



Black Country Urban Park Barometer

April 2013

DRAFT WORK IN PROGRESS



**THE BLACK
COUNTRY**
see it in colour

Welcome to the **Black Country Urban Park Barometer**. Transformation of the Environmental Infrastructure is one of the key drivers identified in the **Black Country Strategy for Growth and Competitiveness**. The full report looks at the six themes created under the 'Urban Park' theme and provides a **spatial picture** of that theme accompanied with the key **assets** and **opportunities** for that theme.

Foreword to be provided by Roger Lawrence

The Strategic Context

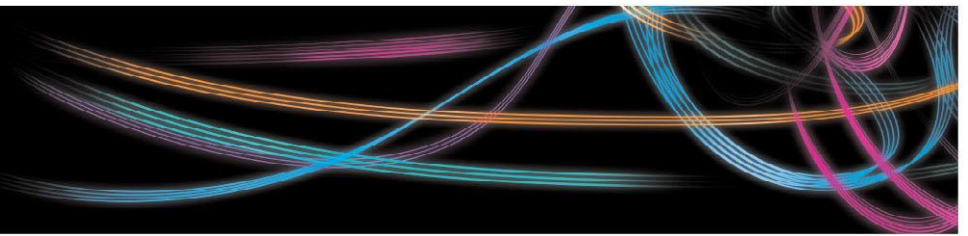
Quality of the Black Country environment is one of the four **primary objectives** of the **Black Country Vision** that has driven the preparation of the Black Country Strategy for Growth and Competitiveness through the Black Country Study process. The environment is critical to the **health and well-being** of future residents, workers and visitors to the Black Country. It is also both a major contributor to, and measure of, wider goals for **sustainable development and living** as well as being significantly important to the economy of the region.

The importance and the desire for transforming the Black Country environment has been reinforced through the evidence gathering and analysis of the Black Country Study process as both an aspiration in its own right and as a necessity to achieve economic prosperity. Evidence from the Economic and Housing Studies concluded that 'the creation of new environments will be crucial for **attracting investment** from high value-added firms' and similarly that 'a high quality healthy environment is a priority for **'knowledge workers'**. **The Economic Strategy puts 'Environmental Transformation' alongside Education & Skills as the fundamental driver to achieve Black Country economic renaissance and prosperity for its people.**

Through the Black Country Study process two critical conclusions were reached:

1. The Black Country is rich in both its natural and built heritage and environmental assets – including its canals, geology, wildlife and open spaces - but that too many of these **assets** are 'hidden', inaccessible or not celebrated by both residents and visitors alike.
2. The emergence of the concept of the **'Black Country as Urban Park'** as a set of 'principles' to guide the transformation and a new image of the Black Country and as a 'programme' of action to improve the built and open space environment, aiming to establish the Black Country as a national exemplar for sustainable urban living.

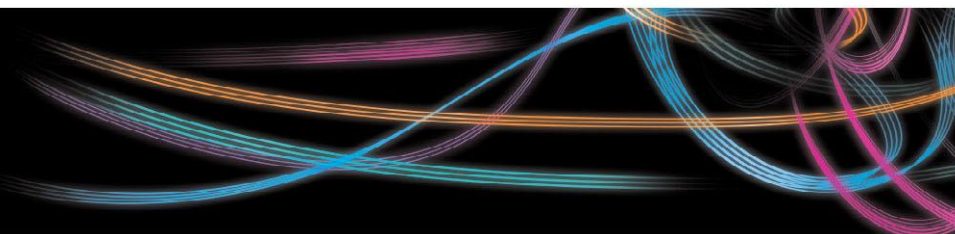
Today many people are unaware of the sub-region's environmental assets – natural, built and historic. The perception of the Black Country remains one of heavy industry. From the road and the train the image is often one of a poor quality natural and built environment characterised by old, unattractive and disused industrial buildings and



land. In contrast, when viewed from the air, the Black Country scene is predominantly 'green' – one of trees and open spaces. It is this image that the aspirations of the Black Country Vision wish to see brought more to the fore and those 'green' assets enhanced and accessed for the benefit of local people and visitors. Some of the key Black Country assets are set out in the following table:

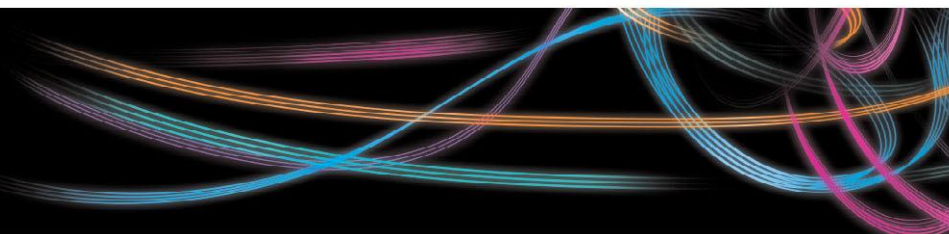
Black Country Key Assets

- ❑ Topography characterised by hills & valleys, rising to a high point of almost 1,000 feet, the watershed between the Trent and Severn river catchment systems.
- ❑ 213 kms of rivers and streams.
- ❑ A diverse geology shaping its landscape and pattern of settlement, as its mineral wealth drove the first phase of industrialisation. Dudley has 200 recorded geological sites
- ❑ Its geology is of significant international interest – notably for its 400 million year old Silurian fossils with its 600 species of marine invertebrate, including 63 fossils recorded nowhere else in the world.
- ❑ Surviving relics of earlier natural landscapes, together with post-industrial landscape, support a rich network of wildlife sites and corridors - with almost 4,500 ha of designated Nature Reserves and local wildlife sites in over 600 locations and 39sqkms of wildlife corridors
- ❑ Wrens Nest, in the heart of the Black Country, the first urban national nature reserve to be designated, celebrated its 50th birthday in 2006.
- ❑ 177 kilometres of canals with 63 locks & 3 tunnels - the transport infrastructure which underpinned the areas economic success.
- ❑ Other significant elements of industrial heritage, such as Avery Building in Smethwick (the first bespoke factory building in the world, incorporating the Soho Foundry of Boulton and Watt, the first manufactory of steam engines)
- ❑ A network of town and village centres with strong local community allegiances and historic associations with specialist trades, such as chains in Netherton, locks in Willenhall, springs in West Bromwich – part of the 'unique character' and urban form of the Black Country.
- ❑ The Black Country is home to 1195 listed buildings, 80 conservation areas, 11 registered parks and gardens, 24 scheduled ancient monuments as well as a wealth of other historic buildings, areas and archaeological sites.
- ❑ A large proportion of the Black Country is 'green' with 10 registered parks & gardens and 17 Site of specific Scientific Interest (SSIs).



This report presents each of the six 'layers' within the Urban park in order to understand their spatial representation and what assets and opportunities each brings to the Black Country. Some of the key attributes and examples of the spatial layering are presented below:

Urban Park Layers:	Contents:
1. Above, Below and Beyond	<ul style="list-style-type: none"> □ Above relates to the Black Country communities and the concept of the Black Country as an endless village. □ Below relates to the infrastructure underneath the ground. The Black Country has a diverse geology shaping its landscape and pattern of settlement, as its mineral wealth drove the first phase of industrialisation. Wrens Nest is one of most notable geological locations in the UK and the first geological NNR to be declared. There are 4,500 ha of designated Nature Reserves and local wildlife sites in over 600 locations and 39sqkms of wildlife corridors. □ Beyond links to the concepts of beacons and vistas and areas home to assets of world class distinction, for example Wightwick Manor, Wolverhampton.
2. Blue Infrastructure	<ul style="list-style-type: none"> □ The Black Country canals are at the heart of the UK canal network. The Black Country has one of the highest densities of canals in the UK. There are 177km (110 miles) of Canals in the Black Country with 63 locks & 3 tunnels - the transport infrastructure that underpinned the areas economic success. There are also 213 kilometres of rivers and streams.
3. Green Infrastructure	<ul style="list-style-type: none"> □ 800,000 people will live within a 15 minute walk of this accessible natural green space. The Black Country is currently bidding for funding to designate the area as a Nature Improvement Area will bring many opportunities.
4. Built and Historic Environment	<ul style="list-style-type: none"> □ The Black Country is home to over 1,000 listed buildings that can be found amongst the many settlements forming a network that is the Black Country; with it's distinctive character such as the number of buildings that are associated with the area's development over the 20th Century. There has also been significant recent investment (over £1.6bn since 2006) into the landscape (the 4 strategic centres in particular).
5. Visitor Economy	<ul style="list-style-type: none"> □ The Black Country has a diverse industrial heritage and unique identity. Some of the Black Country's well known attractions include: The Black Country Living Museum, Dudley Zoological Gardens and Dudley Canal Tunnel and Limestone Mines; Wolverhampton Racecourse; New Art Gallery, Walsall and Merry Hill, one of Europe's premier shopping centres with over 200 shops under one roof.



6. Sports Infrastructure

- There is a wide range of built sporting facilities across the Black Country totalling 318 venues covering athletics tracks, health & fitness suites, indoor tennis facilities, sports halls, swimming pools and synthetic turf pitches.

Cross Cutting Opportunities

Contents:

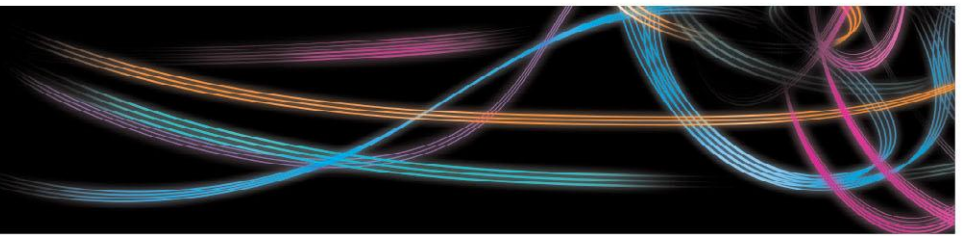
1. NIA

- The Birmingham & Black Country Nature Improvement Area is a partnership of over 50 organisations that have come together to deliver significant improvements to the natural environment of Birmingham, Dudley, Sandwell, Walsall and Wolverhampton. The Nature Improvement Area is the culmination of decades of working towards our vision of an urban landscape permeated by a network of high quality greenspace which is rich in wildlife and enjoyed by the people who live and work here. It represents a step-change away from site-focused nature conservation to a more ambitious and joined-up landscape-scale approach.

The **Key Objectives** of the Nature Improvement Area are:

- **Bigger** – to increase the amount of wildlife habitat in the landscape
- **Better** – to enhance the value of existing habitats across the landscape
- **More** – to increase the number of sites with wildlife value across the landscape
- **Joined** – to target action on ecological corridors and stepping stones
- **People** – to connect communities with their landscape and its wildlife

- The partnership has identified a number of **Delivery Themes** which prioritise the types of projects that will be undertaken in this first phase (2012 – 2015) of the Nature Improvement Area. These have been informed by the partnership's collective understanding of the Birmingham and Black Country landscape, its ecology and its needs. The Delivery Themes are **Woodland, Grassland, Heathland, Corridors, Geology** and **Community Engagement**. These priorities enable each partner to maximise their contribution to landscape-scale change by ensuring their projects form part of larger and linked actions which are



being rolled-out across Birmingham & the Black Country.

2. Geopark

□ Information to be added by Graham Worton

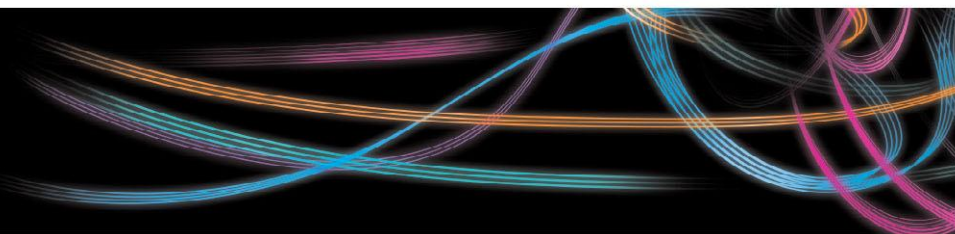
3. Waterframe Directive

□ The Water Framework Directive is EU legislation driving improvements to inland and coastal waters across the European community. It is the most substantial piece of EU water legislation to date and requires all inland and coastal waters to be of good ecological status. River Basin Plans have been produced across the EU which have set demanding environmental objectives. The Black Country is part of the River Tame, Anker and Mease catchment which falls under the Humber Basin Management Plan. The plans will contribute towards the improvement of green infrastructure in the Black Country by improving the extensive network of river and canal corridors.

4. Local Sustainability Transport Framework

5. Black Country Urban Forest

6. Economic Value of Ecosystems



Urban Park Layers

1. Above, Below and Beyond

This layer comprises of 3 elements - **Above** which relates to the Black Country communities, **Below** which relates to the infrastructure underneath the ground and **Beyond** which links to the concepts of beacons and vistas.

1.1. Above

(a) An Endless Community

Assets

The Black Country as a region is growing at a steady rate (6% the same as the West Midlands) that equates to an extra 61,660 people from 2001 to 2011. The Black Country now has 1,139,800 residents.

There is a network of 353 town and village centres with strong local community allegiances and historic associations with specialist trades, such as chains in Netherton, locks in Willenhall, springs in West Bromwich – form part of the ‘unique character’ and urban form of the Black Country. The list of these communities is set out in Appendix Table 1 and the transformation of these communities is set out in the graphic below:

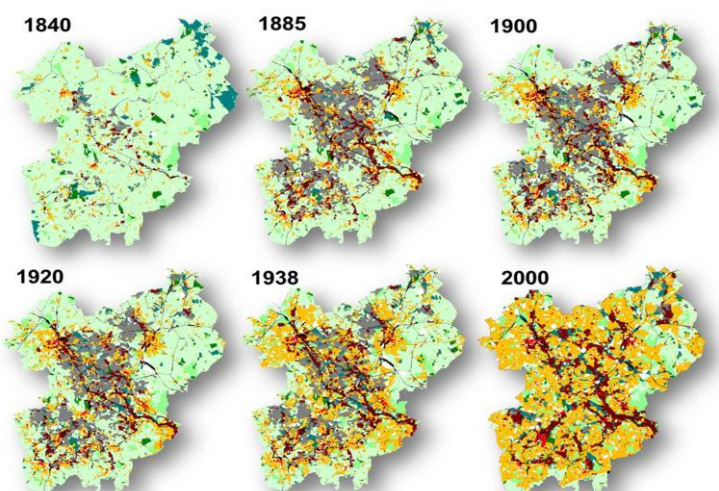
From 19th century ‘interminable village’ to 21st century polycentric conurbation

In 1843 Thomas Tancred wrote:

“The traveller never appears to get out of an interminable village... In some directions he may travel for miles and never be out of sight of numerous two-storeyed houses... interspersed with blazing furnaces, heaps of burning coal in process of coking, piles of ironstone calcining, forges, pit-banks, and engine chimneys”

In 2012...

The modern Black Country local authorities incorporate the original historic settlement centres described in the 1840s ... but today they are part of much larger area of continuous polycentric urban development. The pit banks and engine chimneys have been replaced by parks, industrial zones and new residential suburbs.



Maps compiled from data produced by the Black Country Historic Landscape Characterisation



The graphic above illustrates how landuse has dramatically changed over a period of 160 years. In 1840 fields (light green) largely dominated the landscape whereas by the year 2000, land used for industry (brown) and housing (orange) are the two main landuse classes.

An example of how the landscape changed is detailed below for a small localised area; Netherton in Dudley.

Case Study - Netherton Character Area **Source: The Black Country Historical Landscape** **Characterisation Report**

This is generally a residential part of modern Dudley, although also encompassing recreational and wooded areas, together with industry straddling the canal in its south. The eastern boundary of the area borders similar residential areas of Sandwell (the canal also continues into Old Hill Character Area SD04), while the western boundary is formed by the change to a more industrial area alongside the canals and dual-carriageway.

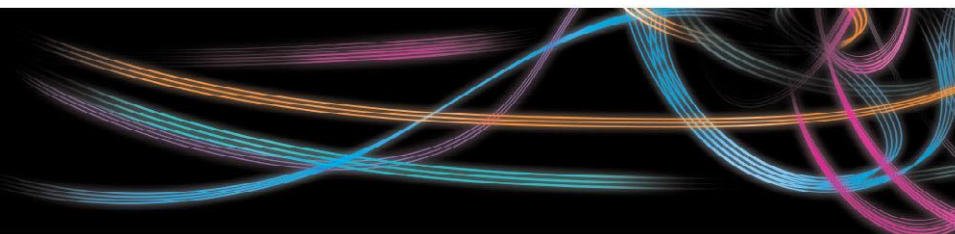
GEOLOGY & TOPOGRAPHY

This area lies over sandstone, mudstone and conglomerate and, in general, over shallow coal. The high ground in its north-east is dolerite. From this point, which is at more than 200m elevation, the land falls by around 100m over the Character Area's length, reaching its low point at its southern limit.

MODERN CHARACTER:

Despite being skirted in the north west by the dual carriageway of the Dudley Southern by-pass (1999), this area is largely made up of quieter residential streets, with the only A road through the area (Cinder Hill/Halesowen Road) running south-west from Dudley town centre - the route being one of the oldest through the area. On the high ground in the north, the housing is in many cases a legacy of the southern expansion of Dudley and, in the north-west in particular mid-to-late Victorian terraces and villas survive. Much of the remainder of the north comprises large areas of inter-war semi-detached housing survive from the 20th century suburbanisation of Dudley.

In the south, housing is of perhaps more mixed origins, although it includes some large developments of semidetached properties from the 1950s. The area's central band also includes significant post-war terraced housing dating from the 1960s and 70s. Recreational & wooded areas include the playing fields of Netherton and Warren's Hall Parks, together with local nature reserves such as the large area of Saltwells Wood in the south west corner of the Character Area. The principle industrial area is in the south-east of the area, at the core of which is the Washington Centre, a group of mixed use industrial units on the north bank of the Dudley canal.

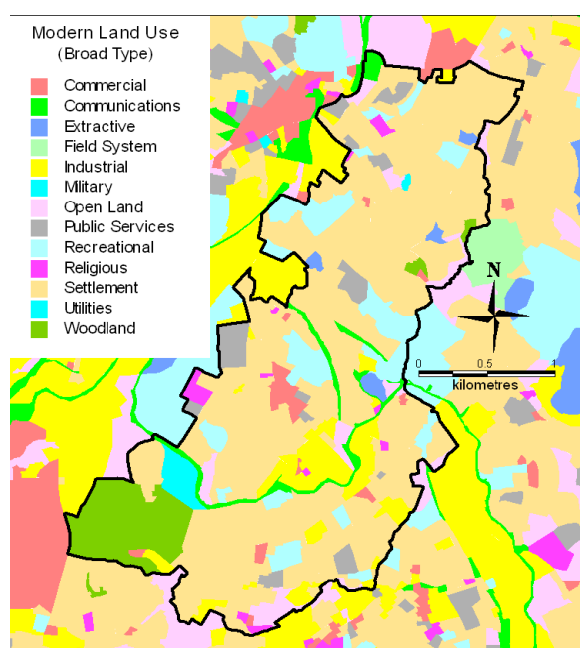


HISTORIC CHARACTER

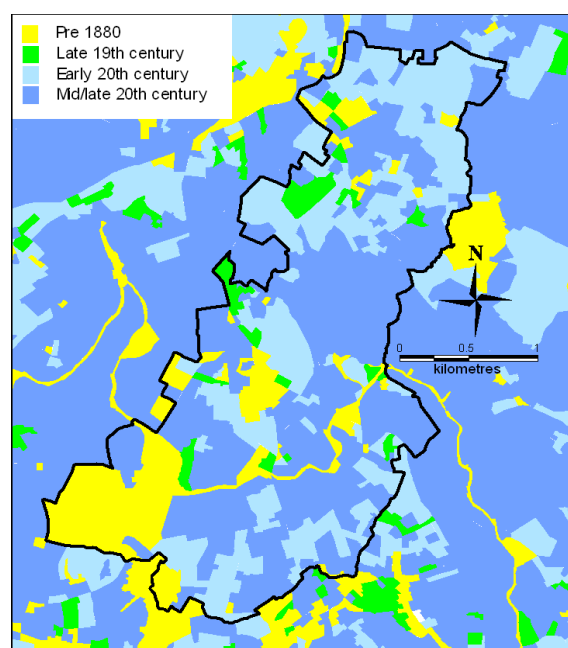
In the pre-industrial period the southern half of this area formed part of the large common of Pensnett Chase, while the northern section included the open fields which were part of the agricultural hinterland of the settlements of Netherton and Dudley (the latter being centred immediately to the north-west of the Character Area). Most of what is now the Character Area's boundary with Sandwell (i.e. its eastern edge) was also the line of Mousesweet Brook, a tributary of the River Stour running to the south. Important changes took place in the 18th century when Pensnett Chase was enclosed, and mining was known to have developed in several parts of the area. This included the area which is now Saltwell's Nature Reserve (in the south-west corner of the area), for example.

By the end of the 1830s, a canal was opened across the area linking the pre-existing canals between River Severn and north of the Black Country (in the west) and that already running to the centre of Birmingham (in the east). By this time, most of the area between the route of the canal in the south and the centre of Dudley in the north was dominated by areas of mining. Tramways were used to transport coal and other products to the new canal. Dudley and Netherton, among other local settlements, grew to service these extractive industries. Later, further 19th century improvements in transport brought the railways in the form of the Great Western Railway Windmill End branch line, which crossed the area and linked it with the rest of the rail network at both Dudley and Old Hill. Another branch provided a goods station in the south-central part of the area, next to the then Netherton Works, producing chains and anchors (now the location of the Washington Centre). South of the canal, a network of private mineral railways also provided access to the main rail network in the west.

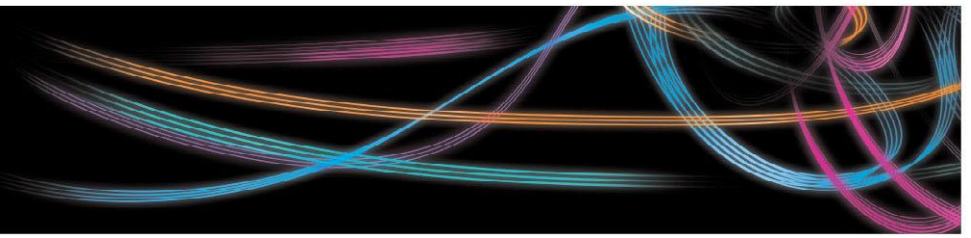
Modern Land Use



Period of Origin



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Opportunities

Distinctly Black Country

<http://distinctlyblackcountry.org.uk/>

NIA: Community Engagement – *involving people*

Birmingham & the Black Country has a population of over 2 million people, and it is key to the success of the Nature Improvement Area that there is widespread public awareness, engagement and involvement in the work of the partnership. Resources are therefore being invested in securing community benefit and in maximising nature improvement gain through the engagement of individual volunteers and local groups.

Well over 200 friends' groups are engaged with open spaces across Birmingham & the Black Country, and clearly there is an opportunity to involve these with the delivery of Nature Improvement Area projects. There are also countless other opportunities for activities which involve the general public and a wide range of groups who are not already engaged with their local open spaces - including social care organisations, schools, housing associations and many others.

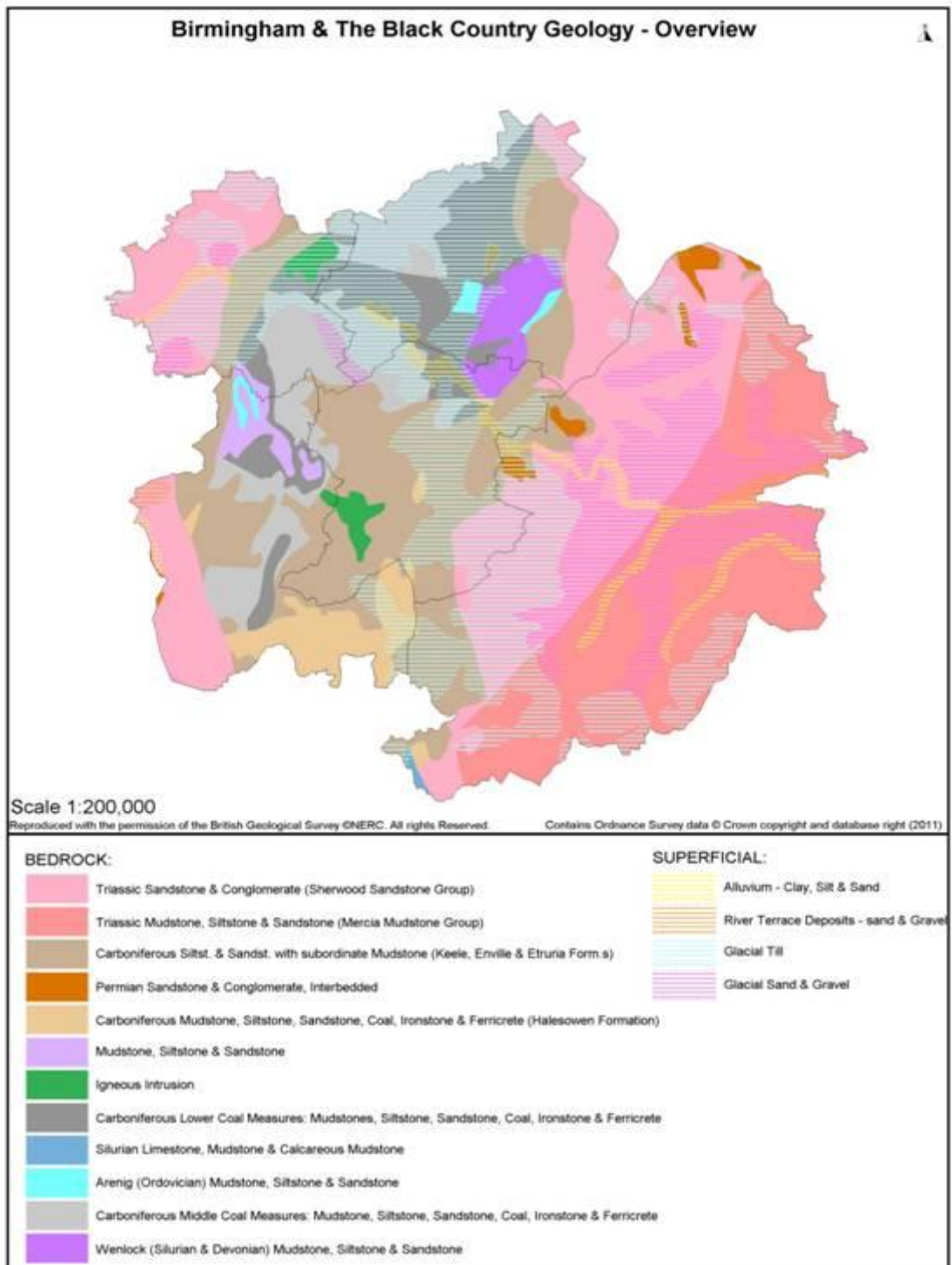
The focus of the Community Engagement Delivery Theme is simply providing opportunities for awareness-raising and the involvement of people with all aspects of the Nature Improvement Area.

The Black Country: An Endless Community



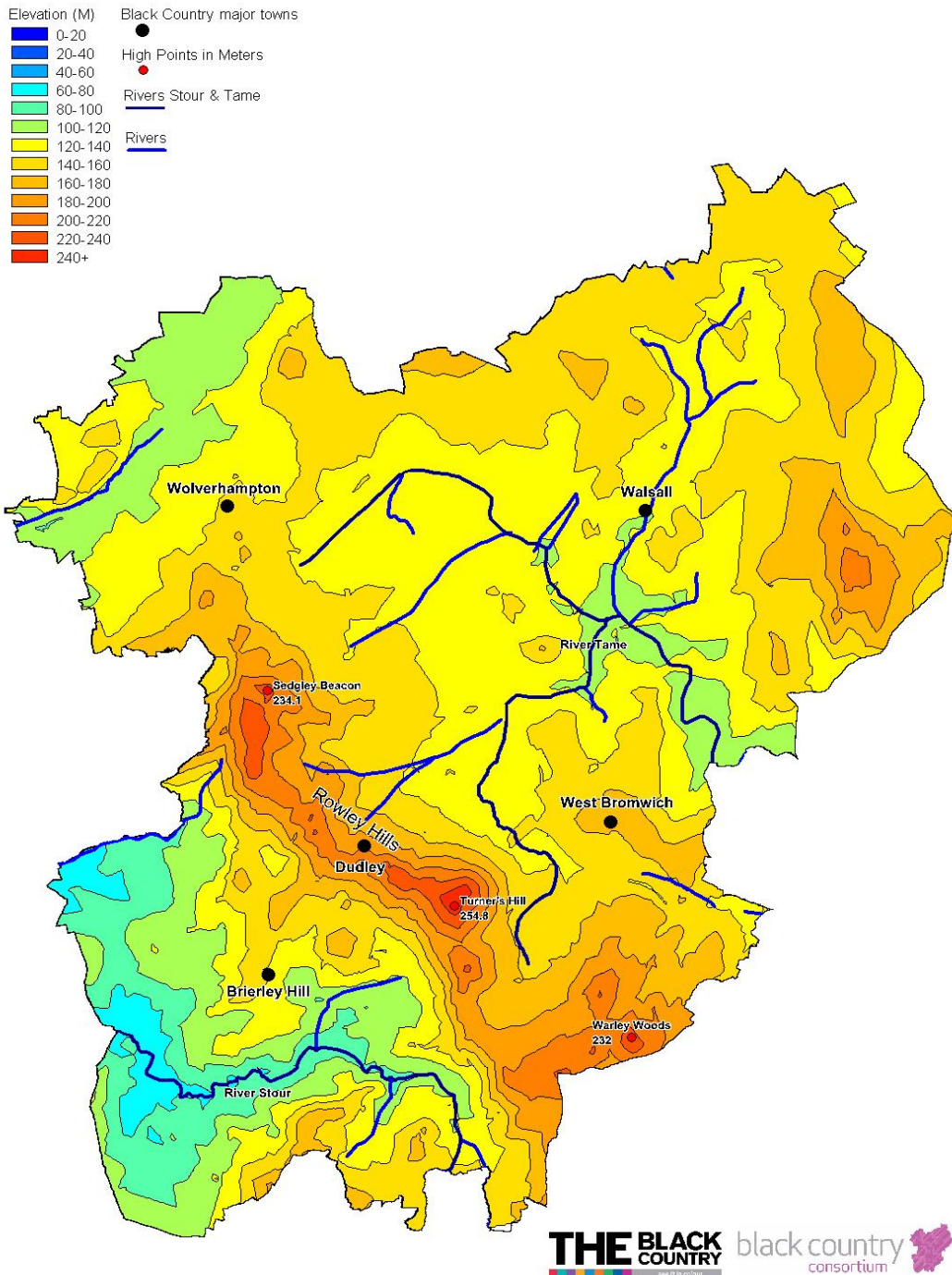
The map above shows that the Black Country is made up of numerous towns and villages to give the sense of a large continuous community. Around 353 localised areas have been identified and are represented by a ring on the map.

(b) Topography



The map above shows the geology that makes up the Black Country and Birmingham.

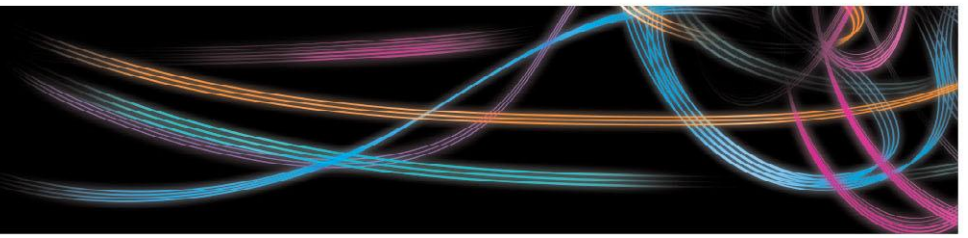
Black Country Landscape Plan- Topography



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This map shows the contrasting topography in the Black Country showing land elevation. The Rowley Hills make up the high points with Turner's Hill (254.8 meters) and Sedgley Beacon (2324.1 meters) with the lowest areas being in the South Western part of the Black Country around Stourbridge.



Assets

- The Black Country Topography is characterised by hills & valleys, rising to a high point of almost 1,000 feet, the watershed between the Trent and Severn river catchment systems.
- The Hawthorns is the highest football ground above sea level in Great Britain.

As a large conurbation straddling the watershed between the Severn and Humber catchments, the Black Country is a unique landscape. While most cities stand astride large, often navigable river, the Black Country rivers rise as small, fast tributaries in the, still largely green and open, hills merging into the Stour, Tame and Smestow Brook. Rich in natural resources of coal, iron and limestone industry's demands for communications meant that this lack of navigable waterways led to the construction of many canals, placing the Black Country at the heart of this first national network – later supplemented by the construction of the railways and roads, including the M5 and M6. The detailed local complexity of landform and geology was the seed for development of very local industry, with each town specialising in products such as glass, leather or chainmaking.

The end result is a landscape formed by the fusion of these small settlements with natural open spaces scattered in between and other, more recent, greenspaces on abandoned industrial sites that have 'tumbled down' to nature over the past century. This chequer pattern is very different from neighbouring Birmingham where the open space is concentrated in long chains along the floodplains of its wider, slower rivers. There are some other distinctive features of this varied but largely urban landscape.

Most noticeable are the aforementioned hills, giving viewpoints across the area. Sedgely Beacon, Barr Beacon and the Rowley Hills are well known landmarks, often with areas of particularly high value of wildlife. On the limestone in the south are many rich and diverse ancient woodlands, contrasting strongly with the open heathlands in the north, such as Brownhills Common. This is a landscape as varied and surprising as the many trades and communities that have flourished and developed here.

The present day shape of the landscape is mainly the result of erosion by ice and water during the relatively recent Quaternary Period, popularly known as the Ice-age, which left most of the area with a blanket of sands, gravels and sandy clays lying on top of the bed rock formations. The activities of mining, quarrying and development have subsequently moulded and modified the natural landform.

The topography of the Black Country has two distinct parts separated by the ridge of hills comprising the Silurian Sedgely Beacon, Hurst Hill, Wren's Nest and Castle Hill, the central Rowley Hills and the high ground of Halesowen which merges into the Clent Hills.

This ridge also equates closely with the main watershed of England separating the Trent basin to the east from the Severn basin to the west.

The Eastern part is a broad flat plain terminated by the high ground of Barr Beacon and Birmingham. By contrast the western part is characterized by undulating topography with deeply incised valleys cut by the early river Stour and its tributaries.

A number of important **view points** have been identified:-

1. Central Ridge

Sedgley Beacon, Dudley
Wren's Nest Hill, Dudley
Castle Hill, Dudley
Darby's Hill, Rowley, Sandwell
Turner's Hill, Rowley, Sandwell

2. Other

Bushbury Hill, Wolverhampton
Barrow Hill, Pensnett, Dudley
Wychbury Hill, Pedmore, Dudley
Barr Beacon, Walsall

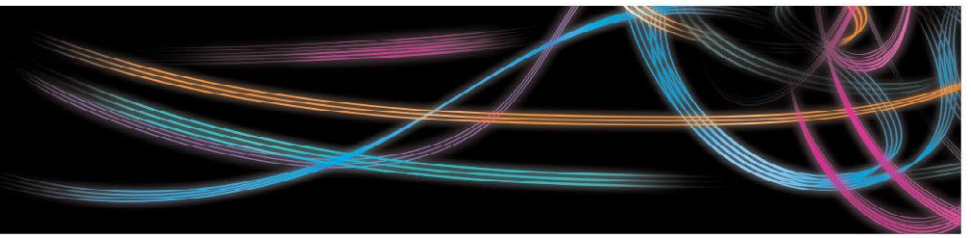
Opportunities

The landscape could be used for numerous recreational and leisure activities such as bird watching, nature trails, viewing points and education.

1.2. Below

Barr Beacon





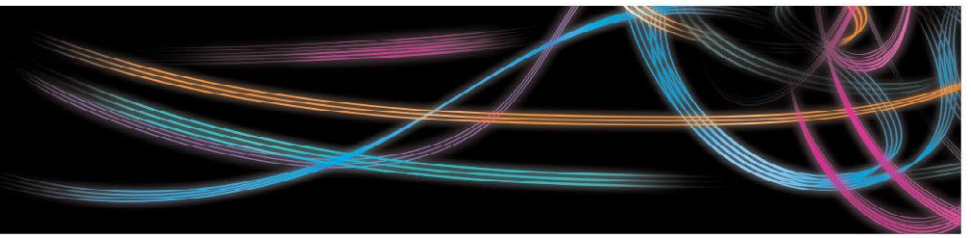
Barr Beacon Quarry, Pinfold Lane



Blue Rock Quarry



Above are examples of where geological features can clearly been seen in the Black Country.



Assets

Geology

Key geological Characteristics:

- Very diverse geology especially in the coalfield area
- The source of region's mineral wealth during Industrial revolution
- Key influence on industry and settlement patterns
- Variety of Building Stones and Clay products impacting on local character
- Classic area associated with early scientific work

Key Facts:

- The 30' Thick Coal – thickest seam in Great Britain
- Wren's Nest and Castle Hill - source of over 650 different species of Silurian marine fossils, including:-
 - 63 not recorded anywhere else in the world
 - the type locality for 186 species
- Fossils from Dudley found in all major natural history museums around the world.
- Wren's Nest – 1956 first urban National Nature Reserve in UK for its geology
- The Black Country has 8* SSSIs designated for geology with Barrow Hill awaiting notification

The geology of the Black Country has supplied:-

Coal, iron-ore, fireclay, brick and tile clay, road metal, building sand, concreting sand, moulding sand, gravel, building stones, kerbstones, paving sets and limestone.

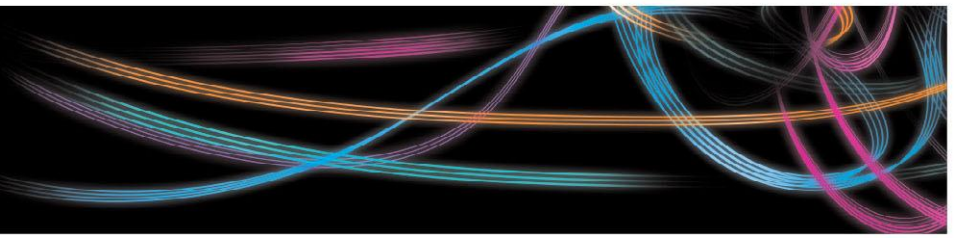
For its size, the Black Country has some of the most diverse geology of anywhere in the world. The underlying bed-rock (solid) formations include rocks from the Ordovician, Silurian, Carboniferous, Permian and Triassic Periods.

Lying on top of the bed rock formations over most of the area is a blanket of sands, gravels and sandy clays which were deposited during the relatively recent Quaternary Period, popularly known as the Ice-age.

Each is a legacy of very different landscapes, climates and environments in the past.

Most of the area equates to the southern part of the South Staffordshire Coalfield (also known as the Black Country or Dudley coalfield) which extends from Rubery through Halesowen and the Black Country to Northeast Wolverhampton and Walsall. The rocks comprise the Lower and Middle (productive) Coal Measures and the Etruria Marl, of Carboniferous age.

Structurally the Coalfield is an uplifted block comprising rocks mostly of Carboniferous age (318 -300 million years old) collectively known as the Coal Measures. It is characterised by the presence of the once famous Staffordshire "Thick Coal" found at relatively shallow depth. The Thick Coal is a seam averaging nearly 10m (30ft) in thickness equivalent to several distinct seams and intervening sandstones and mudstones amounting to about 50m (170ft) in the northern part of the coalfield around Cannock.



The Black Country is traversed by a prominent, NW-SE trending, discontinuous ridge of hills which approximates to the main watershed of England. The core of the Rowley Hills which occupy the centre of the Black Country is composed of dolerite, a hard igneous rock, known locally as the Rowley Rag intruded into the Coal Measures about 300 million years ago as a result of crustal stretching and thinning. The dolerite is an extremely hard rock, much prized as a road dressing, forming at Turners Hill, Rowley the highest point of the area.

To the North West of the Rowley Hills, older limestone rocks of Silurian Age (424 million years old) form the well-known steep sided features of Castle Hill, Wrens Nest Hill and the high ground of Hurst hill and Sedgley Beacon. The limestones were originally dug for agricultural lime or lime mortar but output soared from the 17c onwards to provide a flux for the developing iron industry of the Black Country.

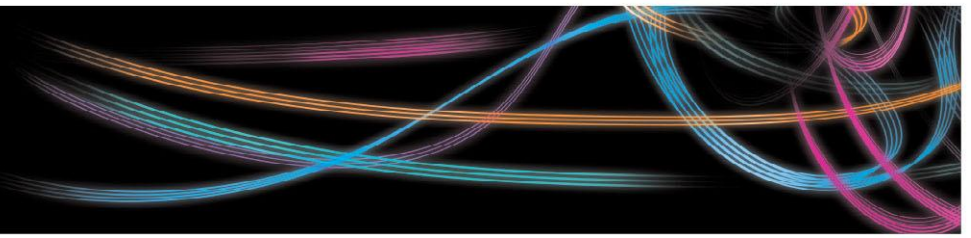
The Silurian rocks at Dudley gained worldwide fame for the exceptionally well preserved fossil fauna, which still inspires research today.

Surrounding the coalfield are rocks of the Sherwood sandstone group of early Triassic Age (240-250 million years ago). The Triassic sediments infilled ancient rift valleys east and west of the coalfield forming wide desert basins. Today the group gives rise to gently rolling country interspersed, where pebble beds, sometimes calcareous, predominate, by long usually well wooded ridges and hilly areas such as that from Wollaston to Kingswinford, at Tettenhall and Bushbury, Wolverhampton and Barr Beacon, Walsall. The Triassic rocks include important aquifers and where free of superficial drift deposits, give rise to fertile, easily worked soils. The Triassic Wildmoor Formation was much exploited as a moulding sand for the iron industries. Locally the Bromsgrove Formation, used as a building stone for Churches and walls.

All the bedrock formations have been modified by the action of ice, frost and melt water processes during various phases of the Ice-age to give the present day landform. A mantle of glacial deposits mostly of the Devensian or Anglian stages 10,000-400,000 ya, now covers much of the coalfield and the Triassic Formations in the west. The Ice sheets of the last phase of glaciation, the Devensian stage which peaked around 20,000 years ago, reached as far south as Wolverhampton and Walsall. The receding ice left behind a large sheet of Till (sandy or gravelly clays) giving rise to heavy, poorly-drained soils. Fluvio-glacial sands and gravels deposited from meltwaters are generally free draining and important sources of aggregates (sand and gravel).

Black Country SSSIs designated for geology

- Wren's Nest
- Doulton's Claypit
- Brewins Canal Section
- Turners Hill, Gornal
- Ketley Quarry, Kingswinford
- Bromsgrove Road, Halesowen
- Daw End Railway Cutting
- Hayhead and the Dingle



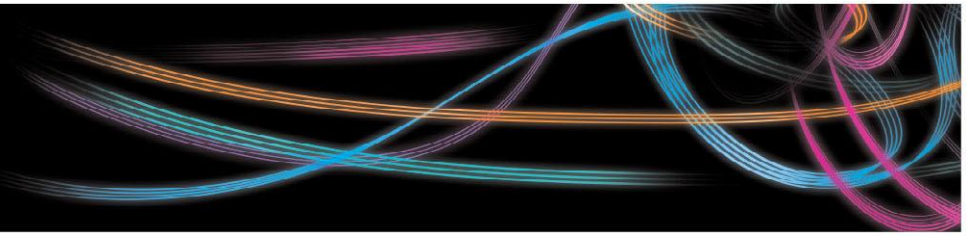
Barrow Hill and Tansey Green is currently going through SSSI designation process

- ❑ The Black Country has a diverse geology shaping its landscape and pattern of settlement, as its mineral wealth drove the first phase of industrialisation.
- ❑ Its geology is of significant international interest – notably for its 400 million year old Silurian fossils with its 600 species of marine invertebrate, including 63 fossils recorded nowhere else in the world.
- ❑ Surviving relics of earlier natural landscapes, together with post-industrial landscape, support a rich network of wildlife sites and corridors - with almost 4,500 ha of designated Nature Reserves and local wildlife sites in over 600 locations and 39sqkms of wildlife corridors.
- ❑ **Wrens Nest**, in the heart of the Black Country, the first urban national nature reserve to be designated, celebrated its 50th birthday in 2006. Wren's Nest is home to over 650 type of fossil, 186 of which were first discovered and described there. **It is one of most notable geological locations in the UK and the first geological NNR to be declared.**

Below are some examples showcasing the geological assets that were found within the Black Country.

Crinoid





Plant (Holy Hall)



Dudley Bug



Doulton's Claypit



Wrens Nest

The first ever geological National Nature Reserve for ancient rocks, structures and fossils declared September 1956. The premier West Midlands geological site for palaeontology and education relating to fossils, palaeoecology, Structural Geology and limestone mining. Rocks here are of middle Silurian period age (Much Wenlock Limestone Formation). They comprise the definitive marine shelf sequence and the most complete faunal assemblage of the UK. A superb selection of fossils from this spectacular site are on display in the local Dudley Town centre museum and the Lapworth museum in the school of Earth Sciences at the University of Birmingham.

English Heritage visitor plaque at Wrens Nest National Nature Reserve





Barrow Hill Local Nature Reserve

The 'Dudley Volcano Site' providing an insight into the late-stage basaltic volcanism of the West Midlands and the only known example of Carboniferous extrusive volcanic activity in the West Midlands County. Rocks here are hard crystalline basalts of middle Coal Measures (Westphalian c – also known as Etruria Formation) age. Old abandoned quarries around the hill to the rear of the church show typical intrusive molten rock features including xenoliths, baked contact zones and weak columnar jointing. The adjacent Tansey Green claypit has extensive exposures of grey volcanic ash with lapilli and occasional larger volcanic ejecta and in sections now buried contained the earliest anatomically preserved conifer fossils in life position known in the world.

Singing Cavern Limestone Mine Experience

At this location you can get aboard a canal narrow boat and take a spectacular 45 minute journey in the underground labyrinth of tunnels and limestone mines beneath Castle Hill in Dudley. The journey includes audio visual displays and live commentary about the geology, mining and canal history at the site of the world's first ever geological map (Dud Dudley, Metallum Martis 1665, Castle Hill) and features the oldest canal tunnel in the world (Lord Wards tunnel 1785).



Barr Beacon & Pinfold Lane Quarries

Barr Beacon is a prominent North-South trending ridge midway between Walsall and Sutton Coldfield. It is the most significant topographical feature on the eastern side of the Black Country and rising to 225m (740ft) is second only to Turners Hill at Rowley in height. Magnificent views, in all directions, are afforded over the surrounding country and it is a natural “beacon” site for the proposed Black Country Geopark.

The rocks comprising Barr Beacon are made from sediments deposited during the Early Triassic Period (241-248 million years ago). The rocks are assigned to the Kidderminster Formation which is the lowest part of the Sherwood Sandstone Group.

Pinfold Lane Quarry is the only accessible site in the West Midlands County where the junction of the Hopwas Breccia and Kidderminster Conglomerate may be seen. It is invaluable for scientific and educational use and is a key component in understanding the complex geological history of the Black Country and the English midlands.

Shire Oak Quarries

Shire Oak Local Nature Reserve is based on the former Chester Road Quarry which was worked by ARC for building sand and gravel. There are three distinct rock formations present at Shire Oak LNR each from different geological periods (ages). In descending order (youngest first) these are:-

- Quaternary - **Glaciofluvial sands and gravel**
- Triassic - **Kidderminster Formation**
- Carboniferous - **Keele Formation**

The Quaternary and Triassic rocks outcrop in the area occupied by the Chester Road quarry and the Carboniferous rocks outcrop in a very limited manner in the former brick claypit in the southwest corner of the reserve. The site as a whole is importance for science, and education. The variability of the Kidderminster formation is displayed together with the contact with glacial sands and gravel.

Outcrops of Keele Formation clays are uncommon so despite its indifferent appearance, the occurrence of this rock is significant.



Warrens Hall Country Park and the Rowley Hills

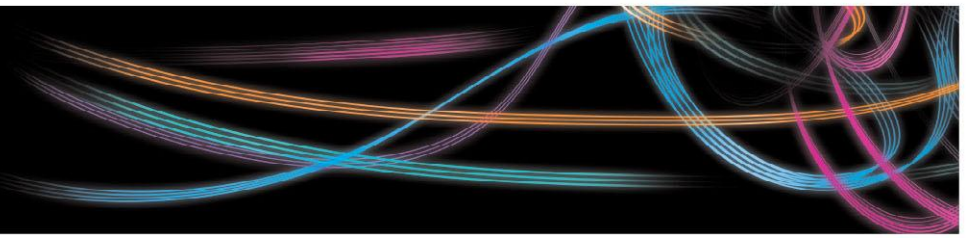
A classic mined and quarried landscape of the former Black Country (South Staffordshire Coalfield). At the junction of the Dudley No 2 canal and the Netherton tunnel linking to the Birmingham canal navigation stands the abandoned Cobb's engine house – a large pumping engine mine building that once drove the winding gear and pumps to dewater the Warrens Hall collieries. Mounds of colliery spoil rise behind the building which contain occasional fossils from the Coal Measures spoil including freshwater mussels and plant remains. From the top of the largest of these known locally as 'Black bonk' good views across the River Stour valley and the southern part of the coalfield are available. On the near horizon rise the Rowley Hills (basaltic lopolith intrusion) which makes a bold landscape ridge. Below the mine buildings the canal enters the 2km long Netherton canal tunnel.



Sandy Hallow and Whitwick Bank Compton

This is a sandstone quarrying area in which geologically influenced local distinctiveness is everywhere. A steep southeasterly facing escarpment makes a dramatic landscape feature and contains that junction between the overlying Keuper Sandstones and the underlying Bunter Upper Mottled Sandstone. The landscape here contains a fabulous assembly of old quarrying features along the ridge at Compton. These include the larger quarries at Marsham Drive and their rock faces, Natural Stone walls featuring local cut stone and many glacial erratics. A stunning line of erratics sporting brass plaques with details is present in the National Trust's Wightwick manor garden here. Similarly erratics can be found all along the ridge as curbstones, ripplemarked blocks of Triassic sandstone are also present at the roadsides as curbstones. The geological nature of the area is even embedded in local street names such as 'Sandy Hollow. This is a classic geocultural area.



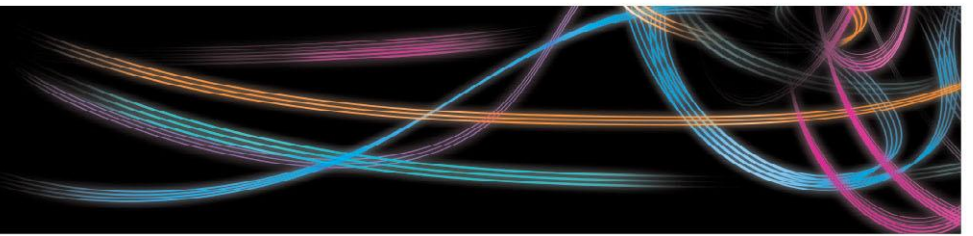


Dudley Castle



Netherton Tunnel



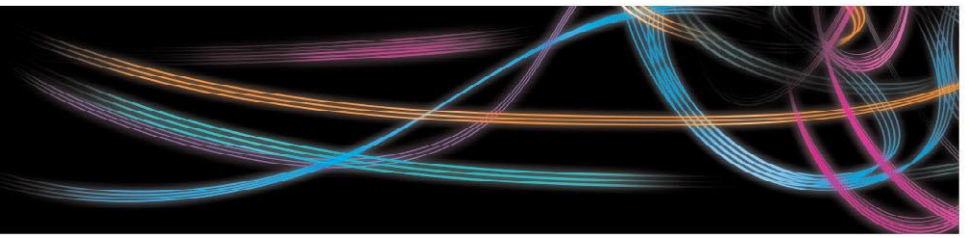


Bumble Hole



Dudley Museum

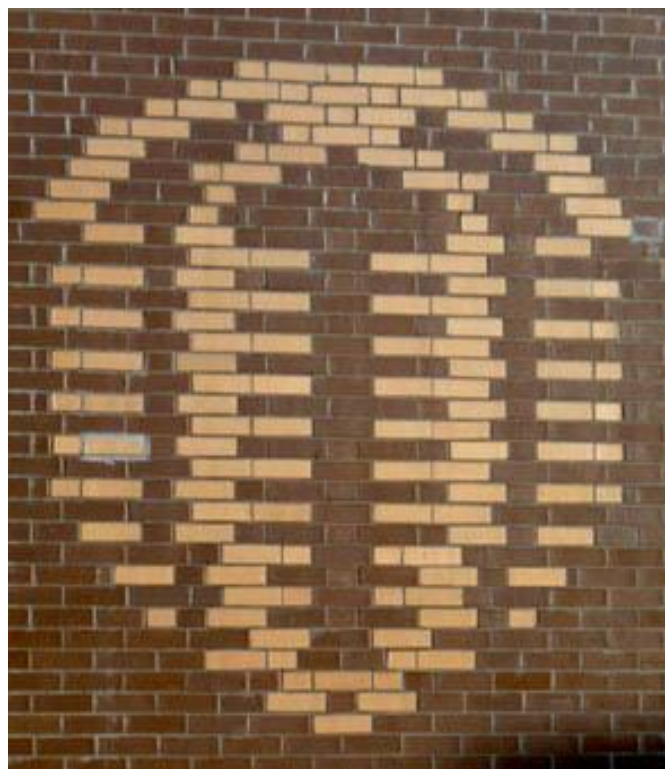


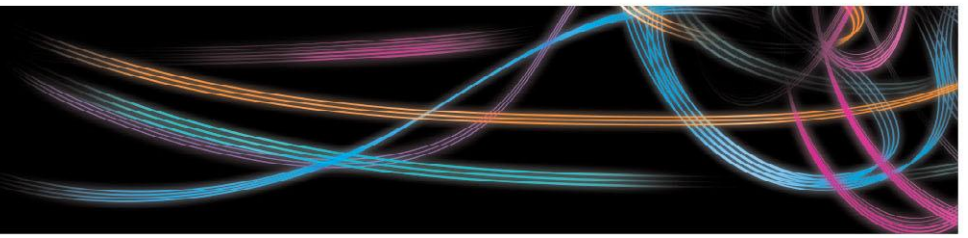


Dudley Cemetery



Dudley Southern Bypass bridge abutment





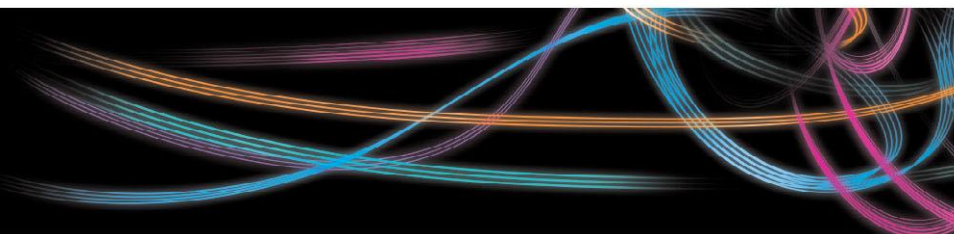
Opportunities

- ❑ **Geopark – Graham Worton to provide further information...**
- ❑ Dudley Strata Project
- ❑ Ripples through time – Wrens Nest £1m project
- ❑ Green Bridge
- ❑ A £18k project via the NIA linking geodiversity & biodiversity including work to enhance access to geological exposures with gains for biodiversity.

NIA : Geology & Geomorphology – *linking Geodiversity and biodiversity*

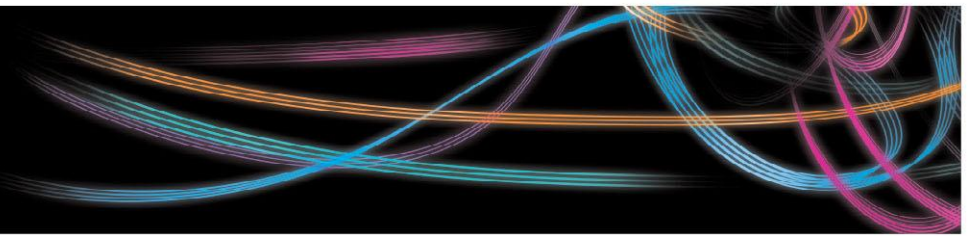
The underlying geology of the Nature Improvement Area is remarkably complex, diverse and well recorded, and many nationally and even internationally important designated sites are found here. There are many locations across the Nature Improvement Area where work to enhance access to geological exposures can be combined with gains for biodiversity: for example, removing scrub can improve the educational and aesthetic value of exposures whilst also restoring habitat for scarce plant and invertebrate species reliant on skeletal soils or un-shaded exposures.

The focus of the Geology & Geomorphology Delivery Theme is therefore to target actions for gains to geodiversity where there is a demonstrable associated biodiversity gain.



Geological Timeline

Period	Formation	Age of deposits Ya= years ago	Environment	Landscape Examples
Quaternary, Pleistocene, (Devensian stage)	Fluvio-glacial Sands and gravels Till – sandy and gravely clays, Large Erratic boulders Inter-glacial Terrace	10,000 – 25,000 ya	Glacial, peri-glacial and tundra conditions. Sand and gravel valuable source of aggregates.	Norton to Wall Heath Country north and East of Wolverhampton Stone Cross and Bustlehome Erratics on display in West Park/East Park, Wolverhampton, Walsall Arboretum, Willenhall Mem Park Wightwick Manor etc Stourbridge
Triassic (Sherwood Sandstone Group)	Bromsgrove Wildmoor Kidderminster	210 million ya 220 million ya 245 million ya	Arid hot windswept deserts, rare storms, seasonal rainfall. Harder sandstones much used as building stones throughout the area. Source of building sands, moulding sands, gravel. Important aquifers. Pebble beds give rise to prominent hills and ridges.	Tettenhall Ridge, Stourbridge Bushbury Wollaston to Kingswinford Barr Beacon
Permian	Bridgnorth Clent Formation	260 million ya 280 million ya	Aeolian deposited sand dunes. Most arid period in Midlands geological record. Scree fan material, torrent deposited	Cooknell Hill, Wordsley Barnford Hill Park, Oldbury Wychbury Hill, Pedmore
Carboniferous (Upper) Upper Coal Measures (Westphalian C, D & Stephanian ?) Middle and Lower Coal Measures (Westphalian A & B)	{Envile {Keele {Halesowen {Etruria Marl (Undivided)	300 million ya 310 million ya 318 million ya	Semi-arid desert basin, seasonal rainfall. Soft sandstones used for building sand. Clays used for brickmaking. Calcareous conglomerates used for gravels. Harder sandstones used as local building stone. Tropical forests and delta swamps. Source of principal productive coal seams, ironstones and fireclays.	Elevated landscape in the south of the area around Oldbury and Halesowen Central Black Country Plateau Southern area west of Rowley Hills
Silurian	Pridoli Ludlow Wenlock Llandovery	} } 416 – } 439 } million ya	The oldest rocks of the area. The highly inclined limestones form conspicuous steep sided wooded hills. They give rise to well drained calcareous habitats Limestone quarried for flux in iron industry. Also building stone. The Much Wenlock Limestone at Dudley (424 mya) records a mid-continental shelf, shallow marine environment, with a rich tropical fauna and global climate warmer than today. By contrast the land was almost all desert as land plants were only just evolving.	Cotwall End, Brewin's Canal section Sedgley Beacon Hayes Cutting, Lye Hurst Hill Wrens Nest Hill Castle Hill, Dudley Hayhead and the Dingle, Walsall Daw End Railway Cutting, Walsall
Igneous Dolerite contemporaneous		300 million years	The hardest rocks of the area forming the prominent Rowley Hills. The dolerite has been	Rowley Hills, Barrow Hill



with Upper Coal Measures

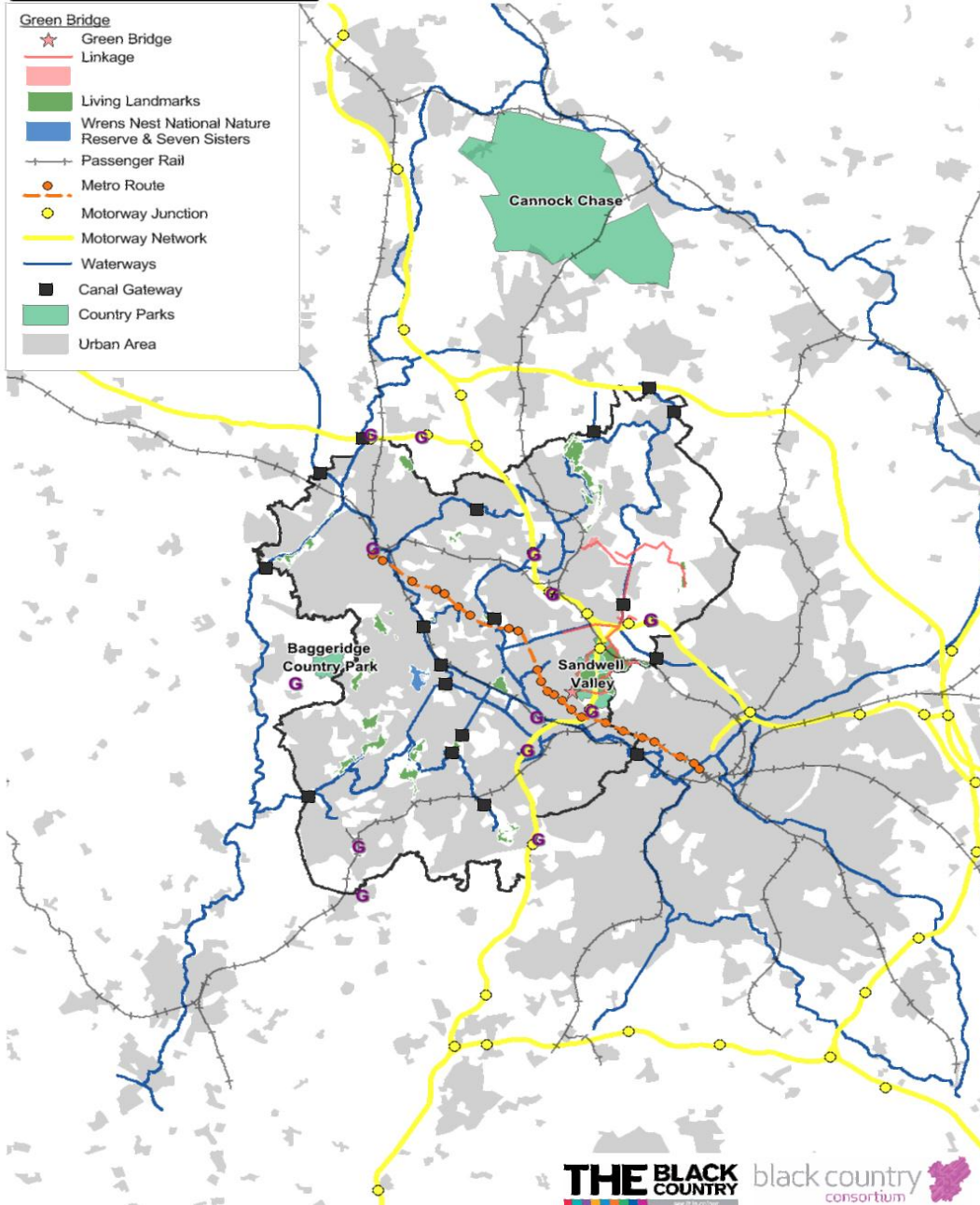
quarried for roadstone, kerbstones, cobbles, drystone walls. Neutral grasslands.

Wednesfield area
Pouk Hill, Walsall

1.3. Beyond

The map below shows the assets that make up the Black Country Urban Park.

Urban Park & Beyond



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Assets

Beacons: highlighting and celebrating some of the most distinctive characteristics of the Black Country to residents and visitors – in particular its topography and its centres. Providing visible and tangible evidence of the Black Country as a Place. These could take a variety of forms – for example, highlighting the topography through sculptures on hills; illuminating heritage/community buildings (through lighting and interpretation); inaugurating flagship events.

Wolverhampton City Centre

Wolverhampton is one of Britain's newest cities with magnificent buildings, churches and open spaces reflecting its history. The City Centre is an economic powerhouse employing tens of thousands of people mainly in the retail and service sector and has a large University presence.

Amongst several interesting facts regarding the history of the city, Wolverhampton was the first town in Britain to introduce automated traffic lights in 1927 in Princes Square at the junction of Lichfield Street and Princess Street. 1927 was also a famous year for the City as it is when the Sunbeam motor car, built in Wolverhampton, became the first vehicle to reach 200mph, breaking the land speed record in the process.

Walsall Town Centre

Walsall is a large industrial town in the West Midlands of England. It is located to the east of Wolverhampton. Neighbouring towns in the borough include Brownhills, Willenhall, Bloxwich and Aldridge.

The town has a history of manufacturing leather products including chains, buckles, plated wares and leather products including saddles. Walsall still manufactures saddles for the Royal family as well as making the Queen's handbags.

West Bromwich Town Centre

West Bromwich is a town within Sandwell lying 5km north of Birmingham on the A41 London to Birkenhead road. It is home to a number of landmark buildings and attractions including West Bromwich Albion Football Club and The Public.

Coal deposits were discovered in the town in the 19th century ensuring that the town grew rapidly as an industrial centre with industries such as spring, gun and nail making developing.

West Bromwich is the largest town in England that doesn't have its own Royal Mail postcode. JB Priestley was quoted in 'English Journey' as saying "I would rather spend a holiday in Tuscany than in the Black Country, but if I were compelled to choose between living in West Bromwich or Florence, I would make straight for West Bromwich."

Brierley Hill Town Centre

Brierley Hill is at the heart of the Dudley borough and is home to the Merry Hill Shopping Centre, a large retail attraction that was built on the former Round Oaks steelworks site as part of the 1980s Enterprise Zone initiative. The centre has around 210 stores and a retail floorspace of 154,002sqm.

Black Delph marked the division between Stourbridge Canal and Dudley Canal, with an impressive flight of locks climbing straight up the hill. They are known locally as the Nine Locks, although there are only eight. Halfway up is a block of stables once used for boat horses and nearby the former lock-keeper's cottage can be seen.

Dudley Town Centre

Dudley is the second largest town in England behind Reading, and is part of the largest borough in the country without its own University. Located south of Wolverhampton and North-West of Birmingham it is the largest town in the Black Country. The town's population grew dramatically during the 18th and 19th centuries with the increases in industry with coal and limestone mining being central to Dudley.

The 13th century ruins of Dudley castle overlook the town with Dudley Zoo, a popular tourist attraction, built into the castle grounds.

Situated on the town centre High Street, Dudley Market has been operating since 1260.

Barr Beacon

Barr Beacon is a hill on the edge of Walsall, West Midlands, England, very near the border with Birmingham. It gives its name to nearby Great Barr (the Beacon borders the Pheasey area of Great Barr) and to the local school Barr Beacon Language College. It is historically the site of a beacon where fires were lit in times of impending attack or on celebratory occasions. Barr Beacon is the highest point between itself and the Ural mountains. The site is on green belt land and is of local importance for nature conservation, as defined by Walsall Borough Council, who have designated some 60 acres (25 ha) of it as a Local Nature Reserve.

Turner's Hill / Darby's Hill

Turners Hill is the highest hill in the West Midlands, England, at 271m above sea level. The hill is situated on the border of Dudley and Rowley Regis, in the Metropolitan Borough of Sandwell, in a rural part of the predominantly industrial Black Country.

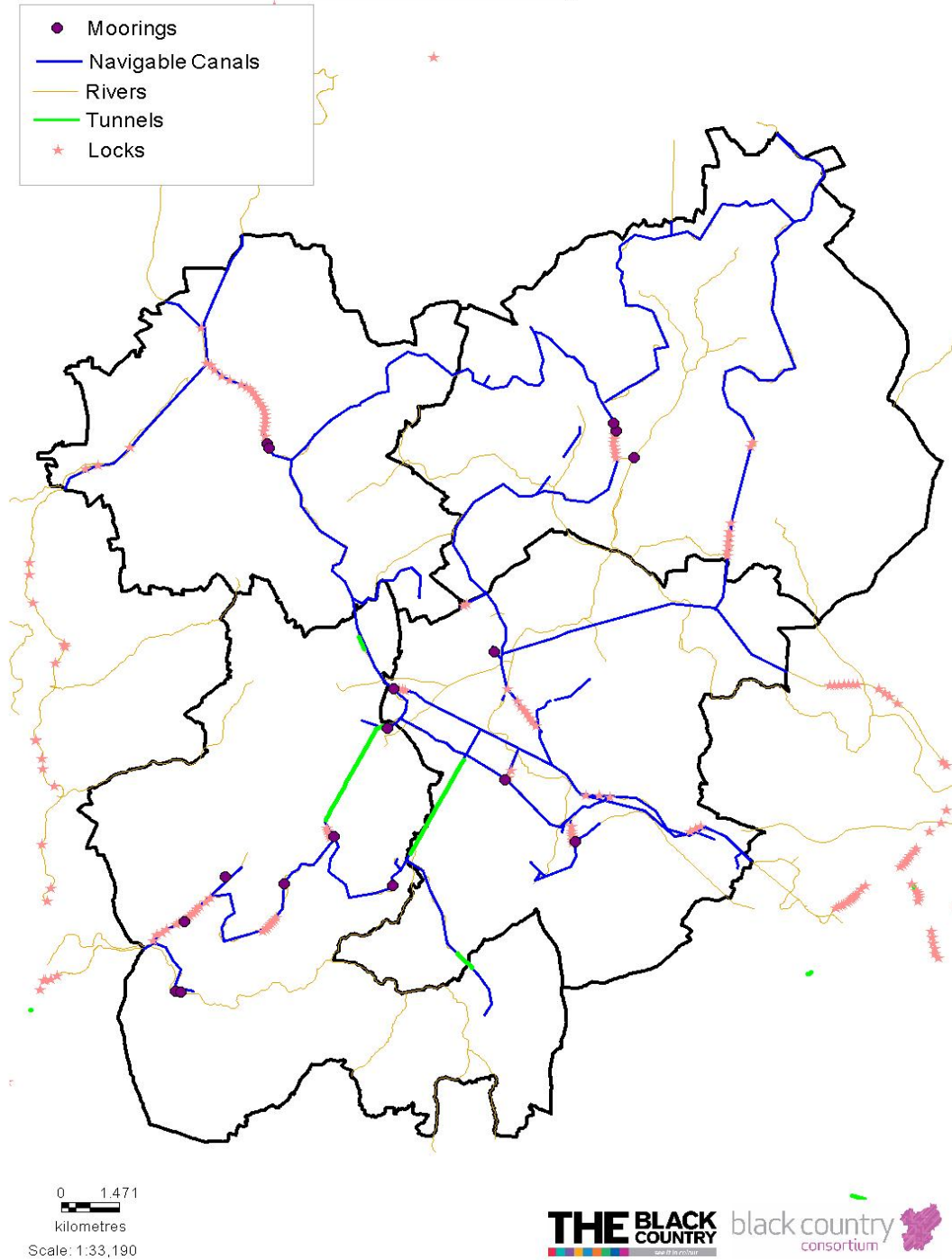
The hill can be seen from many miles away, and offers good views to Clent Hills, Kinver Edge, Shatterford Hill, Barr Beacon and on a clear day to the Shropshire and Malvern Hills. There are good views of the hill from the M5 Motorway between Junctions 1 and 2.

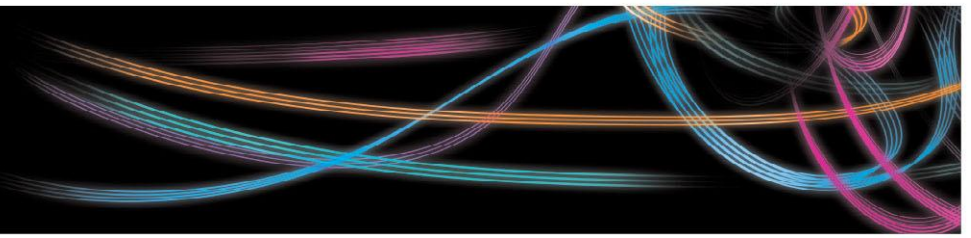
Opportunities

- Plans for developing the beacon areas.
- Labelling and signage.

2. Blue Infrastructure

Blue Infrastructure in The Black Country





Assets

- ❑ The Black Country canals are at the heart of the UK canal network. The Black Country has one of the highest densities of canals in the UK.
- ❑ There are 177km (110 miles) of Canals in the Black Country with 63 locks & 3 tunnels - the transport infrastructure that underpinned the areas economic success.
- ❑ There are 213 kilometres of rivers and streams.
- ❑ Black County has four canal tunnels: - Netherton Tunnel, Dudley Tunnel, Gorsty Tunnel and Coseley Tunnel
- ❑ The canal network in the Black Country carries many miles of the National Cycle Network, including NCN 81, 5, and 54

Rivers

The Black Country lies at the watershed of the Rivers Severn and Trent. The majority of the area drains to the River Tame, the largest tributary of the River Trent, and the most densely urbanised catchment in the UK. Urbanisation has caused significant problems including poor water quality and heavily modified river channels. These factors have reduced their ecological value and accessibility over several decades. However over the past two decades water company infrastructure improvements have helped improve water quality, though there is more much more to do. Western parts of Wolverhampton and Dudley drain to the Smestow Brook and River Stour. These watercourses have similar problems to the River Tame catchment.

The EU Water Framework Directive is driving forward the improvement of rivers and The Environment Agency and partners are planning improvements to them for people and wildlife. The following are examples of projects that have been delivered over the past few years;

- Improvements to Mousesweet Brook at Cradley Heath
- Habitat and Access Improvements to the River Tame at Sandwell Valley
- Education and training to raise awareness of pollution affecting rivers
- Plus many more across the sub region.

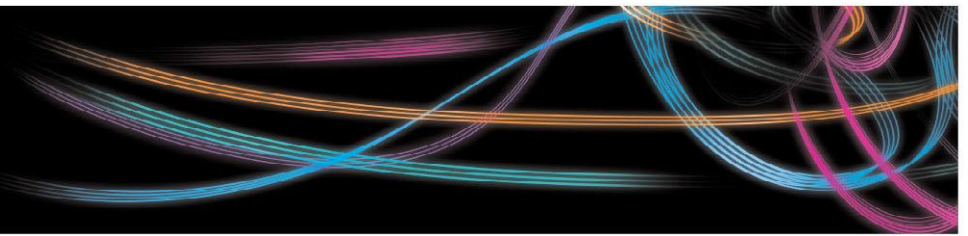
Example- Mousweet Brook Flood relief scheme St Annes Road- Cradley Heath. The scheme reduced flooding to a number of properties, but also created a new woodland which is being managed by the local community.

Before



After





The Water Framework Directive

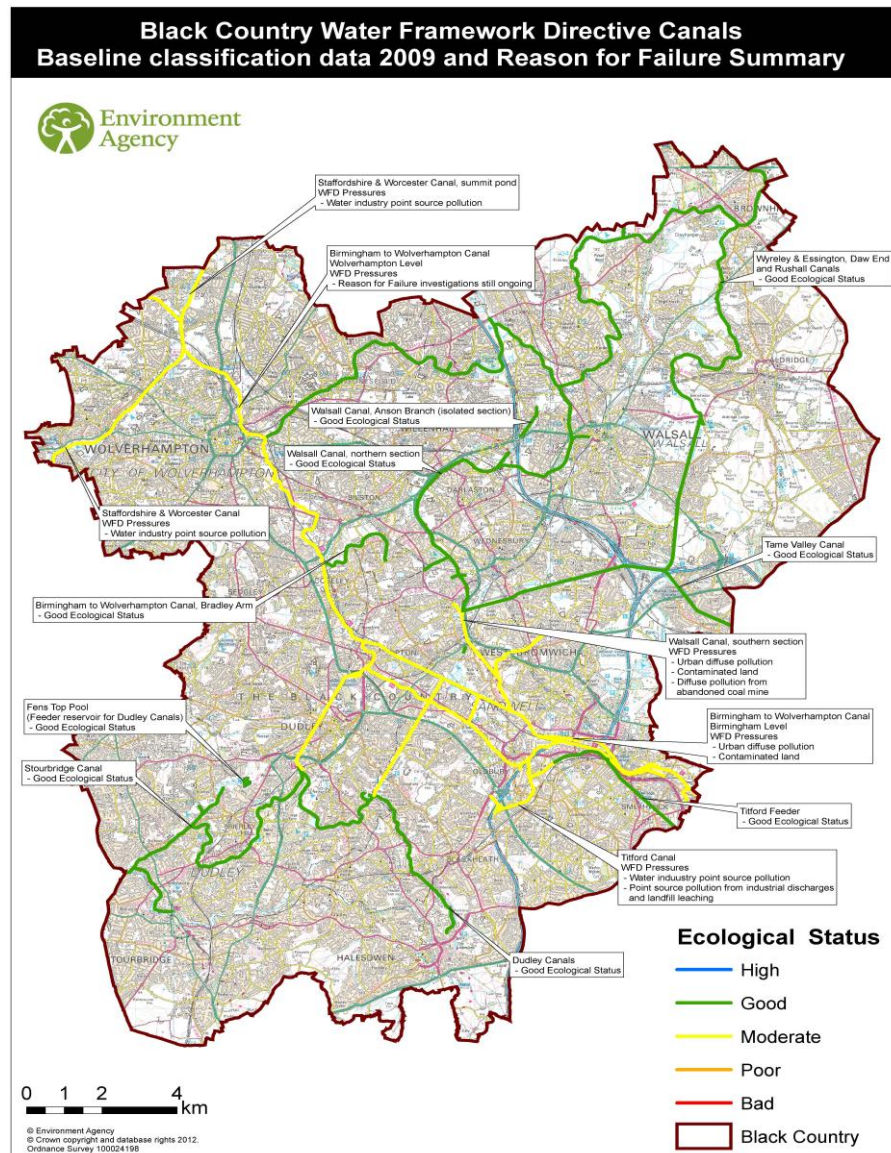
The Water Framework Directive is EU legislation driving improvements to inland and coastal waters across the European community. It is the most substantial piece of EU water legislation to date and requires all inland and coastal waters to be of good ecological status. River Basin Plans have been produced across the EU which have set demanding environmental objectives. The Black Country is part of the River Tame, Anker and Mease catchment which falls under the Humber Basin Management Plan. The plans will contribute towards the improvement of green infrastructure in the Black Country by improving the extensive network of river and canal corridors.

The Tame and its tributaries in the Black Country are classed as Moderate quality because their chemistry and ecology are below the expected standard (as shown in the maps below) These watercourses are impacted by a variety of pressures from within the urban environment including contaminated surface water run-off, problems from domestic and commercial properties where incorrect plumbing results in waste water from toilets and washing machines etc. being discharged into surface water drains, contaminated land seepages and modifications to river channels. They have been significantly altered from their natural form due to a combination of urbanisation and provision of flood defences and as such are designated as Heavily Modified Water Bodies (HMWB). Under the Water Framework Directive a HMWB is required to reach Good Ecological Potential, which requires Good chemistry and any modifications to the structural or physical nature of the water body that harm biology must only be those essential for its use.

The canals in the Black Country vary from Good to Moderate status (as shown in the maps below). Those at Moderate status are impacted by urban pressures including contaminated surface water run-off, and seepages from contaminated land and mineworkings.

The maps below show rivers and tributaries and canals, their current classification under the Water Framework Directive and the pressures that are causing some of them to be less than Good Ecological Status





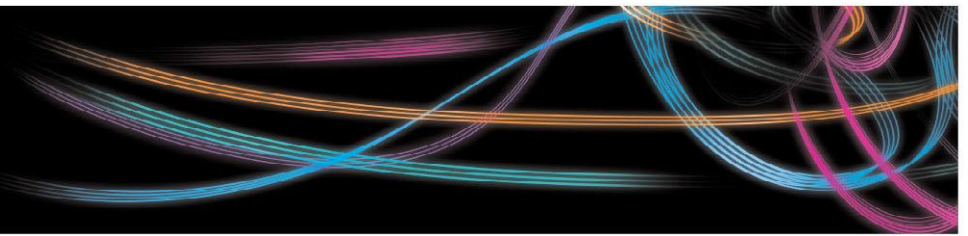
Canals

Facts

- ❑ You can walk from Walsall to the North Sea following the River Tame way and River Trent Way.
- ❑ The River has two Arms, the Willenhall arm and the Oldbury arm that meet at Bescot.

River Tame Overview

The River Tame is the main river of the West Midlands, and the most important tributary of the River Trent. The Tame is about 40 km from source at Oldbury to its



confluence with the Trent near Alrewas, but the main river length of the entire catchment, i.e. the Tame and its main tributaries, is about 285 km.

The Tame is generally considered to have two main sources; Willenhall and Oldbury, West Midlands. The tributaries arising in these locations are generally known as the Willenhall arm and the Oldbury arm of the Tame. However, some of its tributary streams rise as far to the west and north as Bilston and Wednesfield in the city of Wolverhampton. Much of the course of the river has been modified over the centuries and the urban sections now run mainly through culverts or canalised channels. Both arms of the Tame flow through the Black Country to their confluence at Bescot, on the edge of Walsall.

Opportunities

- ❑ ***The Wren's Nest Canal Tunnel, Dudley*** - Linking Todds End to the Step Shaft Canal Basin and Cavern will be refurbished.
- ❑ ***The Step Shaft Canal Basin*** - The largest underground canal basin in the world will be stabilised by a major engineering programme of works. A completely new inclined tunnel will be built from the Step Shaft Canal Basin up 60m to the surface at Wren's Nest National Nature Reserve.
- ❑ ***Birmingham Canal Navigation Route*** - Improvements to two canal-side open spaces on the Birmingham Canal Navigation route.
- ❑ ***Bradley Arm Canal*** - Enhancements to Bradley Arm canal, Wolverhampton for residential and recreational use.
- ❑ ***Galton Valley, Smethwick*** - Improvements to canal corridor rich in important historic structures and valuable wildlife habitat
- ❑ ***Staffordshire & Worcestershire Canal, Smestow Valley, Wolverhampton*** - opportunity to improve access and linkage between the canal and the surrounding local nature reserve.
- ❑ Deculverting Dawley Brook in Kingswinford, Grasideley Brook in Smestow Valley and Tipton Brook.
- ❑ More improvements on Mousesweet Brook.
- ❑ More Water Company Improvements from 2014 onwards
- ❑ Opening up water courses to improve the environment and perception whilst also making a feature of them.
- ❑ Opportunity of positive management of the defunct and or disused sections of the canal network.

A view of the 9 locks at The Delph, Brierley Hill.









Linking the Wyrley and Essington Canal

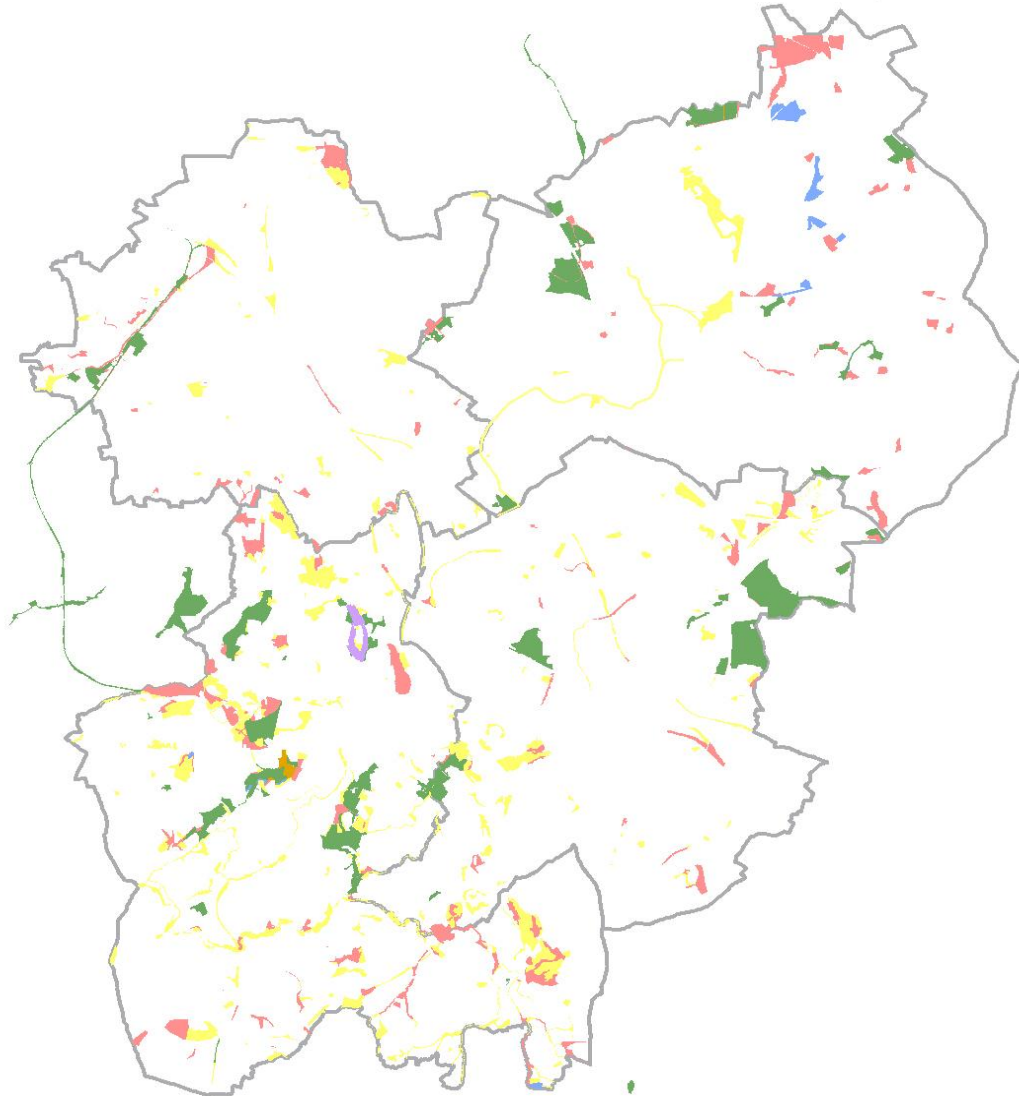
This bridge installed two years ago is on the Wyrley & Essington Canal. The bridge, known as Trapmakers Bridge, was an Urban Park Project. It was funded by Wolverhampton City Council and ERDF and links the canal towpath of the Wyrley and Essington Canal to Wednesfield Park (King George V park) in Wednesfield, Wolverhampton. British Waterways designed and constructed the bridge on behalf of Wolverhampton City Council.



3. Green Infrastructure

Nature Conservation Sites in the Black Country

 Local Nature Reserves	 Special Area of Conservation
 National Nature Reserve	 Site of Importance for Nature Conservation
 Site of Specific Scientific Interest	 Site of Local Importance for Nature Conservation








0 1.471
kilometres
Scale: 1:33,190

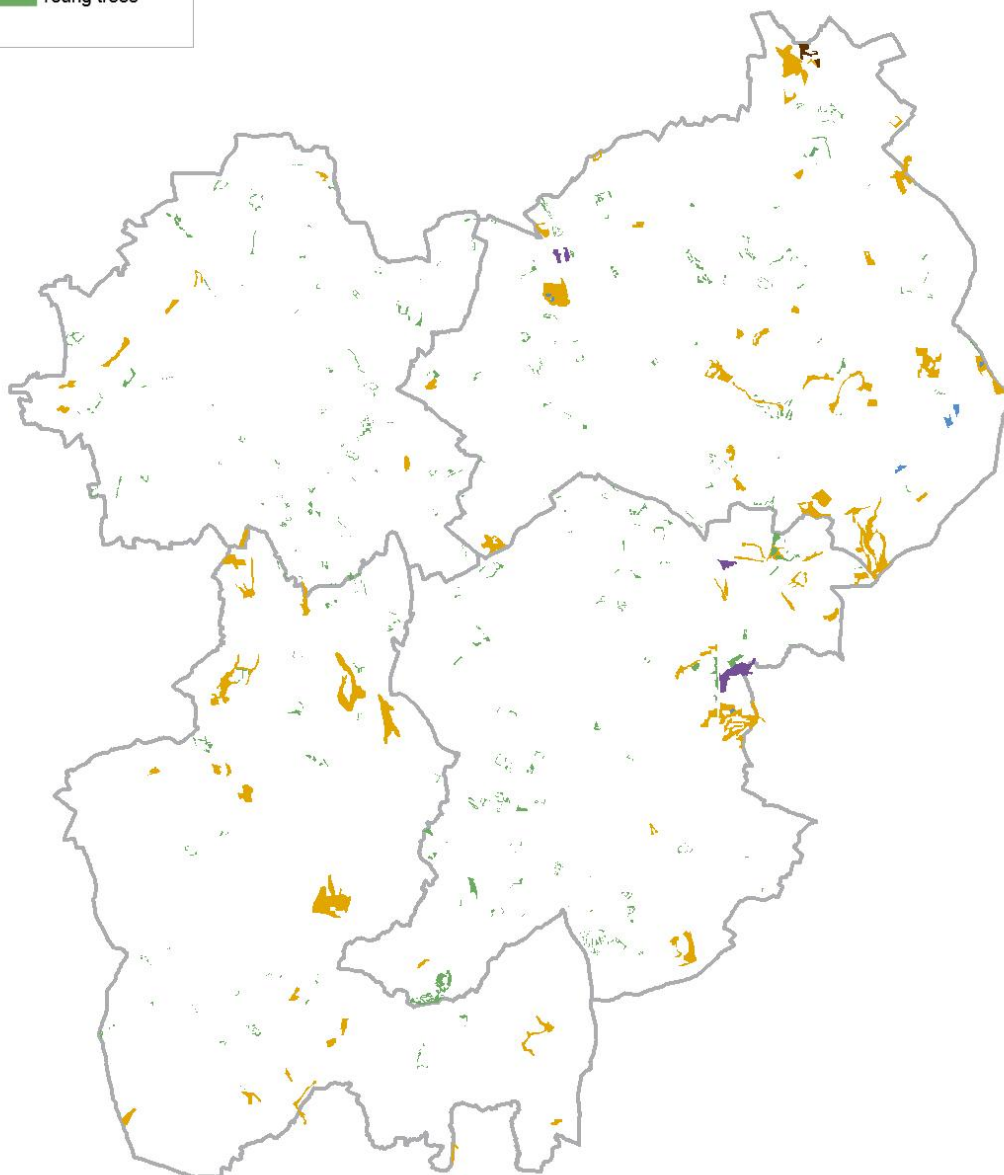
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The above map shows the various nature conservation sites within the Black Country.

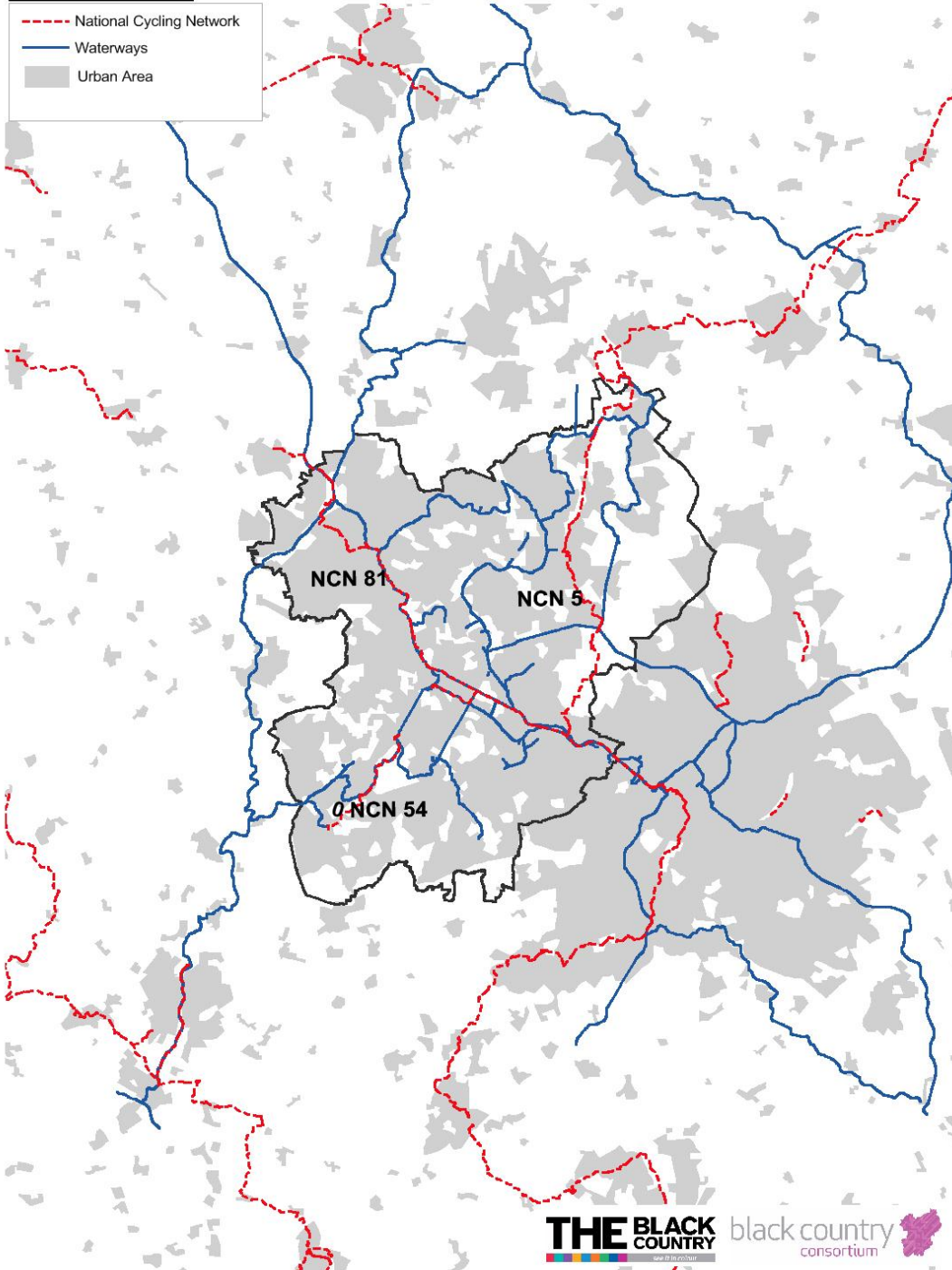
The map below shows the different types of woodland and where they are located.

Black Country Woodland

Woodland by type	
	Broadleaved
	Coniferous
	Mixed
	Shrub
	Young trees



Cycle Routes



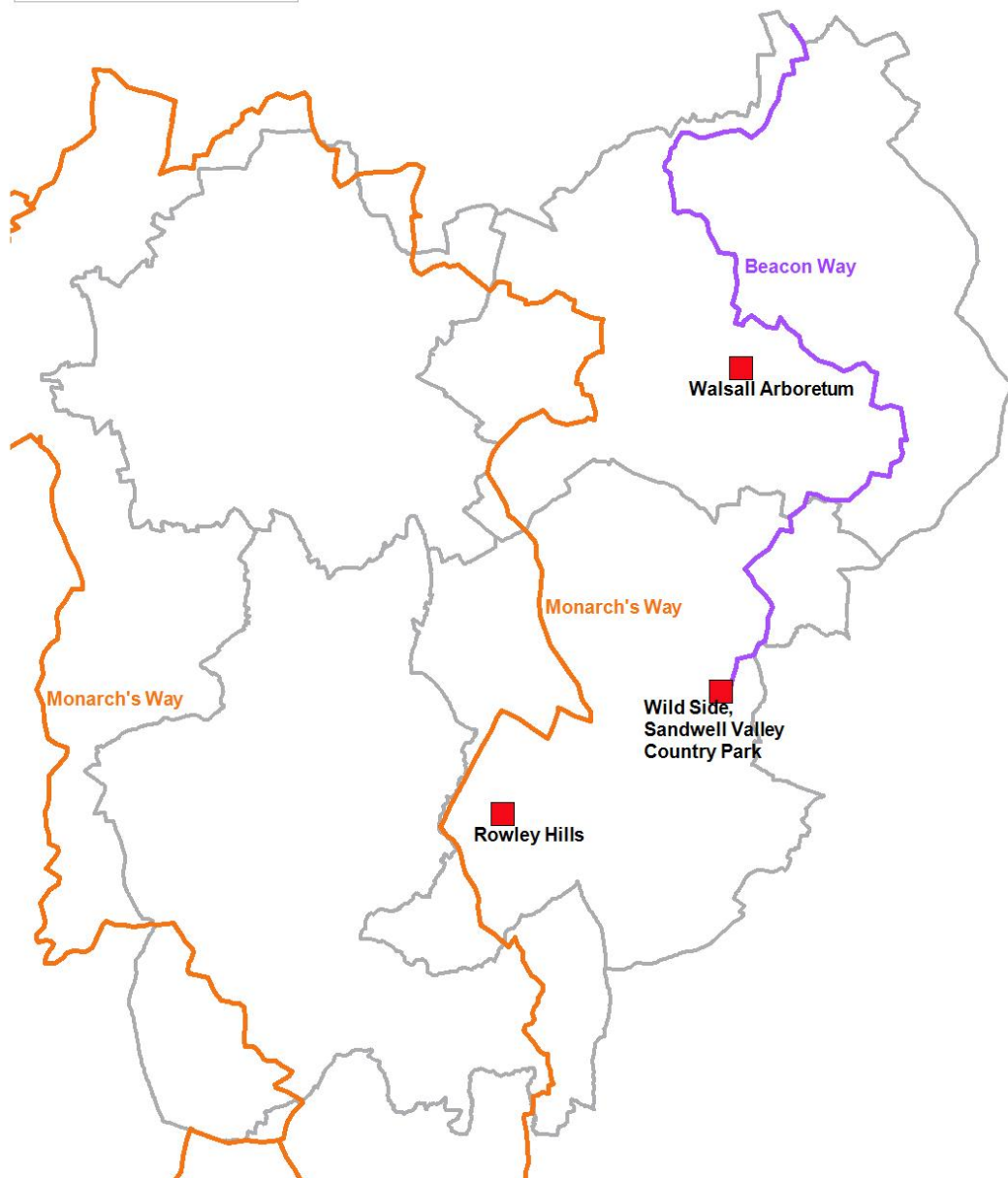
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The map above shows the National Cycle Network throughout the Black Country and wider surrounding areas along with the canal network.

Outdoor Activity Centres & Walking Routes

- Beacon Way
- Monarch's Way
- Outdoor Activity Centre

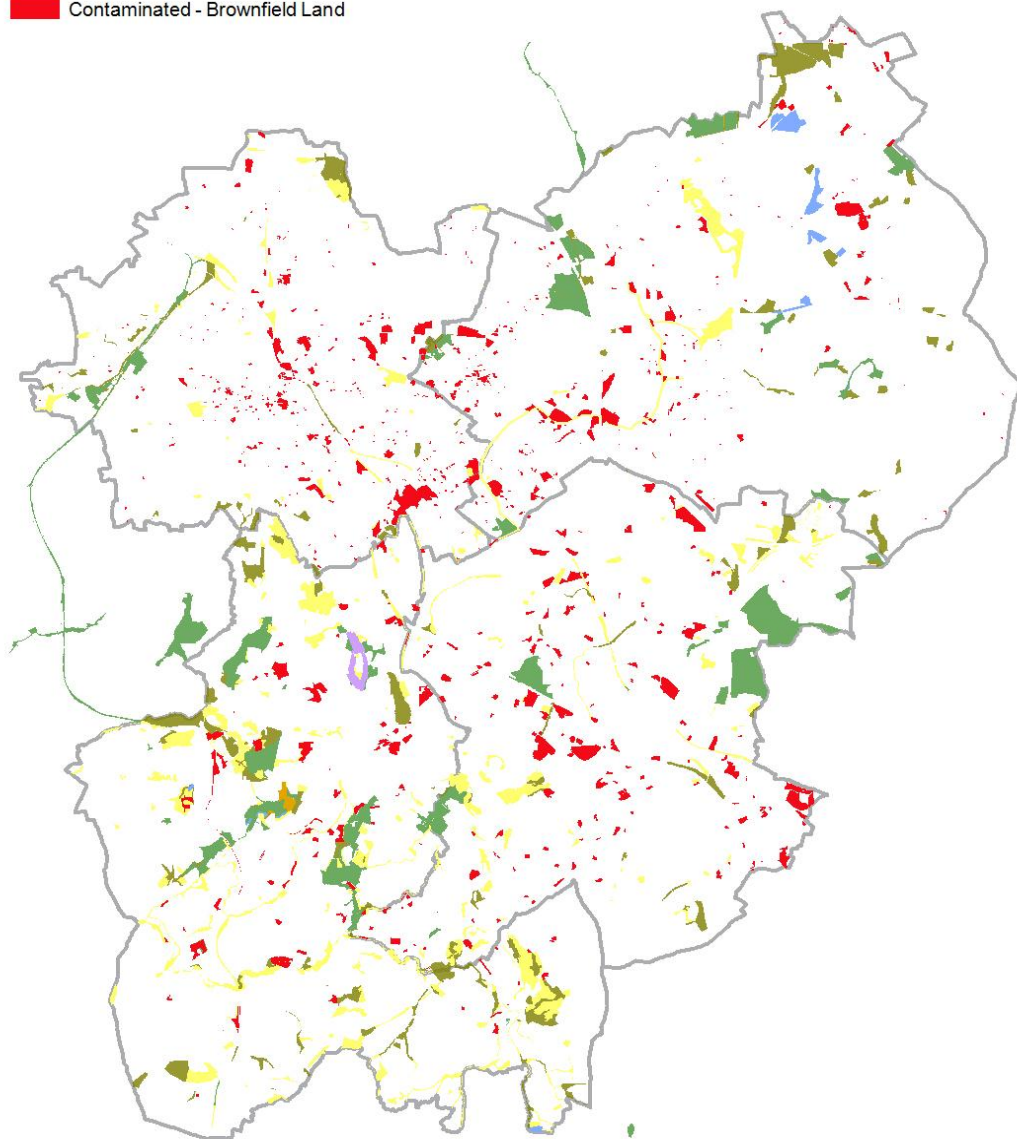


This map shows the 3 outdoor activity centres in the Black Country along with the 2 main walking routes.

This map shows the contaminated land within the Black Country in relation to the Nature Conservation Sites.

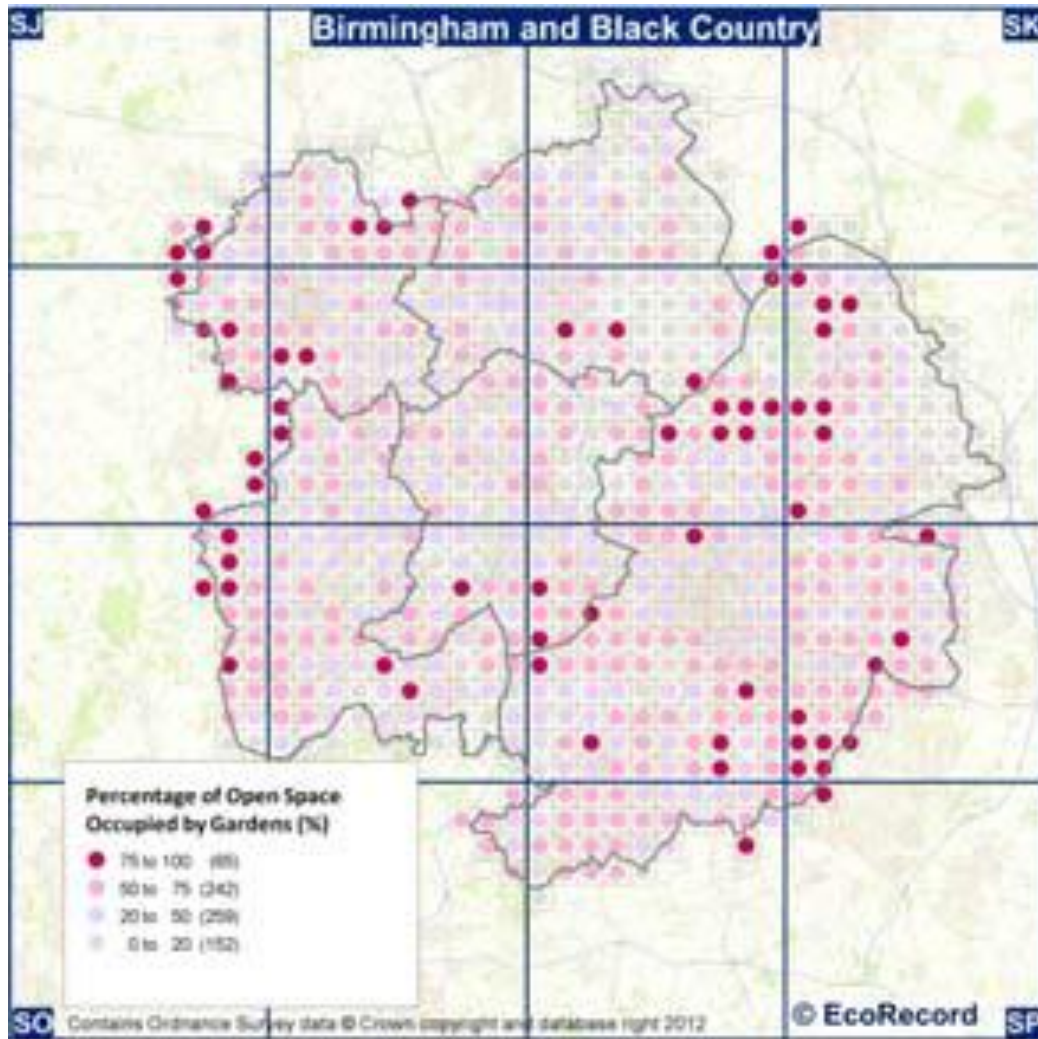
Contaminated Land in the Black Country

- | | |
|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
|  Local Nature Reserves |  Special Area of Conservation |
|  National Nature Reserve |  Site of Importance for Nature Conservation |
|  Site of Specific Scientific Interest |  Site of Local Importance for Nature Conservation |
|  Contaminated - Brownfield Land | |



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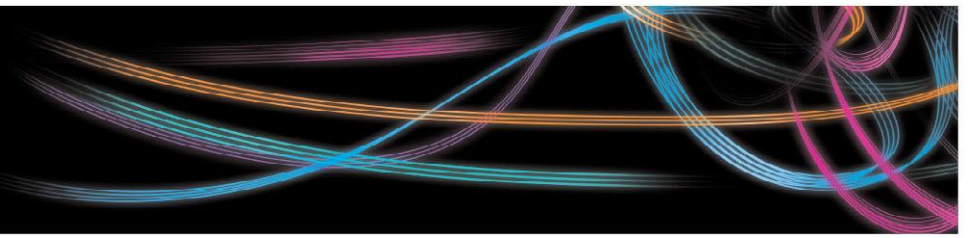
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Greenspace

Assets

- ❑ 800,000 people will live within a 15 minute walk of this accessible natural green space
- ❑ There are **902.1ha of designated Local Nature Reserve** in the Black Country. The Black Country has rich bio- and geodiversity despite its industrial heritage, and these accessible greenspace and green infrastructure provide local communities with a valuable resource in this multi-centric urban area.

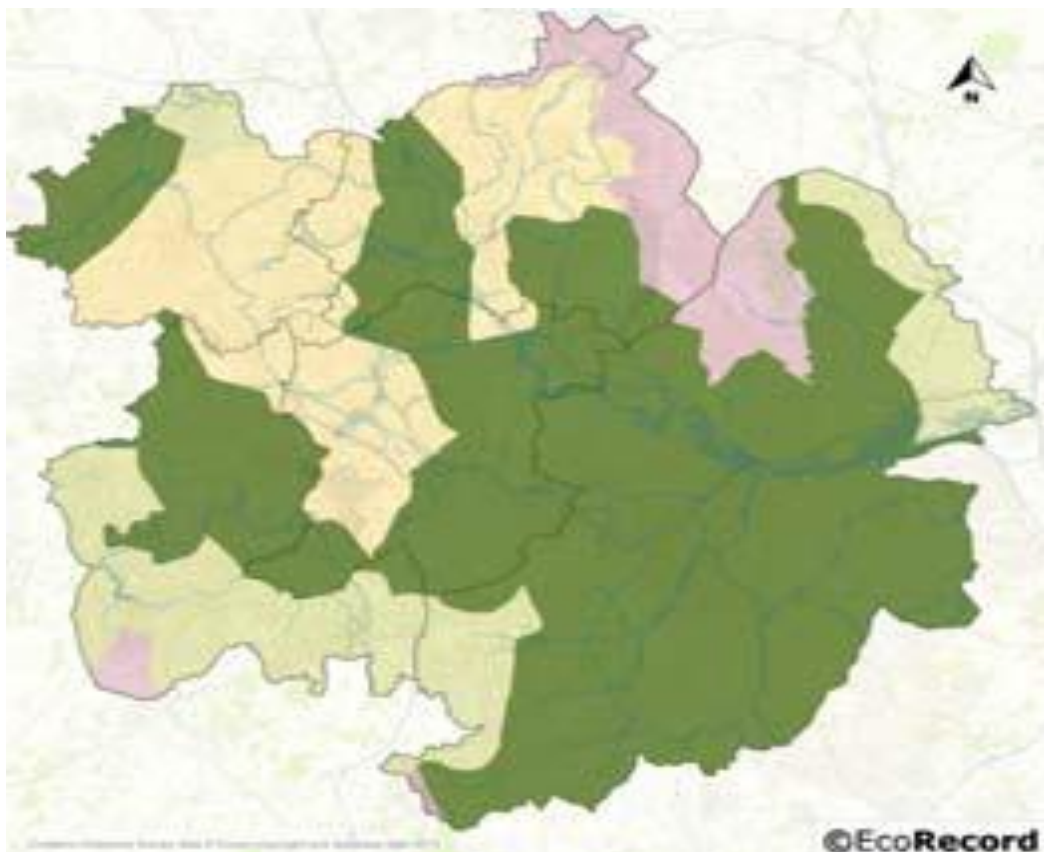


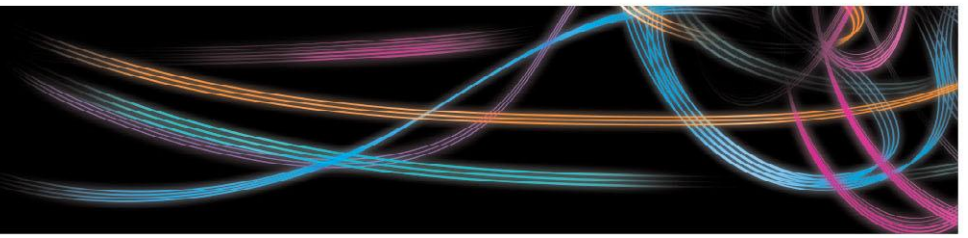
- The Value of Green Infrastructure in Birmingham and the Black Country - The economic and social benefits of Green Infrastructure for health and well-being, space for recreation, ecological diversity and mitigating climate change and moderating extreme weather events are well documented. Within Birmingham and the Black Country, ecosystem services provided by woodland, heathland and wetland have been valued. Stating the best guess, **2,422 ha of Green Infrastructure provides an annual value of at least £20.8 million which results in £1.1 billion capitalised over 100 years.** (Source: 'The Economic Value of Green Infrastructure in the Birmingham and the Black Country', The Wildlife Trust for Birmingham and the Black Country, 2011).

Opportunities

- The Black Country and Birmingham have successfully secured funding to designate the area a **Nature Improvement Area (NIA)**, which would aim to increase the amount of wildlife habitat, enhance the value of existing habitats, target action on corridors for stepping stone for biodiversity and involve local communities. This would involve a variety of projects including **woodland, grassland, heathland and corridors.**

(1) Woodland Map:





Case Study:

10,000 new trees a boost for Walsall Arboretum

Ten thousand new trees have been planted at Walsall Arboretum as the creation of a £400,000 country park gets under way at Walsall's largest park.

Oak, birch and black poplar trees have all been planted at the town's main park in a bid to help entice more visitors.

Trees have been planted at the former Grange Golf Course, in the Arboretum Extension, with a second phase of planting due later in 2013.

Work is now being carried out to create the long-awaited new country park, which will cover around 17 hectares.

Assets:

The Black Country as can be seen from the map is home to notable concentrations of old, ecologically diverse and historically valuable woodlands. These are most commonly located in those areas that were least directly impacted upon by the land-use changes of the Industrial Revolution, and that either remain recognisably rural in character or that are dominated by 20th century residential developments. In the late 20th century and first years of the 21st century large-scale planting of new woodland was undertaken in the formerly industrial parts of the conurbation, and many other sites were allowed to 'tumble down' to woodland through neglect. This greatly increased woodland cover went some way to redress the ecological imbalance the differing land-use histories had created.

Opportunities:

These new woodlands are structurally and ecologically poor, and do not support the variety and abundance of flora and fauna found in the older woodlands. Analysis of the relative abundance of woodland axiophyte¹ species highlights large parts of the NIA with relatively low floristic diversity, even where there is significant new woodland cover. Dense, even-aged canopies and isolation from old woodlands and hedgerows has created poor habitat for most fauna species that utilise woodlands, and has prevented colonisation by woodland flora species.

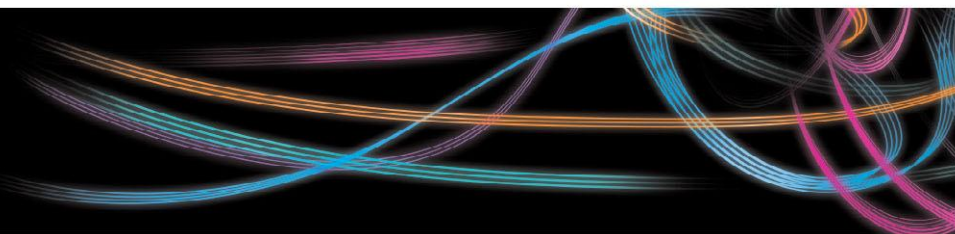
A £108k project via Nature Improvement Area Project has been created to manage and enhance recently established woodland.

NIA – management & enhancement of recently established woodland

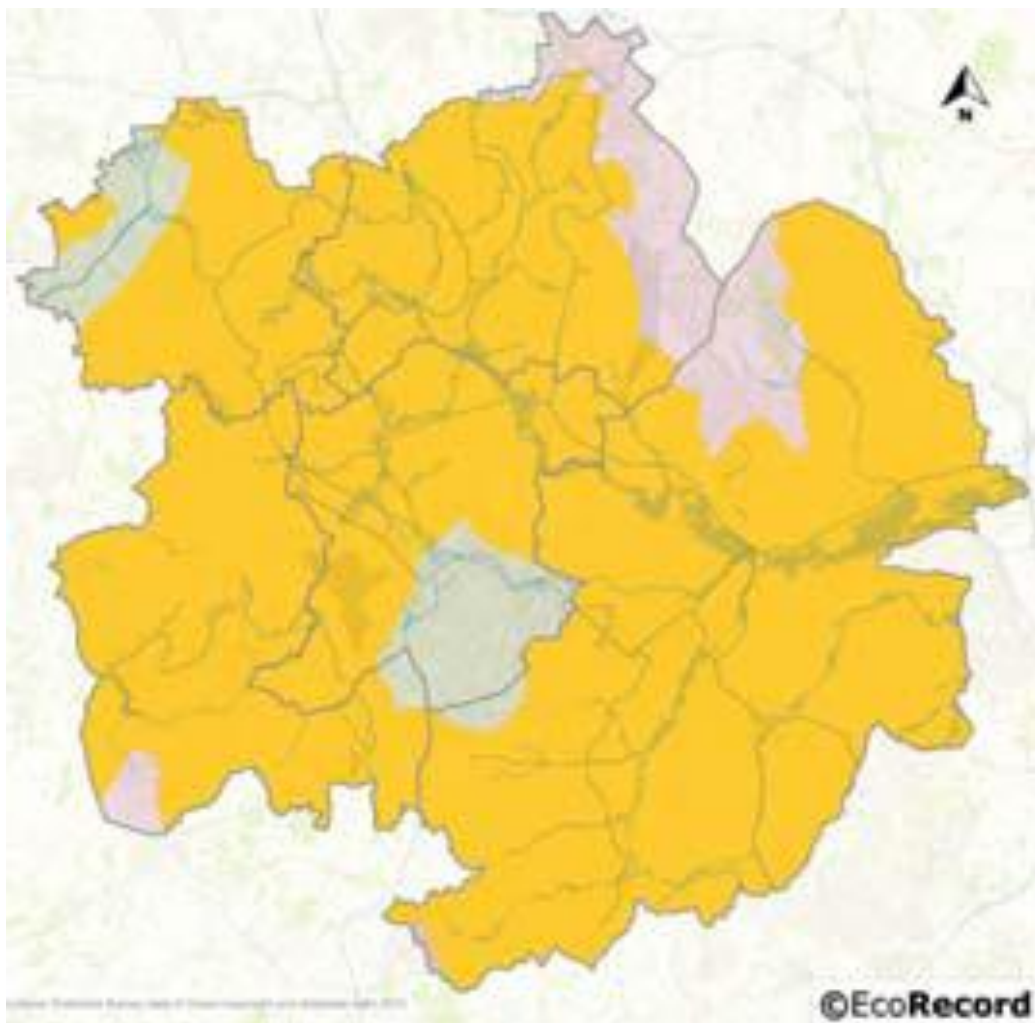
There are remnant concentrations of old, ecologically diverse and historically valuable woodlands in parts of Birmingham & the Black Country. These are most commonly found in those areas that were least altered by the land-use changes of the Industrial Revolution, whereas in those areas that saw the most dramatic

changes much of the agricultural landscape and the woodlands this contained were lost. Over the past half century woodland cover in these areas has greatly increased through large-scale planting of new woodland. This has gone some way to redress the ecological imbalance these differing land-use histories have created, however, these new woodlands are often structurally and ecologically poor, and do not support the variety or abundance of flora and fauna found in the older woodlands.

The aim of the Woodland Delivery Theme is therefore to re-establish a network of high quality woodlands across Birmingham & the Black Country through the enrichment and diversification of our young woodlands. This will be achieved through thinning, coppicing, under-planting and the introduction of native field-layer species sourced from our remaining old woodlands.



(2) GRASSLAND



ASSETS

The industrialisation which began in the 18th century and the large-scale suburban expansion of the 20th century drastically reduced and fragmented the area of permanent grassland in the Black Country. There remain, however, areas with concentrations of commercially farmed and often floristically diverse semi-improved grassland.

OPPORTUNITIES

In order areas there is a much more complex landscape which retains fragments, ribbons and patches of remnant ancient countryside comprised of small fields and often outgrown and defunct hedgerows. Many of these sites are either overgrazed by horses, or more often have received little traditional management for many years or even decades. Such grasslands frequently lose much of their floristic and

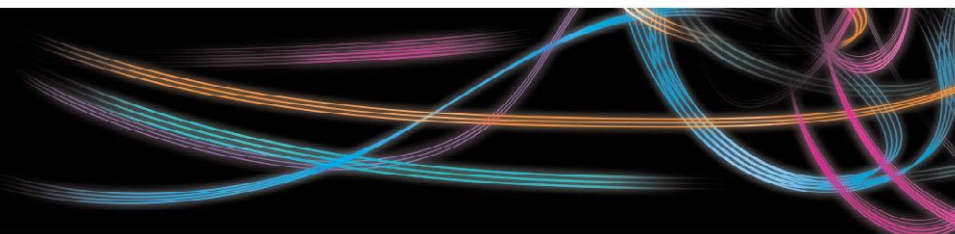
associated faunal diversity by first becoming rank and dominated by tussocky grasses followed by colonisation by tall perennial herbs, bramble and scrub. The consequent loss of open habitat further compounds the impacts on fauna species that rely on these conditions to feed and breed.

A £45k project has been created to restore long-established grassland through the re-introduction of appropriate management and to create new species-rich grassland.

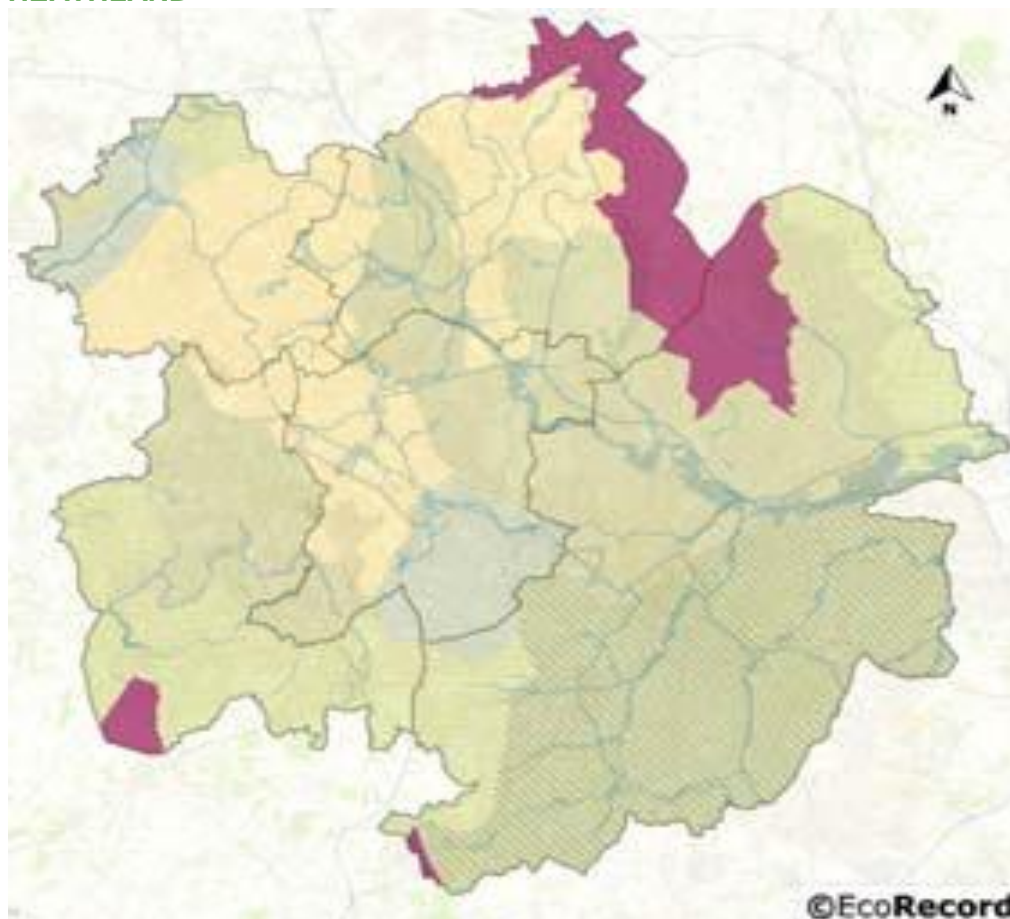
NIA – restoration & linking of long-established grassland

The industrialisation which began in the 18th century and the large-scale suburban expansion of the 20th century drastically reduced and fragmented the area of permanent grassland in Birmingham & the Black Country. There remain rural areas in the Nature Improvement Area with concentrations of commercially farmed and often floristically diverse semi-improved grassland, whilst in the rest of the area there is a much more complex landscape which retains fragments, ribbons and patches of remnant ancient countryside comprising small fields and often outgrown and defunct hedgerows. These grasslands frequently lose their floristic and associated faunal diversity through a lack of management: first becoming rank and dominated by tussocky grasses, quickly followed by colonisation by tall perennial herbs, bramble and scrub.

There is a recent history in the Nature Improvement Area of pioneering work to create diverse grassland of native species - techniques which have since been adopted nation-wide. The Grassland Delivery Theme will build on this work by creating a network of new species-rich grassland sites across our area, whilst also restoring long-established grassland through the re-introduction of appropriate management.



HEATHLAND



ASSETS

Until the large-scale landscape changes of the last 150 years large parts of Walsall were dominated by heathland. There remains a core area of high quality heathland and associated species in the north-east which once formed part of the extensive Cank Forest (Cannock Chase). Other smaller and more isolated sites (often with a considerably reduced range of species) exist here and at other relict heathlands across the NIA.

OPPORTUNITIES

NIA – £36,000 project for *restoration & linking of long-established heathland*

Prior to the large-scale landscape changes of the last 200 years large parts of Birmingham and Walsall were dominated by heathland, whilst smaller heaths existed scattered throughout the Nature Improvement Area. There remains a core area of high quality heathland in the north-east, with smaller and more isolated sites surviving at other relict heaths.

Often the most active threat to our heathland is the lack of traditional management and the associated colonisation by plant species such as bracken and bramble, followed by the inevitable succession to species-poor scrub. There are also examples of sites which formerly supported a heathland/acid grassland mosaic where a lack of appropriate management (often with associated trampling by people) has led to a loss of the heather cover and the dominance of acid grassland.

The focus of the Heathland Delivery Theme is therefore to restore existing heathland through the clearance of undesirable vegetation and the re-introduction of appropriate management; and to recreate heathland using locally sourced seed on former heathland or other suitable sites.

Corridors – improving quality, linkage & bridging gaps

A vast network of canals, rivers and streams reaches almost every part the Black Country - linking almost every type of land use and habitat and often providing the main opportunities for wildlife to enter and cross the most inhospitable parts of the landscape; grassland corridors reach deep into the conurbation from surrounding countryside; and networks of hedgerows form linear corridors in a variety of different landscape types.

Very often, however, these corridors are of poor quality or are incomplete: Rivers and streams, for example, are frequently constrained in highly modified and homogenous channels with little variation of conditions and little semi-natural habitat. They are also often subject to high levels of diffuse pollution originating from the urban environment. Networks of once rural hedgerows have suffered similar degradation through neglect or destruction.

OPPORTUNITIES:

The focus of the Corridors Delivery Theme – a £138k project is therefore to improve the ecological quality of the NIA's wildlife corridors, improve links between sites along the corridors and bridge gaps.

NIA – improving quality, linkage & bridging gaps

Birmingham & the Black Country comprises a deeply fragmented landscape and therefore our blue (wetland) and green (terrestrial) habitat corridors are often key to species movement, site colonisation and population expansion.

Wetland corridors in the Nature Improvement Area vary greatly in form and scale, however, a vast network of canals, rivers and streams reaches almost every part of Birmingham & the Black Country. This network links the other land cover and habitat types, and often provides the primary opportunity for wildlife to enter and cross the most inhospitable parts of the landscape.

Green corridors frequently mirror wetland corridors with associated narrow strips of woodland, scrub, grassland or heathland following the canals and rivers. Larger-scale terrestrial corridors also exist within the Nature Improvement Area; often these are a complex mix of remnant pre-industrial agricultural land and reclaimed post-

industrial sites, linked by accident of history. Some reach deep into the conurbation from the surrounding countryside, some exist entirely surrounded by dense development.

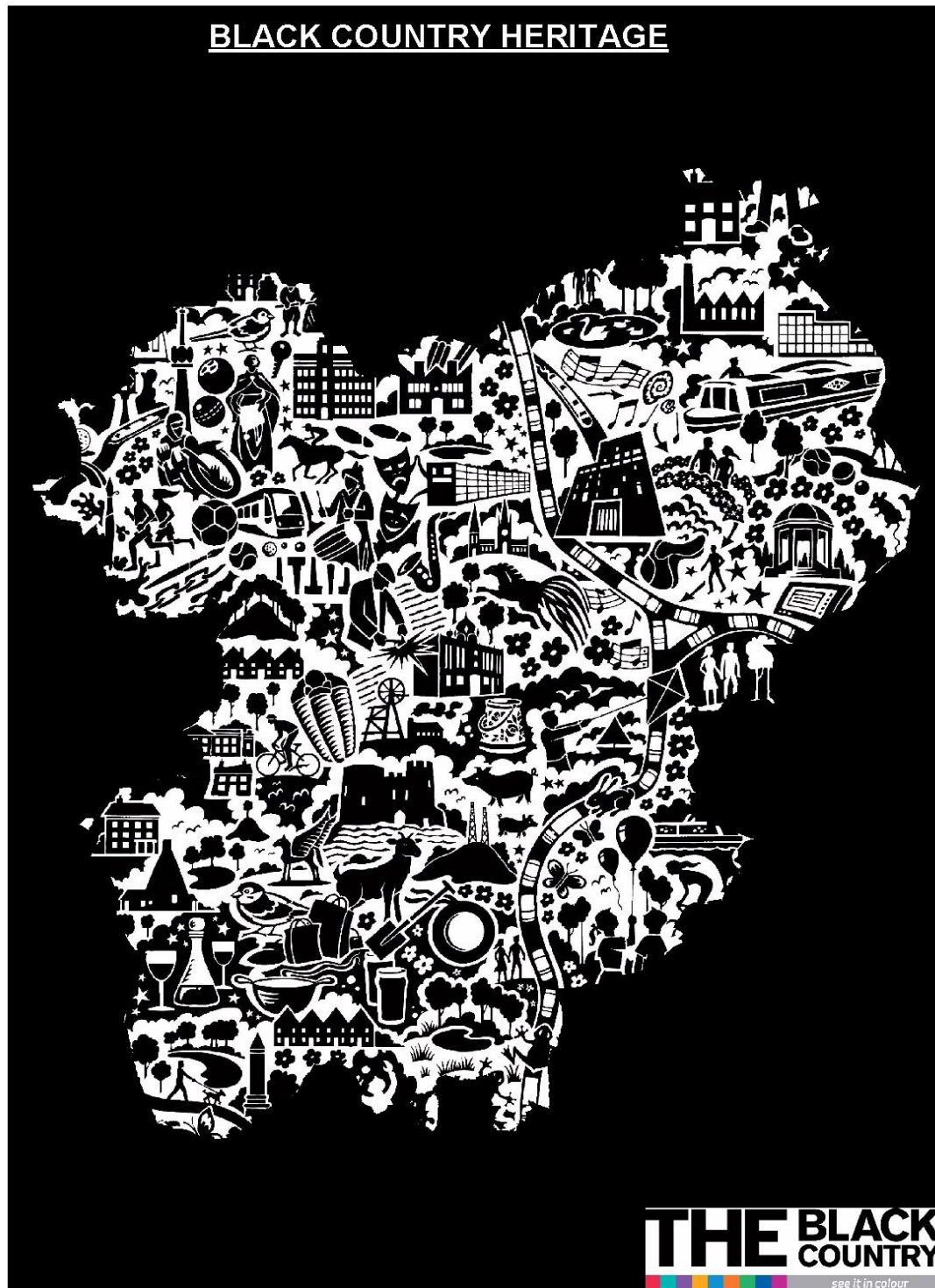
Very often, however, these corridors are of poor quality or are incomplete: rivers and streams, for example, are frequently constrained in highly modified and homogenous channels with little variation of conditions and little semi-natural habitat; the habitats which comprise green corridors may be degraded through abuse or simple neglect, or there are gaps where inappropriate land-use or development forms a barrier to movement.

The focus of the Corridors Delivery Theme is therefore to improve the ecological quality of the Nature Improvement Area's wildlife corridors, improve links between sites along corridors and to create species or species-group specific corridors. Actions on corridors will not only aim to enhance links within the conurbation, but also to enhance ecological links to the surrounding countryside.

Other projects:

- ❑ **National Nature Reserve** - Interpretation will be enhanced throughout the whole of the National Nature Reserve in Dudley
- ❑ A **New Local Nature Reserve** - A New Local Nature Reserve will be created where the canals - The Smestow Brook and the former Tettenhall-Kingswinford railway line run in parallel.
- ❑ **Linking the Wyrley & Essington Canal** - Linking the Wyrley and Essington canal to a regenerated park via a new footbridge and canal tow path
- ❑ **Environmental Enhancements Package** - Enabling greater access to our natural environment to over three quarters of the Black Country's population including protection and enhancement of our rich biodiversity. A package of enhancements are proposed across 20 sites in the Black Country
- ❑ **The Green Bridge** - A visually inspiring bridge 'The Green Bridge' across the A41 Expressway breaking down the barrier between West Bromwich town centre and the countryside.
- ❑ **Walsall Arboretum - Sandwell Valley** - A new 12 mile pedestrian and cycleway link through the green belt of Walsall Arboretum and Sandwell Valley with links at both ends across highways to the town centres.

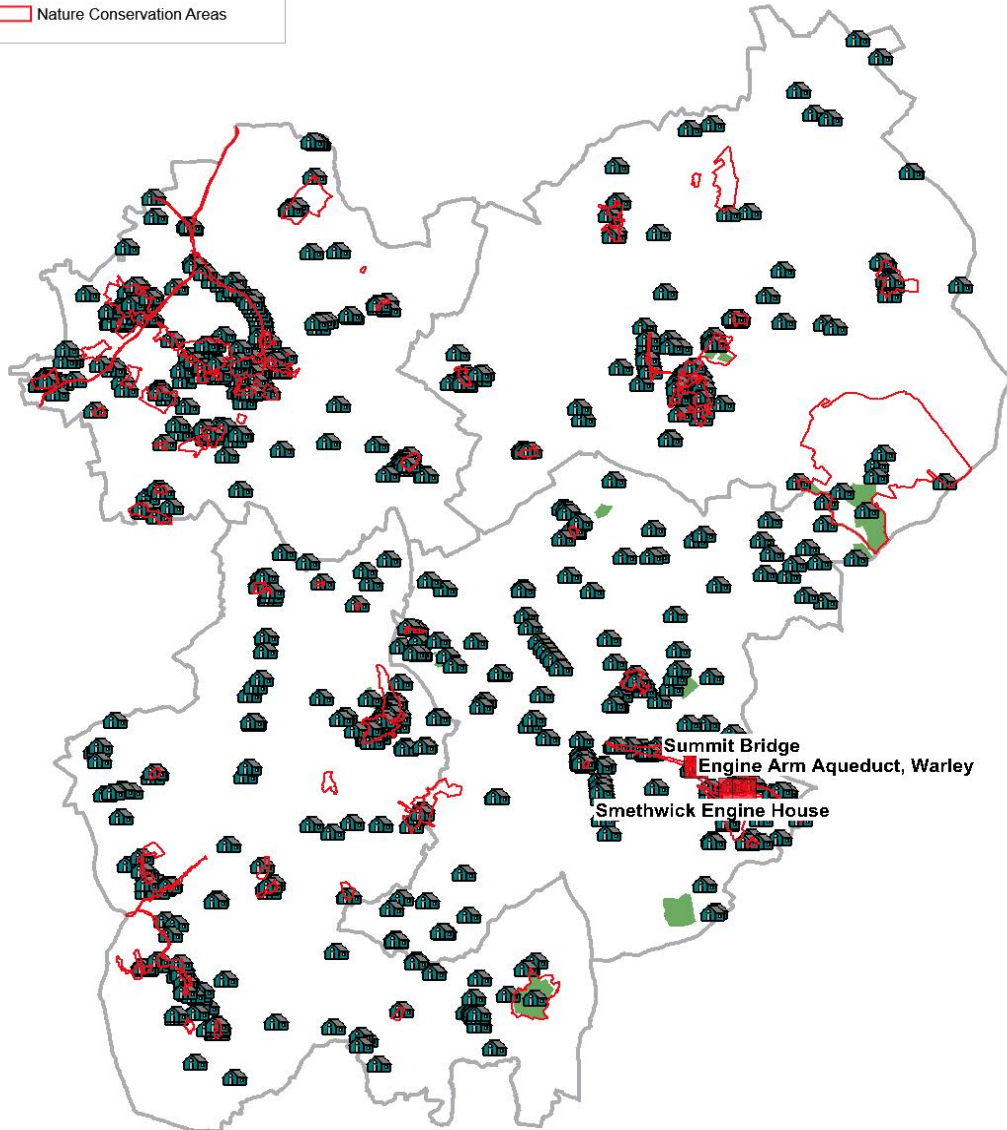
4. BUILT AND HISTORIC ENVIRONMENT



A map showing the key built and natural heritage assets in the Black Country.

English Heritage

Designated Heritage Assets



The above map shows the various designated heritage sites that can be found in the Black Country.

Opportunities/Assets

The list of heritage assets are outlined in Appendix Table 2.

It is vital that investment continues for the area's historic environment; in particular the historic centres, buildings, parks and canal network.

Here are some examples of town centre regeneration schemes:

- Dudley Townscape Heritage Initiative
- Walsall Townscape Heritage Initiative
- Chapel Ash and Darlington Street Partnership Scheme

Molineux Hotel in Wolverhampton

An example of how investing in a historic building can bring it back to its full potential by transforming it to be used as the City Archives Centre.

<http://www.localhistory.scit.wlv.ac.uk/listed/molineuxhotel.htm>

The Molineux Hotel in a state of disrepair

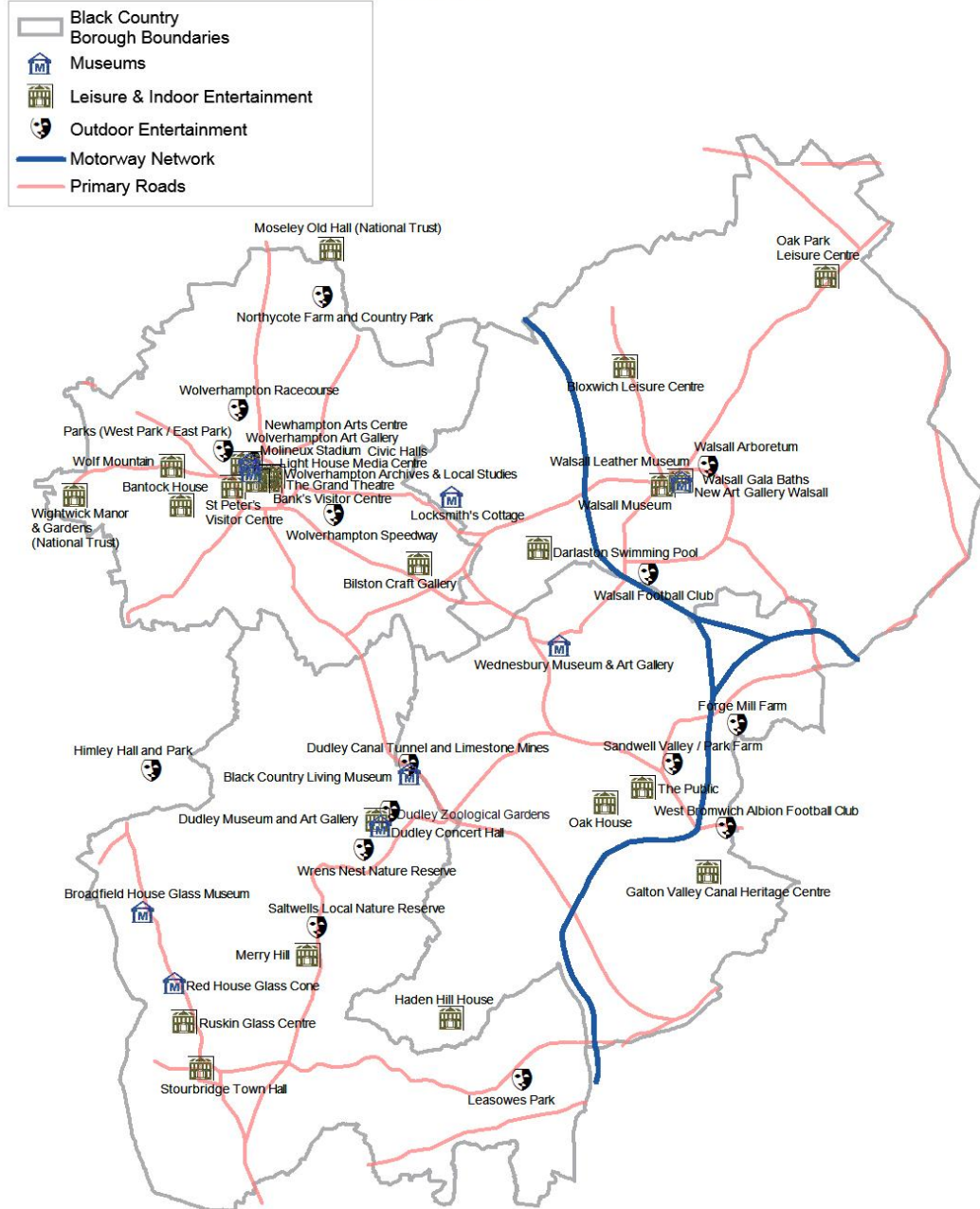


The Molineux Hotel after the restoration had taken place



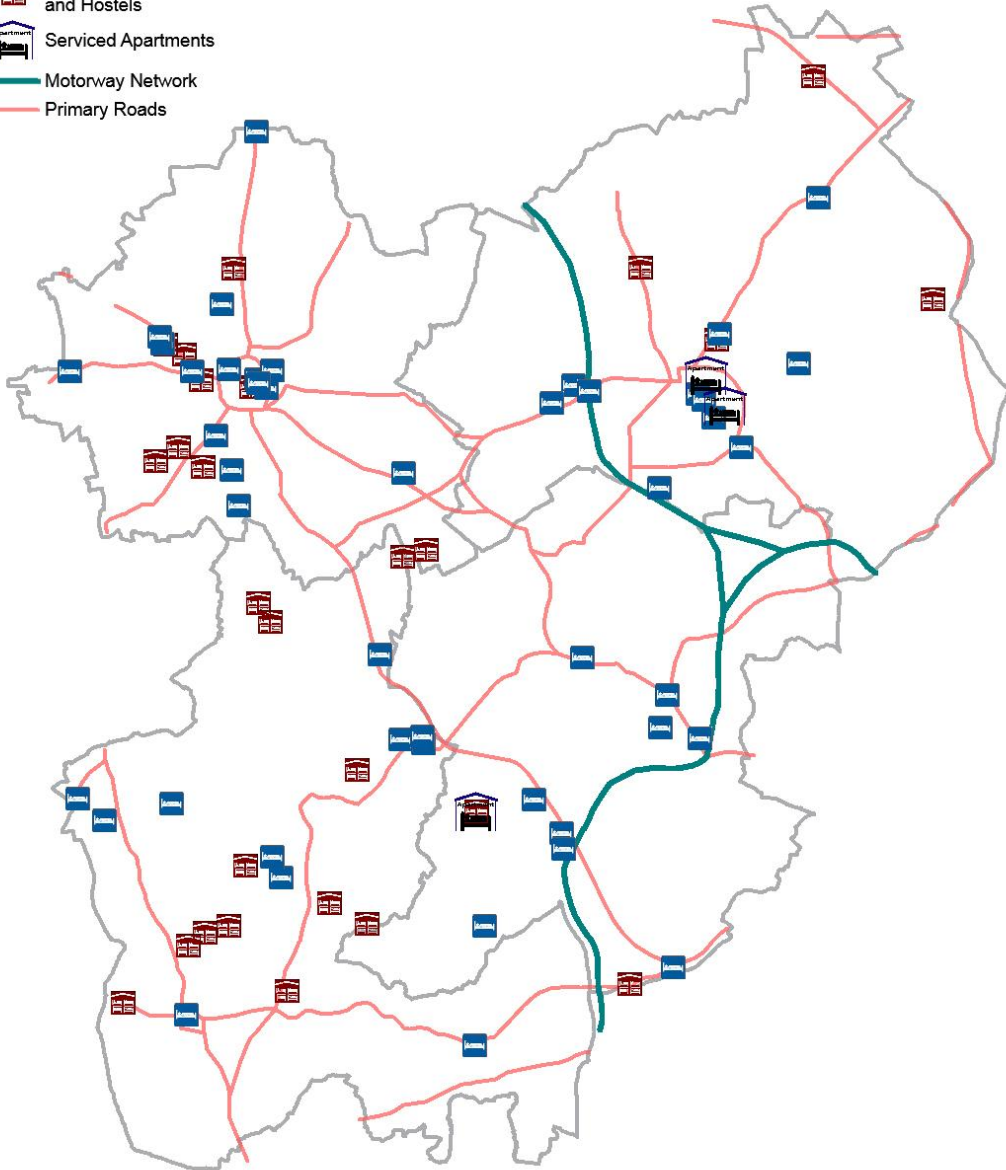
5. Visitor Economy

Black Country Visitor Attractions



Black Country Accommodation Providers

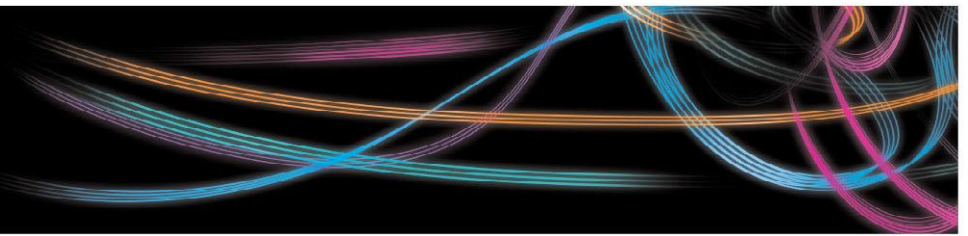
-  Black Country
-  Borough Boundaries
- Accommodation Providers**
-  Hotels
-  B&B's, Guesthouses and Hostels
-  Serviced Apartments
-  Motorway Network
-  Primary Roads



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Scale: 1:33,230

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Assets

- ❑ The Black Country is home to a wide range of accommodation providers – these are listed in Appendix Table 3.
- ❑ Wolverhampton's cultural and entertainment activities play an important part in the local economy. In excess of 700,000 people pay for tickets to see events in the city centre (Civic Halls, Grand Theatre, Arena and Lighthouse. If other venues in the city are included i.e. Molineux, Racetrack etc. – the figures exceed 1.2 million. The Council sponsored events programme generates a further 200,000 people enjoying the city's entertainment offer.
- ❑ 1,263,000 people also visit Wolverhampton's cultural venues that comprise the Art Gallery, Bantock House and Museum, Bilston Craft Gallery and the City Archives, the Civic Halls, Grand Theatre and Arena Theatre and the Light House and Newhampton Arts Centre in the course of the year.
- ❑ The city is home to Marston's Brewery the largest provider of real ale in the country, a staple part of most cultural events, a sponsor of events in the city, and a major investor.
- ❑ The economic impact of culture in the city has been calculated at £16,520,777 in 2010-2011.
- ❑ Over 1,300 national and international artists appearing in the city every year, and electronically the Cultural venues are accessed by Web visitors from 130 countries covering ¾ of the globe.
- ❑ The cultural venues have already fostered some links with national and international networks. For example, through participation in the Creative Metropolises European Project. At the Civic Halls events such as the International Darts Competition secures international media coverage for the city. We receive diplomatic representatives such as the cultural attachés from Korea and Japan for international shows. These people can be powerful ambassadors for the city at a national and international level.

Opportunities

- ❑ Castle Hill
- ❑ Wolverhampton 'night time'
- ❑ Todd's End - A new visitor facility will be built at Todd's End where visitors will commence their experience of 'Strata'
- ❑ The Severn Sisters Mine (Upper Gallery) - The Seven Sisters Mine will be stabilised through a programme of specialist engineering. A new Interpretation Centre will be built at the entrance of the Seven Sisters Mines (Upper Gallery). A new elevated walkway will be installed within the Severn Sisters Mines to allow visitors to walk through the mine.
- ❑ Walsall Art Gallery - Walsall Arboretum - Major public realm improvements linking the Walsall Art Gallery to Walsall Arboretum
- ❑ Barr Beacon - A new inspirational visitor centre Barr Beacon to create a

- regional landmark
- RSPB Visitor Centre - A new RSPB visitor centre in the Sandwell Valley Reserve
- Marketing Birmingham ERDF project

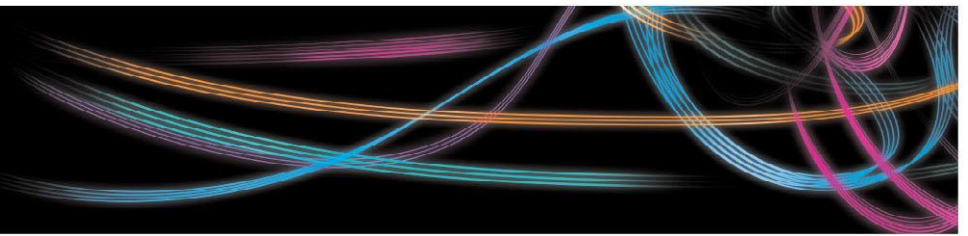
Dudley Canal Trust (Trips):

New Audio Visual Show

In line with our policy of continuously upgrading our visitor attraction, an exciting new audio-visual show for 'Little Tess' cavern will be launched in March 2013. Some two years in preparation, it includes the first animation of the 'Dudley Bug' and an easy to follow visual explanation of the formation of Castle Hill over millions of years and the part it played in the industrial revolution that created the 'Black Country'. Also illustrated are the difficult conditions faced by those who worked in the limestone mines and its effect on their families.



An image showing the proposed Portal Building that will form the visitor centre for Dudley Canal Trust.



7. Sports Infrastructure

Rates for participation in sport and physical activity in the Black Country are amongst the lowest in the country. 13.3% of adults take part for at least 30 minutes, 3 times a week, compared to a national average of 16.3%. 37% of Black Country adults don't do any sport or physical activity, far higher than the national average of 29.5%. Low participation rates can often go hand-in-hand with poor levels of health. A plentiful and diverse range of sporting facilities are essential to close this gap.

Assets

Facilities

There is a wide range of built sporting facilities across the Black Country totalling 318 venues covering athletics tracks, health & fitness suites, indoor tennis facilities, sports halls, swimming pools and synthetic turf pitches. These facilities are outlined in Appendix Table 4.

There are 108 Health & Fitness suites across the Black Country, 58 of which are commercially owned with the remainder run by either local authorities, schools, colleges or Universities.

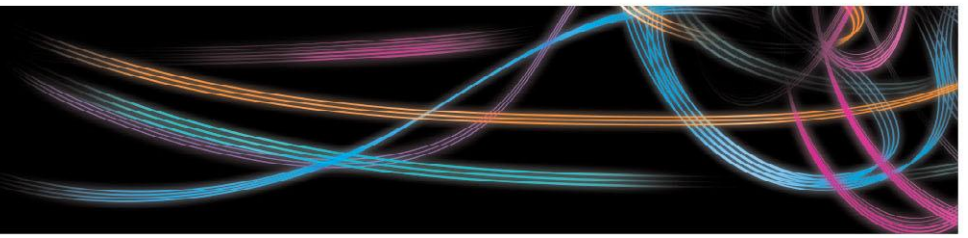
Sports Halls can be used for a number of activities including badminton, basketball, dance and martial arts. There are 177 across the Black Country, the majority of which (47) are in Sandwell. 74 of these halls are commercially owned. One of these sports halls accommodate Earls Gymnastics club in Halesowen. The coaching at this facility, combined with the facilities assisted Kristian Thomas achieve his Olympic Bronze medal in the London 2012 gymnastics men's team event.

There are 73 swimming pools in the Black Country, 46 of which are classified as 'Main Pools' – therefore rectangular in shape and at least 15m in length. 33 of the pools are commercially owned and the majority of these facilities (22) are in Walsall.

Greenspace

There are 329 sites in the Black Country that are listed on the Active Places database as accommodating 535 grass pitches for sport. These sites are outlined in Appendix Table 5.

The vast majority of these are for football. There are 354 football pitches in the Black Country with the majority (129) located within Dudley. Only 6 of the pitches listed in the Black Country are not publically owned. Cricket pitches are the second most prevalent (64). Sports such as rounders, rugby union, rugby league, golf, softball, hockey and Gaelic football are also accommodated with pitches in the Black Country.



Opportunities

Sporting Growth Zones

Sporting Growth Zones (SGZs) are areas in the Black Country, which have been identified through data, and intelligence, as having the greatest potential to increase the number of young people and adults (14+) doing some participation in sport and physical activity per week. The number of facilities in given areas are crucial to the chosen locations of the zones.

Zones provide a focus for capacity, investment and innovative practice needed to work with communities to encourage more people to participate in sport and physical activity. Criteria for selecting zones include:

- Those areas with the greatest potential to increase participation, particularly for 14-25 year olds, Sport England's focus within their Strategy.
- Areas, based on Sport England's Market Segmentation and demographic data, where the population profile is suited to higher levels of participation
- Areas that sit within Regeneration Corridors as defined by the Black Country Core Strategy
- Areas with key facilities, such as playing fields, sports halls and swimming pools, already in place

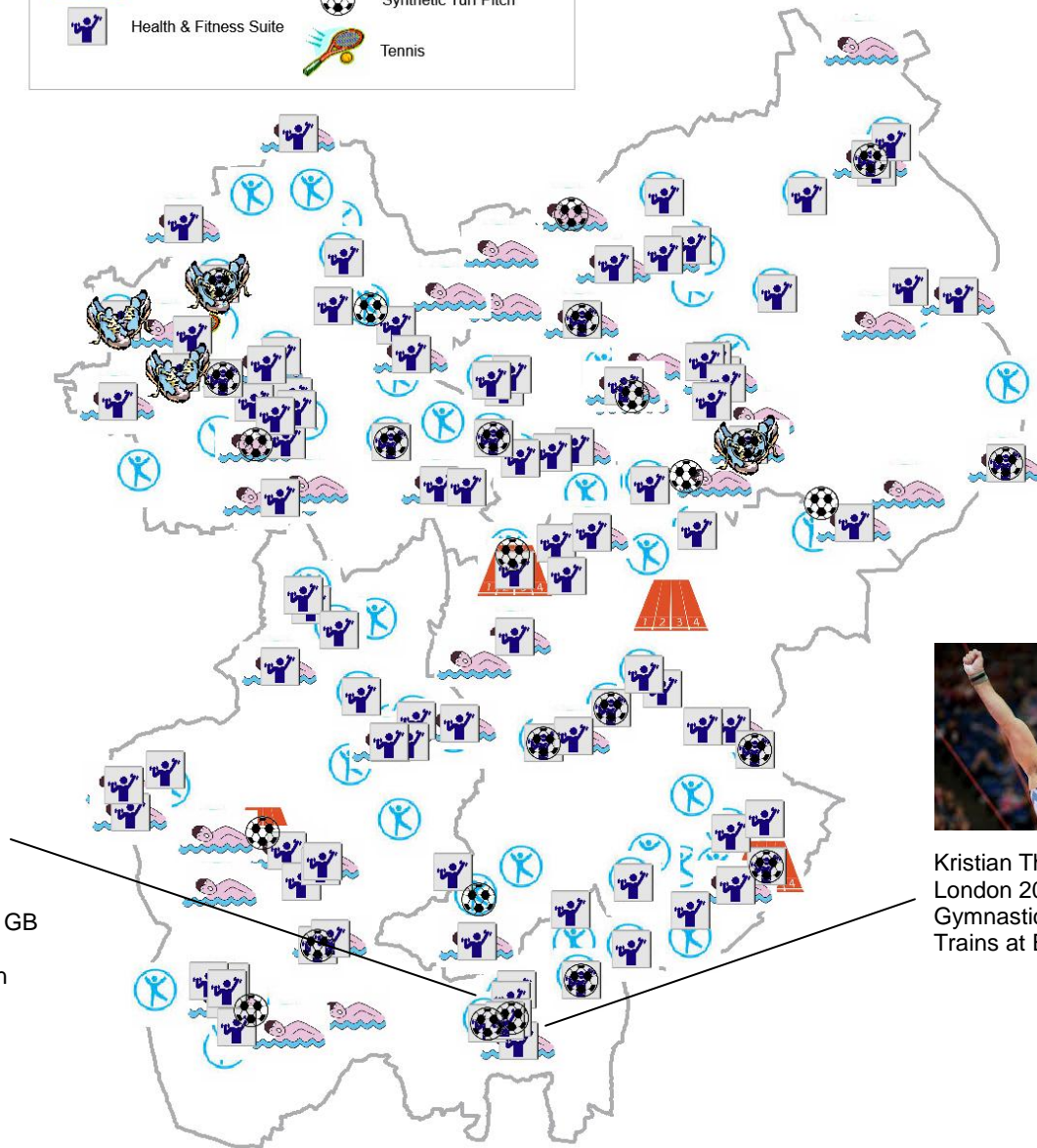
What areas are proposed as SGZs?

The SGZ concept is currently in development

What will the SGZs do for Facilities?

The main aim of SGZs is to increase participation in sport and physical activity. A by-product of this is an increase in community use of existing facility stock

Black Country Sports Facilities



Jess Varnish
London 2012 Team GB
Cyclist
Trains at Halesowen
Cycling Club



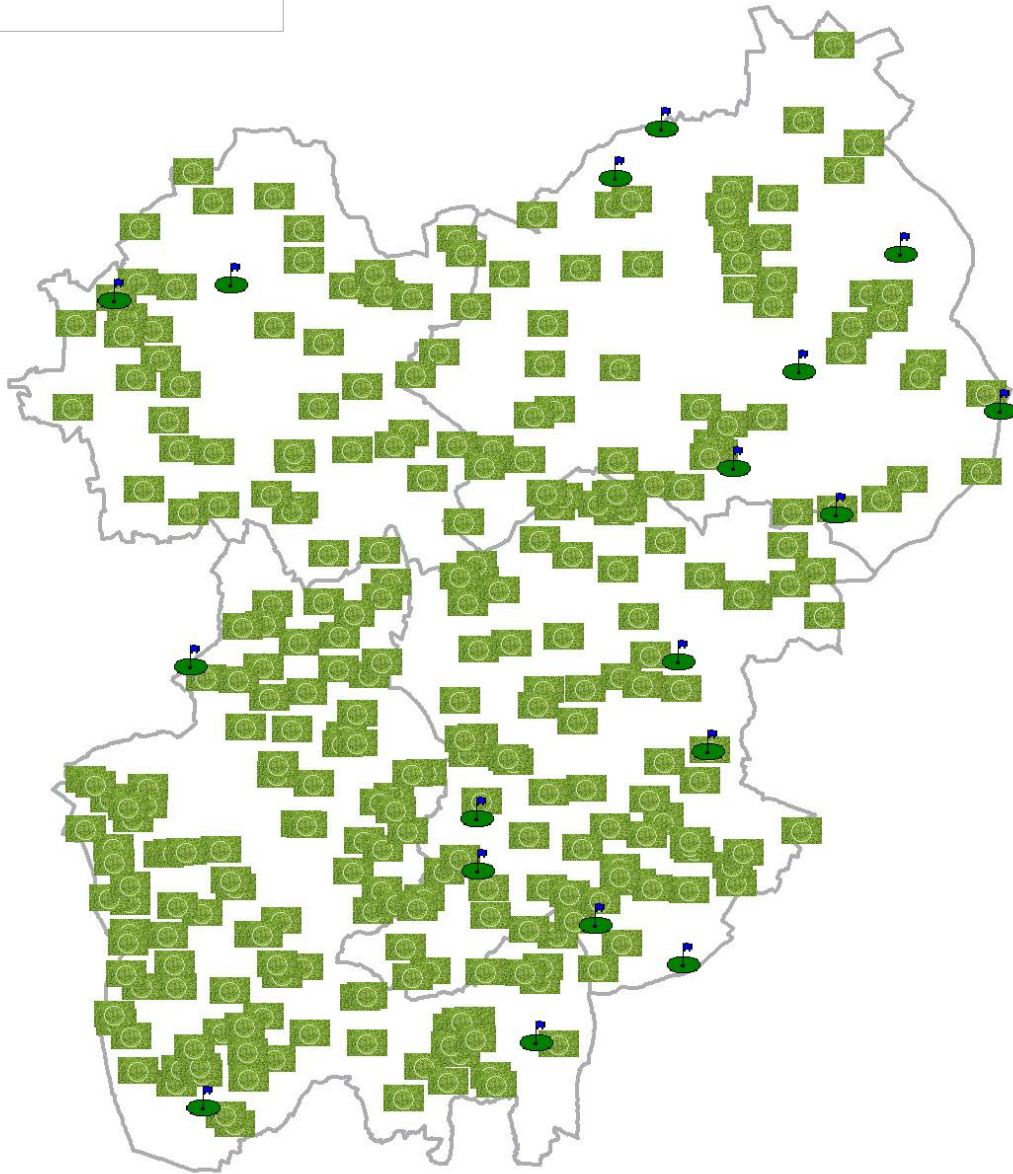
Kristian Thomas
London 2012 Team GB
Gymnastics – Bronze Medalist
Trains at Earls Gymnastics Club

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Black Country Green Space Facilities



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