant communities.

In order to comply with the hierarchy of users, those designing the layout for proposed developments should: first set-out a network for walking and cycling, then add access for public transport, and then finally add the network for private motor car access.

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[38] Worcestershire County Council, Streetscape Design Guide http://www.worcestershire.gov.uk/info/20007/travel_and_roads/284/transport_guidance_for_developers/2

[39] Department for Transport, Local Transport Note 1/04 ("Policy, Planning and Design for Walking and Cycling") http://www.ukroads.org/webfiles/LTN%201-04%20Policy,%20Planning%20and%20Design%20for%20Walking%20and%20Cycling.pdf

Designing first for walking and cycling ensures that convenient, attractive routes are created for these two 'top of the hierarchy' modes, followed closely by timely consideration of public transport, whilst still allowing all necessary connections for private cars to be made.

Designing-in active travel (walking and cycling) should be the default first-step and developments should integrate with, and where appropriate deliver, the active travel corridors and networks set-out in Worcestershire's Local Transport Plan (fourth edition: LTP4) and the Local Cycling and Walking Investment Plans that will emerge from the LTP4.

The LTP4 recognises a number of active travel schemes which aim to provide significance improvement to walking and cycling links across the county. These are illustrated on Figure 16, Figure 17 and Figure 18 below.

Figure 16: Strategic Active Travel Corridor Schemes for North East Worcestershire (LTP4)

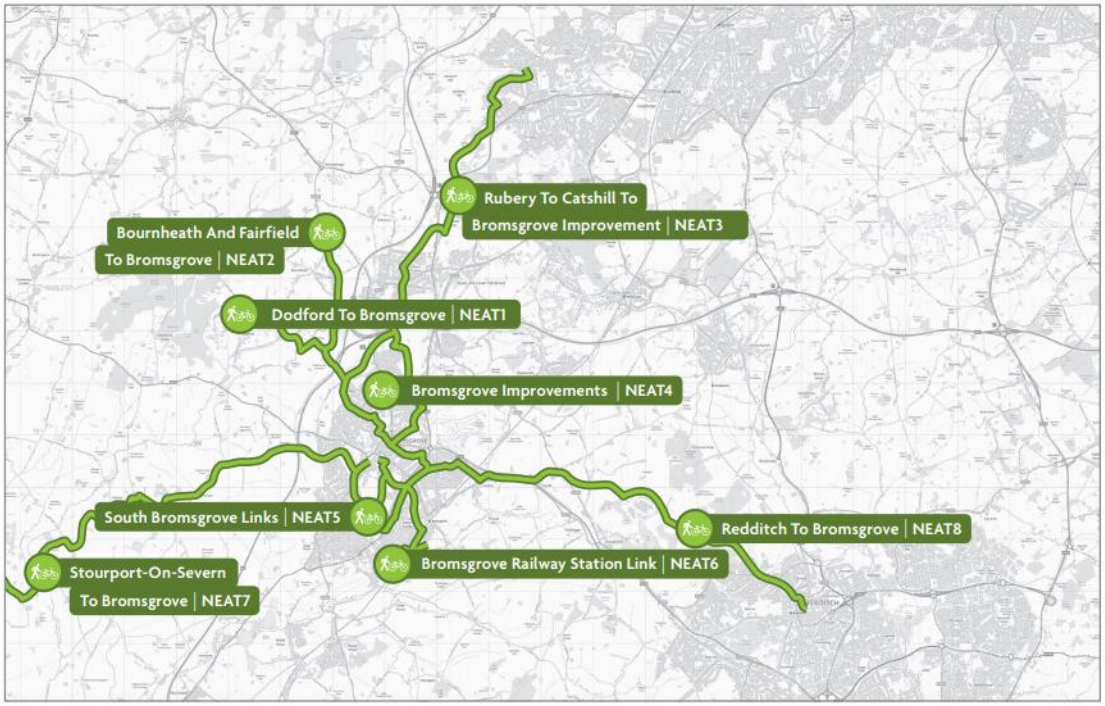


Figure 17: Strategic Active Travel Corridor Schemes for South Worcestershire

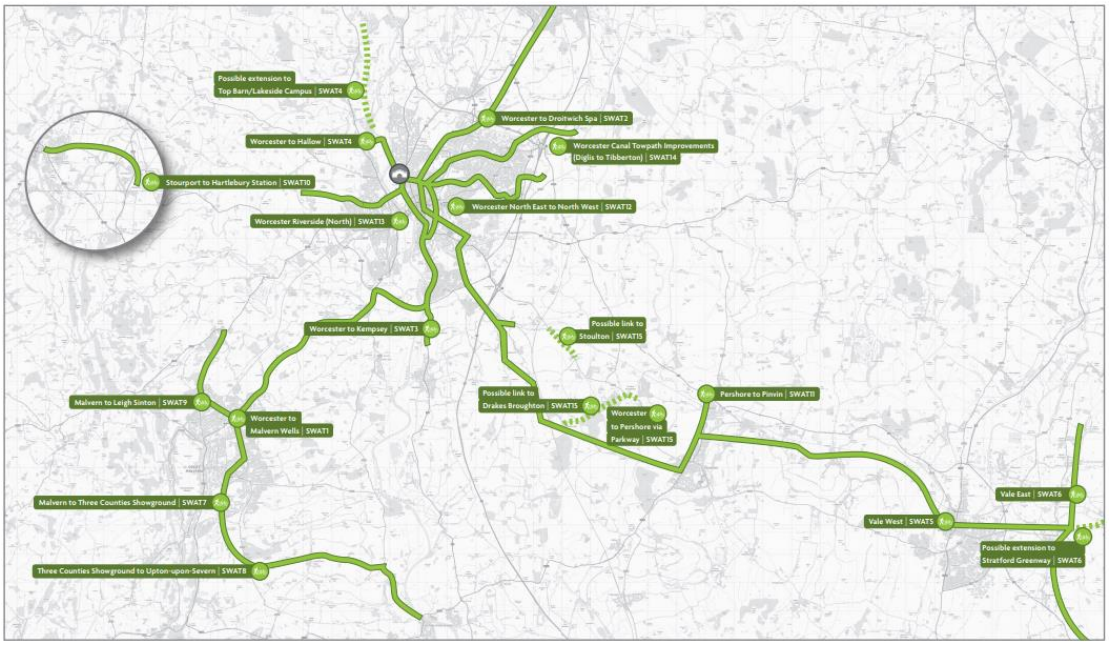
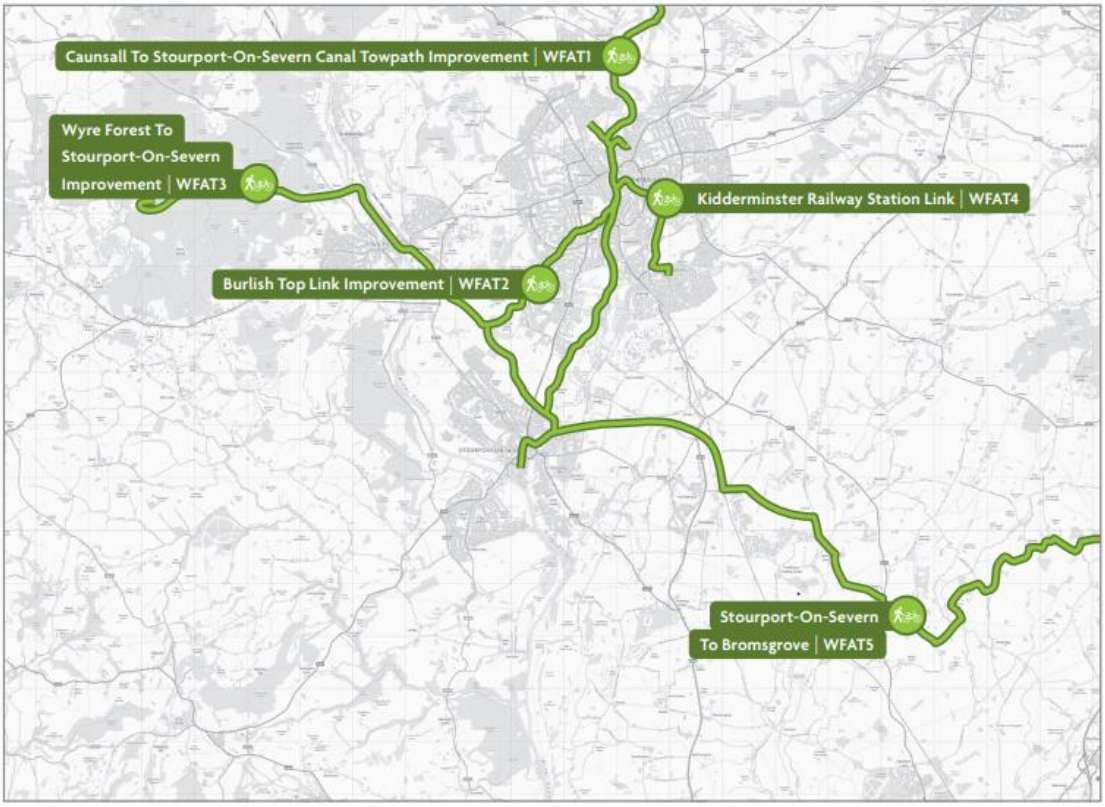


Figure 18: Strategic Active Travel Corridor Schemes for Wyre Forest



4.6 Recreation

The quality and location of areas of open space and access networks are critical to the sustainable development of new communities, and can be integrated within existing communities. Different types of green space are appropriate in different settings, from the urban core to the rural fringe. The identification and consideration of areas of recreational and amenity green space within the Worcestershire GI Framework provides an opportunity to assess what type of space should go where.

Planning for the provision of open or natural space will in part be determined by a variety of green space standards and many of these standards are often incorporated into local development plans as targets. A selection of the standards is outlined below:

- The Active Recreation Standards, set out by the National Playing Fields Association, call for local authorities to provide a minimum level of space and facilities for sports for adults and youths, and play for children.
- The Accessible Natural Greenspace Standards (ANGSt)[40] developed by Natural England, relate to the accessibility (on foot) and size of areas that have been naturally colonised by plants and animals and the complementary to ANGSt Woodland Access Standard developed by the Woodland Trust[41].
- The Green Flag Award, the national standard for parks and green spaces, is used by 70 per cent of councils in England[42]. An awarded site can be used as a local benchmark against which the quality of management and maintenance of a range of sites can be measured using the criteria.
- Natural England's Country Park Accreditation Scheme[43] includes a set of criteria that a county park must demonstrate to be eligible for Accredited Status.
- For green spaces in or around housing, Building for Life and CABE has developed a series of qualitative standards.

[40] The Accessible Natural Greenspace Standard (ANGSt) has not been updated by Natural England in recent years, however it remains a valid approach to analysing the accessibility of green spaces.
[41] The Woodland Trust (2017) Space for people. Targeting action for woodland access. https://www.woodlandtrust.org.uk/mediafile/100818946/pp-wt-010617-space-for-people-2017.pdf?cb=d1be2035be4f473e91d305e3b3dff615
[42] CABE – Start with the Park: Creating Sustainable Urban Green Spaces in Areas of Housing Growth and Renewal. http://www.cabe.org.uk/files/start-with-the-park.pdf
[43] Natural England and Department for Environment, Food & Rural Affairs https://www.gov.uk/guidance/get-accreditation-for-your-country-park

The character and topography of the landscape will be an essential factor in the design of successful green spaces. Natural features such as rivers, streams, woodlands, trees, hedges, wetlands, hills and slopes should be protected and integrated into designs. These can help to deliver a range of benefits, such as providing attractive routes for walking and cycling along river or woodland corridors whilst also helping to create a sense of place.

Larger areas of open space may enable communities to escape the intensity of urban life to a space where the urban edge is not apparent, and where they can enjoy being immersed in nature. Well-designed parks, woodland, grasslands and wetlands at the edge of urban areas can help to structure development in a way that links the urban area to the surrounding countryside.

In light of the proposed new housing growth for Worcestershire, significant new areas of land need to be made available for access and recreation. These should ideally be managed countryside and urban greenspace sites that offer facilities to visitors such as those at country parks, formal parks and picnic places.

The location of any new recreational sites will need to consider:

- Proximity to centres of population
- Public transport provision
- Proximity to integrate to the Rights of Way network, cycle network and recreational way marked routes.
- Ability to accommodate appropriate facilities necessary for the use and enjoyment of the site.

Current Provision

A 2001 audit of accessible greenspace provision identified over 5,500 hectares of land as available for recreation in Worcestershire. This is made up of sites such as Country Parks, formal parks, nature reserves, picnic places and Registered Commons. It is now thought that this figure is likely to under-represent the area available for recreation as more sites have become accessible in recent years through legislation such as the CROW Act (2000) and new elements of access created through agri-environment schemes[44].

[44] Worcestershire County Council (pers. comm.)

There is also an extensive network (around 4600 kilometres) of Public Rights of Way made up of public footpaths, bridleways, Restricted Byways and Byways Open to All Traffic (BOAT).

Provision and Deficiency by Area

East and South-East Worcestershire - The eastern half of Worcester City has good provision of accessible greenspace in Worcester Woods Country Park, Perry Wood, Tolladine Wood, Warndon Wood and the other natural greenspaces and formal parks within the City boundary. Beyond the City boundary the Rights of Way network is less dense than in any other area of the County. There is also an absence of sites such as Country Parks, picnic places and Registered Commons. Few nature reserves exist although there are a number of smaller community sites such as Village Greens and Millennium Greens. With the proposed housing growth in Evesham, Pershore and some larger villages, a greater provision of accessible greenspace is required.

South-West Worcestershire - The Rights of Way network here is relatively dense and there is also a large amount of accessible greenspace such as Registered Commons and the land owned and managed by the Malvern Hills Trust. There are also numerous smaller sites such as village greens and nature reserves. Malvern Town itself has numerous greenspaces within and immediately adjacent to it and a new community woodland is being developed along the north eastern edge of the town.

West and North-West Worcestershire - Although the Rights of Way network here is very dense, there are fewer sites for public access such as Registered Commons and country parks. Sites tend to be of a smaller size and are mainly community sites such as Village Greens, Millennium Greens or Doorstep Greens. There are several nature reserves and picnic places. There is a need to create significant accessible greenspace directly to the west of Worcester City where there is currently little provision either inside the city boundary or into Malvern Hills district, particularly as this is one of the identified growth areas for housing.

North Worcestershire - There is a relatively dense Rights of Way Network and a good provision of accessible greenspace in the form of larger sites adjacent to areas of population, such as Clent Hills, Waseley Hills Country Park, Lickey Hills Country Park and Arrow Valley Country Park. There are a good number of nature reserves and formal parks in all three district/borough areas of Wyre Forest, Bromsgrove and Redditch.

Access and Recreation Map

The map (Figure 19) shows the informal outdoor access and recreation opportunities available in Worcestershire. All the opportunities shown on the map are free at the point of entry. It should be noted that many privately-managed sites and routes exist that are not shown on the map and that the extensive Rights of Way network is not shown in full as this cannot be reproduced at this scale of mapping.

Access Network Map

The map at Figure 20 is based on the 'Access Network Map' data produced by Natural England to inform work which aims to improve opportunities for people to enjoy the natural environment. It portrays the distribution of land accessible for recreation in Worcestershire based on linear distances on foot from communities represented on the map by Lower Super Output Areas. Communities with the best access to green spaces are represented in dark green whilst those with the worst in red. The map illustrates that the distribution of land accessible for recreation in Worcestershire is uneven. The south-east and north-east have reduced accessibility in comparison with other areas of the county. There are also pockets of significantly poor accessibility in some urban areas of Worcestershire including Kidderminster, Worcester City and Redditch. It needs to be noted however that accessibility in urban areas is likely to be underrepresented due to the lack of consistent data on accessible parks and gardens.

Figure 19: Access and Recreation opportunities in Worcestershire

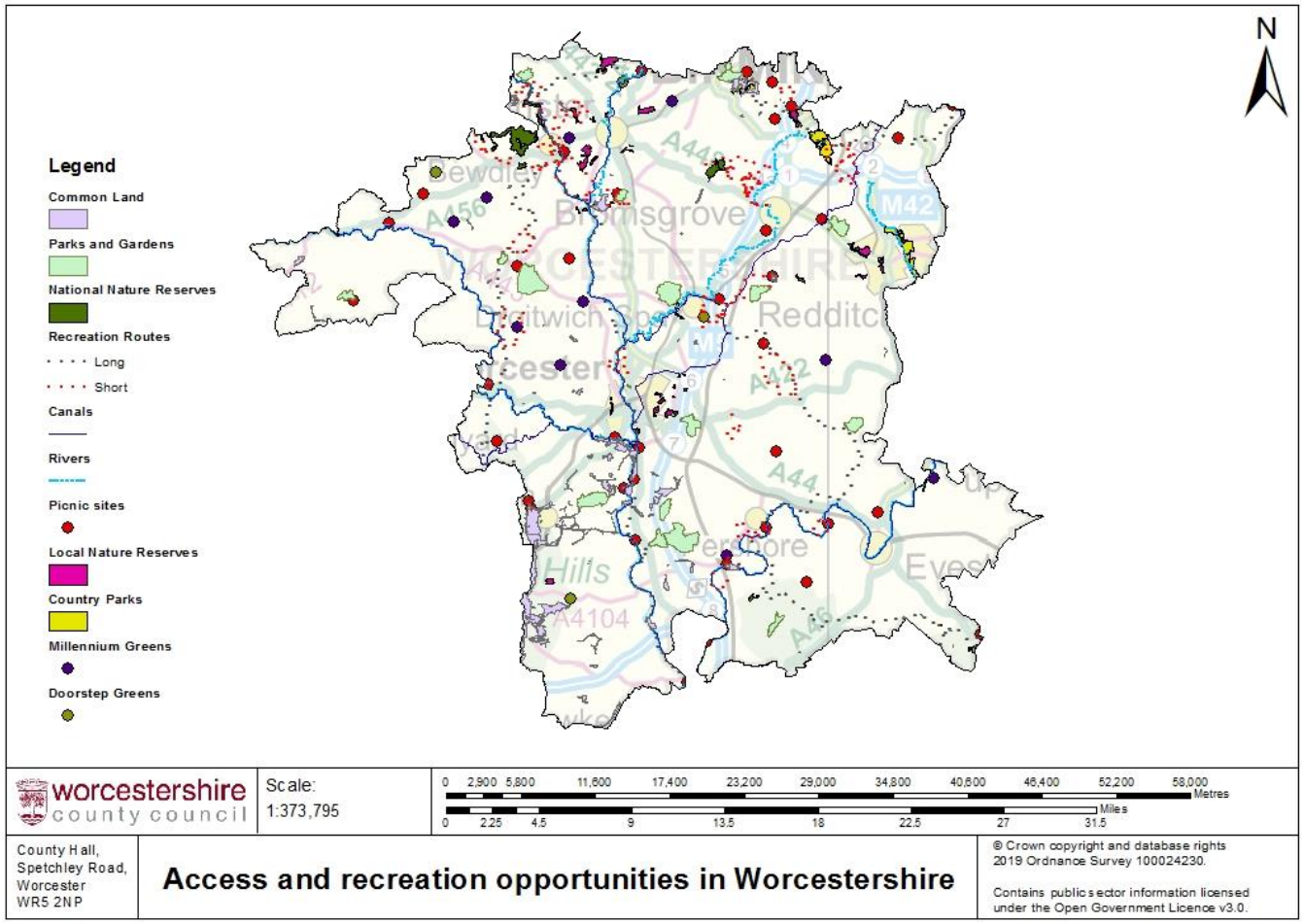
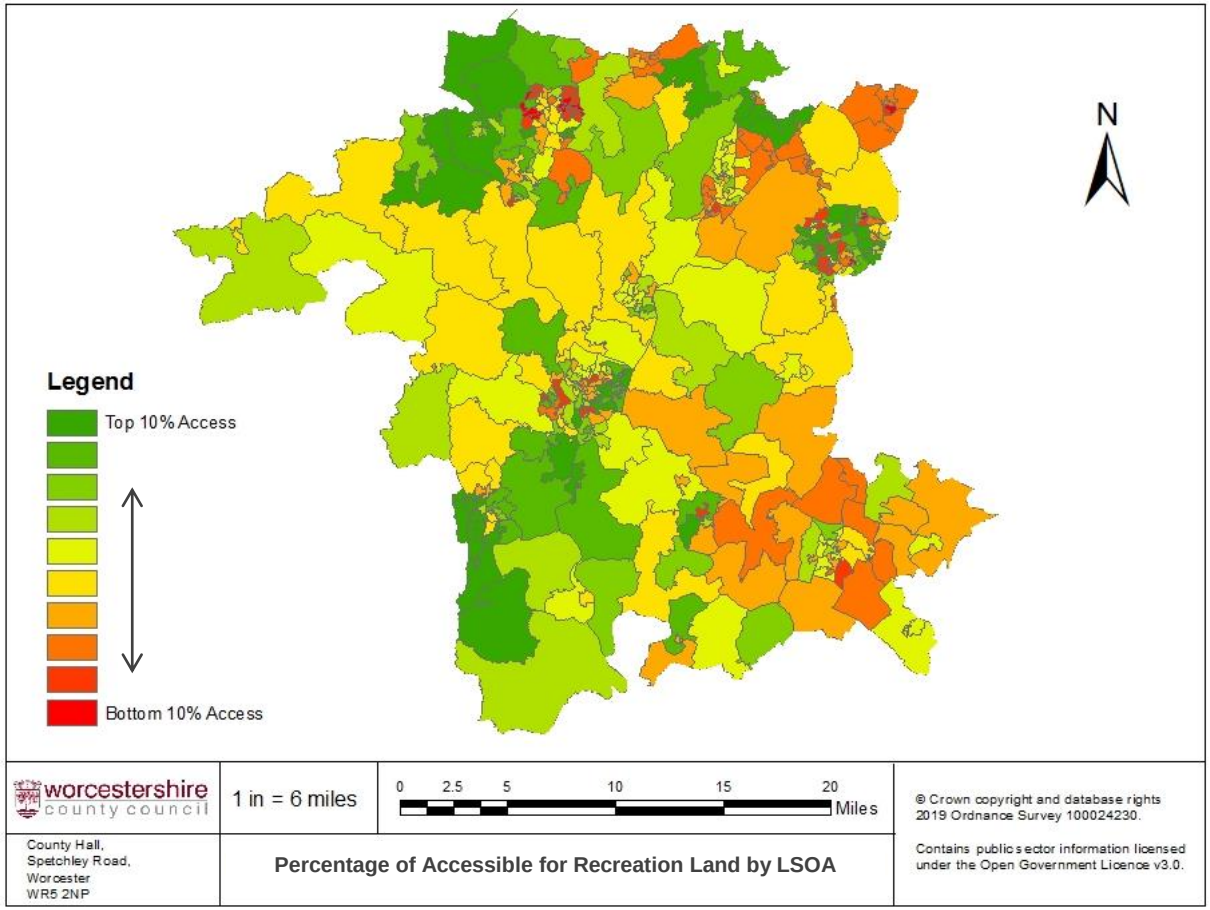


Figure 20: Percentage of accessible for recreation land by Lower Super Output Area in Worcestershire



Note: This map contains information supplied by Natural England. It is compiled from the best data available to Natural England at March 2009. Some publicly accessible areas are not included where data is lacking. The map should therefore be regarded as indicative rather than complete.

APPENDIX 1: GREEN INFRASTRUCTURE ENVIRONMENTAL CHARACTER AREA OBJECTIVES

Environmental Character Area: One	**Teme Valley and Wyre Forest**
Strategic GI Approach	Protect and Enhance
Primary Objectives:	
Overarching principles	• Enhance stream and river corridors • Protect ancient countryside character • Protect and enhance the setting and ancient woodland habitats of the Wyre Forest • Enhance and expand grassland habitats • Protect remaining traditional orchards
Biodiversity	Priority is to protect and enhance existing sites of known biodiversity value and the biodiversity interest on those sites. Implementation and delivery should be directed to existing site management and the buffering of high value sites as a first principle. Linking of networks to be applied where practicable. Enhance woodland connectivity with new woodland planting, hedgerow restoration and enhancement of wooded riparian corridors. Restore PAWS to native, mixed-species woodland appropriate to the locality. Restore natural function of stream corridors, in particular within the Wyre Forest and Laugherne Brook catchments. Enhance network of grassland sites and facilitate grassland restoration and management. Protect remaining traditional orchards and support re-stocking and management to maintain habitat continuity.
Historic Environment	Protect and restore the diverse historic field boundary patterns, traditional orchards and hedgerows derived from periods of enclosure and land division that range from the 12th to early 20th centuries. Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation. Buffer and protect Wyre Forest and its setting, other historic woodlands and their boundary earthworks. Protect features within Wyre Forest woodlands that relate to historic woodland management and pre-woodland cover historic land use. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential. Protect, enhance and restore the setting of historic buildings, structures and farmsteads.
Landscape Character	Protect and enhance ancient woodland cover, including replanting with mixed, native species where appropriate, respecting the characteristic tree cover pattern – discrete blocks in the Estatelands; linear, interconnecting woods along streams and dingles in the Wooded Hills and Plateau Farmlands); scattered hedgerow trees (Timbered Farmlands, Forest Smallholdings).

	Protect and enhance the hedgerow network, respecting the characteristic enclosure pattern of each Landscape Type (organic in the dominating Timbered Farmlands and Wooded Hills; sub-regular/variable in the Wooded Estates and Forest Smallholdings) including safeguarding or replanting of hedgerow trees to address age structure and density.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition (for example the River Teme SSSI). Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that run-off from all new development is managed using natural engineering solutions. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem. Tackle issues of diffuse pollution through the provision of advice to farmers.
Access & Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Two	**Severn Valley North**
Strategic GI Approach	Protect and Enhance.
Primary Objectives:	
Overarching principles	• Restoration of the Severn floodplain and its associated wetland habitats.
Biodiversity	Priority is to support existing site management, followed by maximising opportunities for site expansion and buffering key priority habitats including wet woodland and grassland. Where sites are closely associated buffering should be merged to form direct links. In the case of the River Severn corridor the fundamental link is already in place but augmentation of this in the floodplain will be critical for a number of GI aspirations, in conjunction with enhancements to the blue infrastructure. Riparian corridors along brooks and streams should be considered as continuous linear habitats that transition between open flowing water, pools, marsh and wet woodland. Habitat protection and enhancement measures should give high priority to maintaining and restoring these linear habitat links.
Historic Environment	Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation: in particular prehistoric and Romano-British settlement located on the river terraces. Protect and enhance areas of historic designed landscape (including parkland) and their setting. Protect and enhance areas of historic woodland, lowland heath, river meadows and their setting. Develop opportunities for the creation of connected habitats that contribute towards their setting. Protect and restore the diverse historic field boundary patterns, traditional orchards and hedgerows derived from periods of enclosure and land division that range from the 12th to early 20th centuries. Protect, enhance and restore the setting of historic buildings, structures and farmsteads. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential, including peat deposits in the Stour Valley that contain an environmental sequence of approximately 10,000 years
Landscape Character	Protect and enhance the composition and pattern (planned in the estate landscapes; organic in the farmland landscapes) of hedgerows through management and replanting. Protect and enhance the tree cover pattern through new planting of watercourse, highway and hedgerow trees to address density and age structure; and, in the Timbered Farmlands, through creation of new woodland, with consideration for patterns of relic ancient woodland and existing woodland fragments. Seek opportunities to protect and create areas of permanent pasture, particularly in the Settled Farmlands and Riverside Meadows landscapes. NB This ECA also contains localised patches of Unenclosed Commons which is a (largely) unsettled, unenclosed and unwooded Landscape Type; here opportunities should be sought to retain rough grazing land use and management regimens which the support unwooded and unenclosed.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains.

	Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Three	North Worcestershire Hills
Strategic GI Approach	Protect and enhance
Primary Objectives:	
Overarching principles	• Maintain wooded character, linking and buffering existing sites
Biodiversity	Priority is to support existing site management, followed by maximising opportunities for site expansion and creation and to buffer and create habitat linkages between key features including the Lickey and Clent Hills. Restore, enhance and link neutral grassland and acid grassland/heathland sites. Enhance woodland corridors with appropriate native planting or regeneration. Restore or enhance pond networks and improve connectivity of terrestrial habitat links. Restore parkland through arable reversion and appropriate grazing. Protect surviving ancient and veteran tree resource with sympathetic management and by planting new trees in parkland situations and in hedgerows.
Historic Environment	Protect and enhance areas of historic parkland and their setting. Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Buffer and protect historic woodlands, their boundary earthworks and setting. Protect features within woodlands that relate to historic woodland management and pre-woodland cover historic land use. Protect and restore the diverse historic field boundary patterns, traditional orchards and hedgerows derived from periods of enclosure and land division that range from the 12th to 18th centuries. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential. Protect, enhance and restore the setting of historic buildings, structures and farmsteads.
Landscape Character	Protect and enhance the ancient wooded/treed character through management and/or re-planting as appropriate to the characteristic tree cover patterns of the different wooded Landscape Types of this area: large, discrete blocks in the Wooded Hills and Farmlands; interconnecting irregularly-shaped woods in the Principal Wooded Hills; linear/streamside woods in the Timbered Plateau Farmlands; scattered hedgerow trees (oaks) of the Timbered Pastures. Seek opportunities to strengthen the hedgerow network bringing attention to composition (predominantly mixed) and enclosure pattern (organic/variable).
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Develop local Flood Risk Management Plans for the Bromsgrove and Droitwich areas. Reduce the levels of nutrients and sediments entering watercourses and take actions to improve the management of water resources. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.

Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Four	Forest of Feckenham and Feckenham Wetlands
Strategic GI Approach	Protect and enhance
Primary Objectives:	
Overarching principles	• Protect the traditional field patterns, boundaries and small woodlands. • Enhance stream corridors and associated wetland habitat.
Biodiversity	Priority is to support existing site management, followed by maximising opportunities for site expansion and creation and to buffer and create habitat linkages between key features. Restore and enhance network of grassland sites and facilitate grassland restoration and management. Protect remaining traditional orchards and support re-stocking and management to maintain habitat continuity. Enhance, restore and create hedgerow field boundaries. Enhance stream corridors and associated wetland habitats including wet woodland, fen, marsh and reedbed. Restore parkland through arable reversion and appropriate grazing. Protect surviving ancient and veteran tree resource with sympathetic management and by planting new trees in parkland situations and in hedgerows.
Historic Environment	Protect historic environment diversity present across the Forest of Feckenham area characterised by a patchwork of: medieval cultivation earthworks and moated settlement sites; multi-period, field patterns associated with pre-18th century piecemeal enclosure and enclosed woodlands. Protect and restore the hydrology of historic water features such as moats (common across this character area), fishponds, millponds, leats and areas of wetland and peat potential. Protect and enhance areas of historic designed landscape (including parkland) and their setting. Protect, enhance and restore the setting of historic buildings, wayside settlement, structures and farmsteads.
Landscape Character	Protect and enhance the ancient wooded character through management and/or re-planting as appropriate to the characteristic (and contrasting) tree cover patterns of the different Landscape Types of this area: scattered hedgerow and watercourse trees of the Timbered and Settled Farmlands; large, discrete woodland blocks of the Wooded Estatelands; and linear tree belts (predominantly alder and willow) of the Wet Pasture Meadows. Seek opportunities to strengthen the hedgerow network, respecting the characteristic patterns of enclosure (organic in the Timbered Farmlands, regular/semi-regular in the Wooded Estates, Wet Pasture Meadows, Settled Farmlands and Village Claylands. In particular opportunities should be sought to create and/or protect permanent pasture in the Settled Farmlands with Pastoral Land Use, and particularly in the Village Claylands to protect the characteristic ridge and furrow patterns.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains.

	Address poor status of designated 'aquatic conservation' sites. Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem. Support ecological improvements. Reduce the levels of nutrients and sediments entering watercourses and take actions to improve the management of water resources.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Five	**Lenches Ridge**
Strategic GI Approach	Protect and enhance.
Primary Objectives:	
Overarching principles	• Enhance the functionality and habitats of the Avon floodplain. • Protect and enhance the wooded character and tree cover pattern of the Lenches • Protect remaining traditional orchards
Biodiversity	Priority is to support existing site management, followed by maximising opportunities for site expansion and buffering key priority habitats including wet woodland and wet grassland. Where sites are closely associated buffering should be merged to form direct links. In the case of the River Avon corridor the fundamental link is already in place but augmentation of this in the floodplain will be critical for a number of GI aspirations, in conjunction with enhancements to the blue infrastructure. Riparian corridors along brooks and streams should be considered as continuous linear habitats that transition between open flowing water, pools, marsh and wet woodland. Habitat protection and enhancement measures should give high priority to maintaining and restoring these linear habitat links. Enhance woodland connectivity with new woodland planting and hedgerow restoration. Protect surviving ancient and veteran tree resource with sympathetic management and by planting new trees in parkland situations and in hedgerows. Enhance network of grassland sites and facilitate grassland restoration and management. Protect remaining traditional orchards and support re-stocking and management to maintain habitat continuity.
Historic Environment	Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Protect historic water features and buffer key sites, such as moats, fishponds and millponds. Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation on lower-lying landscapes, including the land bordering Evesham. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential. Protect and enhance areas of historic designed landscape (including parkland), enclosed historic woodland, traditional orchards and their setting. Protect, enhance and restore the setting of historic buildings, structures and farmsteads. Protect and restore the diverse historic field boundary patterns and hedgerows derived from enclosure of medieval open-fields, market gardening allotments and creation of traditional orchards.
Landscape Character	Enhance and protect the hedgerow field boundaries, respecting the characteristic local enclosure pattern (planned or regular in the Village landscapes, organic in the Plateau Farmlands). Enhance the tree cover pattern through new planting of tree groups associated with settlement and planting of watercourse and hedgerow trees to address density and age structure. Orchards and fruit trees are a particular feature of the Village landscapes which dominate here and opportunities should be sought to retain and re/create them; new planting should consider traditional local varieties.

	Seek opportunities to create and/or protect permanent pasture in the Settled Farmlands with Pastoral Land Use, and particularly in the Village Claylands to protect the characteristic ridge and furrow patterns.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition. Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem. Support ecological improvements. Reduce the levels of nutrients and sediments entering watercourses and take action to improve the management of water resources.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Six	**Bredon**
Strategic GI Approach	Protect and enhance
Primary Objectives:	
Overarching principles	• Protect and enhance the designated landscape of Bredon Hill (the SSSI/SAC and the National Nature Reserve within) • Protect ancient and veteran tree resource
Biodiversity	Priority is to protect, buffer and enhance existing sites to create linked networks of habitat where possible. Restore and enhance calcareous grassland. Restore parkland through arable reversion and appropriate grazing. Protect surviving ancient and veteran tree resource with sympathetic management and by planting new trees in parkland situations and in hedgerows. Maintain and enhance traditional field boundaries including hedgerows to aid habitat connectivity.
Historic Environment	Protect the extensive below ground prehistoric and Romano-British settlement archaeology on the southern slops and Carrant Brook corridor and the northern lowlands adjacent to the Avon. Buffer, protect and enhance the setting of archaeological surface features that includes prehistoric hillforts and areas of ridge and furrow. Protect areas of historic designed landscape that includes estate parklands and historic plantation woodland; protect and enhance their setting. Protect and restore the diverse historic field boundaries that include rectilinear field boundary patterns that in places have Bronze Age origins and dry stone walling on the northern and western slopes.
Landscape Character	Protect the historic pattern of field enclosure (rectilinear drystone walls in the Limestone Estatelands; organic pattern of hedgerows in the Wooded Hills of the north scarp; large hedged fields on the south scarp); protect and enhance tree cover pattern (linear tree belts and small estate plantations in the Limestone Estatelands; large, interlocking native woodland in the Wooded Hills of the north scarp; large, discrete woodland blocks on the south scarp); address the balance and intensity of land use as appropriate in each of the Landscape Types, where possible seeking opportunities to restore permanent pasture.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition. Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem. Support ecological improvements.

Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Seven	**Severn Valley South**
Strategic GI Approach	Protect and enhance
Primary Objectives:	
Overarching principles	• Restoration of the Severn floodplain and its associated wetland habitats.
Biodiversity	Priority is to support existing site management, followed by maximising opportunities for site expansion and buffering key priority habitats including wet woodland and wet grassland. Where sites are closely associated buffering should be merged to form direct links. In the case of the River Severn corridor the link is already in place but augmentation of this in the floodplain will be critical for a number of GI aspirations, in conjunction with enhancements to the blue infrastructure. Riparian corridors along brooks and streams should be considered as continuous linear habitats that transition between open flowing water, pools, marsh and wet woodland. Habitat protection and enhancement measures should give high priority to maintaining and restoring these linear habitat links. Protect and enhance neutral grassland networks. Protect ancient and veteran trees and ensure continuity of habitat with new planting.
Historic Environment	Protect extensive below ground archaeology that includes: prehistoric and Romano-British settlement and palaeoenvironmental deposits contained in palaeochannels river terraces and alluvial clays adjacent to the Severn and Avon. Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation. Protect and enhance areas of historic woodland, unenclosed commons, river meadows and their setting. Develop opportunities for the creation of connected habitats that contribute towards their setting. Protect and enhance the setting of historic parkland character that includes the extensive estate lands associated historic Croome Park. Protect and restore the hydrology of historic water features such as, fishponds, watermeadows and areas of wetland and peat potential.
Landscape Character	Enhance and protect the woodland character according to the guidelines for each Landscape Type (predominantly hedgerow and streamside trees in the Settled/Timbered Farmlands and the Meadows Landscape Types; small geometric plantations and tree belts in the Estate Farmlands). Enhance the pattern and composition of hedgerows through management and replanting. Seek opportunities to retain and encourage pastoral land use in the Meadows landscapes. NB This ECA also contains localised patches of Unenclosed Commons which is a (largely) unsettled, unenclosed and unwooded Landscape Type; here opportunities should be sought to retain rough grazing land use and management regimens which the support unwooded and unenclosed character.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is not sustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Seek opportunities to improve watercourses where it would benefit fish migration and spawning. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals.

	Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Eight	**Bushley**
Strategic GI Approach	Protect and enhance
Primary Objectives:	
Overarching principles	• Protect and enhance the irregular field pattern • Protect and enhance boundary hedgerows • Protect and restore traditional orchard habitats.
Biodiversity	Priority is to protect, buffer and enhance existing sites to create linked networks of habitat where possible. Protect and enhance networks of neutral grassland. Protect and restore traditional orchards. Restore parkland through arable reversion and appropriate grazing. Protect surviving ancient and veteran tree resource with sympathetic management and by planting new trees in parkland situations and in hedgerows. Maintain traditional field boundaries including hedgerows to aid habitat connectivity.
Historic Environment	Buffer and protect historic unenclosed commons, common edge landscapes and designed landscapes in the setting of Eldersfield. Protect and restore the diverse historic field boundary patterns, traditional orchards and hedgerows derived from periods of enclosure and land division that range in origin from medieval to the 19th century. Protect and restore the hydrology of historic water features, often associated with field boundaries and that also include, watermeadows, moats, fishponds, millponds, leats and areas of wetland and peat potential. Protect, enhance and restore the setting of historic buildings, structures and farmsteads associated with dispersed wayside and common edge settlements.
Landscape Character	Protect and enhance field boundaries and characteristic enclosure patterns (sub-/irregular); protect and enhance tree cover (small estate plantations, tree belts, parkland and ornamental trees in the Estatelands; hedgerow and watercourse trees in the Settled Farmlands, watercourse treebelts in the Wet Pasture Meadows); protect permanent pasture/maintain pastoral land use in the Settled Farmlands and Pasture Meadows.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is not sustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Seek opportunities to improve watercourses where it would benefit fish migration and spawning. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests.

	Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Nine	**Malvern Chase and Commons**
Strategic GI Approach	Protect and enhance
Primary Objectives:	
Overarching principles	• Protect and enhance acid and neutral grassland habitats • Protect and enhance the wooded landscape of traditional orchards, woodlands and scrub.
Biodiversity	Priority is to protect, buffer and enhance existing sites to create linked networks of habitat where possible. Protect and enhance acid and neutral grassland habitats. Enhance the wooded landscape including traditional orchards, woodlands and scrub. Restore parkland through arable reversion and appropriate grazing. Protect surviving ancient and veteran tree resource with sympathetic management and by planting new trees in parkland situations and in hedgerows. Maintain traditional field boundaries including hedgerows, where appropriate, to aid habitat connectivity.
Historic Environment	Protect nationally significant and extensive below ground archaeology associated with the Roman and medieval ceramic industries north and east of Malvern. In general, develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation. Protect areas of unenclosed common, their setting and archaeological features preserved under grassland. Buffer and protect historic estate woodland plantations and setting. Protect features within woodlands that relate to historic woodland management and pre-woodland cover historic land use. Protect, enhance and restore the setting of historic buildings, structures and farmsteads associated with dispersed wayside and common edge settlements.
Landscape Character	Protect grassland habitats on uplands, commons and verges through appropriate grazing/management regimes. Enhance and protect the planned enclosure pattern and woodland character (discrete blocks) in the Enclosed Commons whilst retaining the unenclosed, unwooded (and unsettled) nature of the uplands and Unenclosed Commons through appropriate grazing/management strategies. Elsewhere in the Timbered and Settled Farmlands and Wet Pasture Meadows, opportunities should be sought to strengthen the patterns of field enclosure and tree cover through the planting of watercourse and hedgerow trees to address density and age structure. Protect permanent pasture/maintain pastoral land use in the Settled Farmlands and Wet Pasture Meadows.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition (for example the River Teme SSSI). Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.

	Support ecological improvements. Tackle issues of diffuse pollution in the catchment through the provision of advice to farmers.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Ten	**Hagley Hinterland**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Maintain and restore habitat connectivity. • Protect and restore acid grassland • Protect and restore wooded habitats including woodland, ancient and veteran trees and hedgerows.
Biodiversity	Newly created GI features should aim to augment the existing resource concentrating on the main priorities for protection and creation including acid grassland and ancient and veteran trees. Delivery should aim to improve connectivity through linking, merging and buffering existing and newly created habitats. Hedgerows and small woodlands provide important connectivity through the landscape and networks comprising these features should be strengthened where possible.
Historic Environment	Protect and restore the diverse historic field boundary patterns, traditional orchards and hedgerows derived from periods of enclosure and land division that range in origin from the medieval period to 19th centuries. Buffer and protect historic woodlands, their boundary earthworks and setting. Protect features within woodlands that relate to historic woodland management and pre-woodland cover historic land use. Protect and enhance areas of historic designed landscape (including Hagley and other parkland) and their setting
Landscape Character	Enhance and protect the hedgerow field boundaries respecting the characteristic enclosure pattern of each Landscape Type (planned or semi-regular in the Estate landscapes; organic or irregular in the Timbered and Settled Farmlands). Seek opportunities to protect and strengthen the woodland character and pattern (planned, discrete plantations and tree belts in the Estate landscapes; ancient, scattered hedgerow trees Settled and Timbered Farmlands, with some small woods in the latter).
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes.

Transport	Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Eleven	Hollywood and Wythall
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore historic pattern of small enclosures • Protect and restore natural habitats fragmented by existing developments
Biodiversity	Protect and enhance existing sites and features of biodiversity interest. Newly created GI features should aim to augment this existing resource concentrating on the main priorities for protection and creation including neutral grassland, ponds and pockets of broadleaved woodland. The ancient and veteran tree and hedgerow tree resource should be enhanced through linking, merging and buffering existing and newly created habitats, particularly hedgerows and woodland, between these features and by planting new hedgerow trees.
Historic Environment	Protect and enhance the highly distinctive and largely intact historic pattern of small regular enclosures; their mature hedgerows and hedgerow trees. Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential. Protect, enhance and restore the setting of historic buildings, structures and farmsteads associated with dispersed wayside settlement.
Landscape Character	Protect and enhance the ancient wooded character including replanting with mixed, native species where appropriate, respecting the characteristic tree cover pattern: linear cover often associated with streamside habitats ('dingle' woodlands are particularly characteristic). Protect and enhance the hedgerow network, retaining or strengthening the organic enclosure pattern. Opportunities should be sought to safeguard or replant hedgerow trees (particularly oaks) to address age structure and density. Encourage the retention of pastoral land use to maintain a balance of mixed farming within this landscape.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition. Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem Support ecological improvements.

Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twelve	**Bromsgrove-Redditch Corridor**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore the ancient countryside character • Protect and enhance the valley of the River Arrow and restore floodplain habitats and their functionality
Biodiversity	Priority is to protect and enhance existing site and biodiversity interest. Implementation and delivery should be directed to existing site management and buffering as a first principle, particularly where buffering can be merged to enhance links between habitat networks. All development should provide biodiversity and green infrastructure enhancements where appropriate. Protect and enhance the habitats and biodiversity of the River Arrow corridor including neutral grassland and wet grassland. Enhance connectivity between broadleaved woodlands through augmentation of the hedgerow field boundary network. Protect ancient and veteran trees and encourage planting of new hedgerow trees.
Historic Environment	Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Protect and enhance the setting of Bordesley Abbey. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential. Protect below ground deposits of high palaeoenvironmental potential associated with alluvial deposits in the River Arrow corridor.
Landscape Character	Protect and enhance the ancient wooded character through management and/or re-planting to address composition and age structure, as appropriate to the characteristic (and contrasting) tree cover patterns of the different Landscape Types of this area: large, discrete woodland blocks of the Wooded Estatelands; scattered hedgerow and streamside trees of the Settled and Timbered Farmlands. Enhance the hedgerow network, respecting the characteristic patterns of field enclosure, predominantly irregular in the Settled Farmlands and semi-regular in the Wooded Estates, but organic in the Timbered Farmlands.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition. Activities that affect these sites must be changed to improve their condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.

	Support ecological improvements. Examples of this include Severn & Avon Wetlands Project; Natural England's three fluvial SSSIs.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Thirteen	**Mid Worcestershire Corridor**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore neutral grasslands, traditional orchards and ancient semi-natural woodland • Protect and restore habitats within riparian corridors including wet woodland
Biodiversity	Protect and enhance existing site and biodiversity interest. Implementation and delivery to be directed to existing site management and also to prioritise site expansion through the merging and buffering of sites and features of existing importance for biodiversity, particularly around Worcester Technology Corridor. Protect and enhance neutral grasslands, traditional orchards and ancient semi-natural woodland. Protect and restore wet woodland and other habitats associated with the stream, river and canal corridors. Enhance and create traditional hedgerow field boundaries.
Historic Environment	Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Explore opportunities to protect below ground archaeology associated with extensive Romano-British settlement in the Droitwich hinterland. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential. Protect below ground deposits of high palaeoenvironmental potential associated with the River Salwarpe corridor. Protect and enhance historic field boundary patterns and hedgerow network. Protect and restore the diverse historic field boundary patterns and hedgerows derived from periods of enclosure and land division that range in origin from the medieval period to 19th century.
Landscape Character	Seek opportunities to enhance and restore the ancient woodland cover, including replanting with mixed, native species where appropriate, respecting the characteristic tree cover pattern: discrete blocks in the Estatelands, scattered hedgerow and watercourse trees – which should be safeguarded or replanted to address age structure and density – in the Timbered and Settled Farmlands. Alongside this, seek opportunities to enhance the composition and pattern of hedgerows through management and replanting, respecting the characteristic pattern of each Landscape Type (organic in the dominating Timbered Farmlands; sub/semi-regular in the Settled Farmlands and Wooded Estates). Seek opportunities to protect and create areas of permanent pasture, particularly in the Settled Farmlands and Pasture Meadows landscapes.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.

	Develop Surface Water Management Plans for the Bromsgrove and Droitwich areas.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Fourteen	**East Wychavon**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore hedgerow field boundaries • Protect and manage hedgerow and streamside trees
Biodiversity	Protect and enhance existing site and biodiversity interest. Implementation and delivery to be directed to existing site management and buffering as a first principle. Existing hedgerow networks to be enhanced and expanded. Watercourse riparian corridors to be protected and restored. Ancient woodland, unimproved meadows and pastures, traditional orchards, parkland, open water and wetlands to be buffered, restored and enhanced.
Historic Environment	Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Protect historic water features and buffer key sites, such as moats, fishponds and millponds. Protect and restore the distinctive historic field boundary pattern and hedgerows largely derived from the post-medieval enclosure of former commons and unenclosed grassland. Protect, enhance and restore the setting of historic buildings, structures and farmsteads associated with dispersed wayside and former common-edge settlement.
Landscape Character	Protect and enhance the hedgerow field boundaries and characteristic enclosure patterns (sub-regular in the Farmlands and Claylands, regular in the Pasture Meadows). Protect and enhance the characteristic tree cover of hedgerow, ditch and watercourse trees in the Settled Farmlands, watercourse treebelts in the Wet Pasture Meadows. Seek opportunities to protect and enhance areas of permanent pasture in these pastoral landscapes.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition. Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem. Support ecological improvements. Reduce the impacts of abstraction on the environment as part of the Restoring Sustainable Abstraction programme.

Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Fifteen	**Bow Brook South**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Enhance the water quality and hydromorphology of the Bow Brook • Restore floodplain habitats and the connectivity of the riparian corridor
Biodiversity	Links should be made with existing site management, in order to achieve site expansion and to merge and buffer the key priorities. Restore and enhance neutral grasslands, wet meadows, traditional orchards and semi-natural ancient woodland, wet woodland and the Bow Brook corridor.
Historic Environment	Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains, including (notably) the setting of Naunton Beauchamp. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential, including deposits of high palaeoenvironmental potential associated with the Bow Brook corridor. Protect and restore the diverse historic field boundary patterns and hedgerows derived from periods of enclosure and land division that range in origin from the medieval period to 19th century. Develop opportunities to protect below ground archaeology associated with villages as part of public open space or land set aside for nature conservation.
Landscape Character	Protect and enhance the tree cover character through management and/or re-planting as appropriate to the characteristic (and contrasting) tree cover patterns of the different Landscape Types of this area: scattered hedgerow and watercourse trees of the Timbered Farmlands and Village Claylands; large, discrete woodland blocks of the Wooded Estatelands. Seek opportunities to strengthen the hedgerow network, respecting the characteristic (and again, contrasting) patterns of enclosure (organic in the Timbered Farmlands, semi-regular in the Village Claylands and Wooded Estates). In particular opportunities should be sought to create and/or protect permanent pasture in the Village Claylands to protect the characteristic ridge and furrow patterns.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition. Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem. Support ecological improvements.

Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Sixteen	**Evesham Valley**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore the River Avon corridor and enhance functionality of floodplain habitats.
Biodiversity	Protect and enhance existing site and biodiversity interest. Implementation and delivery to be directed to existing site management and buffering as a first principle. Newly created green infrastructure should augment the existing resource and link priority habitats including neutral grassland, hedgerow field boundaries and traditional orchards. Maintaining the River Avon corridor as a key green infrastructure link and improving the natural function of the habitats within the floodplain will be critical for a number of GI aspirations.
Historic Environment	Explore opportunities to protect below ground archaeology associated with extensive prehistoric and Romano-British along the Avon corridor and its terraces. Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation. Protect below ground archaeology and deposits of high palaeoenvironmental potential associated with the Avon corridor. Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential. Protect and restore the diverse historic field boundary patterns and hedgerows derived from enclosure of medieval open-fields, market gardening allotments and creation of traditional orchards.
Landscape Character	Enhance and protect the hedgerow field boundaries with a planned enclosure pattern of medium-to-large fields. Seek opportunities to address density and age structure in linear tree belts along hedgerows, ditches and watercourses in the Meadows, or the tree cover associated with dwellings in the Village Farmlands. In the unsettled Riverside Meadows opportunities should be sought to retain pastoral land use and management regimens that support natural river and flood plain function. In contrast, the cropping horticultural land use of the Village Farmlands is particularly characteristic, and localised domestic orchards and lines of fruit trees (often damson) are notable features to be protected or enhanced where appropriate.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition. Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.

	Support ecological improvements. Reduce the impacts of abstraction on the environment as part of the Restoring Sustainable Abstraction programme.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Seventeen	**Broadway and Cotswold Corridor**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore the characteristic Cotswold landscape and its key features including neutral and calcareous grasslands, broadleaved woodland and field boundaries.
Biodiversity	Newly created GI features should aim to augment the existing biodiversity resource concentrating on the main priorities including neutral and calcareous grassland, field boundaries, traditional orchards and woodland. Connectivity of habitats should be sought through linking, merging and buffering existing and newly created habitats. Former quarry sites, arable land and parkland may hold high biodiversity value and should be buffered and enhanced where possible.
Historic Environment	Explore opportunities to protect below ground archaeology associated with extensive prehistoric and Romano-British settlement in the low hinterland surrounding Broadway. Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation. Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Protect and enhance diverse multi-period historic field patterns and hedgerows that distinguish the historic landscapes of lowland farming around Broadway and the rising slopes of the Cotswold upland. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential.
Landscape Character	Enhance and protect the hedgerow field boundaries which vary considerably across the multiple Landscape Types here in character and pattern: from the planned enclosure pattern of drystone walls in the Limestone Estates and planned enclosure pattern of hedgerows defining medium-to-large fields in the Village landscapes (sub-regular in the Claylands) to the organic pattern of hedges in the Wooded Hills. Woodland character, too, should be enhanced and protected – from the large interconnecting irregularly shaped blocks of the Wooded Hills and the estate plantations of the Limestone Estates to the unwooded, treed Village landscapes. In the latter, hedgerow and watercourse trees should be protected and/or replanted to address density and age structure where relevant and notably the extensive apple and plum orchards and hedgerow fruit trees of the Farmlands with Orchards should be protected or enhanced where appropriate. In the unsettled Riverside Meadows opportunities should be sought to retain pastoral land use and management regimens that support natural river and flood plain function.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition. Activities that affect these sites must be changed to support ecological recovery and improve condition.

	Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem. Support ecological improvements. Reduce the impacts of abstraction on the environment as part of the Restoring Sustainable Abstraction programme.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Eighteen	**Carrant Brook Corridor**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and enhance the Carrant Brook, its water quality and stream side habitats. • Protect ancient and veteran trees • Protect and augment the hedgerow and streamside tree resource
Biodiversity	Protect, enhance and link the key features of interest with measures designed to improve the biodiversity and water quality of the brook. New GI should seek to create new features in the landscape that will form biodiversity stepping stones between Bredon Hill and the Cotswolds, including neutral and calcareous grassland and broadleaved woodland. Protect ancient and veteran trees and seek to secure the continuity of the habitat niches these provide through additional tree and woodland planting.
Historic Environment	Explore opportunities to protect and reduce the erosion risk to below ground archaeology associated with extensive prehistoric and Romano-British settlement on the lower slopes of Bredon Hill and the gravel terraces of the Carrant Brook. Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation. Protect and restore the hydrology of historic water features and areas of wetland and peat potential, including deposits of high palaeoenvironmental potential associated with alluvial soils along the Carrant Brook corridor.
Landscape Character	Enhance and protect the hedgerow field boundaries in a planned (or semi-regular in the Claylands) enclosure pattern of medium-to-large fields. Seek opportunities to address density and age structure in linear tree belts along hedgerows, ditches and watercourses in the Meadows or more scattered hedgerow and streamline trees in the Claylands. In the Village Farmlands, hedgerow elms are particularly characteristic and re-planting should be encouraged. Cropping land use here is characteristic with (often domestic) orchards and lines of fruit trees (mostly damson) forming notable features which should be retained and enhanced. Elsewhere, opportunities should be sought to retain pastoral land use that offers protection to the characteristic Ridge and Furrow in the Village Claylands and that supports natural river and flood plain function in the Riverside Meadows.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is unsustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition. Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem. Support ecological improvements.

Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Nineteen	**Longdon Hinterland**
Strategic GI Approach	Protect and restore.
Primary Objectives:	
Overarching principles	• Protect and restore the Longdon, Ripple and Bushley Brook riparian corridors • Protect and restore the historic Longdon Marsh
Biodiversity	Protect, buffer and enhance existing sites and features, especially watercourses, ditches and wetland features, including reedbeds, wet grassland and ponds. Conserve parkland and veteran trees.
Historic Environment	Protect below ground archaeology associated with extensive multi-period settlement on the terraces and higher land surrounding the former Longdon Marsh. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential, including the extensive historic water meadow and irrigation system surrounding Upton upon Severn below and ground deposits of high palaeoenvironmental potential associated with Longdon Brook, Bushley Brook and their tributaries. Protect and restore the diverse historic field boundary patterns and hedgerows derived from piecemeal enclosure and an association with drainage ditches relating to the 19th century drainage of Longdon Marsh.
Landscape Character	Protect and enhance the hedgerow field boundaries respecting the characteristic enclosure pattern of each Landscape Type – planned in the Riverside Meadows and Estate Farmlands, sub-regular in the Settled Farmlands on River Terraces; irregular and organic in the Principal Settled and Timbered Farmlands, respectively. Tree cover is typically provided by linear belts along hedgerows, ditches and watercourses in the Meadows, or trees associated with settlement in the River Terrace Farmlands; watercourse and hedgerow trees in the Settled and Timbered Farmlands and small plantations in the Estates. Seek opportunities to protect and enhance these characteristic, contrasting tree cover patterns to address density and age structure where necessary. Opportunities should also be sought to retain pastoral land use where it is the characteristic dominant land use, particularly the unsettled Riverside Meadows where management regimens should be encouraged that support natural river and flood plain function.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is not sustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Seek opportunities to improve watercourses where it would benefit fish migration and spawning. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests.

	Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty	**Kempsey Plain**
Strategic GI Approach	Protect and restore.
Primary Objectives:	
Overarching principles	• Protect and restore neutral grassland habitats and traditional field boundaries.
Biodiversity	Newly created GI features should aim to augment and buffer the existing resource concentrating on the main priorities for protection and creation including wetland and floodplain habitats in the river corridors. Create and enhance neutral grassland habitats. Protect and enhance existing broadleaved woodland and remaining traditional orchards. Protect and enhance biodiverse road verges, linear belts of trees, hedgerows, ditches and watercourses together with other traditional field boundaries to aid connectivity and landscape permeability.
Historic Environment	Explore opportunities to protect below ground archaeology associated with extensive prehistoric and Romano-British settlement and ritual sites throughout the area and medieval archaeology adjacent to Kempsey. Protect sensitive below ground palaeoenvironmental deposits contained in palaeochannels adjacent to the Severn.
Landscape Character	Protect extensive below ground archaeology that includes: prehistoric and Romano-British settlement and palaeoenvironmental deposits contained in palaeochannels river terraces and alluvial clays adjacent to the Severn corridor and confluence with the Teme. Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation. Protect and enhance areas of historic woodland, unenclosed commons, river meadows and their setting. Develop opportunities for the creation of connected habitats that contribute towards their setting. Protect and restore the diverse, multi-period historic field boundary patterns and hedgerows derived from periods of enclosure and land division.
Blue Infrastructure	Enhance and protect the hedgerow field boundaries respecting the characteristic enclosure pattern of each Landscape Type – planned in the Riverside Meadows, sub-regular in the Settled Farmlands on River Terraces, moving to irregular and organic in the Settled and Timbered Farmlands, respectively. Tree cover is typically provided by linear belts along hedgerows, ditches and watercourses in the Meadows, or trees associated with settlement or watercourses in the River Terrace Farmland; watercourse and hedgerow trees in the Settled and Timbered Farmlands. Opportunities should be sought for protecting and enhancing characteristic but contrasting tree cover to address density and age structure as appropriate. Opportunities should be sought to retain pastoral land use and management regimens in the Riverside Meadows that support natural river and flood plain function.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes.

Transport	Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty One	**River Teme Corridor**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore the river valley corridor and floodplain.
Biodiversity	Newly created GI features should aim to augment the existing resource concentrating on the priorities determined for the Malvern Chase and Laugherne Valley Biodiversity Delivery Area including the protection and creation of wetland and floodplain habitats in the river corridors. Away from the river corridor the networks of broadleaved ancient woodlands and remnant traditional orchards are of significance and require protection, restoration and defragmentation. Create and enhance existing neutral grassland habitats. Create and enhance traditional hedgerow field boundaries to aid connectivity and landscape permeability.
Historic Environment	Protect and restore the hydrology of historic water features such as drainage ditches and areas of wetland and peat potential, including below ground deposits of high palaeoenvironmental potential associated with alluvial soils in the Teme corridor. Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, watermeadow features and medieval settlement.
Landscape Character	Composed predominantly of the unsettled Riverside Meadows Landscape Type where opportunities should be sought to retain pastoral land use and management regimens that support natural river and flood plain function. Protect and enhance the hedgerow field boundaries in a planned enclosure pattern of medium-to-large fields. Seek opportunities to address density and age structure in linear tree belts along hedgerows, ditches and watercourses. The surrounding landscapes are composed of the smaller-scale Principal Timbered Farmlands with a contrasting organic enclosure pattern – protect and enhance this where possible, also safeguarding and/or managing/re-planting hedgerow oaks to address density and age structure.
Blue Infrastructure	Reduce dependence on raised flood defences, as this is not sustainable in the long term, by taking opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain. This requires redevelopment to be limited to flood-compatible land-uses e.g. parkland). Some designated 'aquatic conservation' sites are in unfavourable condition (for example the River Teme SSSI). Activities that affect these sites must be changed to support ecological recovery and improve condition. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem. Support ecological improvements. Seek opportunities to improve watercourses where it would benefit fish migration and spawning. Tackle issues of diffuse pollution in the catchment through the provision of advice to farmers.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

	Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty Two	**Severn Meadows Corridor**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and enhance the neutral and wet meadows of the River Severn corridor.
Biodiversity	Priority is to protect and enhance existing site and biodiversity interest. Implementation and delivery should be directed to existing site management and buffering as a first principle with linking of networks through extended buffering and corridor augmentation to be applied where practicable. Restore functional stream corridors by restoring and enhancing the links between the river and its floodplain. Priority habitats for restoration include wet and floodplain grassland, reedbed and wet woodland.
Historic Environment	Protect below ground archaeology associated with extensive prehistoric, Romano-British and medieval settlement adjacent to and east of the A443. Protect and restore the hydrology of historic water features such as moats, fishponds, millponds, leats and areas of wetland and peat potential, including (notably) features and watercourses associated with extensive former historic water meadows east and south-east of Grimley. Protect and enhance areas of historic designed landscape (including the parkland character east of Sinton Green and south of Hallow) and their setting.
Landscape Character	Composed entirely of the unsettled Riverside Meadows Landscape Type where opportunities should be sought to retain pastoral land use and management regimens that support natural river and flood plain function. Protect and enhance the hedgerow field boundaries in a planned enclosure pattern of medium-to-large fields. Seek opportunities to address density and age structure in linear tree belts along hedgerows, ditches and watercourses.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.

Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty Three	**Eardiston**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore networks and connectivity to the wider Teme Valley landscape
Biodiversity	Priority is to protect and enhance the existing site and biodiversity interest. Implementation and delivery to be directed to existing site management and buffering as a first principle with linking of habitat networks to be applied where practicable. Protect remnant ancient woodland, unimproved grassland and traditional orchards. Seek to create and restore botanically diverse grasslands and riparian habitats including wet grassland and meadows, fen, carr and wet woodland.
Historic Environment	Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains, notably, the setting of Castle Tump near Eastham Bridge. Protect and restore the hydrology of historic water features associated with the Teme Valley, including well-preserved organic remains and palaeoenvironmental deposits within alluvial clays in the flood plain.
Landscape Character	Composed entirely of the unsettled Riverside Meadows Landscape Type where opportunities should be sought to retain pastoral land use and management regimens that support natural river and flood plain function. Protect and enhance the hedgerow field boundaries in a planned enclosure pattern of medium-to-large fields. Seek opportunities to address density and age structure in linear tree belts along hedgerows, ditches and watercourses.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This

	can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty Four	**Bewdley Fringe**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and enhance the River Severn corridor.
Biodiversity	Implementation and delivery to be directed to existing site management and buffering as a first principle with linking of habitat networks to be applied where practicable. Protect and restore existing key biodiversity assets including unimproved grasslands, ponds, heathland, ancient and veteran trees and broadleaved woodland. Newly created GI features should aim to augment this existing resource concentrating on acid grassland, heathland, hedgerows and small woodlands. Habitat connectivity should be enhanced through linking, merging and buffering existing and newly created habitats. Restore functional stream corridors and re-link habitats within the flood plain in particular wet grassland, reedbed and wet woodland. In the urban fringe tree cover should be maintained to support connectivity with the surrounding networks of habitats.
Historic Environment	Protect and restore the diverse historic, multi-period field boundary patterns and their hedgerows. Protect and restore the setting of Spring Grove Park and the setting of historic farmsteads north of Catchems End. Develop opportunities to protect and restore heathland landscapes employing methods sensitive to historic asset conservation
Landscape Character	In these urban fringe areas, seek opportunities to restore the characteristic features of the three distinct Landscape Types that comprise this ECA - Riverside Meadows to the south, Sandstone Estatelands to the east and Principal Timbered Farmlands to the north. Where possible seek opportunities to address the characteristic (and contrasting) enclosure and tree cover patterns, particularly the hedgerows and scattered oaks in the Timbered Farmlands and linear watercourse tree belts in the Riverside Meadows. The varied (and uncharacteristic) land uses in the Sandstone Estatelands to the west, have disrupted the field boundary pattern and condition. Opportunities to address this could be sought as well as scrub/woodland management options to restore heathland character.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes.

Transport	Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty Five	Birchen Coppice
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore networks and connectivity to the wider Teme Valley and Wyre Forest landscape
Biodiversity	Priority is to protect and enhance existing site and biodiversity interest. Implementation and delivery to be directed to existing site management and buffering as a first principle. Linking of habitat networks to be applied where practicable. Strengthen the network of hedgerow field boundaries and linear woodland belts to restore connectivity to the woodland, acid grassland and heathland landscape to the north-west and to the canal corridor to the south-east. Create and enhance biodiverse habitats within the canal corridor.
Historic Environment	Develop opportunities to protect and restore heathland landscapes employing methods sensitive to historic asset conservation. Also, protect and restore heathand edge boundaries and hedgerows, restoring links in field boundaries. Protect and restore the hydrology of historic water features and wetland areas associated with significant well-preserved organic remains including peat deposits that contain an environmental sequence of approximately 10,000 years.
Landscape Character	Composed entirely of the Sandstone Estatelands Landscape Type. Seek opportunities to restore the inherent tree cover pattern where possible: tree belts and/or linear watercourse tree cover would be most appropriate (given the size of this small ECA), to retain the otherwise open feel of the Estatelands. The planned, geometric pattern (field boundaries and roads) should convey a sense of visual unity.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This

	can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty Six	**Birlingham**
Strategic GI Approach	Protect and restore
Primary Objectives:	
Overarching principles	• Protect and restore the River Avon corridor and functional floodplain habitats.
Biodiversity	Protect and enhance existing site and biodiversity interest. Implementation and delivery to be directed to existing site management and buffering of priority habitats as a first principle. Newly created green infrastructure should augment the existing resource and link priority habitats including neutral grassland, wet grassland and traditional orchards. Hedgerow field boundaries and streamside trees and wet woodland are important linking corridors and should be protected and restored. Maintenance of the riparian habitat of the River Avon corridor as a key green infrastructure link and augmentation of the floodplain will be critical for a number of GI aspirations.
Historic Environment	Protect below ground archaeological remains associated with the river terraces and alluvial flood plain. Protect and restore locally distinctive historic hedgerows and field boundary patterns associated with piecemeal enclosure of former open-field landscapes and river meadows. Protect and restore the hydrology of historic water management features and areas of wetland and peat potential, including well-preserved organic remains and palaeoenvironmental deposits within alluvial clays in the Avon flood plain
Landscape Character	Composed entirely of the Principal Village Farmlands Landscape Type. Enhance and protect the hedgerow field boundaries with a planned enclosure pattern of medium-to-large fields. Seek opportunities to protect or enhance tree cover associated with dwellings The cropping horticultural land use of the Village Farmlands is particularly characteristic, and localised domestic orchards and lines of fruit trees (often damson) are notable features to be protected or enhanced where appropriate.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.

Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty Seven	**Bredicot**
Strategic GI Approach	Restore and create
Primary Objectives:	
Overarching principles	• Restore and create wet pasture and marshland
Biodiversity	Protect and enhance existing site and biodiversity interest. Implementation and delivery to be directed to existing site management and buffering of priority habitats as a first principle. Newly created green infrastructure should augment the existing resource and link priority habitats including hedgerows. Priorities for restoration are wet meadows and marsh habitats.
Historic Environment	Protect and restore the hydrology of historic water management features and areas of wetland and peat potential, including well-preserved organic remains and palaeoenvironmental deposits.
Landscape Character	Composed entirely of the Wet Pasture Meadows Landscape Type in moderate condition. Restore and protect the hedge and ditch field boundaries and regular enclosure pattern. Restore the characteristic linear tree belts alongside ditches and watercourses. Seek every opportunity to retain areas of permanent pasture in this pastoral landscape.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty Eight	Defford
Strategic GI Approach	Restore and create
Primary Objectives:	
Overarching principles	• Restore and create landscape links and connectivity to estate farmlands landscape
Biodiversity	Information on the biodiversity of this area is limited. Links should be made with management of priority habitats in adjacent ECAs, in order to achieve site expansion and to buffer and link the key priorities including the network of species-rich grasslands, hedgerows and small woodlands of the neighbouring estate farmlands.
Historic Environment	Defford Airfield was created directly from the former area of Defford Common. Protect and buffer surviving surface features associated with the former RAF airfield. The area has not been affected by modern agricultural practice, which presents the potential for archaeological deposits and artefacts close to the surface. Avoid significant ground disturbance in order to protect below ground archaeology. Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation.
Landscape Character	The majority of the site is composed of the Unenclosed Commons Landscape Type, with the Wooded Estatelands appearing to the northwest. While there have been localised high impacts of the former airfield which has given rise to scrub encroachment and fences in the Unclosed Commons to the north east, otherwise the area remains treeless and relatively open and this should be retained and enhanced where possible. In the Wooded Estatelands in the northwest portion, opportunities should be sought to restore and protect the field boundaries and representation of woodland in its characteristic forms – large discrete blocks (which may extend from beyond the site).
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.

Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Twenty Nine	Bickmarsh
Strategic GI Approach	Restore and create.
Primary Objectives:	
Overarching principles	• Maintain traditional orchards • Restore connectivity between priority habitats
Biodiversity	Retain and positively manage the remnant network of unimproved grasslands (notable where ridge and furrow survives), hedgerow field boundaries, hedgerow trees and traditional orchards. Newly created GI features should aim to augment the existing resource through linking, merging and buffering existing and newly created habitats.
Historic Environment	Protect and restore locally distinctive historic hedgerows and field boundary patterns associated with piecemeal enclosure of former heath and marsh. Buffer, protect and enhance the setting of archaeological surface features including ridge and furrow.
Landscape Character	Composed predominantly of the unsettled Riverside Meadows Landscape Type where opportunities should be sought to retain pastoral land use and management regimens that support natural river and flood plain function. Protect and enhance the hedgerow field boundaries in a planned enclosure pattern of medium-to-large fields. Seek opportunities to address density and age structure in linear tree belts along hedgerows, ditches and watercourses. The surrounding landscapes are composed of the smaller-scale Principal Timbered Farmlands with a contrasting organic enclosure pattern – protect and enhance this where possible, also safeguarding and/or managing/re-planting hedgerow oaks to address density and age structure.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This

	can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.

Environmental Character Area: Thirty	**Long Marston**
Strategic GI Approach	Restore and create
Primary Objectives:	
Overarching principles	• Maintain traditional orchards, • Restore connectivity between priority habitats
Biodiversity	Retain and positively manage the remnant network of unimproved grasslands (notable where ridge and furrow survives), hedgerow field boundaries, hedgerow trees and traditional orchards. Newly created GI features should aim to augment the existing resource through linking, merging and buffering existing and newly created habitats.
Historic Environment	Buffer, protect and enhance the setting of archaeological surface features, such as earthworks, ridge and furrow, multi-period settlement remains. Buffer and protect the Roman road. Develop opportunities to protect below ground archaeology as part of public open space or land set aside for nature conservation. Protect and restore the diverse historic field boundary patterns derived from the enclosure of former unenclosed heathland and marsh.
Landscape Character	Composed entirely of the unsettled Riverside Meadows Landscape Type where opportunities should be sought to retain pastoral land use and management regimens that support natural river and flood plain function. Protect and enhance the hedgerow field boundaries in a planned enclosure pattern of medium-to-large fields. Seek opportunities to address density and age structure in linear tree belts along hedgerows, ditches and watercourses.
Blue Infrastructure	Manage areas of low, moderate or high flood risk and take action where necessary to keep pace with climate change. Explore opportunities to restore sustainable natural storage of floodwater on undeveloped floodplains. Make more space for rivers through urban areas via 'blue corridors' (i.e. Restoring access for floodwater onto key strips of floodplain by limiting redevelopment to flood-compatible land-uses e.g. parkland). Seek ecological improvements. Ensure that the run-off from all proposed development is minimised. For example, SuDS must be encouraged and targeted within planning approvals. Encourage the retro-fitting of SuDS where surface water flooding is already a problem.
Access and Recreation	Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition. Accommodate associated facilities necessary for the use and enjoyment of the site in a manner that is appropriate and able to integrate with the landscape character, wildlife and cultural interests. Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes. Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.
Transport	Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport

	as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change. This can be achieved through integration with active travel corridors and networks, both those existing and those emerging as defined by Worcestershire's Local Transport Plan fourth edition.