

# Environmental Character Area Profile for the Minerals Local Plan: 29. Bickmarsh

## 1. Introduction

- 1.1. Minerals development usually takes place on previously undeveloped land and can therefore result in permanent change to the natural environment and green spaces in Worcestershire. The impacts of both the working and the restoration of mineral sites need to be considered in detail in the development of the Worcestershire Minerals Local Plan (the MLP).
- 1.2. The Council will take a 'green infrastructure' (GI) approach to considering these impacts. The GI approach is a different way of thinking about the green spaces in Worcestershire. It moves beyond solely considering the environmental benefits of green spaces and integrates the consideration of economic, health and social benefits in the planning and management of green spaces. Rather than considering each green space in isolation it looks at the ways in which individual sites and corridors of green space collectively form the distinctive character of Worcestershire that attracts both visitors and business to the County.
- 1.3. The components of GI include biodiversity, landscape, historic environment, access and recreation and water (also known as blue infrastructure). The GI approach requires thinking about the environment as an integrated system of stepping stones or nodes in a wider network<sup>1</sup>.

### Green infrastructure and mineral workings and restoration

- 1.4. There is significant potential for mineral workings to destroy existing networks of green infrastructure if the nature and character of these networks is not taken into account. However there is also significant potential to contribute positively to green infrastructure through the restoration of mineral workings.
- 1.5. The GI approach extends beyond thinking about designated sites of biodiversity or historic interest. This means that the impact of a mineral working on the wider environment and the integrated system of stepping stones or nodes in a wider network<sup>2</sup> will need to be considered.

### Environmental Character Areas<sup>3</sup> and the Minerals Local Plan

- 1.6. The Worcestershire Green Infrastructure Partnership has undertaken an analysis of the landscape character, biodiversity and the historic environment of Worcestershire to identify 30 distinct GI Environmental Character Areas (ECAs). Details about how these were developed is set out in *Planning for a Multifunctional Green Infrastructure Framework in*

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<sup>1</sup> Green Infrastructure Guidance – Natural England.

<sup>2</sup> Green Infrastructure Guidance – Natural England.

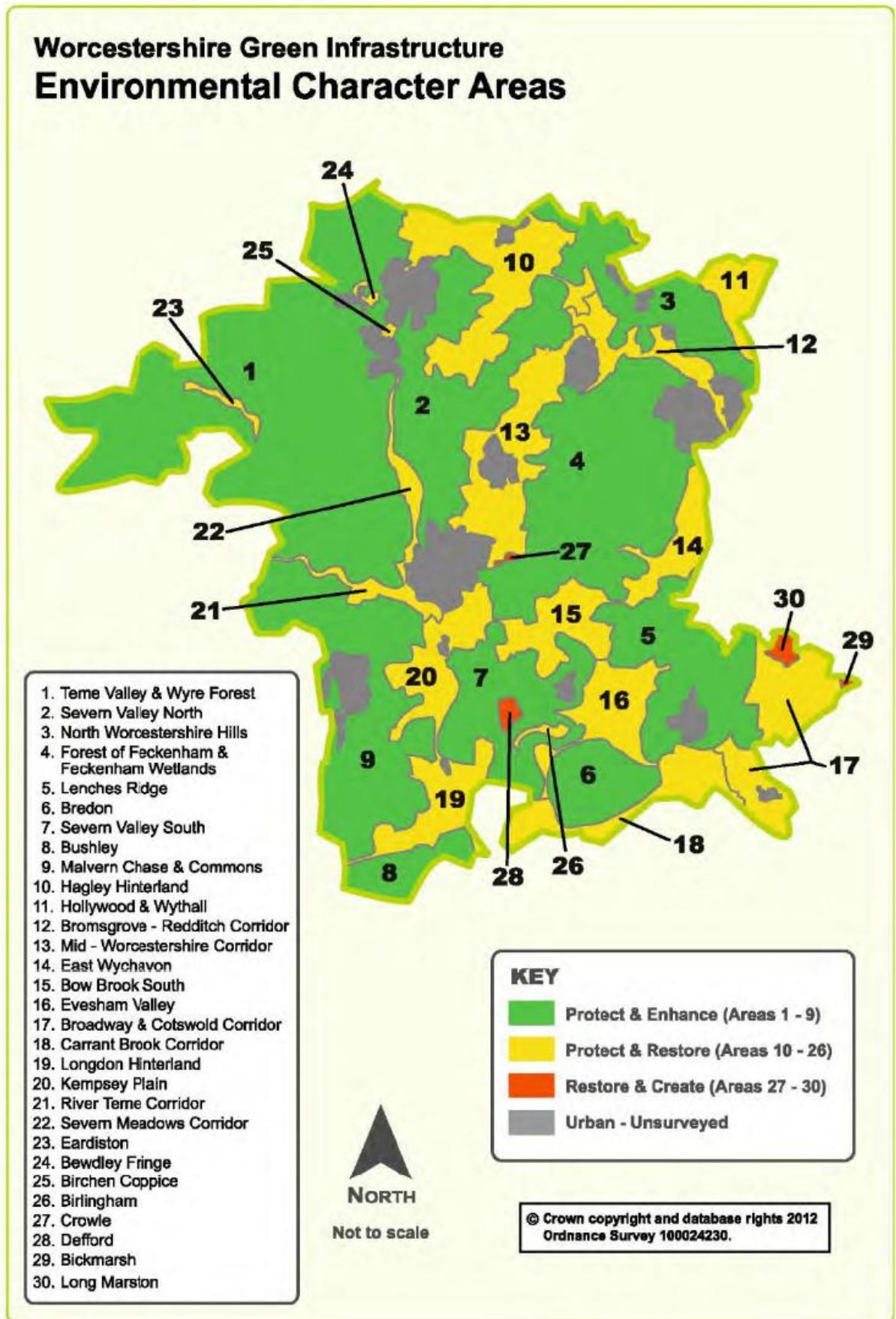
<sup>3</sup> Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*

*Worcestershire: Green Infrastructure Framework 2 (2012)* available at [www.worcestershire.gov.uk/GI](http://www.worcestershire.gov.uk/GI)

- 1.7. These underlie the distinctive character of Worcestershire and it is the Council's intention that the unique characteristics of each area will drive the restoration strategy for the Minerals Local Plan.
- 1.8. This is one of 30 profile documents which set out the characteristics and priorities for the each ECA. It sets out the mineral resources in the ECA and the GI priorities identified by the Worcestershire GI Partnership. These priorities are structured around biodiversity, historic environment, landscape character, water environment (also known as blue infrastructure) access and recreation and transport. The document is also supplemented by other locally relevant information as appropriate.
- 1.9. This information will be used to develop the spatial strategy and restoration priorities for each ECA.
- 1.10. Profiles for each of the following ECAs are available on our website [www.worcestershire.gov.uk/mineralsbackground](http://www.worcestershire.gov.uk/mineralsbackground):
- 1.11. The Environmental Character Areas are:
  1. Teme Valley & Wyre Forest
  2. Severn Valley North
  3. North Worcestershire Hills
  4. Forest of Feckenham & Feckenham Wetlands
  5. Lenches Ridge
  6. Bredon
  7. Severn Valley South
  8. Bushley
  9. Malvern Chase and Commons
  10. Hagley Hinterland
  11. Hollywood & Wythall
  12. Bromsgrove – Redditch Corridor
  13. Mid-Worcestershire Corridor
  14. East Wychavon
  15. Bow Brook South
  16. Evesham Valley
  17. Broadway & Cotswold Corridor
  18. Carrant Brook Corridor
  19. Longdon Hinterland
  20. Kempsey Plain
  21. River Teme Corridor
  22. Severn Meadows Corridor
  23. Eardiston
  24. Bewdley Fringe
  25. Birchen Coppice
  26. Birlingham
  27. Crowle
  28. Defford
  29. Bickmarsh
  30. Long Marston

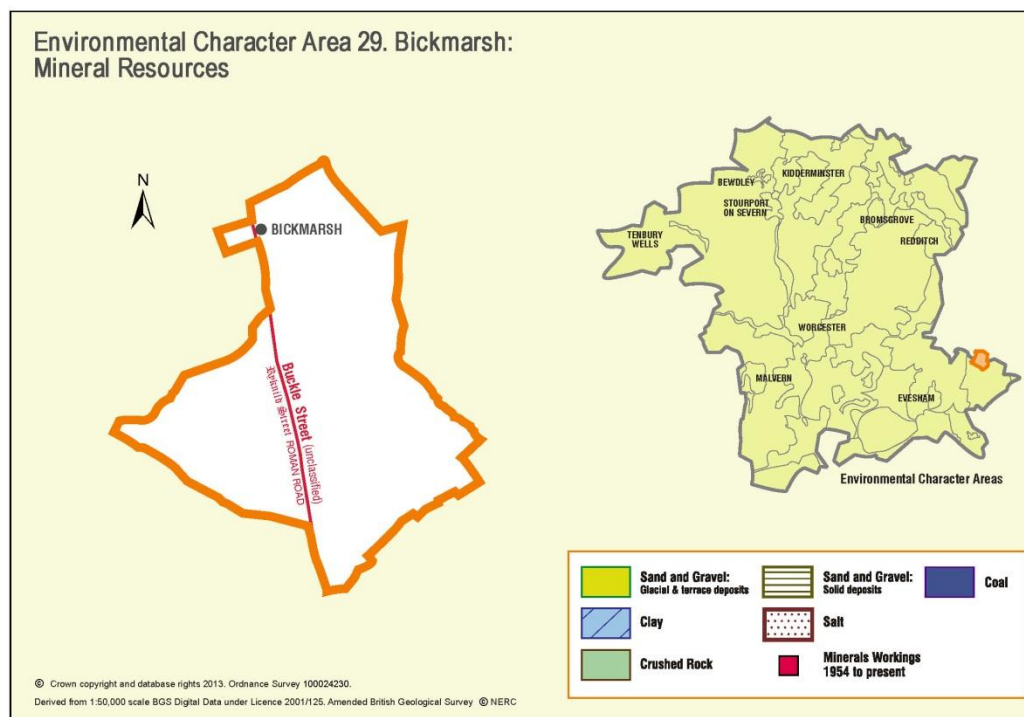
These are illustrated on Figure 1. Environmental Character Areas.

Figure 1. Environmental Character Areas



## 2. Characteristics and priorities of the Bickmarsh ECA

Figure 2. Environmental Character Area 29. Bickmarsh: Mineral Resources



### Mineral Resources

- 2.1. Details about the aggregate resources in this ECA are given in the background report "Analysis of Mineral Resources in Worcestershire" available on [www.worcestershire.gov.uk/mineralsbackground](http://www.worcestershire.gov.uk/mineralsbackground). The following is therefore only a simple summary.
- 2.2. There are no known aggregate or energy mineral resources in ECA 29. There is no evidence of brine working or of Halite deposits at depth. The ECA is overlain by clay which was worked commercially at Pebworth to the immediate west in the C19th but there is no evidence of any such working since.

### Future Growth

- 2.3. The key driver for mineral extraction is to provide the raw materials required for the economy to function properly and for homes and infrastructure to be built. Minerals are unevenly distributed. Some of the minerals that we need are not found in Worcestershire and will need to be imported from outside the County. Many minerals are expensive to transport, particularly aggregates as they are a relatively low value and bulky material, and they are likely to be used close to their source, meaning that some local mineral extraction will be needed to support local growth in housing and the associated infrastructure that is required, or to

provide raw materials for local industry. On average, about 80 per cent of mineral products are used within 30 miles of the quarry.

- 2.4. This ECA is a rural area within Wychavon District. The district anticipates the development of 5,807 homes, 18.5 ha of employment land and a new neighbourhood centre in the next 14-18 years<sup>4</sup>.
- 2.5. Areas beyond the boundary of the ECA could create demand for minerals in this Environmental Character Area.

### Green Infrastructure priorities<sup>5</sup>

- 2.6. All Environmental Character Areas (ECA's) have been placed into one of three categories based on their overall score for Green Infrastructure. These are:
  1. Protect and enhance
  2. Protect and restore
  3. Restore and create
- 2.7. The category is based on an assessment of the ECAs landscape character, biodiversity and the historic environment characteristics. These characteristics were each attributed a score, with biodiversity being given a greater weighting than landscape and the historic environment, each of which were given equal but lower weightings.
- 2.8. The strategic GI approach for the Bickmarsh ECA is to *restore and create*. The overarching principles identified by the GI partnership are to:
  - Maintain traditional orchards, restore connectivity.

### Landscape Character and Biodiversity

- 2.9. The Bickmarsh Environmental Character Area is a small ECA sited within the Vale of Evesham Regional Landscape Character Area and located entirely within the Pebworth Natural Area, which is similar to the Avon Vale Natural Area in overall biodiversity but has a subtle diversity in flora, heavier soils and a stronger network of grasslands (with a significant number of BAP grasslands abutting and surrounding this ECA).
- 2.10. Bickmarsh ECA is bisected by the Roman Ryknild Street and is an area of former marshland that has been enclosed and intensively cultivated. The large fields and planned enclosure pattern are typical of its Landscape Type, Village Claylands, which does not support woodland and is characterised by scattered hedgerow and streamside trees. These are landscapes with heavy, poorly drained soils where the continuing pastoral land use has preserved large areas of ridge and furrow from medieval

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<sup>4</sup> Information gathered by Worcestershire County Council in early 2013. This gives a good indication of the likely levels of development which can be expected, but for the latest figures please refer to the relevant City, District or Borough Council.

<sup>5</sup> Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*

cultivation. However, in this ECA the intensity of cultivation has resulted in almost total loss of grassland, ridge and furrow and hedgerow trees with consequent paucity of biodiversity interest.

***GI Priorities:***

- 2.11. The landscape and biodiversity priorities identified for the Bickmarsh ECA are<sup>6</sup>:
- Restore and enhance the character of Village Claylands. Restore and protect the hedges and seek to reinstate the historic field pattern.
  - Replant the hedgerow trees using species native to the area.
  - Seek every opportunity to create areas of permanent pasture in this inherently pastoral landscape.
  - Protect and enhance existing site and biodiversity interest.
  - Newly created green infrastructure should augment the existing resource, and link priority habitats including hedges. Priorities for restoration are species rich grassland and hedges.

**Geodiversity**

- 2.12. There are no Local Geological Sites in this ECA.

**Historic Environment**

- 2.13. This ECA is characterised by open flat landscape that has had little archaeological investigation. The Roman Road of Ryknild Street bisects the area and contemporary settlement may occur along its route. There is also a potential for palaeoenvironmental remains, as the area was presumably a wide marsh, long since drained.
- 2.14. The landscape is largely denuded of field boundaries due to modern field amalgamation, which therefore has an open prairie-type character.

***GI Priorities:***

- 2.15. The Green Infrastructure priorities identified for the Bickmarsh ECA are<sup>7</sup>:
- Restore locally distinctive historic hedgerows and field boundary patterns associated with piecemeal enclosure of former heath and marsh.
  - Protect and buffer the Roman road (Honeybourne Road).

**Blue Infrastructure.**

- 2.16. There are no main rivers in this ECA but any development in or near it could have implications for other ECAs in ground or surface water continuity with it. This ECA is bounded to the north and east by two unnamed watercourses which extend south of Honey Bourne from Weston sub edge in Gloucestershire and from west of Broad Marston, north of Honeybourne. The two join the Noleham Brook and ultimately river Avon,

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<sup>6</sup> Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*

<sup>7</sup> Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*

east of Bidford on Avon, in Warwickshire. Bidford has been badly affected by flooding in the past, work on the Marlcliff Flood Alleviation scheme, to protect the town, should commence in summer 2013.

- 2.17. The geology can have an effect on runoff, and flooding within a catchment as a result of the permeability of the strata. Impermeable clays and mudstones dominate the Warwickshire Avon sub-catchment and groundwater flooding is not considered to be a major issue in the South Worcestershire Joint Core Strategy area.
- 2.18. The River Severn Catchment Flood Management Plan makes this a Policy 3 area, where it will "Continue with existing or alternative actions to manage risk at the current level."

**Water Quality:**

- 2.19. This ECA appears to be free from water company diffuse pollution pressure and apart from the area west of Ryknild street, from agricultural/rural diffuse pollution pressure. The two streams within the ECA are not significant enough to be assessed themselves but the River Avon which they feed is currently classed as having a moderate ecological potential but not good status under the WFD because it contains unacceptable levels of phosphorus.

**Water supply**

- 2.20. No water available.

*GI Priorities:*

- 2.21. The blue infrastructure priorities identified for the Bickmarsh ECA are<sup>8</sup>:
- 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.

**Access and informal recreation**

- 2.22. In south-east Worcestershire, there are striking deficiencies in opportunities for access and recreation, particularly in the Vale of Evesham. Here 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.

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<sup>8</sup> Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*

### *GI Priorities:*

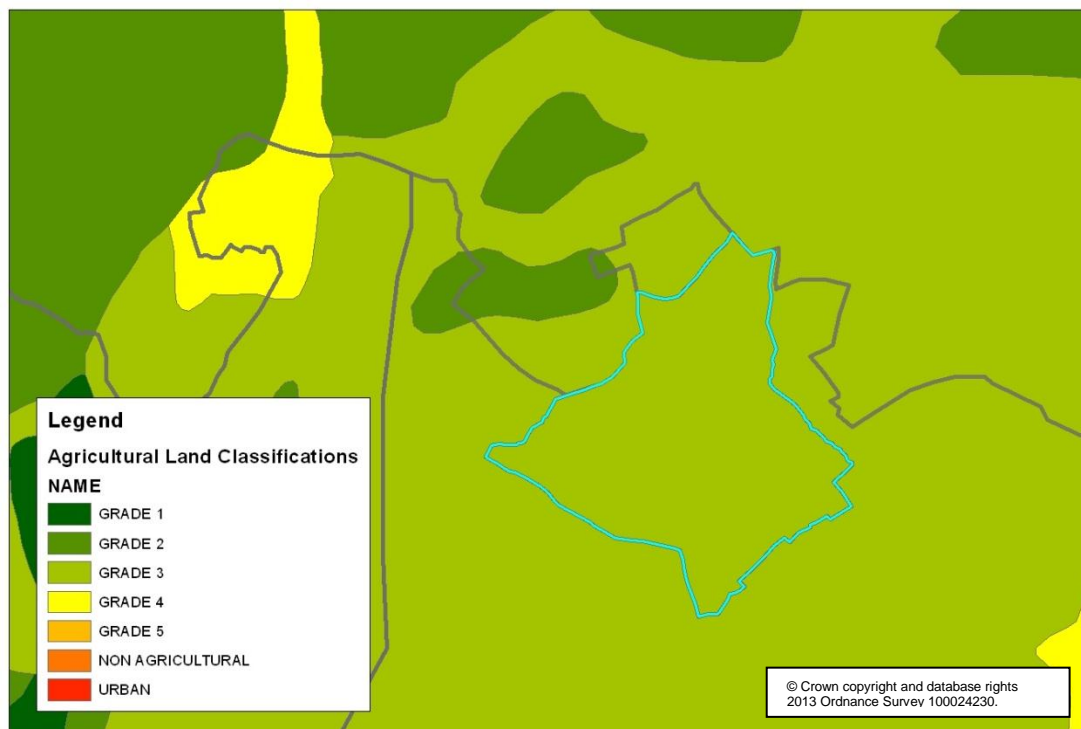
2.23. The access and recreation priorities identified for the Bickmarsh ECA are<sup>9</sup>:

- Consider the proximity to and ability to integrate with the rights of way network, recreational way-marked routes and the cycle network.
- 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.

### Agriculture/Forestry

2.24. The majority of the land use in this ECA is mixed farming. Agricultural land quality in the area is medium quality grade 3 land, as shown in Figure 3.

**Figure 3. Agricultural land quality**



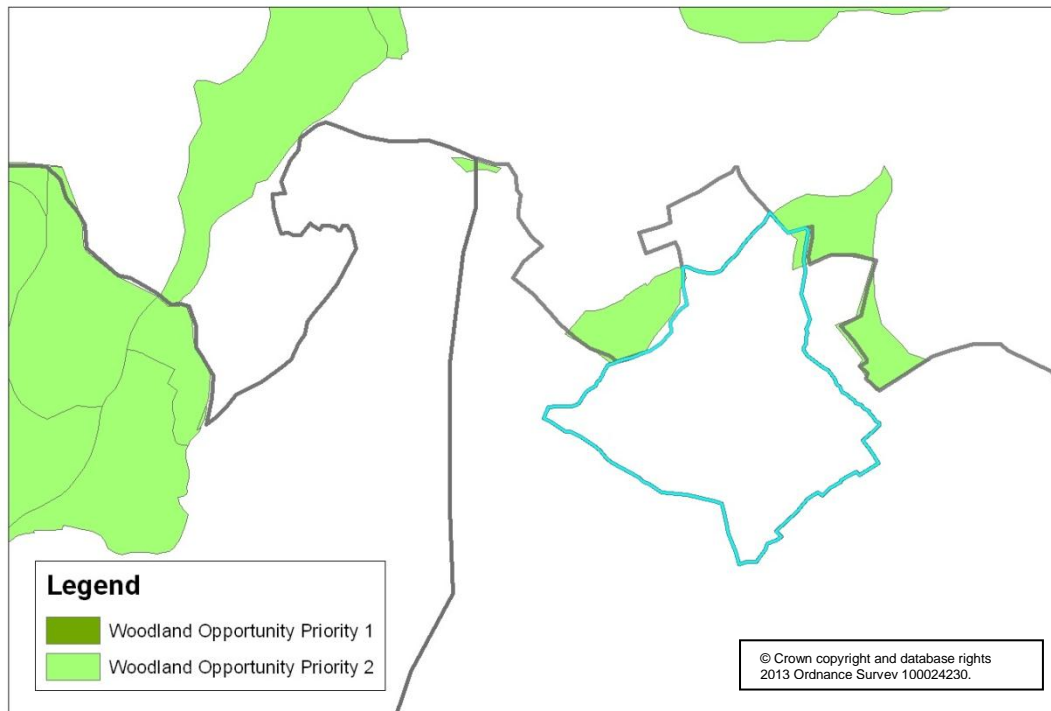
2.25. The forestry commission's woodland opportunity maps show that this ECA is not listed as a priority for woodland creation which could benefit landscape character, biodiversity, cultural heritage and/or public access

<sup>9</sup> Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*



(Figure 4). They also show that the ECA is not part of an ancient woodland landscape (Figure 5).

**Figure 4. Woodland creation for landscape, biodiversity, heritage and public access**



**Figure 5. Ancient woodland landscape and restoration**



### Socio-economic considerations

3.26. The analysis of the socio-economic situation in Worcestershire in this strategy considers the economy and health & well-being at a high level. It is not intended to draw a full picture of the economy or health and well-being

in the county, instead it focuses only on the indicators which are of most relevance to green infrastructure:

- **Economy:** unemployment, household income and deprivation levels.
- **Health and well-being:** health deprivation, heart diseases, obesity, mental health problems and respiratory conditions.
- **Access to sites for informal recreation:** considers links between informal recreation opportunities and mental and physical well-being.

2.27. The Green Infrastructure Strategy categorises this ECA as one of 4 very small areas, atypical of the general nature of the county where further investigation is required to establish socio-economic priorities.