

MARCH 2014

# Borough of Redditch Local Plan No.4 Green Infrastructure Strategy Baseline for Redditch Borough

Draft



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**Green Infrastructure Strategy Baseline for Redditch Borough March 2014**

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## Introduction

*“Green Infrastructure is the network of green spaces and natural elements that intersperse and connect our cities, towns and villages. It is the open spaces, waterways, gardens, woodlands, green corridors, wildlife habitat, street trees, natural heritage and open countryside.”<sup>1</sup>*

*“Green Infrastructure is a strategically planned and delivered network comprising the broadest range of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering those ecological services and quality of life benefits required by the communities it serves and needed to underpin sustainability. Its design and management should also respect and enhance the character and distinctiveness of an area with regard to habitats and landscape types.*

*Green Infrastructure includes established green spaces and new sites and should thread through and surround the built environment and connect the urban area to its wider rural hinterland. Consequently it needs to be delivered at all spatial scales from sub-regional to local neighbourhood levels, accommodating both accessible natural green spaces within local communities and often much larger sites in the urban fringe and wider countryside.”<sup>2</sup>*

The existing, and future provision of Green Infrastructure (GI) in Redditch Borough is integral to the future development of the Borough. The way the Borough develops in the future is set out in the Borough of Redditch Local Plan No.4. GI planning through this document and the follow up GI Strategy, should ensure that development goes hand-in-hand with the protection and enhancement of existing environmental assets and the creation of new ones.

Green infrastructure provision can play a key part in Redditch’s civic pride, community and civic values or perceptions, and identity. This can be achieved through formulating design principles, responding to landscape character and sense of place, and by identifying opportunities for community involvement in projects through design and implementation to foster ownership and involvement.

Understanding the landscape and environmental setting and sensitivities in Redditch will enable us to understand the areas character and place. This understanding of place should enable a sustainable and economically sound approach to the plan-making process.

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<sup>1</sup> Green Infrastructure – A Prospectus for the West Midlands Region, WMRA

<sup>2</sup> Natural England Green Infrastructure Guidance (January 2009)

## Purpose of the Study

The purpose of this study is to establish a baseline audit for the GI strategy so that the existing and future provision of GI in Redditch Borough can be carefully targeted. This audit will go hand in hand with the Worcestershire GI Strategy.

All existing GI within Redditch will be mapped to find opportunities and issues that need to be addressed.

It is envisaged that the complete GI Strategy will be comprised of 3 parts:

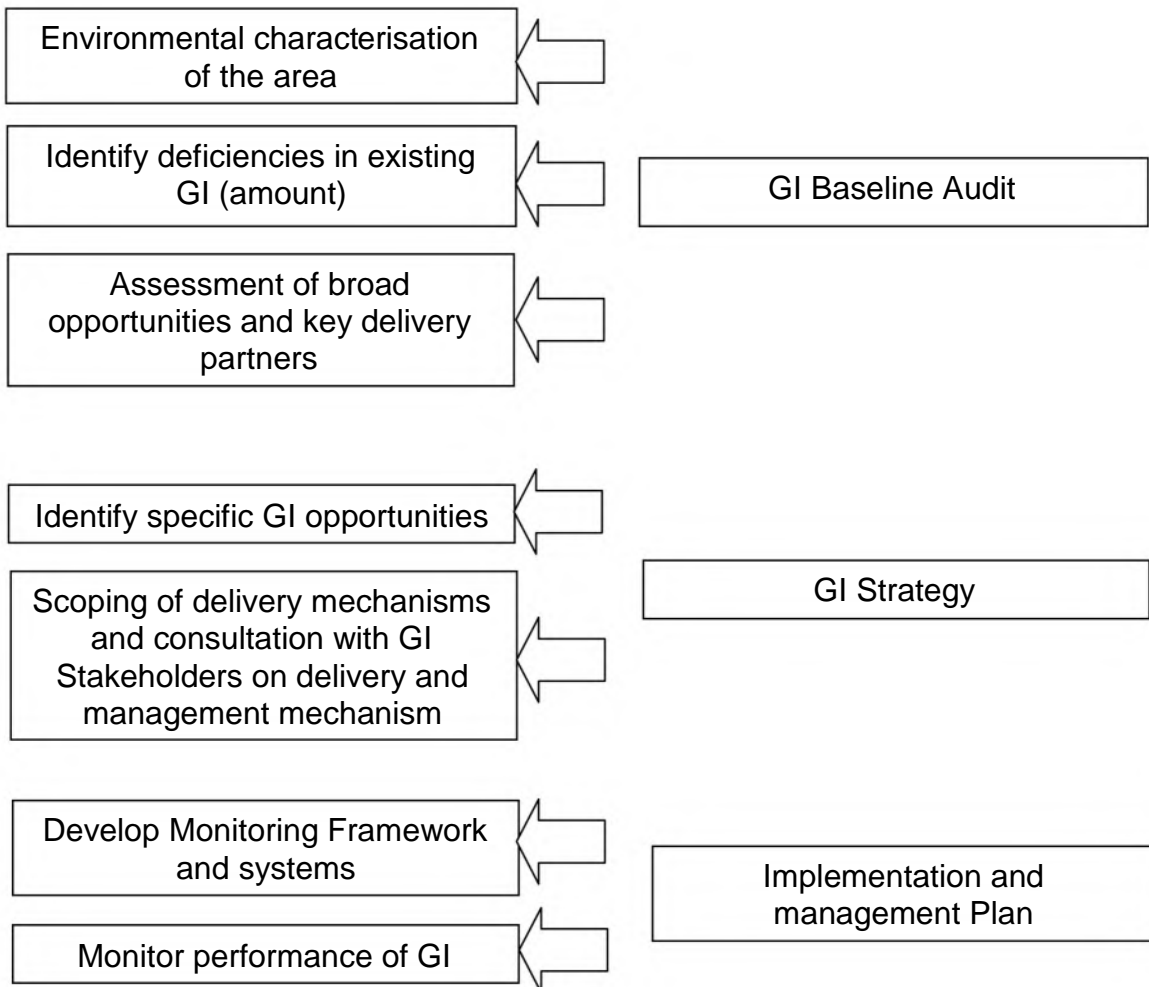
- A baseline **Audit** of current GI assets within the Borough;
- A **GI Strategy** for enhancing existing assets and the provision of new assets through development
- An **Implementation and Management Plan** to monitor the GI Strategy

This document is the first part of the study which is the baseline audit of current GI assets within the Borough. The GI Strategy will be based upon the analysis of existing provision, deficiencies and need. This analysis guides the strategy's priorities as well as highlighting opportunities for GI creation, enhancement and investment.

## Methodology

This first stage of the GI baseline audit has been undertaken using desk-based research methods where data has been collated from a variety of existing sources. The sources are varied including County Council information, stakeholder data and also datasets from within the Local Authority itself. This data is what has been available at the time of the desktop research, some of which is more up to date and some may exclude some currently unknown assets. Some of this data will change over time as information is updated.

There are a number of tasks required to undertake the GI Strategy at each stage as detailed below.



## Defining Green Infrastructure

Green Infrastructure has been part of planning policy for a considerable amount of time, for example through the Garden City Movement and more recently through the recognition of the need to promote ‘Sustainable Communities’ through the planning system<sup>3</sup>, but only in recent years has it actually been termed *Green Infrastructure*.

The definition of Green infrastructure for the purposes of this local GI strategy is taken from the Worcestershire GI Strategy (2013-2018) which is as follows:

**“Green infrastructure (GI) is the planned and managed network of green spaces and natural elements that intersperse and connect our cities, towns and villages. GI comprises many different elements including biodiversity, the landscape, the historic environment, the water environment (also known as blue infrastructure) and publicly accessible green spaces and informal recreation sites.**

**Traditionally the focus has been on the environmental benefits of these green spaces, but the underlying principle of GI is that the same area of land can frequently offer multiple benefits. The green infrastructure approach therefore integrates consideration of economic, health and social benefits to ensure that delivery against both environmental and socio-economic objectives is central to the planning, management and delivery of these spaces.**

**Green spaces and natural elements do not exist in isolation. Considering networks in an integrated way also achieves benefits that are far greater than when individual components are considered separately. There are many advantages to be gained from securing a critical mass of GI in a locality – creating a wide range of benefits which meet individual site priorities.”**

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<sup>3</sup> For example the Sustainable Communities Plan (2003) states: “We will promote more and better publicly accessible space in and around our communities through the creation of new country parks and networks of green spaces within towns and cities. ‘Green wedges’ and ‘green corridors’ will be given further protection through the planning system” (para 4.12)

## The Worcestershire Sub Regional GI Strategy

The Worcestershire Green Infrastructure Partnership is a partnership of statutory agencies, voluntary organisations, local councils and the county council. The partnership has produced a Worcestershire Green Infrastructure strategy (2013-2018).

The Worcestershire GI Strategy is supported by four evidence base documents which cover the following issues:

- GI Framework Document 1 – establishes GI concept and policy context for Worcestershire
- GI Framework Document 2 – establishes the Environmental Character Areas based on natural environment datasets
- GI Framework Document 3 – explores the supply, potential need and capacity of strategic recreational assets
- GI Framework Document 4 – investigates the economic, health and climate change benefits of GI

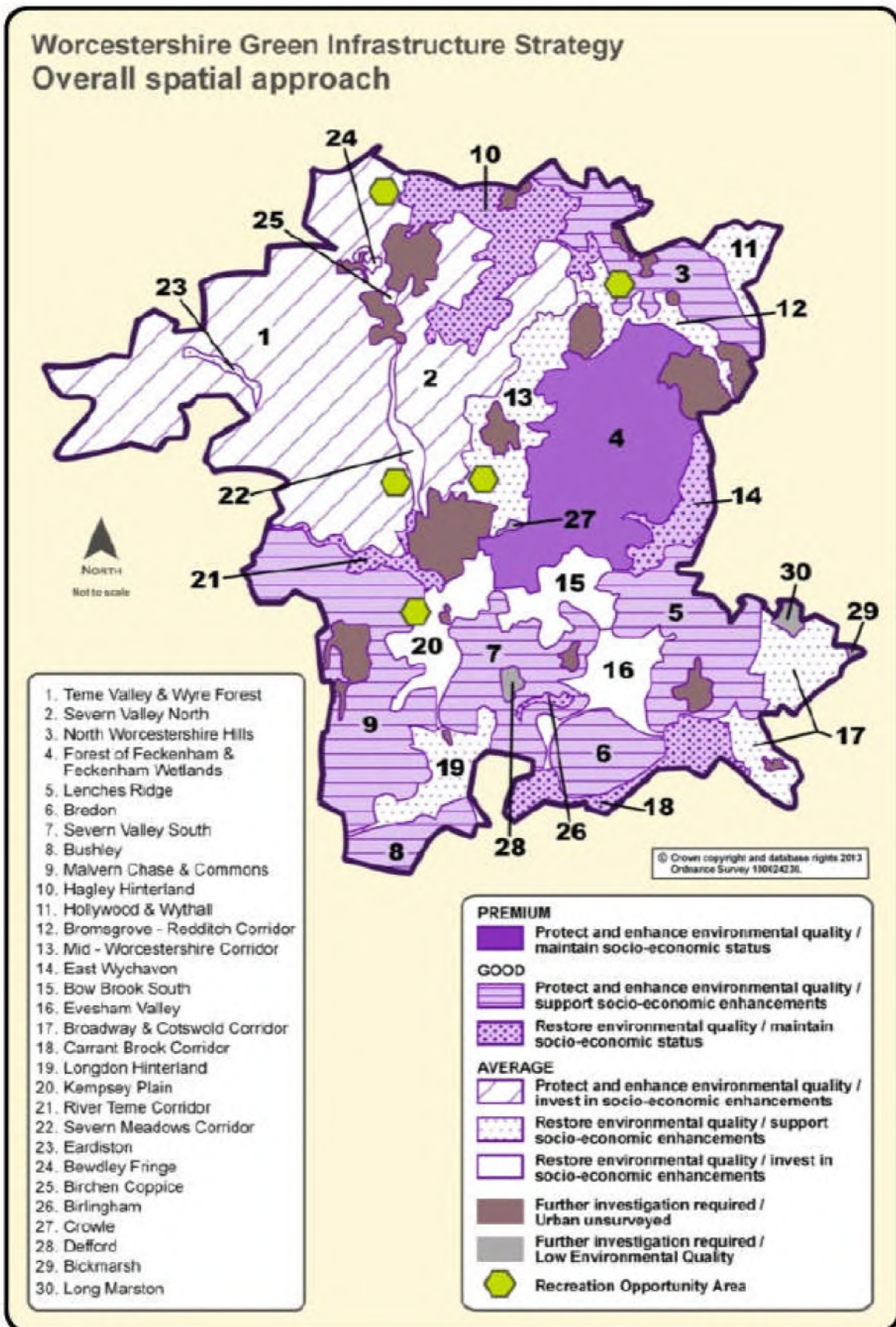
It sets out county-scale principles to inform plans and strategies being developed by partner organisations to enable a coherent approach to delivery across a range of initiatives.

A demonstration of multi-function Green Infrastructure at the local level is provided within the Strategy with reference to Redditch's Arrow Valley Park. It states that the multiple benefits of the Park include biodiversity, flood management, climate change mitigation and adaptations, historic environment, health and well-being, access and recreation and economic growth.

There are a number of matters raised in the Worcestershire GI Strategy which will be important to consider in developing the Redditch GI Strategy, particularly where initial indications suggest priority area for GI.

The map below is an extract from the Worcestershire GI Strategy indicating the overall spatial approach to be taken to GI in the County. As can be seen from the map, Redditch urban area is largely surrounded by the Counties 'Premium' classified area, meaning that the overall approach should be to "Protect and enhance environmental quality/maintain socio-economic status".





## Green Infrastructure Baseline

The Green Infrastructure within Redditch has been grouped into six categories. Each of these categories of GI has been assessed in the baseline report:

- **Biodiversity** – Considers information including strategic biodiversity considerations, Redditch Biodiversity Action Plan, biodiversity designations such as Sites of Special Scientific Interest, Local Wildlife Sites and Local Nature Reserves, the Worcestershire Habitat Inventory and geodiversity.
- **Landscape** - Considers information including natural areas, Landscape Character Areas, the Landscape Character Assessment, Tree Preservation Orders, Green Belt and Local landscape designations like Callow Hill Ridge.
- **Historic Environment** - Considers information including archaeology, designations like Statutory Listed Buildings, Scheduled Ancient Monuments, Locally listed heritage assets, Conservation Areas and the Redditch Historic Environment Assessment
- **Blue Infrastructure** - Considers information including Flood Management and the Strategic Flood Risk Assessment
- **Access and Movement** - Considers information including routes for walking and cycling, key destination points and linkages.
- **Open Space** - Considers information including the Open Space Needs Assessment, typologies of open space and the new town legacy impacts on open space

## Biodiversity

It is the EU Directives and other regulations which enable the statutory protection of species and habitats. For more information about the species protected by these regulations please see Annex I species of the birds directive at [http://ec.europa.eu/environment/nature/legislation/birdsdirective/index\\_en.htm](http://ec.europa.eu/environment/nature/legislation/birdsdirective/index_en.htm) and also Annex II species of the habitats directive at [http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index\\_en.htm](http://ec.europa.eu/environment/nature/legislation/habitatsdirective/index_en.htm)

### Strategic biodiversity considerations

Within the aforementioned Natural England Natural Areas, the Midlands Plateau on which the majority of Redditch area falls, contains a number of major habitat types including heathland, woodland, grassland, wetlands, freshwater and farmland.

Within Worcestershire the Worcestershire Biodiversity Action Plan is a series of plans covering a range of habitats and species of relevance in Worcestershire that are of importance. The Worcestershire BAP consists of 19 habitats and 25 species; some of these are also UK priority habitats and species, some are of regional or local significance. These relevant species and habits should be considered when developing the GI strategy. For more information about the Biodiversity Action Plan can be found on the Worcestershire Biodiversity Partnership website at <http://www.worcestershire.gov.uk/cms/biodiversity.aspx>

### Redditch Biodiversity Action plan

Redditch Borough Council commissioned a Biodiversity Action Plan for the town in 2001. The plan highlights the fact that at least eight important habitats such as woodland, marshland, meadowland and hedgerows are found within the Redditch area. There are six protected species which occur in Redditch including Great Crested Newts, bats and badgers.

### Redditch Biodiversity Designations

In terms of the environmental aspects of Redditch Borough, there are six Sites of Special Scientific Interest (SSSI), amounting to 54.7 hectares; these are examples the country's very best wildlife and geological sites. The Borough has 24 Local Wildlife Sites and there is also more than 87ha of land designated as Local Nature Reserves, comprising five separate sites of semi-natural ancient woodland.

The table below shows the Borough's six SSSIs and their current condition. As can be seen all sites are currently meeting the Government's target of sites being in favourable or recovering condition. Natural England state that Ipsley Alders Marsh and Wylde Moor Feckenham are now meeting the PSA target, their condition description has improved from unfavourable declining in 2006 to unfavourable recovering in 2009. This status has been maintained up to 2014.

Neighbouring Bromsgrove District has eight designated SSSIs, 96 Local Wildlife Sites and 5 Landscape Protection Areas. Stratford-on-Avon District has 37 SSSIs.

SSSI Name	Size (Ha)	Type	Condition description	% meeting PSA* target
<b>Dagnell End Meadow</b>	2.16	Neutral grassland/lowland	Unfavourable recovering	100
<b>Ipsley Alders Marsh</b>	15.11	Fen, marsh & swamp	Unfavourable recovering	100
<b>Rookery Cottage Meadows (Upper Beanhall)</b>	5.82	Neutral grassland/lowland	Favourable	100
<b>Rough Hill &amp; Wirehill Woods</b>	52.03 (17.44 in Redditch Borough)	Broadleaved, mixed & yew woodland/lowland	Favourable	100
<b>Trickses Hole</b>	2.85	Neutral grassland	Favourable	100
<b>Wylde Moor Feckenham</b>	3.53	Neutral grassland/lowland	Unfavourable recovering	100
	6.44	Fen, marsh & swamp	Favourable	
	1.38	Neutral grassland/lowland	Unfavourable recovering	

\* PSA = The Governments Public Service Agreement target of 95% of the SSSI in favourable or recovering condition by 2010

The table below shows the Local Wildlife Sites with their grid reference and area. After a 2009 review of the sites, the following special wildlife sites were removed - Brooks Coppice, Lady's Coppice and Martin Bank, Mill Coppice and The Rough.

<b>Local Wildlife Sites Name</b>	<b>Grid Reference</b>	<b>Area</b>
Abbey and Forge Mill Ponds and Streams	SP 048 687	5.0 Ha
Arrow Valley Lake	SP 060 673	15.0 Ha
Berrow Hill	SO 997 622	22.3 Ha
Bow, Shell, Swans and Seeley Brooks	SP 004 657 SP 020 631 SO 989 599	n/a n/a n/a
Brandon Brook Meadow	SP 008 601	1.0 Ha
Brookhouse Meadows and Feckenham Bank	SP 003 614	8.0Ha
Dagnell Brook	SP 054 693 SP 054 681 SO 989 599	n/a n/a n/a
Downsell Woods	SP 025 658	8.0 Ha
Foxlydiate and Pitcheroak Woods	SP 025 670	42.0 Ha
Lady's Coppice and Martin Bank	SP 027 602	14.0 Ha
Lodge Pool	SP 048 666	3.0 Ha
New Coppice	SP 043 638	2.5 Ha
Oakenshaw Fenny Rough	SP 048 654	1.5 Ha
Oakenshaw Spinney	SP 044 651	1.5 Ha
Oakenshaw Wood (Tanners Wood)	SP 042 657	8.0 Ha
Pitcher Oak Golf Course	SP 034 699	32 Ha
Old Rectory Meadow	SO 989 613	0.7 Ha
River Arrow and Papermill and Beoley Mill Ponds and Stream	SP 040 692 SP 054 684 SP 056 680	n/a n/a n/a
Shurnock Meadows (Brookside Meadows)	SP 019 610	7.0 Ha
Southcrest Wood	SP 041 663	15.0 Ha
Walkwood Coppice	SP 028 651	6.5 Ha

The table below indicates the name and location of the six Local Nature Reserves that exist in Redditch Borough.

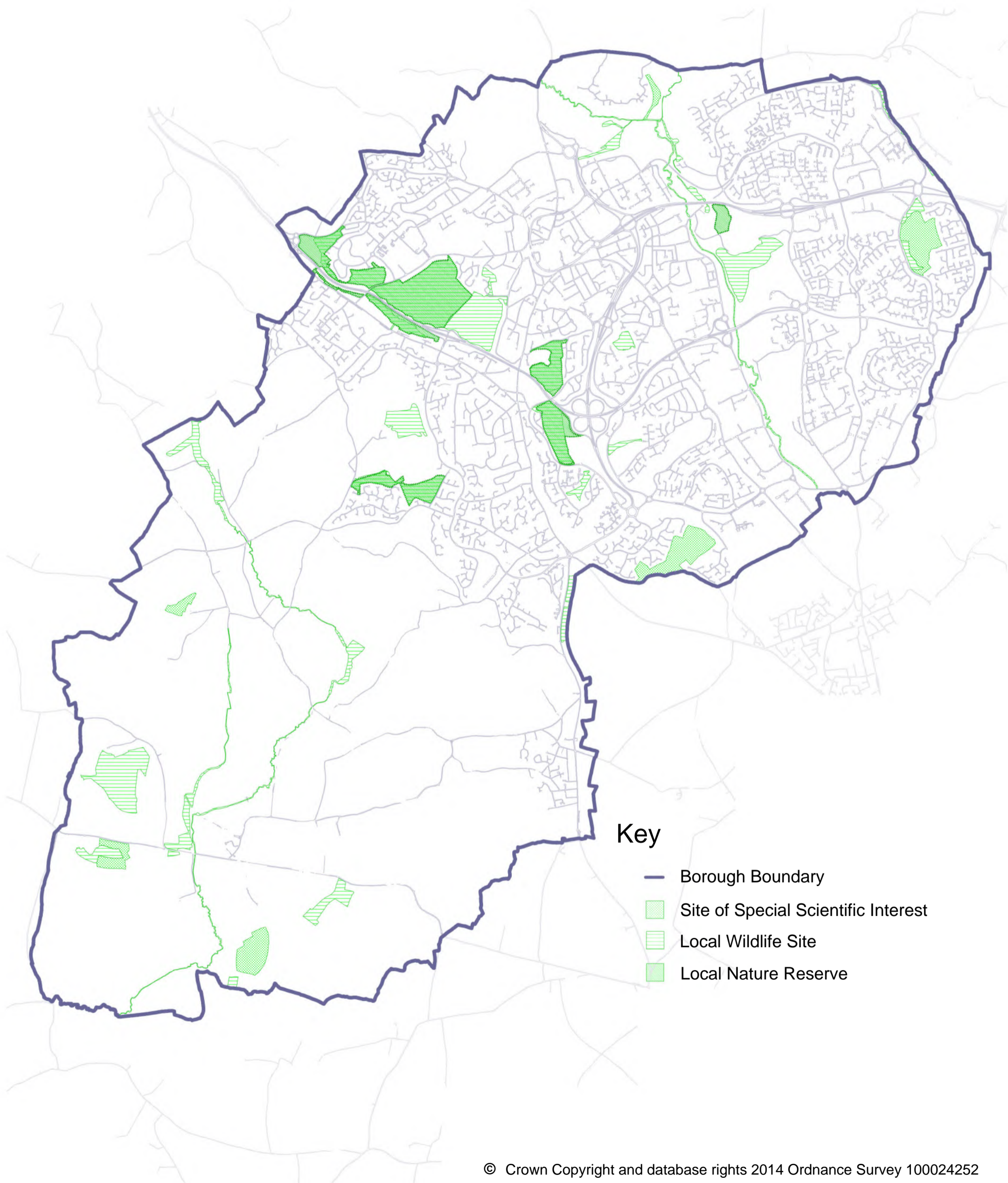
<b>LNR Name</b>	<b>Grid Reference</b>
Pitcheroak Wood	SP 028 670
Foxlydiate Wood	SP 017 675
Walkwood Coppice	SP 023 651
Southcrest Wood	SP 043 662
Oakenshaw Wood	SP 042 657
Proctors Barn Meadows	SP 058 678

### Worcestershire Habitat Inventory

The Worcestershire Habitat Inventory is a digital mapping project led by Worcestershire County Council involving field-by-field survey of the county to document habitats and land use. It provides an important baseline of information about the natural environment of Worcestershire. The raw data within the Worcestershire Habitat Inventory was analysed to produce two main outputs the Habitat Network Maps and Biodiversity Basemaps.

The Worcestershire Habitat Inventory is already being used to inform the baseline evidence needed to assist the development of the Worcestershire Green Infrastructure strategy and to help target delivery of the county Biodiversity Action Plan.

BIODIVERSITY



## Geodiversity

A Geodiversity Action Plan for Worcestershire contains a number of Objectives. Those relevant to Green Infrastructure include:

- Increase awareness, understanding and appreciation of the County's Geodiversity
- Ensure that geo-diversity is identified and included in regional and local strategies, plans and policies
- Protect, conserve and enhance geodiversity resources
- Improve and sustain the links between geodiversity, biodiversity, archaeology and the landscape

In order to protect and enhance geodiversity of relevance, developments would need to support the objectives and actions for the conservation of geodiversity in the Worcestershire Geodiversity Action Plan, and the Redditch Local Plan No.4 proposes to promote this.

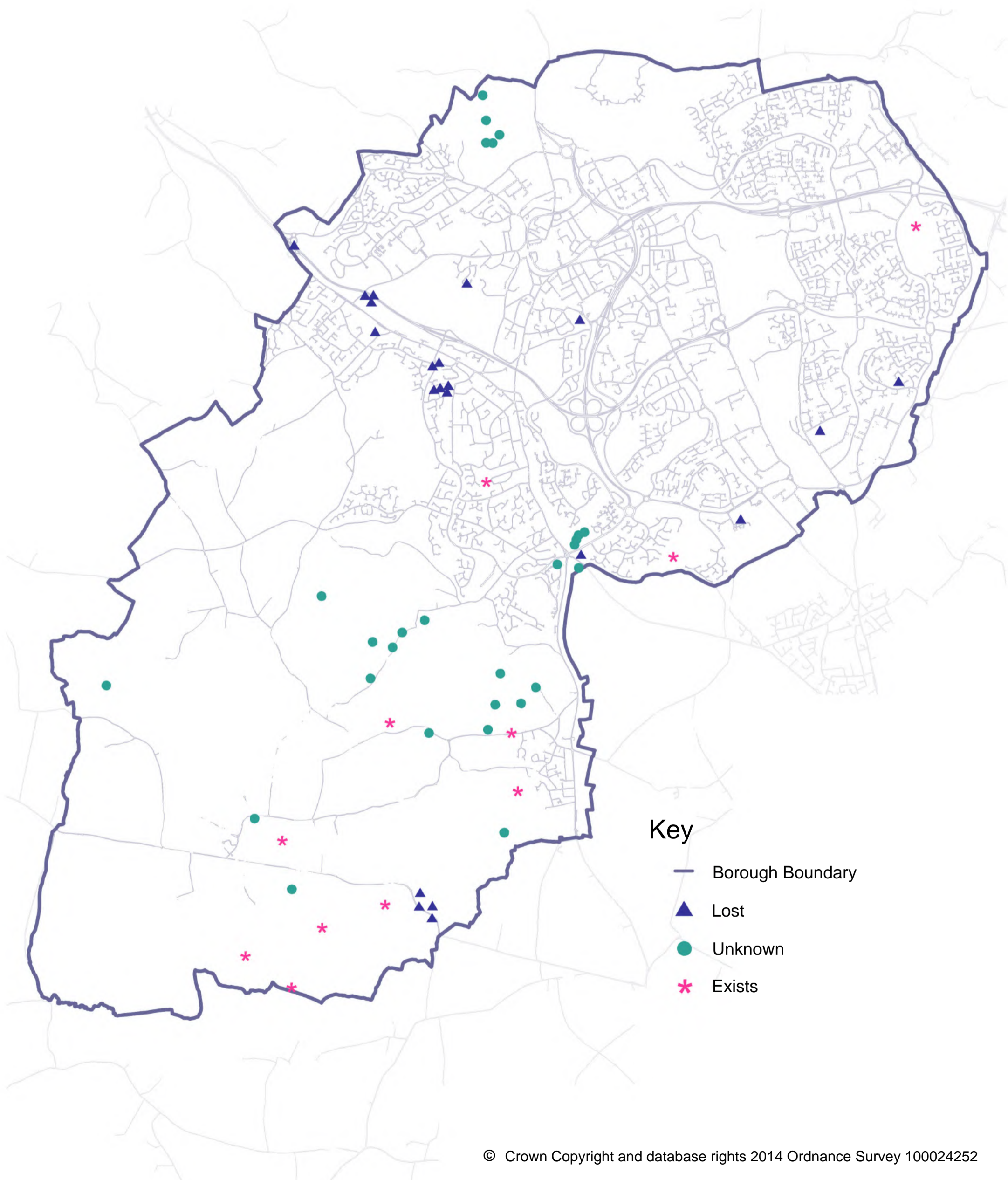
The map below indicates that there are eleven known geological sites within Redditch Borough. There is no particular pattern to the location of these sites, and the majority of sites fall outside of any settlement boundary

There are also a number of 'lost' geological sites in the Borough. There are three lost sites around Redditch eastern boundaries and a cluster of thirteen sites along the Redditch ridgeline within the urban area. There is a further small cluster of four lost sites to the southern parts of the rural area in the vicinity of the B4090 The Saltway.

There are also a number of other 'unknown' classifications of geological sites. There are two clusters of sites, firstly in the northern areas of the undeveloped Brockhill Strategic Site (as proposed in the emerging Borough of Redditch Local Plan No.4). The second urban cluster is in the vicinity of the Ran-tan/Crabbs Cross roundabout to the southern side of the town. There are further sporadic unknown sites throughout the rural area of Redditch.



GEOLOGICAL SITES



## Landscape

Redditch Borough Council has no landscape designations within its adopted or proposed Local Plan for land within the Authority area. There are however a number of other landscape designations that are relevant for consideration in relation to Green Infrastructure.

### Natural Areas

Natural England designates all areas of England's as distinct Natural Areas but does not formally designate such sites. More information on these Natural Areas can be found on Natural England's website

[www.naturalengland.org.uk/ourwork/conservation/biodiversity/englands/naturalareas.aspx](http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/englands/naturalareas.aspx)

Natural Areas do not follow Local Authority boundaries; rather they reflect the geological foundation, natural systems and process and wildlife. Redditch however falls within two Natural Areas firstly the Midlands Plateau (43) across most of the Borough including all of its urban area and secondly the Severn and Avon vales (56) which fall to the far south west of the Redditch Local Authority area.



In summary, the Midlands Plateau in the Redditch area is underlain by the soft Mercia Mudstone of the Triassic period. The River Avon lowland river with pools, shoals, riffles and shallows has tributaries (River Arrow) through Redditch. Also semi-natural woodland habitat survives in the forests of Feckenham which falls within Redditch. Dry neutral grassland is a key feature appearing in the Worcestershire Meadows complex including the Feckenham Forest.

The overarching objectives for the Midlands Plateau are:

- To prevent further loss and degradation of all semi-natural habitats within the Natural Area, and to enhance and expand the most important and characteristic types such as rivers and streams, wetlands, heathland, woodland neutral and acidic grasslands.
- To enhance the nature conservation value of the wider countryside and urban areas to restore degraded areas whilst retaining the essential character of the Natural Area.
- To maintain and expand the populations of internationally and nationally important species, together with key species which are characteristic of the Natural Area
- To maintain the geological and geomorphological features of the Natural Area for future research and enjoyment.

Within these objectives Natural England have four themes that can be developed, these are:

#### Conservation Themes

- The re-instatement of large tract wildlife sites.
- Consolidation of a network of protected and acknowledged wildlife sites.
- Multi-functional green networks.
- Incorporation of wildlife habitats into wider activities.

In summary the Severn and Avon Vales consists of a landscape that is a low-lying, undulating plain through which the Rivers Severn and Warwickshire Avon and their many tributaries flow. It is not heavily wooded and woodlands tend to be fairly small and are scattered throughout. There is however a concentration of woodland in the northern part of the Natural Area, between Worcester, Stourport and Redditch. The area is underlain by soft rocks, mostly consisting of Keuper Marls (Mercia Mudstone) and Liassic Clays, which form heavy loam or clay soils. This Natural Area holds more than 10% of the remaining unimproved neutral grassland resource in Great Britain. This is particularly concentrated in the Worcestershire part of the Natural Area where it forms part of a nationally important resource that extends into the neighbouring Midlands Plateau Natural Area.

The overarching objectives of the Severn and Avon Vales are:

- Maintain and where possible enhance the geological and geomorphological features and resources for research, study and enjoyment.
- Prevent loss or degradation of ancient woodland and where appropriate restore or enhance the resource.
- Prevent further loss or degradation of parkland and old orchards and where appropriate restore, enhance or expand them.
- Prevent loss or degradation of semi-natural grassland and where appropriate restore, expand or enhance the resource.

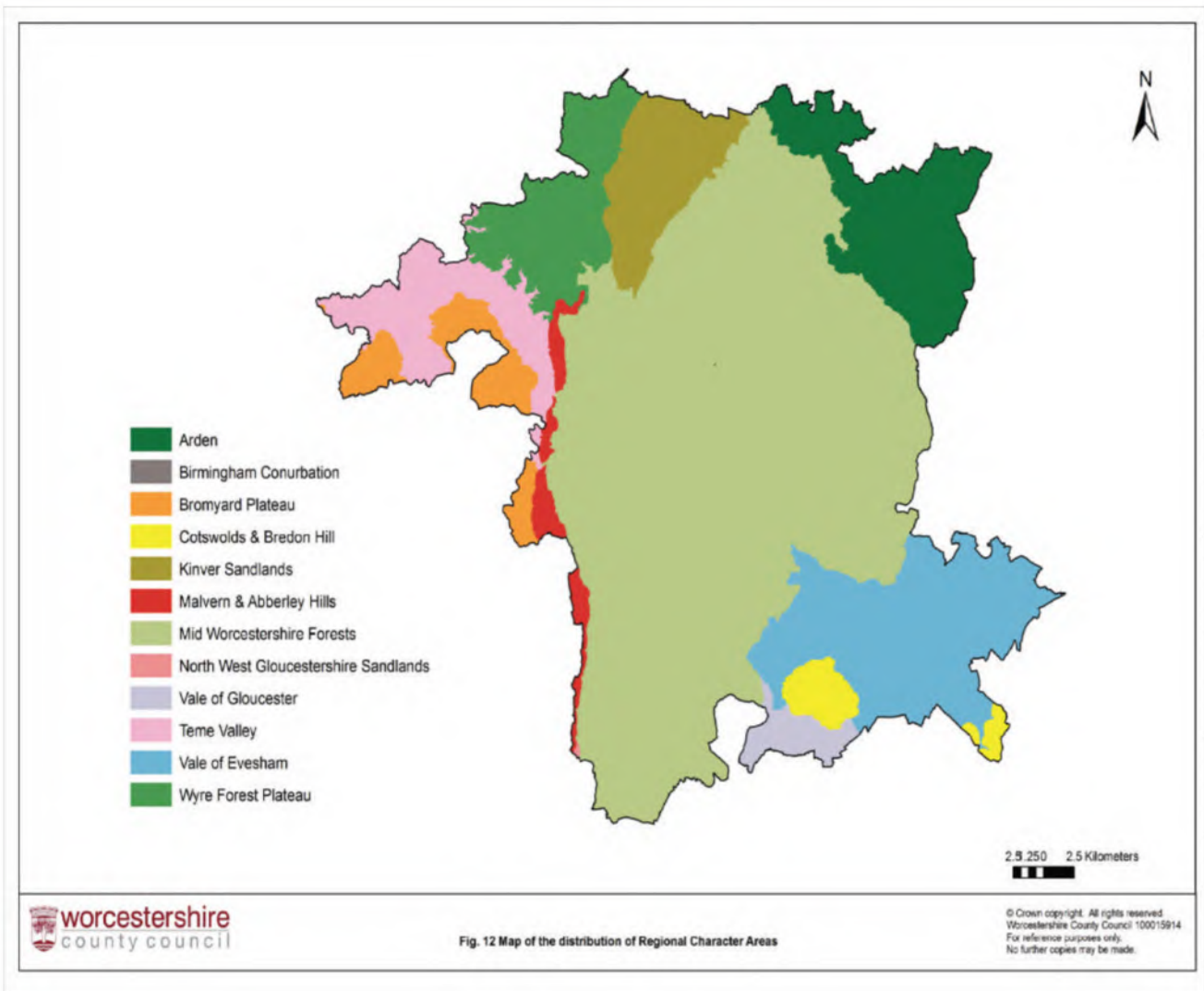
- Prevent deterioration of wetland habitats and where appropriate reverse past degradation and re-create wetland habitats within areas of high water table or subject to winter flooding.
- Prevent further loss or degradation of other habitats of wildlife value which contribute to the character of the Natural Area and where appropriate restore, enhance or expand them.
- Maintain and enhance the characteristic biodiversity associated with man-made features and semi-natural habitats not covered above.

### Landscape Character Areas

Landscape Character Areas are also defined by Natural England. These spread across England and more information on Landscape Character Areas can be found on Natural England's website

[www.naturalengland.org.uk/ourwork/landscape/englands/character/assessment/default.aspx](http://www.naturalengland.org.uk/ourwork/landscape/englands/character/assessment/default.aspx)

There are two Landscape Character Areas across Redditch Borough. Firstly is the Arden Area covering the majority of the north and East of the Borough and urban area and secondly is the Mid-Worcestershire Forest covering Redditch rural parts and the far south western edge of the Redditch urban area. These regional classifications throughout Worcestershire are displayed in the map below.



The key characteristics of the Arden countryside area of relevance to Redditch are:

- Well-wooded farmland landscape with rolling landform.
- Ancient landscape pattern of small fields, winding lanes and dispersed, isolated hamlets.
- Contrasting patterns of well-hedged, irregular fields and small woodlands interspersed with larger semi-regular fields on former deer parks and estates, and a geometric pattern on former commons.
- Numerous areas of former wood-pasture with large, old, oak trees, often associated with heathland remnants.
- Narrow, meandering river valleys with long river meadows.

To ensure that the landscape character of Arden area is protected and enhanced where possible, the following guidelines should be followed:-

- The conservation management of woodlands, particularly ancient and semi-natural woodlands, and wood-pasture is important in this area of good tree cover.
- The dispersed settlement pattern is a key characteristic of much of the area. Development guidelines and village strategies, including specific design guidelines, can assist in safeguarding this pattern.

- The retention of hedges and hedgerow trees should be addressed, especially in the north-eastern part of the area.
- Planting schemes using native tree species are appropriate for screening urban edges and new residential developments.
- There is scope for the restoration of heathland, especially on roadside verges, and for the active management (notably bracken and scrub clearance) of existing heathlands.
- The restoration of mineral extraction sites is an opportunity to absorb these areas back to the character of the surrounding landscape and to create habitats of wildlife interest.
- There is scope for the restoration and appropriate management of riverside wetland and the conservation of the natural river course and the distinctive floodplain hedge and tree pattern.

The key characteristics of the Severn and Avon Vales area of relevance to Redditch are:

- Diverse range of flat and gently undulating landscapes, united by broad river valley character.
- Riverside landscapes with little woodland, often very open. Variety of land uses from small pasture fields and commons in the west to intensive agriculture in the east.
- Distinct and contrasting vales: Evesham, Berkeley, Gloucester, Leadon, Avon.
- Many ancient market towns and large villages along the rivers.
- Nucleated villages with timber frame and brick buildings.
- Prominent views of hills - such as the Cotswolds, Bredon and the Malverns - at the edges of the character area.

To ensure that the landscape character of Severn and Avon Vales area is protected and enhanced where possible, the following guidelines should be followed:-

- The tourist use of the area provides an opportunity to provide increased interpretation and countryside facilities.
- Comprehensive proposals for the management of the river corridors and their nature conservation and historic features.
- Priorities are needed for the conservation of hedgerows and of hedgerow trees.
- Grazing of the commons requires careful management.
- There are opportunities to restore the landscape and nature-conservation interest of the smaller and fragmented areas.
- There is scope for the restoration and enhancement of parks and for ensuring the management of improved grasslands and wetlands.
- Many of the villages retain several of their older buildings. Village design guidelines are particularly important as pressure for expansion and infill builds up.

These Regional Character Areas have been developed further by Worcestershire County Council. This has resulted in more accurate and detailed smaller Landscape Description Units and Land Cover Parcels which form part of the Landscape Character Assessment

## Landscape Character Assessment

Worcestershire County Council has led on developing and providing a Worcestershire-wide Landscape Character Assessment. The Assessment has led to specific guidance being produced which was adopted by Redditch Borough Council.

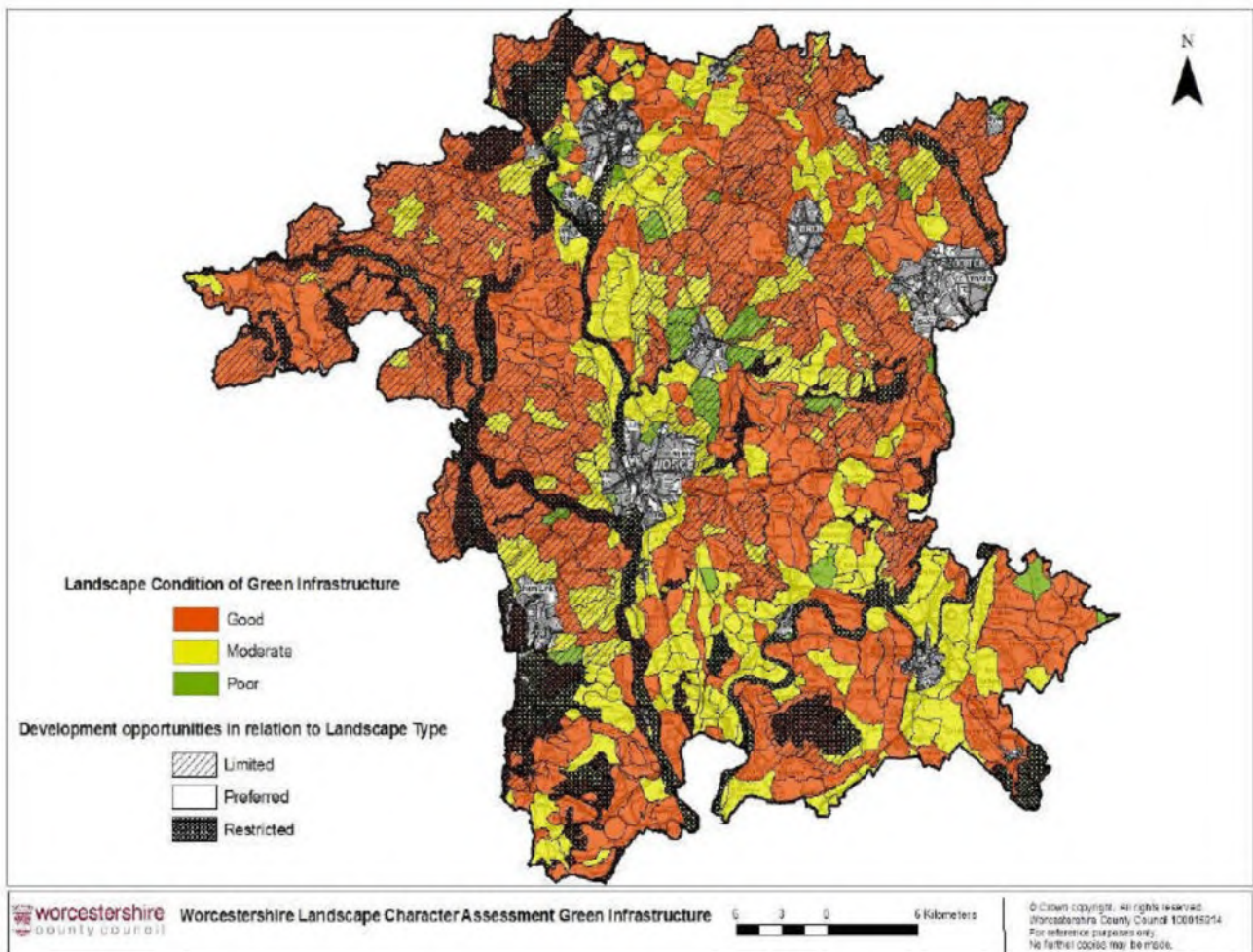
Landscape Character Assessment identifies features that make up the character of the landscape. A classification and description phase sub-divides the landscape into areas of similar character at various scales. These areas – the units of landscape character – can then be described and classified. The second analysis and evaluation phase builds on the classification and description phase by using the detailed database it produces to develop a strategic framework for landscape policies and identify priorities for action.

There are 22 different landscape types within Worcestershire County. Those falling within Redditch Borough are summarised below, noting that the majority of the urban area is not specifically classified:

- Principal Timbered Farmland – Forms the majority of Redditch’s South Western rural parts and also borders the far North-East boundary of the Borough. The character consists of rolling lowland landscapes with occasional steep sided hills and low escarpments. Small scale, wooded, agricultural appearance characterised by filtered views through densely scattered hedgerow trees. Complex, in places intimate, landscapes of irregularly shaped woodlands, winding lanes and frequent wayside dwellings and farmsteads. Characterised by a mosaic of agricultural land cleared directly from woodland, on a piecemeal basis, together with land enclosed from former localised areas of open fields, resulting in a dispersed pattern of farmsteads and wayside cottages and lack of strong settlement nuclei.
- Wooded Estatelands – Covering parts of Wirehill in the south of Redditch’s urban area and also the Brockhill and North Western edge of the urban area of Redditch. The character consists of a large scale, wooded agricultural landscape of isolated brick farmsteads, clusters of wayside dwellings and occasional small estate villages. The key visual element in this landscape is the frequent large, irregularly shaped ancient woodlands, often prominently situated on low crests. It is a landscape that, due to its scale, lacks intimacy and can appear rather functional.
- Wet Pasture Meadows – Forms part of the rural area in Redditch around the village of Feckenham. The character is of a flat, low-lying, largely uninhabited landscape associated with irregularly shaped, poorly draining basins fringed by low hills or scarps. A secluded pastoral landscape characterised by a regular pattern of hedged fields and ditches fringed by lines of willow and alder. Pollarded willows are often a distinctive feature.
- Riverside Meadows – This forms a small part of the southern end of the River Arrow within Redditch’s urban area. Riverside Meadows are linear riverine landscapes associated with a flat, generally well-defined alluvial floodplain, in places framed by steeply rising ground. These are secluded pastoral landscapes, characterised by meandering, tree-lined Rivers, flanked by alluvial meadows which are defined by hedge and ditch boundaries. Settlement is typically absent

- Settled Farmlands With Pastoral Land Use – This forms a small part of the south of the Borough and over the village of Astwood Bank. The character consists of small-scale rolling lowland, settled agricultural landscapes with a dominant pastoral land use, defined by their hedged fields. Hedgerow and streamside trees, together with those associated with settlement provide tree cover in a landscape with a notable network of winding lanes, scattered farms and clusters of wayside settlements.

The condition of landscape's green infrastructure in the county has been assessed using the three landscape condition indicators from the Worcestershire landscape character assessment. These are tree cover pattern, field boundaries and enclosure pattern which have been considered together to give an overall score for landscape green infrastructure which has been classified as high, medium or low with landscape with the highest scores being in the best condition and making the greatest contribution to green infrastructure. The map below shows the landscape condition of Green Infrastructure which indicates that much of Redditch's rural areas are in good landscape condition, with parcels of moderate condition. One small area of poor condition is located just south of the village of Astwood Bank on the Borough's eastern boundary.





### Tree Preservation Orders

Within Redditch Borough there are an abundance of tree preservation orders which will safeguard individual or groups of trees. In addition all trees falling within Conservation Areas have their own protection.

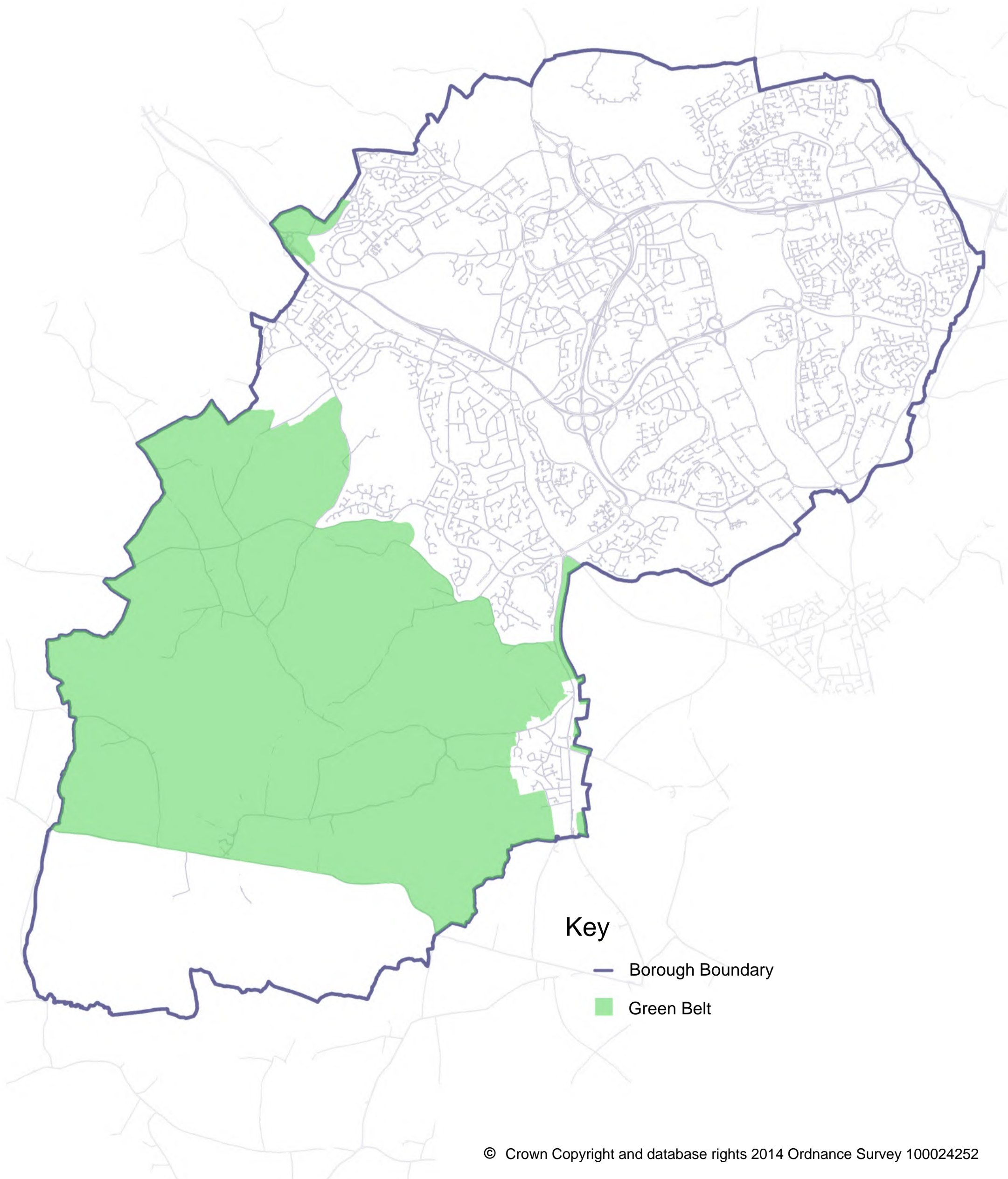
### Green Belt

Redditch is located on the fringes of the West Midlands Green Belt, where the value of the Green Belt is principally involved in the separation of Redditch to the Birmingham conurbation. Approximately 50% of the Borough is Green Belt mainly to the South West of the Borough, but also in some far northern sections of the authority, which through the Local Plan (Proposed Submission) are proposed for development. The value of the areas of Green Belt within Redditch have been analysed extensively in various evidence base documents for the Local Plan including:

- Redditch Green Belt Release To Meet Growth Needs (2013)
- Housing Growth Development Study
- A study of Green Belt Land and Areas of Development Restraint within Redditch Borough (2008)
- Study into future growth implications for Redditch Stage 1 (2007)
- Study into future growth implications for Redditch Stage 2 (2009)

These evidence base documents can be seen on the Redditch website at [www.redditch.whub.org.uk/cms/environment-and-planning/planning-services/planning-policy/development-plan/emerging-local-plan-no4/evidence-base.aspx](http://www.redditch.whub.org.uk/cms/environment-and-planning/planning-services/planning-policy/development-plan/emerging-local-plan-no4/evidence-base.aspx)

GREEN BELT



### Callow Hill Ridge

A Callow Hill ridge Landscape Character Assessment was prepared in February 2005 by Pleydell Smithyman Limited for Redditch Borough Council to identify land which should be protected in the emerging Borough of Redditch Local Plan No.3 as open space because of its landscape amenity value.

There are some relevant findings of this report for consideration for the landscape elements of the GI Strategy.

The report states that the Callow Hill Ridge forms an important transition zone between high density residential and the open countryside within the Green Belt south and west of the site. Activities within this zone are conducive with the urban fringe environment, comprising rough grazing land, horse grazing/paddock and scrub vegetation, and complementary with these on adjacent land to the scarp slope/ridge north-east and south-west of the site.

The character of Callow Hill Ridge integrates with this designation, its character contributing to a harmonious pastoral landscape. In terms of landscape character, the site should be protected from inappropriate development which would alter the character of the scarp transition/urban fringe, degrade the landscape quality and provide inappropriate land use on the periphery of the Green Belt.

The site is visible to short, middle and long distance views ranging from less than 0.5km to in excess of 3.0km. Receptor viewpoints range from public highway, footpaths, national footpath routes, bridleways, residential property and ancient monuments. Receptor views from the south and west are directed towards existing development on the ridgeline at Moorcroft Gardens and Hunt End Lane, where development is screened by existing vegetation, the receptor enjoys a harmonious view of a pastoral landscape where development is visible, the quality of the view is degraded with high density development creating an intrusion into the landscape.

## Historic Environment

The urban area of Redditch has a long and complex history as well as a rich twentieth century heritage, with many key archaeological sites beyond the limit of the medieval town as defined by the Central Marches Historic Towns Survey. The Borough has a rich local history evident in the 161 Statutory Listed Buildings, and 8 Scheduled Ancient Monuments. There are also more than 500 other heritage assets currently recorded, including locally listed heritage assets which have features of archaeological, architectural, historical or townscape significance to the Borough.

There are two conservation areas in Redditch Borough, one of which is located in Redditch Town Centre (Church Green) and the other in Feckenham village. The Church Green Conservation Area is focussed around the Church of St Stephen and an area of civic open amenity space surrounded by a number of statutory listed buildings. There are multiple opportunities likely for a coherent GI planning response to improvements in and around both of the Borough's Conservation Areas.

The Feckenham Conservation Area incorporates most of the historic village of Feckenham and includes the parish church, the village square, a Scheduled Ancient Monument and a number of residential buildings which date from the sixteenth century. This south western rural area is an enviable historic landscape and was once part of the ancient Feckenham Forest.

The Historic Environment Assessment was completed in 2010 on behalf of Redditch Borough Council. The relevant findings of this assessment are provided below as they relate to Green Infrastructure:

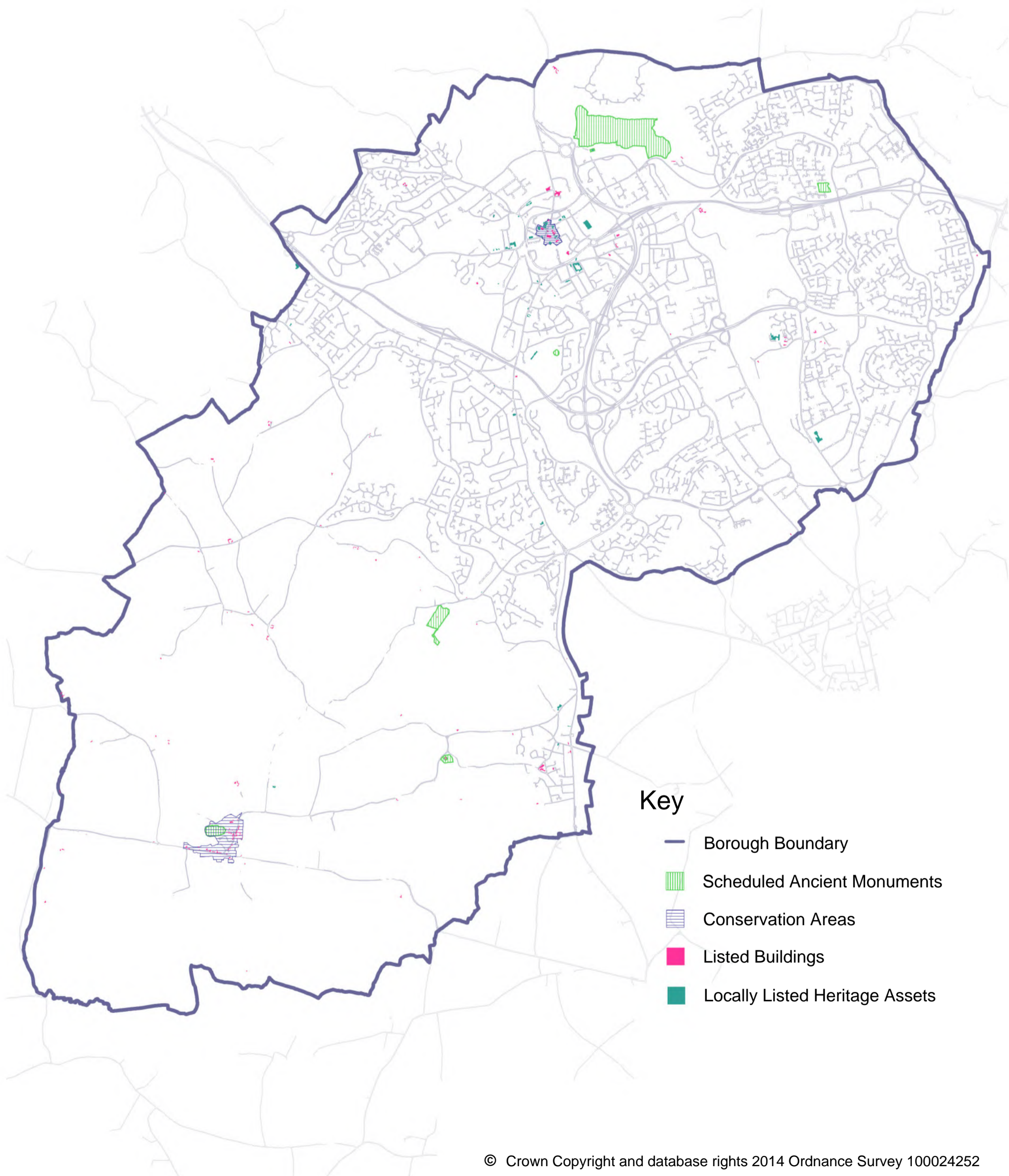
- South and West of Redditch has a very well preserved landscape. Green Belt may have contributed to this. The grain of the landscape, including field boundaries, areas of ancient semi natural woodland and large archaeological features were preserved within the New Town development, meaning that there is high survival at a landscape scale.
- There is rapidly disappearing evidence of the needle industry that characterised the area. Where this survives, it forms a key characteristic of the landscape.
- Some historic landscape zones rating as high sensitivity are perhaps obvious, for example, the Arrow Valley largely due to a high density of historic environment features; including historic buildings and diverse, deeply stratified below ground archaeology.
- High sensitivity outside the urban area is largely due the excellent landscape preservation.
- The historic landscape zones around Feckenham form a coherent medieval and post medieval landscape. This coherence extends to Droitwich and is a distinctive and significant area within the County.
- One of the key failings in New Town design is a lack of sense of place (Downie, 1972). GI planning should seek opportunities to enhance Redditch's landscape and protect and enhance the historic environment in new development areas.
- The development of opportunities to conserve historic environment features and landscapes and promote their contribution towards defining identity and a sense of place should be a key objective in GI provision.

- There's a need to develop networks that may enhance the amenity value of moderate and low scoring historic landscape zones through the provision of enhanced access, conservation and promotion of the historic environment. These opportunities will become clear through an integrated approach to GI study, and the subsequent development of a strategy, that should identify and develop areas where valued historic environment features, habitats, landscape, blue infrastructure and access coexist. GI design can both enhance the historic environment and develop an appropriate mitigation strategy where different environmental themes conflict in terms of their conservation requirements.

The map below shows the Borough's Heritage Assets such as Scheduled Ancient Monuments, Conservation Areas, Listed Buildings and Locally Listed Heritage Assets. The map indicates that there is an abundance of clustered listed and locally listed assets in and around the Borough's two conservation areas. This would indicate that these two areas would be of particular interest in any heritage led infrastructure enhancements. Also there are Scheduled Ancient Monuments which lie within parkland and other residential areas of the Borough. There are therefore possibilities to explore the linkages to these assets so that their historic resource is exploited for recreations gain.

For more information on the records of these Historic Sites and Buildings please see the Heritage Gateway [www.heritagegateway.org.uk/gateway](http://www.heritagegateway.org.uk/gateway). For information on Worcestershire's Historic Environment Record (HER) covering archaeology in Worcestershire [www.worcestershire.gov.uk/archaeology](http://www.worcestershire.gov.uk/archaeology)

HERITAGE ASSETS



## Blue Infrastructure

Blue Infrastructure can be described as the features within the water environment which could include natural systems of open water such as rivers and watercourses and man-made waters such as reservoirs, ponds, and canals. River corridors and other water watercourses and lakes, pools etc. play a very important role in the Green Infrastructure of Redditch. Particularly the many brooks and the main River Arrow, which is a feature of the linear Arrow Valley County Par running from the North to the South of the Town.

### Flood Management

The following information is taken from the Level 2 Strategic Flood Risk Assessment prepared for Redditch and Bromsgrove Districts, where it is relevant to this GI Strategy.

The primary watercourses within Redditch are:

- River Arrow draining the north eastern section of the district; and
- Swans Brook and The Wharrage, which drain the south western rural catchment.

Red Ditch - all channels and culverts should be cleaned to remove all silts and debris, to improve capacity and increase the SoP

River Arrow - Informal earth embankment flood defences have been constructed at Papermill Farm near Brooklands Lane. The embankment has been constructed on an outside bend of the River Arrow and consequently was eroded/undermined. The condition of this flood defence as 'fair/poor' in accordance with the guidance in the Environment Agency's Condition Assessment Manual. Further detailed assessment of the embankment is recommended to establish the structural condition of the defence. This may require appropriate ground investigation to assess the construction, condition and serviceable asset life.

Blacksoils Brook/Church Hill Brook - The predicted flooding along Blacksoils Brook is predominantly located in open space within the Arrow Valley Park. However, flooding associated with Church Hill Brook is predicted within Moons Moat North Industrial Estate and the adjacent residential areas, located to the west of Church Hill Brook, i.e. Arley Close, Exhall Close and Loxley Close. Currently there is no flood risk mitigation associated with Church Hill Brook. The residential and commercial properties are not located within the Environment Agency's Flood Warning area; however due to the flashy nature of the local watercourses, this would prove ineffectual in warning of potential flood risk issues.

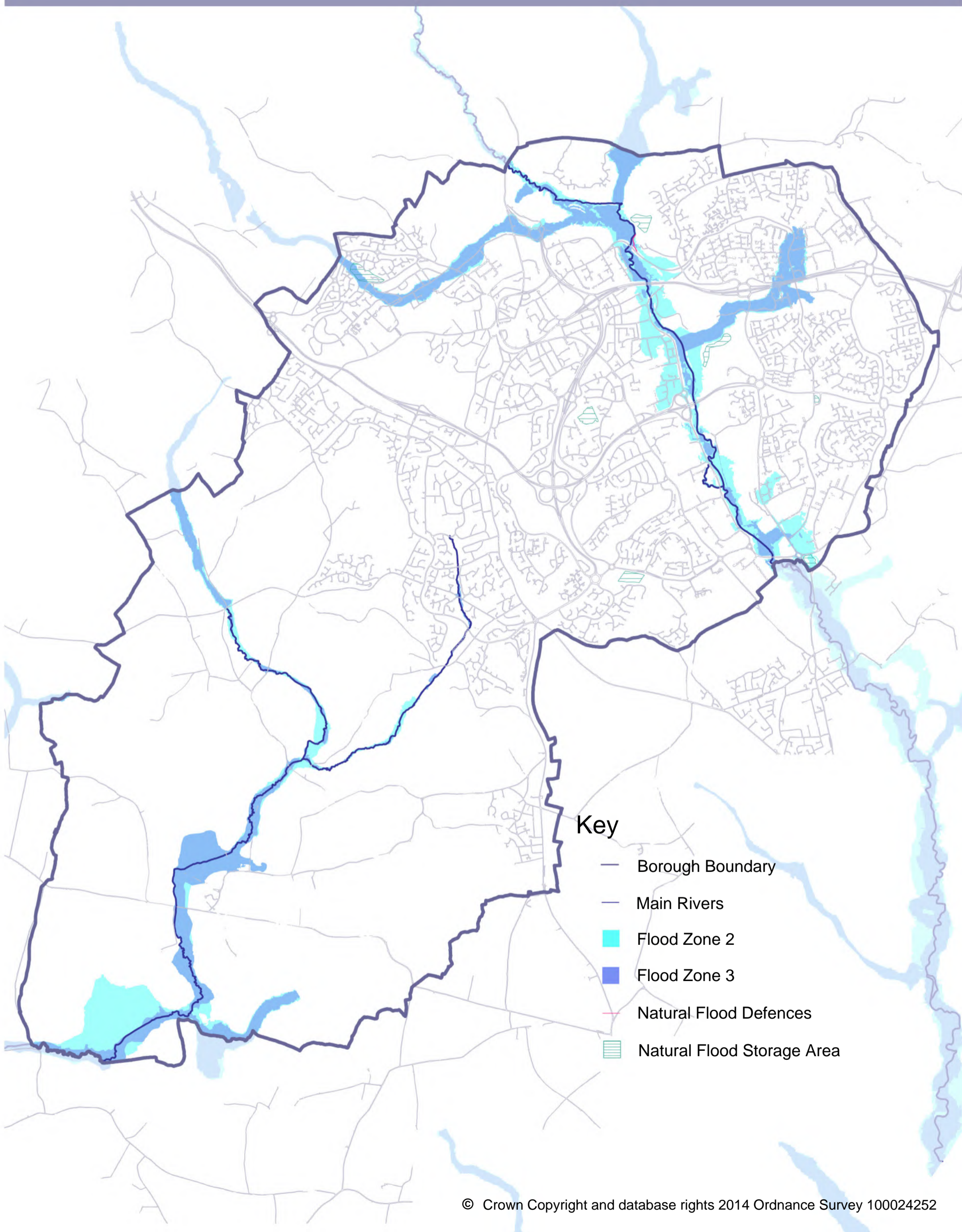
Where development is proposed adjacent to a watercourse, enhancement of the river corridor, including creation of biodiversity areas and consideration of protected species, should be sought as part of the development. Opportunities should also be sought for flood risk betterment and water quality enhancements to assist in meeting the objectives of the Water Framework Directive.

Sustainable drainage systems (SuDS) should be incorporated into developments to reduce the impact on receiving drainage systems, by attenuating and storing surface water runoff. Opportunities should also be taken to create multifunctional SuDS that create habitat, encourage biodiversity and/or have amenity value.

The map below shows the extent of the main waterways within Redditch with the Flood Zones (2 and 3) any natural flood defences and natural flood storage areas. It can be seen on the map that the urban area has a large strip of Flood Zone 2 and 3 alongside and leading from the River Arrow. Much of this Flood Zone forms part of the Arrow Valley County Park and there are areas running into Church Hill and up to the Red Ditch in the vicinity of Brockhill. In the rural area the Bow Brook and its tributaries have Flood Zone 2 and 3 designations along its course and this includes the outer edges of Feckenham village. A large Flood Zone 2 designation covers much of the open countryside south of the village of Feckenham.



MAIN RIVERS AND FLOOD MANAGEMENT



## Access and Movement

### Routes

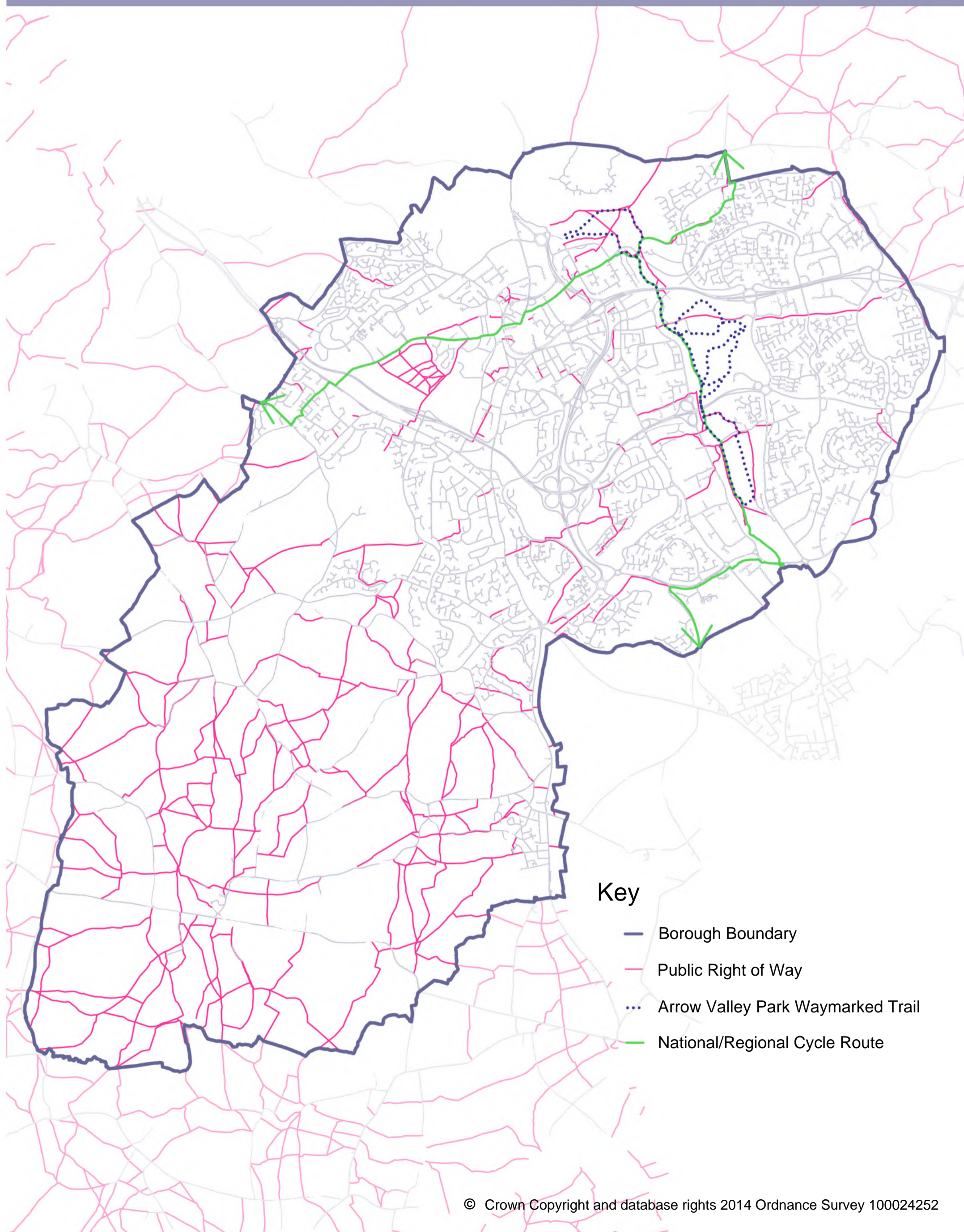
Redditch Borough has a network of routes for walking and cycling which are used for either recreational purposes or as routes with a purpose such as a person's commute or trips to services and facilities.

The map below shows the public rights of way that exist throughout the Borough as well as the Arrow Valley Park Waymarked Trail and the National/Regional cycle route. The public rights of way are very fragmented throughout the urban area but there is a highly advanced system in the Arrow Valley Park vicinity. There are also opportunities to extend and improve the linkages from the park to the surrounding areas and other GI assets. There are areas of the town with very few marked routes for walking or cycling such as the northern areas of Brockhill and Abbey Ward in general. As there is development proposed in these areas there are significant opportunities to enhance walking and cycling in these locations.

The cycle route is well developed and connects key pieces of Green Infrastructure as well as connection to the services and facilities of the Town Centre. Opportunities also exist to connect to this cycle route to improve the GI in the Borough.

In Feckenham and Astwood Bank there are few routes within the villages itself, but the rural area of Redditch in general appears to have a plethora of routes, some fragmented and some routes area bisected by various constraints.

ROUTES



Key

- Borough Boundary
- Public Right of Way
- ... Arrow Valley Park Waymarked Trail
- National/Regional Cycle Route

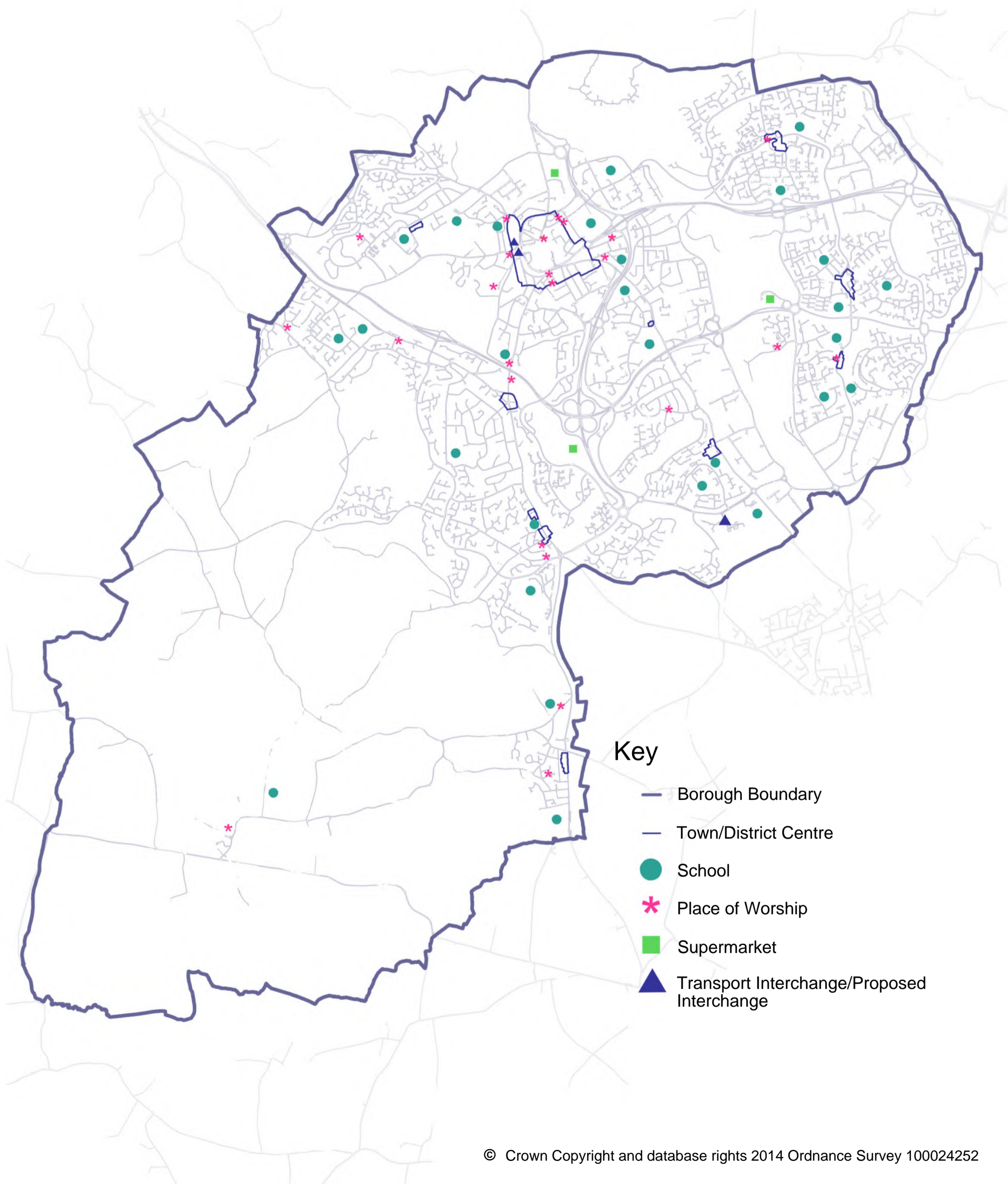
### Destinations

The map below shows some of the more frequently visited destinations around Redditch Borough. The destinations include schools, places of worship, supermarkets and transport interchanges.

The plotted points on the map indicates that there is a fairly even spread of all destinations throughout the urban area of Redditch and more sparse destinations within the rural area and villages.

It is evident that these destinations tend to be located on or closely linked to some of the main highway routes through the town. The well-developed walking and cycling routes around do not always correspond to the routes required to access these destinations.

DESTINATION POINTS



## Open Space

A comprehensive Open Space Needs Assessment was completed in 2009 covering the Borough of Redditch. This includes previous 2005 information on a quality audit and a quantity and accessibility audit, provision levels by ward, indoor sports assessment and specific provision levels. The evidence this provides is used to inform the Policies Map and policies on Open Space in the emerging Local Plan No.4.

The map below provides the Open Spaces as identified by their typology. The typologies of open space include:

- Allotments
- Amenity open space
- Church/churchyard/crematoria
- Civic square
- Park
- Play area provision
- School grounds
- Semi natural
- Sports facilities

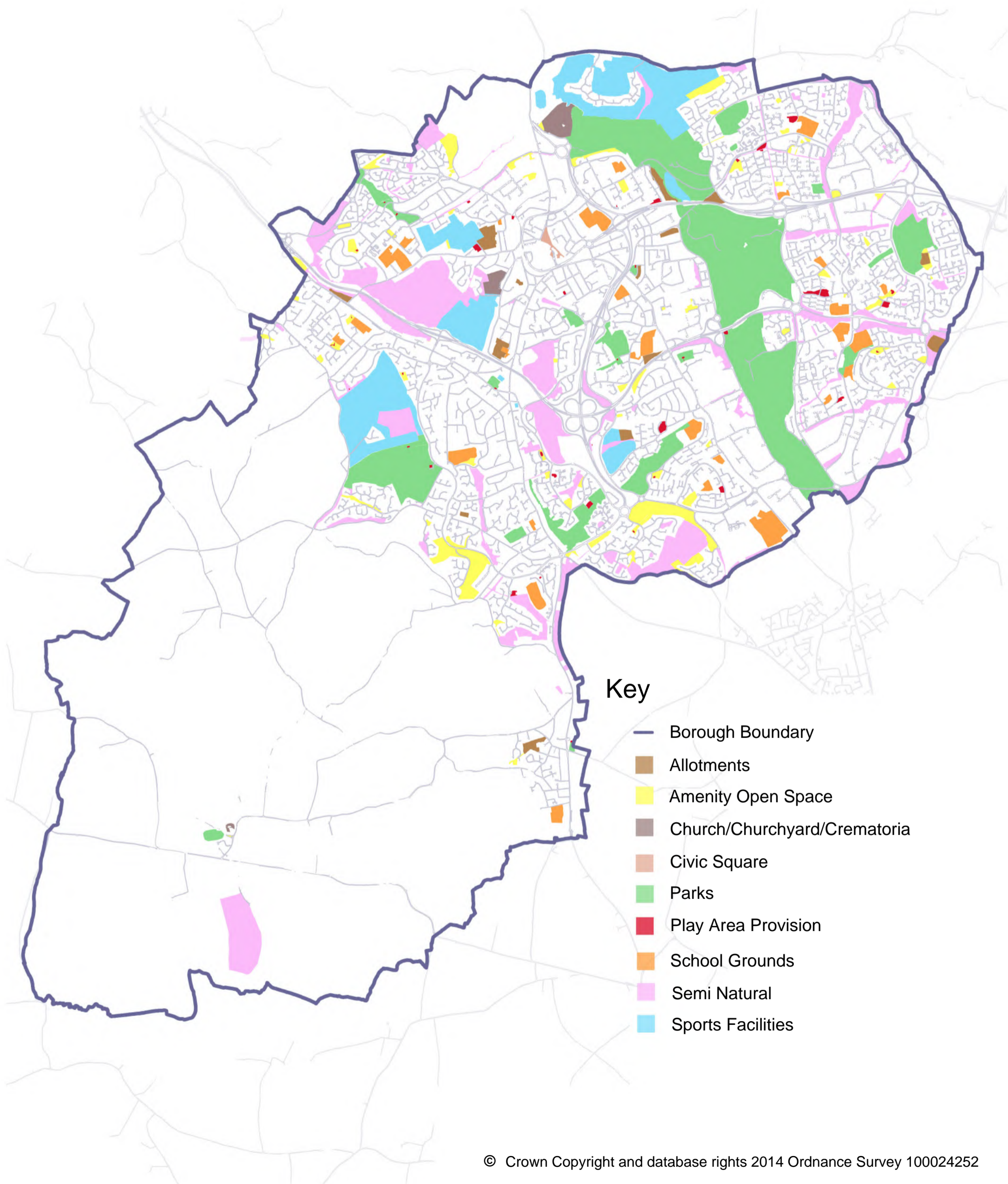
The map shows the extent of the large parks at Arrow Valley and Morton Stanley. These parks are linked to large areas of sports facilities (typically golf). There are many corridors and parcels of semi-natural open space, some are linked and some are more fragmented. Any typology of open space provision for the villages of Astwood Bank and Feckenham are more fragmented than the areas around Redditch town, this is likely to be due to the nature of Redditch being developed as a new town around its open spaces.

The conclusions of the Open Space Needs Assessment of relevance to this GI Strategy baseline are provided below:

- There are 288 formally designated open spaces within the Borough
- The Borough as a whole has a diverse range of open space sites; this is demonstrated through the variety of site designations e.g. Amenity open space and Semi-Natural etc. There are numerous open space sites with additional designations
- Wards where there is a deficit in open space provision levels should be increased
- In wards where there is a surplus of open space maintain and enhance the existing levels of provision.
- Seven wards in the Borough have a deficit of unrestricted open space set against the Borough provision levels. The most prevalent wards are Crabbs Cross with a deficit of -3.21ha/1000 population and Lodge Park with a deficit of -2.72ha/1000 population.
- Five of the wards in the Borough have a surplus of open space set against the Borough standards. The most prevalent wards are West with a surplus of +4.81ha/1000 population and Central with a surplus of +6.35ha/1000 population.
- Accessibility to a range of open space types varies across the Borough; the maps provided for each ward should be used as a consideration to the amount of accessibility to various types of open space.

- In terms of accessibility, inevitably some areas perform better than others. Where there are severances, these are generally overcome by the subways and bridges, which are well provided for in the Borough.
- There was considered to be a lack of facilities on the open spaces. Therefore this is something that the Council can address and in addition to this a review of the Open Space Provision SPD should account for this.

OPEN SPACE



Key

- Borough Boundary
- Allotments
- Amenity Open Space
- Church/Churchyard/Crematoria
- Civic Square
- Parks
- Play Area Provision
- School Grounds
- Semi Natural
- Sports Facilities



### New Town legacy

Following the designation of Redditch as a New Town in April 1964, the Master Plan for Redditch was prepared for Redditch Development Corporation in December 1966. The legacy of Redditch as a new town therefore has great importance to the development of GI in relation to open space.

One of the guiding principles was the importance attached to ‘space’ within the town from its early conception. The Master Plan established that:

“The town should have a coherent structure which can be easily appreciated by those who live and visit it and an appropriate urban character should result with a good relationship between buildings and space. The new development should be clearly defined to achieve an effective relationship with the maximum contrast between town and countryside rather than to encourage a suburban sprawl on the periphery. This is particularly important at Redditch because of the need to maintain a firmly held, if restricted green belt between the new town and the Birmingham Conurbation”.

The Master Plan stated that with regard to open space, the objective should be to provide a coordinated plan for public open space and other land which was to be derived from the existing landscape and topography.

The relationship of the town to the larger landscape and the most appropriate uses for the open land were considered from various points of view

- Availability and existing use of land. Clearly areas of woodland, open land of outstanding natural beauty or historic interest and the water courses of the River Arrow and of the other smaller streams and millponds should be integrated with the other land uses of the new town.
- The structure of the town and the character of the landscape. The pattern of the communications system in conjunction with the densely built up areas of the town will in particular make a very considerable impact on the landscape.
- The relation of the town to the open space requirements for living space and recreation
- Integration of all these aspects with a continuing use of the parts of the Designated Area already used for forestry or to meet other functional requirements such as water storage and water balance, shelter belts or other forms of climatic or environmental control.

River Arrow Valley is noted as a feature in the provision of the major open space system for the New Town. Three new lakes were proposed which were to be associated with different groups of recreational activities and it was contended in Paragraph 270 (vi) that a varying pattern of social use and landscape would result.

It will be evident that the provision and creation of open space was considered to be a highly important aspect of the development of the New Town and that ethos has been continued by Redditch Borough Council through statutory development plans to the present day.

One contribution to a higher than average provision of open space in the master plan was the identification of a number of archaeological features and areas of habitat and wildlife potential that were considered worthy of preservation. The master plan therefore contained these features within areas of Primarily Open Space (POS), Sites of Special Scientific Interest (SSSI), Special Wildlife Sites (SWS), Local Nature Reserves (LNR), Scheduled Ancient Monument (SAM) and Green Belt.

## **A Strategy for Green Infrastructure**

This baseline audit is the first stage in the preparation of a GI strategy. The audit has collected baseline information about various aspects of GI within Redditch. The baseline has where, appropriate indicated what issues there are with various aspects go GI, and where there are assets which would link to develop a better GI environment in the Borough. The Worcestershire GI Strategy and its aims and priorities are also a useful starting point to looking forward to developing a Strategy.

The next stage will involve taking forward this audit information and the comments and potentially enhanced data from stakeholders after this baseline audit is published. This will enable the Borough Council to explore where any future protection should occur, where GI connections can be made, where the creation of new assets and improvement of existing assets could be focussed.

## Appendix A – Context to Green Infrastructure

There are a number of national, regional and local strategies, policies and guidance documents which provide a context for GI Planning. This section summarises the key messages for consideration in preparing the baseline audit of GI and the GI Strategy.

National Planning Policy Framework (March 2012)	<ul style="list-style-type: none"> <li>• Recognise green infrastructure and its benefits so that it can be protected, improved and extended.</li> <li>• Affirms the importance of green infrastructure in that Local Planning Authorities should set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.</li> <li>• Supports the approach of “more, bigger, better and joined” ecological networks.</li> <li>• The Natural Environment White Paper<sup>2</sup> confirms the Government’s pledge to “promote greenspaces and wildlife corridors”. It draws on the findings of the UK National Ecosystem Assessment, which outlines clear evidence of the social and economic benefits provided by our environment.</li> </ul>
Natural Environment White Paper (December 2010)	<ul style="list-style-type: none"> <li>• Confirms the Government’s pledge to “promote greenspaces and wildlife corridors”.</li> <li>• Draws on the findings of the UK National Ecosystem Assessment, which outlines clear evidence of the social and economic benefits provided by our environment.</li> <li>• Calls for better protection and enhancement of the environment to halt biodiversity decline, address the effects of climate change and population increase and promote partnerships to achieve multiple benefits.</li> </ul>
By Design: Urban Design in the Planning System (2000)	<ul style="list-style-type: none"> <li>• Integrating new development into its landscape setting reduces its impact on nature and reinforces local distinctiveness</li> <li>• The layout, massing and landscape design of development can be integrated successfully into the wider landscape through using structure planting, shelter belts, green wedges, and (along natural features, roads, rivers and canals) green corridors</li> <li>• A successful place has a system of open and green spaces that respect natural features and are accessible.</li> <li>• Making use of natural assets such as water, riversides, slopes, trees and other planting helps to create attractive spaces and encourages biodiversity</li> </ul>

<p>Health, Place and Nature – Sustainable Development Commission (2008)</p>	<ul style="list-style-type: none"> <li>• human health is affected by the world around us</li> <li>• by reducing contact with natural spaces, the trend towards urbanisation may reduce levels of well-being</li> <li>• Exposure to natural spaces (everything from parks and open countryside to gardens and other greenspaces) has generally been found to have positive benefits for mental and physical health</li> <li>• people with access to nearby nature are generally healthier than those without</li> <li>• Natural spaces have been found to benefit well-being; the human response to nature includes feelings of pleasure and interest and a reduction in anger and anxiety</li> <li>• Natural spaces have also been shown to have a restorative effect, helping people recover more quickly from attention demanding tasks</li> <li>• the outdoor environment can also indirectly influence our health by, for example, making physical activity in the form of walking/cycling easy and attractive and facilitating social contact.</li> <li>• Local access to safe natural greenspace and attractive scenery is associated with high levels of physical activity within communities.</li> <li>• Creating and maintaining rural and urban environments that respect natural limits and are designed to promote strong communities, social cohesion and physical activity – in line with the principles for sustainable development - will create more opportunities for people to live healthy lives.</li> </ul>
<p>Guidance for Local Authorities on Implementing the Biodiversity Duty (DEFRA 2007)</p>	<ul style="list-style-type: none"> <li>• Biodiversity is a core component of sustainable development, underpinning economic development and prosperity, and has an important role to play in developing locally distinctive and sustainable communities</li> <li>• Conservation of biodiversity is vital in our response to climate change and in the delivery of key ecosystem services such as food, flood management, pollination and provision of clean air and water</li> <li>• Local authorities have a Duty to have regard to the conservation of biodiversity in exercising their functions through the NERC Act (2006)</li> <li>• Conserving biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them</li> </ul>

	<ul style="list-style-type: none"> <li>• Green infrastructure is the network of protected sites, nature reserves, green spaces (including local parks, sports grounds, cemeteries, school grounds, allotments, commons) woodlands, greenway linkages in urban areas, the countryside in and around towns, and the wider countryside. The linkages include river and canal corridors and flood plains, roadside verges, hedges and railway sidings. As well as being features of the landscape, these are often important as wildlife corridors and migration routes</li> <li>• Green infrastructure can play a positive role in achieving the objectives for clean air, water, soil, and biodiversity conservation which are needed to ensure we are living within environmental limits.</li> <li>• Incorporating green infrastructure into development plans will help deliver many of the social, economic and environmental benefits required for sustainable communities</li> </ul>
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<p>Biodiversity by Design (TCPA 2004)</p>	<ul style="list-style-type: none"> <li>• Habitat networks are important in maximising areas of continuous and linked habitat.</li> <li>• brownfield sites can support a wide range of habitats an species</li> <li>• existing green infrastructure within urban areas can be enhanced to deliver ecological services.</li> <li>• Green infrastructure is an areas multi-functional network of habitats, greenspaces and linkages</li> <li>• Understanding the assets, functional requirements and potential benefits of the existing green infrastructure is fundamental to a context study</li> <li>• The ecological function of existing green infrastructure as habitat networks can be protected and enhanced through careful planning</li> <li>• Enhancing the existing green infrastructure can help to deliver important ecological services</li> <li>• A green infrastructure network can be used to define the hierarchy and form of the habitats and natural greenspaces within a community</li> <li>• The GI network will need to integrate and establish links with valuable elements of the existing green infrastructure</li> <li>• The GI network will need to resolve the functional requirements of urban form, greenspace provision, habitat net- works and ecological services (such as drainage)</li> </ul>
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<p>Green Infrastructure Guidance – Natural England (2009)</p>	<ul style="list-style-type: none"> <li>• Green infrastructure is about development going hand-in-hand with the protection and enhancement of existing environmental assets and the creation of new ones</li> <li>• In the wider countryside, green infrastructure is often viewed at a larger scale, encompassing large country or regional parks; extensive habitats, major landscape features such as river corridors and flood meadows landscapes, and the identification of wide green corridors and ecological networks. Green infrastructure at this scale can provide the wider framework and context for planning green infrastructure at a more local level</li> <li>• Green infrastructure goes beyond the site specific, considering also the ‘big picture’ – landscape context, hinterland and setting, as well as strategic links of sub regional scale and beyond</li> <li>• Green infrastructure considers private as well as public assets</li> <li>• Green infrastructure provides a multifunctional, connected network delivering ecosystem services</li> <li>• Well planned Green Infrastructure encompassing new and enhanced sites and habitats: contributes to high quality and accessible landscapes benefiting people and wildlife; plays an essential role in maintaining and enhancing the health of the natural environment and its ability to provide a wealth of ‘ecosystem services’; increases ecological connectivity to overcome habitat fragmentation and increase the ability of the natural environment to adapt to climate change; And in coastal locations helps to provide recreational space and to enhance and protect our marine environment</li> <li>• The creation and enhancement of green infrastructure helps to: create attractive and accessible places for people to enjoy direct and regular contact with the natural environment; strengthen links between urban areas and their surrounding countryside, and bring the natural world into every neighbourhood, with benefits for individual and community health and well-being</li> <li>• A multifunctional green infrastructure can boost the capacity of a local environment to accommodate sustainable development and provide a wide range of environmental, social and economic benefits</li> </ul>
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	<ul style="list-style-type: none"> <li>• Green infrastructure helps to secure our environmental future by: ensuring the efficient use of land through a multifunctional approach to land use planning; supporting functioning ecosystems and robust natural systems for the management of basic resources such as water, clean air, soil, and the maintenance of biodiversity; delivering a broad range of ecosystem services and linked social and economic benefits that clearly demonstrate the relevance of the natural environment to the lives and livelihoods of individuals and communities; making a direct contribution to the climate changing ‘proofing’ of peoples’ homes and communities; enhancing the self sufficiency of communities though providing local food production and recreational areas</li> <li>• GI can play a key part in the place-making process</li> <li>• ‘Multifunctionality’ refers to the potential for green infrastructure to have a range of functions, to deliver a broad range of ecosystem services. Multifunctionality can apply to individual sites and routes, but it is when the sites and links are taken together that we achieve a fully multifunctional green infrastructure network</li> <li>• There may be significant opportunities to retrofit green infrastructure in urban environments through green roofs, green walls, swales, new tree planting.</li> </ul>
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<p>Green Spaces, Better Places. Final Report of The Urban Green Spaces Taskforce (DETR 2002)</p>	<ul style="list-style-type: none"> <li>• People value parks and green spaces – over 30 million people use them, making over two billion visits each year</li> <li>• Parks and green spaces account for 14% of Britain’s urban areas</li> <li>• Good quality parks and green spaces make important contributions to improving the quality of our towns and cities and the urban renaissance by delivering wider and longer-term social, economic and environmental benefits through a range of public policy priorities</li> <li>• Provision of good quality green space can make an important contribution to regeneration and renewal projects</li> <li>• Parks are an essential element in creating a sense of place</li> <li>• Many economic benefits of parks and green spaces</li> <li>• Parks and green spaces are vital for health and well-being</li> <li>• Good quality parks and green spaces can provide opportunities for voluntary and community activities for many people</li> <li>• Parks and green spaces are increasingly used as an ‘outdoor classroom’</li> <li>• Parks and green spaces help counter the pollution which can make cities unbearable and unsustainable</li> </ul>
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	<ul style="list-style-type: none"> <li>• Parks and gardens are part of the heritage and culture of local people and communities</li> <li>• Public perceptions and expectations of urban parks and green spaces are low</li> <li>• Parks and green spaces are needed to serve the whole community</li> </ul>
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<p>Housing Growth and Green Infrastructure Policy (Natural England 2009)</p>	<ul style="list-style-type: none"> <li>• Policies and decisions on development proposals should conserve valued environmental assets by seeking first to avoid loss or harm, before considering the need for mitigation or compensatory measures</li> <li>• Where development takes place in areas which currently have a low environmental value, we would expect the development to enhance environmental value as well as provide new housing</li> <li>• Development should enhance the environmental capacity of an area</li> <li>• The provision of green infrastructure (GI) should be an integral part of the creation of sustainable communities throughout England</li> <li>• Networks of multi-functional greenspace providing a wide range of environmental and quality of life benefits should be identified in regional and local plans and designed into all major new development and regeneration schemes from the outset</li> <li>• The valuable contribution of private gardens to GI should also be recognised</li> <li>• GI should be delivered via a co-ordinated network that provides the broadest range of ecosystem services and environmentally based social benefits. These include embedding wildlife rich and varied habitats in urban and rural areas, providing recreational spaces (with consequent health benefits), supporting education and providing climate change adaptation measures</li> <li>• GI should emphasise the ‘multifunctionality’ of the green network as a whole and, as appropriate, of individual sites</li> <li>• GI should connectivity between sites at all levels and right across a town, city or sub-region, shaped by local character and distinctiveness in terms of species, habitats, landscape and townscape</li> <li>• GI should incorporate all the green spaces of a town or city, both public spaces and private gardens, and connect with the wider countryside</li> <li>• GI should provide a strategic framework for identifying and protecting those brownfield sites that represent important habitats or very valuable social spaces</li> </ul>
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<p>Green Infrastructure – A Prospectus for the West Midlands (2007)</p>	<ul style="list-style-type: none"> <li>• Green Infrastructure is the network of green spaces and natural elements that intersperse and connect our cities, towns and villages. It is the open spaces, waterways, gardens, woodlands, green corridors, wildlife habitats, street trees, natural heritage and open countryside. Green Infrastructure provides multiple benefits for the economy, the environment and people.</li> <li>• Green Infrastructure may also be seen as part of the life-support system of an area; providing functions and environmental services to a community, such as employment, recreation, physical health and mental well-being, social interaction, contact with nature, drainage and flood management, climate change adaptation and pollution control</li> <li>• Green Infrastructure may also be seen as part of the life-support system of an area; providing functions and environmental services to a community, such as employment, recreation, physical health and mental well-being, social interaction, contact with nature, drainage and flood management, climate change adaptation and pollution control</li> <li>• GI may be green, brown or blue</li> <li>• GI spans administrative and political boundaries, is publicly and privately owned, and it may be semi-natural or man-made in its origins</li> <li>• Aims of the prospectus: <ol style="list-style-type: none"> <li>1. To ensure politicians, policy-developers and decision-makers throughout the West Midlands are aware of the vital roles of Green infrastructure.</li> <li>2. To advocate greater investment in, and improved management of, the Region's existing Green Infrastructure.</li> <li>3. To ensure Green Infrastructure is appreciated as an essential element of delivering sustainable communities, underpinning growth and regeneration.</li> <li>4. To promote a robust and systematic approach to Green Infrastructure assessment, planning and investment by local, sub-regional and regional planning authorities.</li> <li>5. To ensure future Green Infrastructure is proactively planned from the earliest stages of strategic plan preparation through to concept and design stages of all developments in the Region.</li> </ol> </li> <li>• New growth is an opportunity to provide exemplars of sustainable development; to enhance and extend Green Infrastructure so as to complement and balance the built environment, link wider environmental processes and deliver a high quality of life for all</li> </ul>
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- Green multiple public Infrastructure is an excellent example of how environmental initiatives can provide benefits that strengthen economic growth and deliver social outcomes
- Economic benefits of GI:
  - Provides climate change mitigation and adaptation for example, flood alleviation and micro-climate attenuation
  - Increases property and land values
  - Helps attract and retain people ensuring stable populations and labour supply
  - Provides opportunities for education and training, including lifelong learning for adults
  - Delivers urban and rural policy, renaissance and regeneration objectives through robust and cost-effective means
  - Sustains environmental tourism providing employment opportunities and boosting local economies
  - Provides an inspiring setting for economic growth and investment
- Social benefits of GI:
  - Facilitates community cohesion, helping to reach across traditional social barriers
  - Provides opportunities for reflection and a tranquil respite from the often hectic urban environment
  - Helps protect and promote the Region's rich cultural heritage
  - Provides opportunities to maintain or enhance people's physical health and mental well-being
  - Enables essential contact between people and nature
  - Provides opportunities to reinforce feelings of local pride and a sense of ownership and belonging
- Environmental benefits of GI:
  - Provides a framework and encouragement for the use of sustainable transport such as walking and cycling
  - Protects, restores and de-fragments habitats that support priority species currently threatened by agricultural intensification, urban sprawl and climate change
  - Supports environmental processes and natural resource remediation (air, soil and water)
  - Reinforces and enhances landscape character and local distinctiveness
  - Supports wildlife reservoirs and provides a refuge/buffer from anthropogenic pressures (human disturbance, pollution, invasive/domestic species, etc.)
  - Protects and enhances the Region's historic assets

<p>Sustainable Community Strategy for Worcestershire Second Edition (2008-2013)</p>	<ul style="list-style-type: none"> <li>• The SCS has six themes of which ‘A better environment for today and tomorrow’ and ‘Improving Health and Well being’ are relevant</li> <li>• Tackling climate change is a cross-cutting issue for the SCS</li> <li>• Priority outcomes for ‘A better environment for today and tomorrow’:             <ul style="list-style-type: none"> <li>- To enhance Worcestershire’s countryside and urban greenspace and appropriate access to them while protecting the natural and historic environment</li> <li>- To maximise the diversion of waste away from landfill through prevention, re-use, recycling/composting and recovery</li> <li>- To address issues of water quality, supply, and consumption and land drainage in Worcestershire</li> <li>- To increase energy efficiency and increase the proportion of energy generated from renewable sources</li> </ul> </li> <li>• Relevant priority outcomes for Improving health and well-being:             <ul style="list-style-type: none"> <li>- To support adults to lead healthy lifestyles</li> </ul> </li> </ul>
<p>Worcestershire Infrastructure Requirements Study (Baker Associates 2009)</p>	<ul style="list-style-type: none"> <li>• New residential development will place increased pressure on existing provision or have a potential impact on valuable environmental assets and require new or enhanced provision in Worcestershire</li> <li>• It is important that future provision of new recreation and green infrastructure ensures that provision is located in the right places, in sufficient size and quality, offers opportunities for biodiversity and is well maintained to meet the needs of the community</li> <li>• There is a requirement in the County for 1165ha of restored or expanded habitat (based on the likely impact of future development)</li> <li>• Environmental mitigation measures can take a wide range of forms and complexity, depending upon the environmental asset to be protected or enhanced, ranging from landscape and visual impacts to impacts affecting habitats or species</li> <li>• In areas near to or, or where there are, environmental designations, mitigation measures may be greater or the designation may preclude development altogether.</li> <li>• Development sites should be the subject of environmental assessments</li> </ul>