

Environmental Character Area Profile for the Minerals Local Plan: 30. Long Marston

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 network¹.

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 network² will need to be considered.

Environmental Character Areas³ 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*

¹ Green Infrastructure Guidance – Natural England.

² Green Infrastructure Guidance – Natural England.

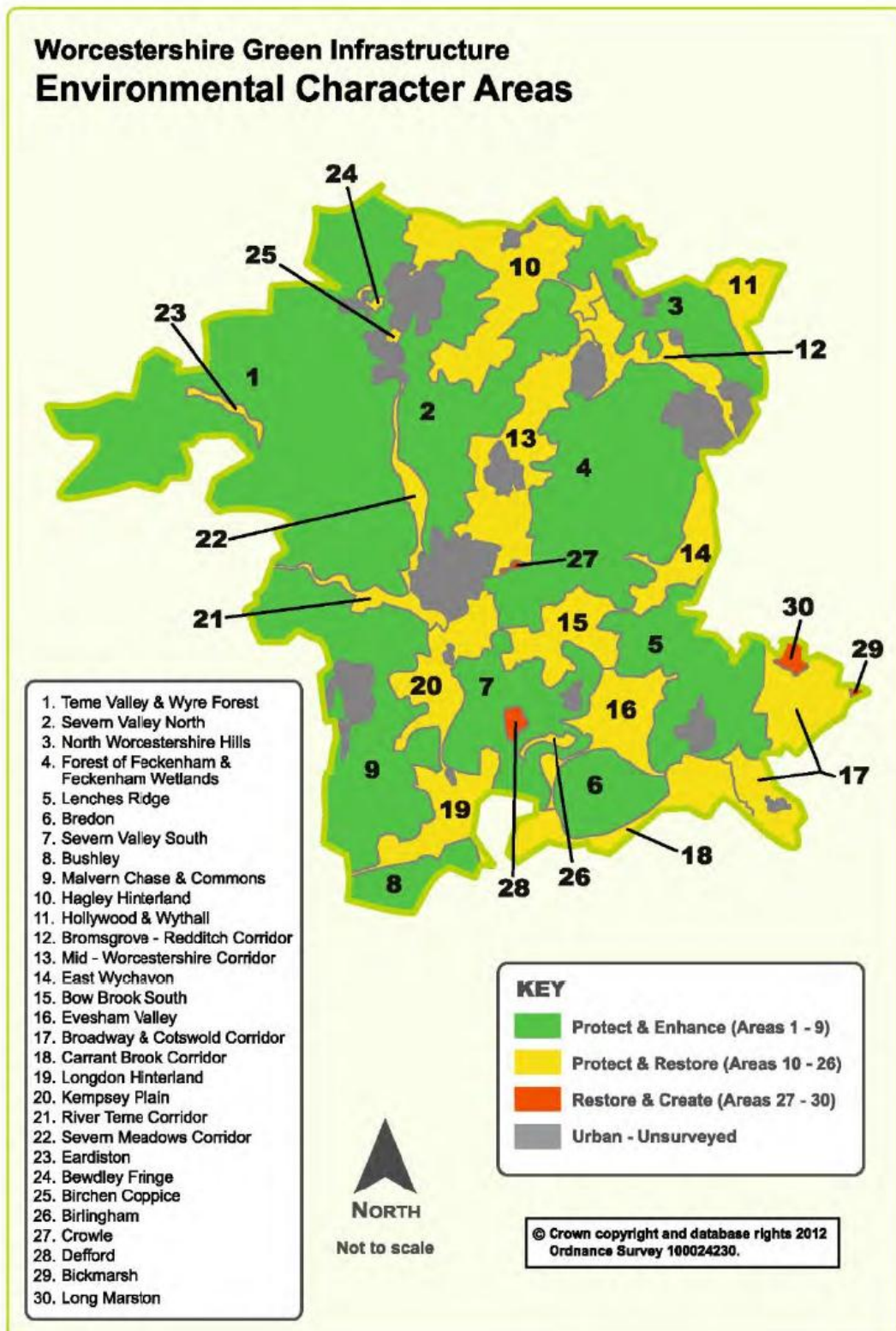
³ Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*

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

- 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:
- 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

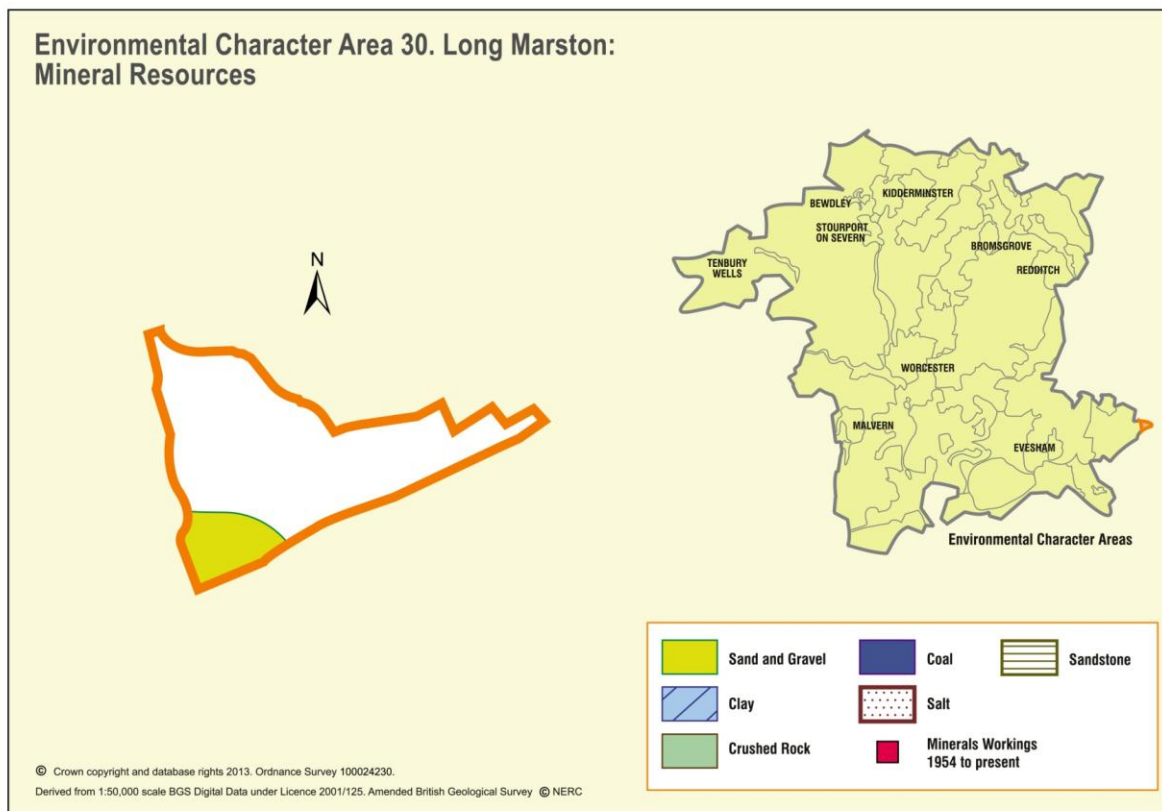
These are illustrated on Figure 1. Environmental Character Areas.

Figure 1. Environmental Character Areas



2. Characteristics and priorities of the Long Marston ECA

Figure 2. Environmental Character Area 30. Long Marston: Mineral Resources



Mineral Resources

Aggregates

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. The following is therefore only a simple summary.

Sand and gravel

2.2. Some sand and gravel appears to be mapped at a large scale, but given the small size of the ECA, the extent to which the site is compromised and the small area of apparent deposit, the resource can be assumed to be small. Redevelopment of the site could however release large volumes of recycled aggregates.

Hard rock

2.3. There is no evidence that suitable strata exist.

Industrial minerals

Clay

2.4. There is no evidence that suitable strata exist.

Silica sand

2.5. There is no evidence that suitable strata exist.

Brine

2.6. There is no evidence of brine working in this area or that Halite deposits might exist at depth.

Future Growth

2.7. 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.

2.8. 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 years⁴. The South Worcestershire Development Plan proposed submission document⁵ does not propose development in this ECA. Other areas beyond the boundary of the ECA could create demand for minerals in this Environmental Character Area.

Green Infrastructure priorities⁶

2.9. 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

⁴ 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.

⁵ Category 1, 2 and 3 villages are fourth in the five tier settlement hierarchy set out in the South Worcestershire Development Plan proposed submission document. Their role is predominately aimed at meeting locally identified housing and employment needs. They are therefore suited to accommodate market and affordable housing needs alongside limited employment for local needs. The scale of allocated development is significantly less than that for the urban areas and is aimed at helping to address housing needs and support local services.

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

2. Protect and restore
3. Restore and create

- 2.10. 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.
- 2.11. The strategic GI approach for the Long Marston ECA is to *restore and create*. The overarching principle identified by the GI partnership is to maintain traditional orchards and restore connectivity.

Landscape and Biodiversity

- 2.12. The Long Marston Environmental Character Area is a small ECA sited within the Vale of Evesham Regional Landscape Character Area. Approximately a third of its area is occupied by an industrial site, of the rest, there is a large, discrete, mixed species woodland and some ornamental grounds associated with dwellings in the central part and the rest is put down to large fields, mainly arable with few, poor condition hedgerows and very few hedgerow trees.
- 2.13. The large fields and planned enclosure pattern are typical of its Landscape Type, Village Claylands, which does not normally 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 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:

- 2.14. The landscape priorities identified for the Long Marston ECA are⁷:
- Composed entirely of the unsettled Riverside Meadows Landscape Type where opportunities should be sought to retain pastoral land use and management regimens that support natural river and flood plain function.
 - Protect and enhance the hedgerow field boundaries in a planned enclosure pattern of medium-to-large fields.
 - Seek opportunities to address density and age structure in linear tree belts along hedgerows, ditches and watercourses.

Geodiversity

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

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

Historic Environment⁸

- 2.16. The part of this character area that is located in the county has an unknown but probably low potential for archaeological remains. The site was historically marsh or meadow and has been significantly altered. What appears as medieval ridge and furrow are in fact linear dumps of topsoil and rubble.
- 2.17. The landscape is now partly industrialised although the underlying historic character is still visible in land division influenced, in-part, by historic field boundaries.

GI Priorities:

- 2.18. The historic environment priorities identified for the Long Marston ECA are⁹:
- Restore locally distinctive historic hedgerows and field boundary patterns associated with the piecemeal enclosure of former open-field farming.
 - Protect sensitive medieval ridge and furrow earthworks currently under pasture.

Blue Infrastructure

- 2.19. 3 very small watercourses are mapped at small scale in this ECA, one appears very short and barely crosses the site east west, one, the Gran Brook, flows from Mickleton in Gloucestershire and may link with an unnamed stream which flows north to join the Avon at Luddington in Gloucestershire.
- 2.20. The geology can have an effect on the runoff, and the flooding, within a catchment as a result of the permeability of the strata. The geology within South Worcestershire is variable. 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.
- 2.21. 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."
- 2.22. The watercourse to the north east of this ECA is classified as moderate WFD Ecological Status but the ECA itself is categorised as having water company point and agricultural/rural diffuse pollution pressure. The River Avon east of Evesham, as fed by this ECA, passes the Chemical Assessment under the WFD.

⁸ Historic Environment and Archaeology Service, Worcestershire County Council and Cotswold Archaeology (R Jackson and H Dalwood et al) (November 2007) *"Archaeology and aggregates in Worcestershire: A resource assessment and research agenda"* Supported by English Heritage through the Aggregates Levy Sustainability Fund.

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

Water Quality

2.23. Groundwater status in this ECA is good.

Water Supply

2.24. No water available.

GI Priorities:

2.25. The blue infrastructure priorities identified for the Long Marston ECA are¹⁰:

- 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

2.26. This ECA is in Wychavon District. Only 3.6% of the Wychavon District is accessible natural greenspace, this is the lowest proportion across all districts in Worcestershire. As a whole accessibility to greenspace is poor with only 20% of households in Wychavon are within 5km of 100ha+sites and 2% of households within 10km of 500ha+sites.

2.27. There are no sub-regional recreation assets in this ECA. There are deficiencies in opportunities for access and recreation across the Vale of Evesham, with the Rights of Way network being less dense than in any other area of the County. There is also a lack 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.

2.28. Provision is required at both a strategic and neighbourhood level. At a neighbourhood or local scale there is scope for towns and villages to address natural greenspace needs within the rural communities. This should be a requirement of development and other options should be explored for existing communities such as stewardship agreements.

GI Priorities:

2.29. The access and recreation priorities identified for the Long Marston ECA are¹¹:

- 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

¹⁰ Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*

¹¹ Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*

integrate with the landscape character, wildlife and cultural interests.

- Act as a greenway from town into the countryside and utilise existing canal, former railway lines, river corridors and wherever possible link with public transport routes.
- Adopt minimum quality standards, (commensurate with its location and scale) that sites and routes should be expected to achieve will be those from the Green Flag Award Programme, and the Country Parks Accreditation Scheme, as appropriate.

Transport

Road

2.30. There are no major roads in this ECA and no roads which are part of the Worcestershire Advisory Lorry Route Map. Local roads may have restrictions and will need further assessment if they are to be used for accessing mineral resources.

Rail

2.31. There are no network railways in this Environmental Character Area, although the Honeybourne to Long Marston branch line runs immediately to the north of the ECA.

Water

2.32. There are no navigable waterways in this Environmental Character Area.

GI Priorities:

- 2.33. The GI transport priorities identified for the Long Marston ECA are¹²:
- Opportunities should be sought to protect, enhance and create green infrastructure that promotes sustainable movement by walking and cycling, reducing the need to travel by car by providing pleasant environments that promote sustainable transport as a means to minimise the impact of transport on the natural environment and mitigate the impacts of climate change.

LTP Priorities:

- 2.34. The LTP 3 transport priorities identified for the Long Marston ECA are:
- **South Worcestershire Minor Transport Improvements Scheme** - This programme is proposed to deliver minor complementary transport improvements to enhance safety, accessibility, information and travel choice. The scheme will be integrated with other schemes in South Worcestershire.
 - **Honeybourne to Stratford Rail Line Reinstatement Study** - This scheme would involve the development of a business case and clear identification of local benefits to support the reopening of the railway link between Honeybourne and Stratford-upon-Avon. Worcestershire County Council is minded to support this scheme, subject to agreement and support from key partners, which must

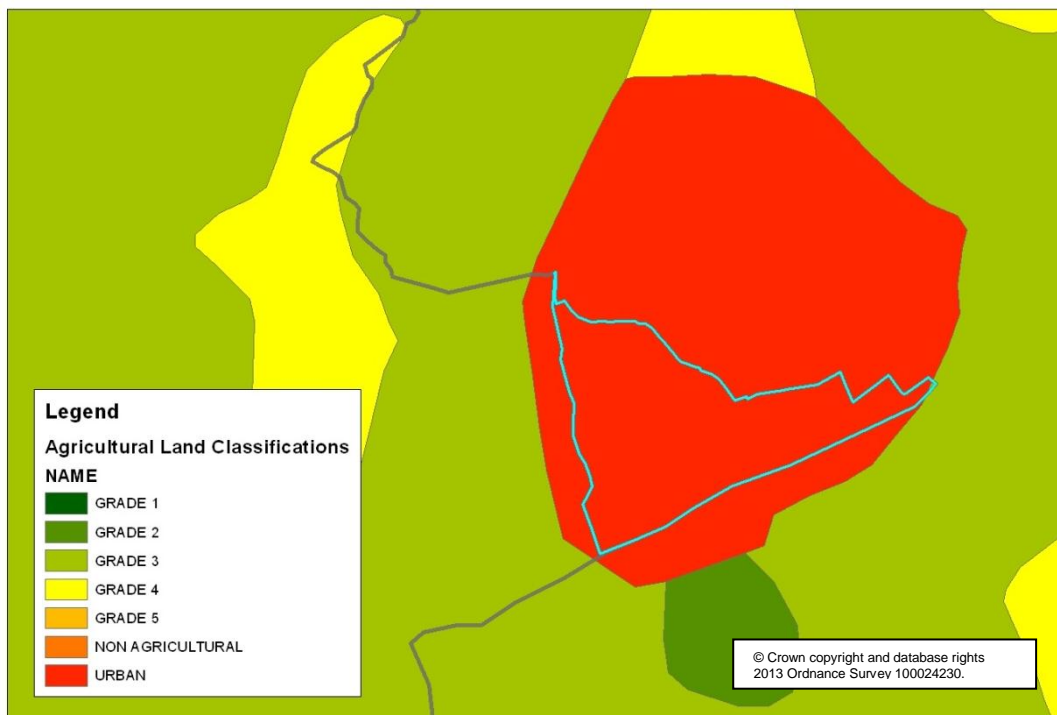
¹² Worcestershire County Council (July 2012) *Planning for a Multifunctional Green Infrastructure Framework in Worcestershire: Green Infrastructure Framework 2*

include: the Rail Industry, Wychavon District Council, Warwickshire County Council and Stratford-upon-Avon District Council as a minimum.

Agriculture/Forestry

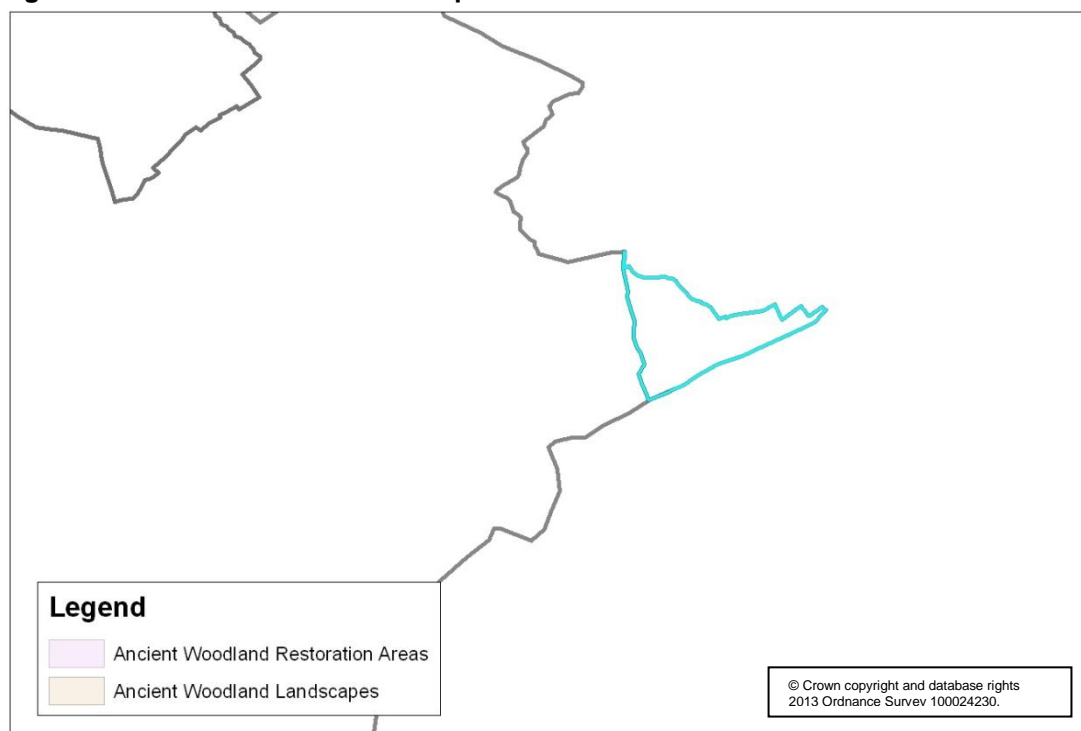
2.35. The majority of the land use in this ECA is mixed farming and cash cropping. Cash cropping covers market gardening as well as arable farming and is strongly associated with the Vale of Evesham, where, on soils ranging from heavy Lias clay to freely draining river terrace gravels, and on holdings ranging in size from a few acres to over a thousand, almost every variety of market garden crop is grown. However, the agricultural land quality of the area is recorded as urban, associated with the airfield, as shown in Figure 3.

Figure 3. Agricultural land quality



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

Figure 4. Ancient woodland landscape and restoration



Climate Change

2.37. Some effects of climate change will be similar across the whole county and many of the issues which can be addressed are likely to be common to all ECAs, such as:

- Improving air quality
- Providing flood risk management solutions
- Preventing water and soils pollution as a result of climate change related extreme weather conditions
- Promoting energy efficient and low carbon solutions
- Contributing to renewable energy production

Opportunities and issues

2.38. The soil types in most of this ECA are inherently at risk of subsidence and heave. It is possible that changes in weather patterns as a result of climate change may worsen these tendencies.

Socio-economic considerations

3.39. 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.

3.40. 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.