

**Core Strategy:  
Baseline Analysis Report 2013**

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## 1.0 Introduction

It is important that the policies and proposals of the Core Strategy are based on an up-to-date, robust and reliable evidence base to ensure a thorough understanding of the needs, opportunities and any constraints of the area.

The Council has drawn on a range of information about the important aspects of the District including housing, the local economy, environment, transportation and community facilities including schools, shopping and sporting facilities to form the evidence base for the Core Strategy. These pieces of work provide a picture of the District in terms of key issues and also their spatial relevance. The Council is encouraging comments and reviews on all of its evidence base technical studies and research papers. The full list of evidence base studies and research which have informed the Core Strategy to date are available on the Council's website under 'Evidence Base'. Some of the key pieces of Evidence are listed as follows:-

- The Big Plan Sustainable Community Strategy and Background Papers
- Bradford District Retail & Leisure Study
- Bradford District Employment Lands Review Assessment
- Bradford District Housing Requirement Study
- Bradford District Strategic Housing Market Assessment
- Bradford District Strategic Housing Land Availability Assessment
- Bradford Growth Assessment
- Local Economic Assessment (LEA)
- Bradford District Transport Study
- Bradford District Local Infrastructure Study
- Bradford District Strategic Flood Risk Assessment Level 1 and Level 2
- Bradford District Open Space, Sports and Recreation Study
- Bradford District Conservation Area Assessments & Management Plans
- Bradford District Landscape Character Assessment
- Bradford District Biodiversity Action Plan
- Open Space Assessment

In accordance with good practice advice by the Planning Advisory Service (PAS), including the online Plan Making Manual, the Council considers the gathering of evidence as an iterative process which must be continued throughout the plan preparation process. The reason for this is because the evidence is key to other aspects of plan production including Sustainability Appraisal, Infrastructure Planning and Delivery, Options Generation and Community Engagement.

The Council has therefore published this '**Draft Baseline Analysis Report**' which provides a comprehensive analysis of the core baseline conditions and context of the district. The Draft Baseline Analysis Report was first published as part of the Preferred Options consultation. The report is deliberately left in 'Draft' format and will be supplemented with additional information during the course of the preparation of the Core Strategy DPD. As part of the

ongoing consultation process, the Draft Baseline Analysis Report has been made publicly available for consultees for comment and review.

## **1.1 Local Plan for Bradford District**

In accordance with the Planning & Compulsory Purchase Act 2004, the Council has commenced the preparation of a Local Plan, formerly known as Local Development Framework (LDF), for the Bradford District. The Bradford District Local Plan will be comprised of a Core Strategy and a set of other Development Plan Documents (DPDs), namely:

- Allocations Development Plan Documents (Allocation DPD)
- Bradford City Centre Area Action Plan (BCC AAP)
- Shipley and Canal Road Corridor Area Action Plan (SCRC AAP)
- Waste Management Development Plan Documents (Waste Management DPD)

Work has commenced on the Local Plan Core Strategy which will provide the spatial vision and objectives for the district over the next 20 years and include strategic policies to inform development proposals of the above DPDs. The Local Plan will ultimately replace the current Replacement Unitary Development Plan (as saved by the Secretary of State October 2008).

The Core Strategy is perhaps the most important Development Plan Document of the Local Plan. This is because it sets the strategy and framework within which all subsequent documents are formulated.

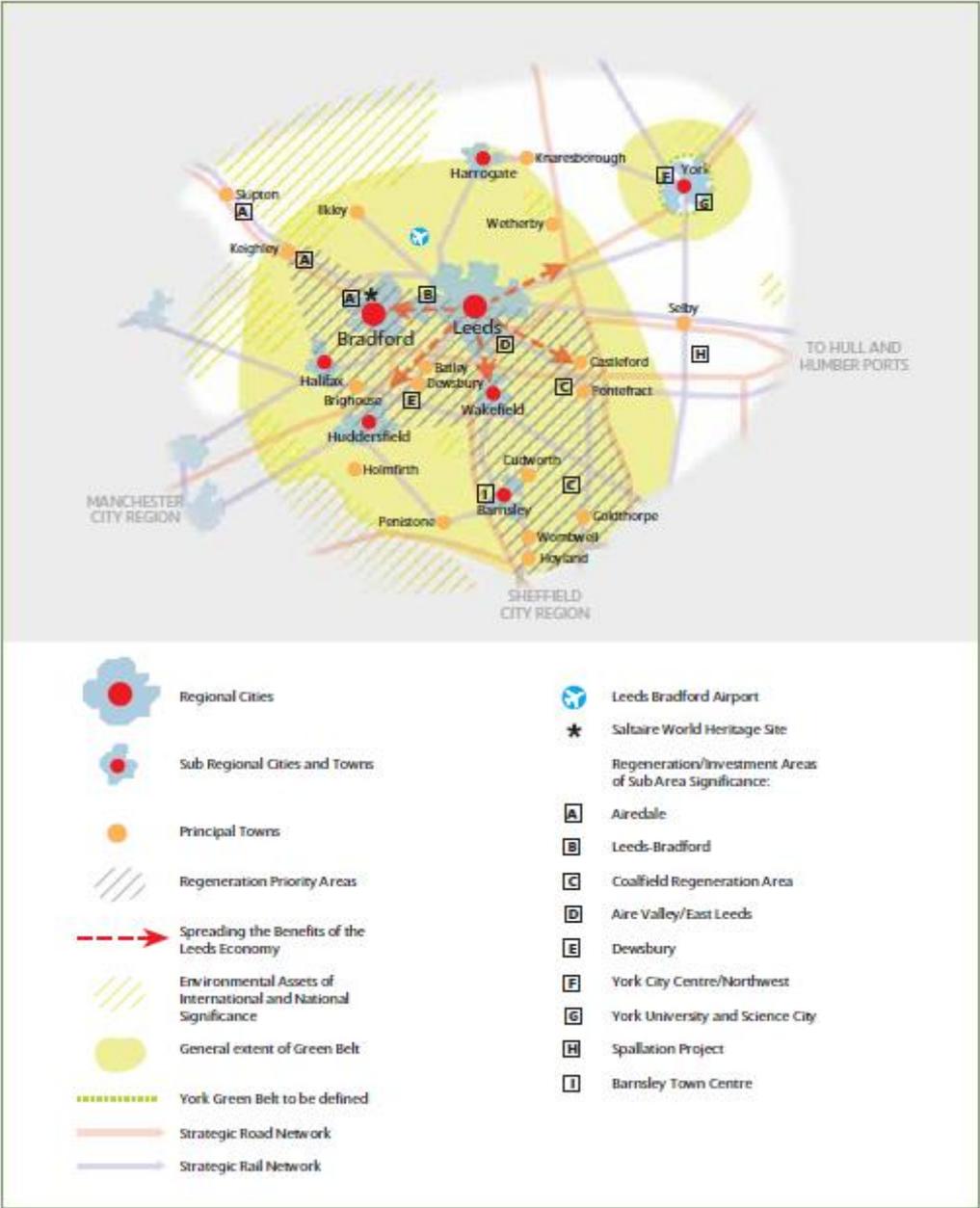
Having assessed the issues facing the district, the Core Strategy will include a spatial vision for how different parts of the district will change. It will determine the broad pattern of development finalising for example how many new houses will be accommodated and how this growth will be distributed between different areas so that the needs of the community are met in the most sustainable way possible. It will also shape where new employment, new retail development, new leisure and recreational facilities, new transport infrastructure and new community facilities such as health and education are located. In doing all of this the Core Strategy will work to deliver the goals of the Bradford's Sustainable Community Strategy.

Although the Core Strategy will not identify specific development sites on a plan or define the precise boundaries of the areas to be protected such as green belt and open space it will give sufficient detail to guide how these decisions are made in subsequent DPDs. It will also include policies, which will be used when making future decisions on whether planning permission for specific schemes will be granted or refused.

## **1.2 Bradford – spatial context**

Bradford is a large metropolitan authority which covers approximately 370 km<sup>2</sup> (143 sq miles) and forms one of the five districts within the West Yorkshire conurbation.

The district stretches from the outskirts of Leeds in the east, through Bradford city and onwards through the towns of Shipley, Bingley, Keighley and Ilkley, and close to the boundaries of the Yorkshire Dales National Park.



**Figure 1a : Bradford in Regional Context**

Bradford has a large and rapidly growing population. Over the last decade the District's population growth has been much faster than the national average, growing at a rate of 11.1% compared to 7.1% nationally. While the latest population estimates are slightly lower than previously projected, current forecasts predict that the District's population will grow at 8.5% over the next ten years, faster than the national average.

The District's topography is equally rich and diverse, characterised by dramatic contrasts from the fringes of the South Pennines in the west to the Wharfe Valley in the north. This has

resulted in extraordinary landscapes- from wide valleys rising steeply through craggy escarpments up to open moorland; and from vibrant urban centres through densely populated residential areas, to idyllic rural villages, each with their own character. These provide a high quality setting for the settlements in the District but also constrain their development and growth.

Bradford has a long history with traces of stone age (Rombalds moor), Roman (Ilkley), Saxon, medieval, Tudor, Georgian and Victorian (Saltaire) heritage. The District possesses a rich architectural and archaeological heritage, which is highly valued. The District's industrial heritage of mills and associated commercial development from the late 18<sup>th</sup> and 19<sup>th</sup> Centuries is particularly important and reflects the area's dominance in the textile trade. This contributes to the distinctiveness of the District and quality of place. It is also important to the economy in terms of tourism in particularly in 'Bronte' country.

The geography of the District has also resulted in most of the industrial, economic and residential development taking place along the valleys and floodplains formed by rivers such as the Aire and Wharfe. 77% of the population live within the urban areas of Bradford, Keighley and along the Aire valley.

The quality of the District's built and natural heritage is also of major importance to the economy in attracting and retaining high quality and high value investment.

Unlike many metropolitan districts, only about a third of Bradford's 370 square kilometres is built up. Much of our moorland and woodland is relatively undisturbed, and provides important conservation habitats, as well as drawing visitors who want to enjoy the countryside.

Farming is still part of our rural economy, but the average size of farmholdings is only 10-15 hectares, so such farming activity is marginal, often part-time and supported by other income.

This means that while some of the villages have maintained their original agricultural functions, such as Oxenhope and Stanbury, many are now largely commuter settlements for the main employment centres in the district and beyond.

These urban areas are both the district's best attributes and biggest challenges. The city of Bradford is rich in culture, architecture and attractions –including the National Media Museum, the Alhambra Theatre and some of the best Asian cuisine in the UK. It is recognised nationally as a significant cultural economy. But it is also the most densely populated area of the district: in the inner city, the proportion of households living in terraced houses is 59%, and there are some 3,000 back-to-back houses.

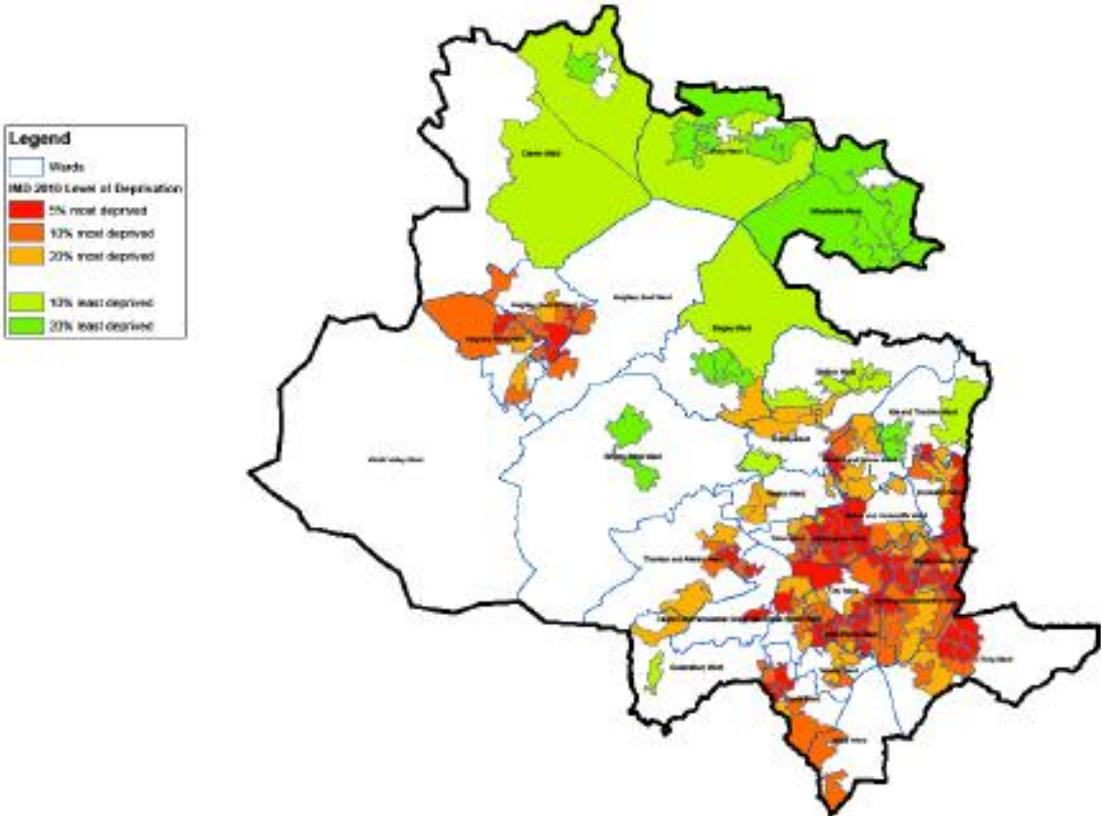
Sharp contrasts are also clear in neighbourhoods like Manningham. Magnificent buildings and public spaces such as Cartwright Hall and Lister Park, and elegant crescents and squares tell of Manningham's affluent past as a textile centre. However, for many, a vibrant

community can be marred by crime, traffic and congestion, sub-standard housing, and ill health.

Such contrasts are an expression of the fact that, of the 354 local authority areas in England, the district ranks as the 26<sup>th</sup> most deprived, according to the latest measures<sup>1</sup>. Nearly one-third (31.4%) of the District's population live in some of the most deprived neighbourhoods in the country. And some of these neighbourhoods are adjacent to much more affluent areas.

Another stark contrast is in the more rural areas, where, unlike most of the district, Bradford scores badly in terms of access to housing and services. People living in parts of Wharfedale, the Worth Valley, Wyke and Tong face geographical and wider barriers to GP surgeries, supermarkets, primary schools and post offices, as well as housing.

The map below illustrates the pattern of deprivation (2010) across the district. It clearly shows that many of the urban areas on the edge of the city centre, which grew when our manufacturing industries were flourishing, have suffered in the shift to the service and knowledge based economy.



**Map 1a: Bradford's least and most deprived areas (LSOAs) 2010**

The focus of economic activity now is the City of Bradford, and the well served corridor centred on Keighley, Bingley and Shipley. The historic concentrations of employment along

<sup>1</sup> Office of National Statistics' indices of multiple deprivation, 2010. These make an assessment across income; employment; health and disability; education; skills and training; access to housing and services; environment and crime

Canal Road, Thornton Road and Bowling Back Lane have been joined by more recent concentrations close to the M606 and M62 motorways.

The District has good transport links with Leeds Bradford Airport, and three rail routes provide key connections across the district, and to neighbouring Leeds, as well as providing a trans-Pennine link to Manchester via Halifax. Good connections across all types of public transport will be increasingly important. Trends show that the district is unlikely to create enough jobs on its own to meet the demands of a growing workforce. Links with neighbouring districts will be increasingly important to connect people with training and employment. For some, the urban centres of Leeds will provide these opportunities, but for many of our rural communities, Craven is more important.

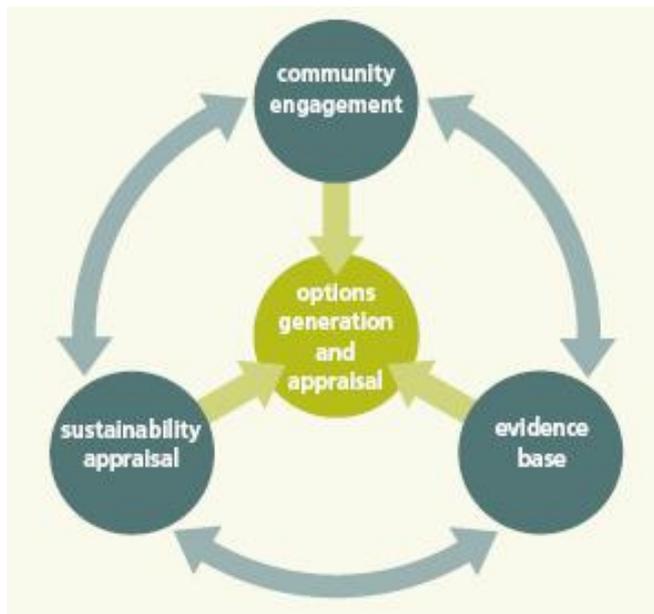
Population trends and the subsequent socio-economic demands also mean that the District needs to plan for new homes and facilitate employment generation. The Local Plan is a system for making sure that the land, buildings, transport links and green spaces are planned to provide the District with maximum wellbeing and to meet people's needs. The Local Plan will complement the priorities of the District's Sustainable Community Strategy, so that the council takes account of all the economic development, transport, and housing activities that will shape places across the district in the coming years.

### **1.3 Scope and Purpose of the Baseline Analysis Report**

This report sets out the baseline position for the Bradford District, including the key issues and parameters which will inform the preparation of the Core Strategy and where appropriate the other Development Plan Documents of the Local Plan.

Essentially this document comprises a concise and comprehensive analysis of a wide range of topics relevant to the district's social, economic and environmental characteristics. The intention is to inform relevant evidence bases that inform all the policies and proposals in the Core Strategy. So this report includes data which have highlighted the district's current position and conclusively identified the issues to be faced in the future.

In accordance with good practice advice by the Planning Advisory Service, including the online Plan Making Manual, Bradford Council considers the gathering of evidence as an iterative process which must be continued throughout the plan preparation process. The reason for this is because the evidence base is key to other aspects of plan production including, Sustainability Appraisal, Options Generation and Community Engagement. The figure below explains the linkages between these different areas (Source PAS March 2008).



**Figure 1b: Relationship between different elements of plan production**

This Baseline Analysis Report therefore has been deliberately left in ‘Draft’ and will be supplemented with additional information during the course of the preparation of the Core Strategy. As part of the ongoing consultation process it would be made publicly available for statutory consultees and other consultees for comment and review.

The report is arranged by thematic topics (e.g. Housing, Biodiversity, Transport, etc) and includes data showing performance at national, regional and local levels, illustrated through tables, charts, maps and diagrams. A significant part of the information contained within the report derives from the evidence which has informed District’s Sustainable Community Strategy (SCS) document prepared by the Bradford Council. It contains information about general socio-economic and sustainability topics, relevant targets, comparative analysis and data sources.

Relevant information, specific to the District, has also been collated and analysed from a variety of sources, including commissioned studies and surveys, District, Regional and National data and monitoring reports.

In preparing this report, it was not intended to replicate all published and unpublished documents and data, but to identify and describe key issues and findings that were raised. Considering the overall ‘Evidence Base’ that informs the emerging Core Strategy, references have been made to the individual documents, strategies and data sources that are identified in each chapter.

## 1.4 Structure of Report

This report seeks to consider key elements of the 'Evidence Base' in a clear and structured manner, as follows:

- Planning Policy and Regeneration Context – the first two sections contain an appraisal of the National, Regional, Sub-Regional and Local planning policies which provide the context within which the Core Strategy will be set. The second section identifies and assesses a range of current and proposed regeneration initiatives affecting the future development of the district.
- Socio-Economic Appraisal – An appraisal of the social and economic context of Bradford district.
- Housing Assessment – An overview of existing housing tenure and types, summary of the relevant housing policy documents, urban potential study, housing land availability assessments and an overview of the housing market.
- Landscape Character & Historic Environment – An assessment of the landscape and the physical form and structure of the district including an Urban Design analysis of the cityscape and assessment of the historic buildings, streets and spaces.
- Transport and Accessibility– A review of the transportation infrastructure including highways, parking, facilities for pedestrians and cyclists, public transport as well as private vehicles.
- Environment– An assessment of the District's environmental quality and extent of the issues affecting the delivery of sustainable development.
- Minerals and Waste Management- a review of Bradford's waste and minerals situation ranging from current capacity and management issues to future requirement and planning matters .

Each section of this report summarises the key issues which are raised from the discussion of individual topic areas and which will be tested and explored during the next stage of the Core Strategy.

## **2.0 Planning Policy Context**

This section summarises the national, regional and local policies that are relevant to Bradford district and those that should be considered during the development of the Core Strategy.

The key planning policy documents at the national, regional, sub regional and district level are reviewed below.

### **2.1 Planning Legislation**

Planning Policy is supported by legislation, this mainly takes the form of Acts of Parliament and Statutory Instruments. The most recent planning Acts are summarised below.

#### **The Planning and Compulsory Purchase Act 2004**

The Act introduced proposals for planning reform to speed up the planning system. The Act included reformed of the development plan system. At the regional level Regional Planning Guidance was replaced by 'Regional Spatial Strategy' (RSS), which have statutory backing. At local authority level the mixed system of unitary development plans and the two-tier system of structure and local plans was replaced by 'Local Development Frameworks' (LDFs). Section 38(6) of the Planning and Compulsory Purchase Act 2004 provides the statutory basis for Local Plans.

#### **The Planning Act 2008**

The Planning Act 2008 was granted Royal Assent on 26 November 2008. The Act introduced a new system for nationally significant infrastructure planning, alongside further reforms to the town and country planning system and the introduction of the Community Infrastructure Levy.

The Act also made further reforms to the planning system, including improving the Local Development Plan system by removing some minor procedures; adding a duty on councils to take action on climate change in their development plans; and to have regard to the desirability of achieving good design; streamlining development control procedures; making changes to the appeals process; and adding transitional powers allowing regional assemblies to delegate some planning functions to regional planning bodies.

The Act also contains enabling powers to empower local councils to apply a Community Infrastructure Levy (CIL) on new developments in their areas to support infrastructure delivery.

#### **The Localism Act 2011**

The Localism Bill was given Royal Assent on 15th November 2011. From this date it became a formal Act – the Localism Act.

The Localism Act aims to take power from central government and hand it back to local authorities and communities, giving people at the local level freedom and flexibility to achieve their own ambitions for their areas.

In summary, the Localism Act seeks to:

- Give new freedoms and flexibilities to local government
- Give new rights and powers for local communities and individuals
- Reform the planning system to make it clearer, more democratic and more effective
- Make reforms to ensure that decisions about housing are taken locally

The Localism Act is being taken forward through detailed Regulations and the National Planning Policy Framework (NPPF), which put in place the detailed guidance and procedures in support of these changes within the planning system, such as the Duty to Cooperate and Neighbourhood Planning. Some of these changes are covered in the NPPF section below.

The Localism Act contains provisions to make the planning system clearer, more democratic, and more effective. This includes:

- Abolition of regional strategies
- Duty to co-operate
- Community Right to Build/Neighbourhood Planning
- Requirement to consult communities before submitting certain planning applications
- Reforming the Community Infrastructure Levy
- Reform the way local plans are made
- Nationally significant infrastructure projects.

The Act will enable the abolishment all Regional Spatial Strategies and introduces a new 'Duty to Cooperate'. The duty requires local authorities and other public bodies to work together on planning issues. The Government has yet to formally abolish Regional Spatial Strategies and until that time the Yorkshire and Humber Plan remains part of Bradford's Statutory Development Plan.

The Act introduces the right for residential and business communities to shape their local areas through Neighbourhood Plans and Community Right to Build (CRTB) and strengthens the role of communities in development management, by introducing a new requirement for prospective developers to consult local communities before submitting planning applications for very large developments.

The Act has introduced statutory Neighbourhood Planning in England. It enables communities to draw up a Neighbourhood Plan for their area and is intended to give communities more of a say in the development of their local area. Neighbourhood Development Plans must be prepared in accordance with the statutory Planning Regulations and following a local referendum they can be adopted by the Council for them to be formally used and recognised in the planning process.

The legal regulations for the preparation of a neighbourhood plan are the Neighbourhood Planning General (Regulations) 2012 [The Neighbourhood Planning General \(Regulations\) 2012](#).

Following the statutory process, Neighbourhood Development Plans would become part of the statutory development plan (the Local Plan) and would form the basis for determining planning applications in that area. Other new tools include the Neighbourhood Development Order which would enable communities to grant planning permission for the development it wishes to see and follow a similar process to that for neighbourhood plans.

Community Right to Build is a new way for communities to deliver the development they want – be it homes, shops, businesses or facilities – where the benefits of the development will be retained by the community for the community. It is an alternative to a traditional application for planning permission.

The Act introduces changes to the Community Infrastructure Levy (CIL). It allows some of the money raised to be spent on things other than infrastructure. It will give local authorities greater freedom in setting the rate that developers should pay. The Act gives the Government the power to require that some of the money raised from the levy go directly to the neighbourhoods where development takes place.

In regards to the Development Plan process The Act reforms the way Local Plans are made by limiting the discretion of planning inspectors to insert their own wording into local plans.

The Act abolishes the Infrastructure Planning Commission and restores its responsibility for taking decisions to Government ministers. It also ensures the national policy statements, which will be used to guide decisions by ministers, can be voted on by Parliament.

A plain English guide to the Localism Act is available at:

[www.communities.gov.uk/publications/localgovernment/localismplainenglishupdate](http://www.communities.gov.uk/publications/localgovernment/localismplainenglishupdate).

## **2.2 National Planning Policy Context**

At the top of the planning policy hierarchy are the National Planning Policy Framework (NPPF) and Planning Policy Statements (PPS) which are published by the Department of Communities and Local Government (CLG). The NPPF and PPS present the Government's views on general issues relating to planning policy and how local planning authorities should interpret this strategic policy at local level. The NPPF and PPS form material planning considerations in the decision making process with respect to development plan making and development management.

### **National Planning Policy Framework**

The Government published the National Planning Policy Framework (NPPF) on 27<sup>th</sup> March 2012. The NPPF replaces previous national guidance contained in 44 separate Planning

Policy Guidance (PPG's) and Planning Policy Statements (PPS's). The supporting good practice guidance is still in place but is being reviewed by government.

The NPPF makes clear that the need for local authorities to have in place up to date development plans for their district. Development plans are now known as a 'Local Plan' which will from now on be the term used to describe the family of documents previously called the Local Development Framework (LDF).

The Council must take account of the NPPF in the plans that it is preparing to ensure that they are in accordance with national planning policies.

### Sustainable Development

The NPPF states that sustainable development can play three critical roles:

1. An **economic** role – in contributing to a strong, responsive, competitive economy;
2. A **social** role – in supporting vibrant and healthy communities; and
3. An **environmental** role - protecting and enhancing our natural, built and historic environment.

The policies in paragraphs 18 to 219 of NPPF constitute the Government's view of what sustainable development means for the planning system.

### Presumption in favour of sustainable development

At the heart of the new NPPF is the 'presumption in favour of sustainable development'.

This means that Local Plans should meet objectively assessed needs unless:

- any adverse impacts would significantly and demonstrably outweigh the benefits, when assessed against the NPPF
- specific NPPF policies indicate development should be restricted.

Plans should be based upon and reflect the presumption in favour of sustainable development with clear policies to guide how this should apply locally.

### Core Planning Principles

Planning should:

- be plan-led with local plans setting out a positive vision for the future of the area.
- be a creative exercise in finding ways to enhance and improve places.
- drive and support sustainable economic development and identify and meet the housing, business, and other development needs of an area.
- secure high quality design and a good standard of amenity for all existing and future occupants of land and buildings.
- promote the vitality of urban areas, protect the greenbelt, recognise the intrinsic character and beauty of country side and support thriving rural communities.

- support the transition to a low-carbon future, taking full account of flood risk, encourage the reuse of existing resources and use of renewable resources.
- contribute to conserving and enhancing the natural environment and reducing pollution.
- encourage the effective use of land by reusing land that has been previously developed.
- promote mixed use developments, and encourage multiple benefits from the use of land in urban and rural areas.
- conserve heritage assets in a manner appropriate to their significance.
- manage patterns of growth to make the fullest possible use of public transport, walking and cycling, and focus significant development in locations which are or can be made sustainable.
- support local strategies to improve health, social and cultural wellbeing for all, and deliver sufficient community and cultural facilities and services to meet local needs.

### Building a strong, competitive economy

The NPPF states that significant weight should be placed on the need to support economic growth. This means Local Planning Authorities (LPAs) should plan proactively to meet the development needs of business.

In drawing up Local Plans LPAs should:

- set out an economic vision and strategy, which encourages sustainable economic growth;
- set criteria, or identify strategic sites to meet anticipated needs over the plan period;
- support existing business sectors, and identify and plan for new or emerging sectors. Policies should be flexible to accommodate unanticipated needs and allow a quick response to changing economic circumstances;
- plan positively for the location/promotion/expansion of clusters or networks of knowledge driven, creative or high tech industries;
- identify priority areas for economic regeneration, infrastructure provision and environmental enhancement;
- facilitate flexible working practices.

Policies should avoid the long term protection of employment sites where there is no reasonable prospect of a site being used for employment and employment allocations should be regularly reviewed.

### Promoting competitive town centres

The NPPF states that planning policies should promote competitive town centres and manage their growth over the plan period.

The NPPF retains the sequential test for main town centre uses. An Impact assessment is required for retail, leisure and office developments (default threshold 2,500 sq m) outside of centres not in accordance with Local Plan.

LPAs should:

- Pursue policies to support viability and vitality of centres;
- define a network and hierarchy of centres;
- define the extent of centres and Primary Shopping Areas, primary/secondary frontages, and set policies on permitted uses;
- retain/enhance existing markets and, where appropriate, reintroduce or create new ones;
- allocate sites to meet need. Needs should be fully met and town centre uses not compromise by limited site availability;
- where suitable/viable town centre sites are not available, allocate appropriate edge of centre sites. If sufficient sites cannot be identified, set policies for meeting the needs in other accessible locations;
- set policies for considering proposals which cannot be accommodated in centre or edge of centre;
- set out policies to encourage residential development on appropriate sites.

#### Promoting sustainable transport

The Government recognise transport policies have an important role to play in facilitating sustainable development but also in contributing to wider sustainability and health objectives.

In preparing Local Plans LPAs should support a pattern of development which facilitates the use of sustainable modes of transport. Plans should ensure developments that generate significant movement are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised taking account of other NPPF policies.

Plans should take account of whether:

- the opportunities for sustainable transport modes have been taken up to reduce the need for major transport infrastructure;
- safe and suitable access to sites can be achieved for all people; and
- improvements can be undertaken that cost effectively limit significant impacts. LPAs should only be prevent development on transport grounds where the residual cumulative impacts of development are severe.

Plans should protect and exploit opportunities for using sustainable transport modes. Developments should be located to:

- accommodate the efficient delivery of goods and supplies;
- give priority to pedestrian and cycle movements and have access to high quality public transport;
- create safe and secure layouts;
- consider the needs of people with disabilities.

Policies should aim for a balance of land uses within their area to minimise journey lengths. For larger scale residential developments, policies should promote a mix of uses to provide opportunities to undertake day-to-day activities, including work, on site. Where practical, key facilities (schools/local shops) should be located within walking distance of most properties.

LPAs can set local parking standards and should seek to improve the quality of parking in town centres. LPAs should identify and protect sites and routes critical in developing infrastructure.

### Delivering a wide choice of high quality homes

The NPPF sets out how LPAs should boost significantly the supply of housing.

LPAs should ensure the Local Plan meets the full housing needs, as far as is consistent with the NPPF and identify key sites critical to delivery of the over the plan period;

A Strategic Housing Land Availability Assessment is required by the NPPF to establish assumptions on availability, suitability and viability of housing land. LPAs should set out their own approach to housing density to reflect local circumstances.

LPAs should plan for a mix of housing based on current and future demographic trends, market trends and the needs of different groups in the community, identify the size, type, tenure and range of housing that is required and where an affordable housing is need is identified, set policies for meeting this need.

LPAs should:

- Set policies for meeting affordable housing need on site. Policies should be flexible to take account of changing market conditions over time.
- Identify and bring back into residential use empty properties.
- Set out approach to housing density to reflect local circumstances.

The NPPF makes reference to Garden Cities principles and large scale urban extensions/new settlements for meeting housing supply. Working with the support of their communities, LPAs should consider whether such opportunities provide the best way of achieving sustainable development.

### Requiring good design

The NPPF attaches great importance to the design of the built environment. Good design is a key aspect of sustainable development.

Local and Neighbourhood Plans should develop robust and comprehensive policies that set out the quality of development expected for the area.

The NPPF lists the aims for design policies. These include ensuring places function well over their lifetime, optimise the potential of sites to accommodate development, respond to local character and create safe and accessible new environments.

Policies should not attempt to impose styles or tastes or stifle innovation/originality/initiative through unsubstantiated requirements to conform to certain forms/styles. It is proper to promote or reinforce local distinctiveness. Policies should address the connections and the integration of new development into the natural, built and historic environment.

### Promoting healthy communities

LPAs should aim to involve all sections of the community in the development of Local Plans and in planning decisions and facilitate neighbourhood planning.

Policies, should aim to achieve places which promote:

- mixed-use developments, strong neighbourhood centres and active street frontages;
- safe and accessible environments and developments.

Planning policies should:

- plan positively for shared space, community facilities and local services;
- guard against unnecessary loss of valued facilities and services;
- ensure established shops/facilities/services are able to develop and modernise in a sustainable way, and are retained for the benefit of the community;
- ensure an integrated approach to considering the location of housing, economic uses and community facilities/services.

LPAs should take a proactive, positive and collaborative approach to ensuring that a sufficient choice of school places is available to meet the needs of existing and new communities, and to development that will widen choice in education.

Existing open space/sports/recreational buildings/land, should not be built on unless:

- an assessment has been undertaken which has clearly shown the open space/buildings/land to be surplus to requirements; or
- the loss would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or
- the development is for alternative sports and recreational provision, the needs for which clearly outweigh the loss.

### Protecting Green Belt land

The Government attaches great importance to Green Belts. The NPPF sets out the fundamental aim and essential character of Green Belts and its five purposes.

## Meeting the challenge of climate change, flooding and coastal change

LPAs should adopt proactive strategies to mitigate and adapt to climate change. LPAs should:

- plan for new development in locations and ways which reduce greenhouse gas emissions;
- support energy efficiency improvements to existing buildings; and
- when setting any local requirements, be consistent with the Government's zero carbon buildings policy and adopt nationally described standards;
- have a strategy that promotes renewable/low carbon energy;
- design policies to maximise renewable/low carbon energy development, ensuring adverse impacts are addressed;
- consider identifying suitable areas for renewable/low carbon energy sources and supporting infrastructure;
- support community-led initiatives for renewable/low carbon energy;
- identify opportunities for decentralised/renewable/low carbon energy supply systems and for co-locating potential heat customers and suppliers.

Local Plans should take account the impact of climate change over the longer term. New development should be planned to avoid increased vulnerability to climate change impacts. Risks of vulnerable new development should be managed through suitable adaptation measures, including planning of green infrastructure.

Inappropriate development in areas at risk of flooding should be avoided. Where development is necessary, make it safe without increasing flood risk elsewhere. Local Plans should develop policies to manage flood risk from all sources.

Local Plans should apply a sequential, risk-based approach to the location of development by:

- applying the Sequential Test;
- if necessary, applying the Exception Test;
- safeguarding land required for current and future flood management;
- using opportunities offered by new development to reduce the causes and impacts of flooding;
- where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seek opportunities relocate development to more sustainable locations.

Development should not be allocated if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding.

If, following the Sequential Test, its not possible, for the development to be located in zones with a lower probability of flooding, the Exception Test can be applied. To pass:

- it must be demonstrated that the development provides wider sustainability benefits that outweigh flood risk,

- a site-specific flood risk assessment must demonstrate development will be safe for its lifetime, not increase flood risk elsewhere, and, where possible, reduce flood risk overall. Both elements of the test will have to be passed for development to be allocated

### Conserving and enhancing the natural environment

The NPPF states that the planning system should contribute to and enhance the natural and local environment.

Aims of the planning system include:

- protect and enhance valued landscapes, geological conservation interests and soils;
- recognise the wider benefits of ecosystems;
- minimise impacts on biodiversity and provide net gains where possible;
- prevent development from contributing to/put at unacceptable risk from/being adversely affected by unacceptable levels of soil/air/water/noise pollution or land instability;
- remediate and mitigate despoiled, degraded, derelict, contaminated and unstable land.

In preparing plans, the aim should be to minimise pollution and other adverse effects on the local and natural environment. Plans should allocate land with the least environmental or amenity value, where consistent NPPF.

Policies should encourage the effective use of land by re-using Previously Developed Land, provided it's not of high environmental value. LPAs may continue to set an appropriate local brownfield target. LPAs should seek to use areas of poorer quality agricultural land in preference to higher quality.

LPAs should set criteria based policies against which proposals affecting protected wildlife/geodiversity sites/landscape areas will be judged. Distinctions should be made between international, national and locally designated sites, so protection is commensurate with their status.

LPAs should set out a strategic approach in Local Plans, for networks of biodiversity and green infrastructure. Great weight should be given to conserving landscape and scenic beauty in AONBs.

Planning policies should:

- plan for biodiversity at a landscape-scale across LA boundaries;
- identify and map local ecological networks
- promote the preservation/restoration/re-creation of priority habitats/ecological networks and the protection/recovery of priority species, linked to national and local targets. Identify suitable indicators for monitoring biodiversity in the plan;
- aim to prevent harm to geological conservation interests;

- where Nature Improvement Areas are identified in Local Plans, consider specifying appropriate development in these areas.

To prevent unacceptable risks from pollution and land instability, policies should ensure new development is appropriate for its location.

Policies should ensure that:

- the site is suitable for its new use taking account of ground conditions and land instability,
- after remediation, as a minimum, land should not be capable of being determined as contaminated.

Planning policies should comply with and contribute towards EU/national limits or objectives for pollutants, taking into account the presence of AQMAs and the cumulative impacts on air quality from individual sites in local areas.

LPAs should set out in the Local Plan a positive strategy for the conservation and enjoyment of the historic environment. NPPF sets out in paragraph 126 requirements for developing this strategy.

#### Facilitating the sustainable use of minerals

The NPPF sets out minerals planning requirements for LPAs preparing a Plan. LPAs should:

- include policies for mineral extraction in their area;
- take account of the contribution of substitute/secondary/recycled materials and minerals waste to the supply, before considering extraction of primary materials;
- define Minerals Safeguarding Areas and define Minerals Consultation Areas based on these Minerals Safeguarding Areas;
- set out policies to encourage the prior extraction of minerals, if necessary for non-mineral development to take place;
- set out environmental criteria, in line with the NPPF, against which planning applications will be assessed;
- put in place policies to ensure worked land is reclaimed at the earliest opportunity.

The NPPF sets out detailed requirements for Mineral Planning Authorities in planning for supply of aggregates and industrial minerals

#### Plan-making Local Plans

The NPPF states that Local Plans are the key to delivering sustainable development that reflects the vision and aspirations of local communities. Local Plans must be prepared with the objective of contributing to the achievement of sustainable development. They should be consistent with the principles and policies set out in NPPF.

LPAs should seek opportunities to achieve each of the dimensions of sustainable development, and net gains across all three. Significant adverse impacts on these

dimensions should be avoided and, where possible, alternative options which reduce or eliminate such impacts should be pursued.

Each LPA should produce a Local Plan for its area. This can be reviewed in whole or in part to respond flexibly to changing circumstances. Additional DPDs should be used only where clearly justified. SPDs should be used to help applicants make successful applications or aid infrastructure delivery, and should not be used to add unnecessarily to financial burdens on development.

Local Plans should be aspirational but realistic and address the spatial implications of economic/social/environmental change. Local Plans should set out the opportunities for development and have clear policies on what will/will not be permitted and where.

Early and meaningful engagement is essential. A wide section of the community should be proactively engaged, so that Local Plans, as far as possible, reflect a collective vision and a set of agreed priorities, including neighbourhood plans.

LPAs should set out strategic priorities in the Local Plan to deliver:

- the homes and jobs needed;
- the provision of retail, leisure and commercial development;
- the provision of infrastructure, minerals and energy;
- the provision of community infrastructure and local facilities; and
- climate change mitigation and adaptation and conservation/enhancement of the natural and historic environment

Crucially, Local Plans should:

- plan positively for the development and infrastructure required to meet the objectives and policies of the NPPF;
- cover an appropriate time scale, preferably a 15-years, take account of longer term requirements, and be kept up to date;
- be based on co-operation with neighbouring authorities/public/private sector organisations;
- indicate broad locations for strategic development on a key diagram and land-use designations on a proposals map;
- allocate sites, bring forward new land where necessary and provide detail on form/scale/access/quantum of development where appropriate;
- identify areas where it may be necessary to limit freedom to change the uses of buildings;
- identify land where development would be inappropriate, for instance because of its environmental or historic significance; and
- contain a clear strategy for enhancing the natural, built and historic environment, and supporting Nature Improvement Areas where identified.

## Using a proportionate evidence base

LPAs should ensure the Local Plan is based on adequate/up-to-date/relevant evidence.

LPAs should have a clear understanding of business needs across their area. They should:

- work with neighbouring LAs and LEPS to prepare and maintain a robust evidence base to understand existing and future business needs.
- work closely with the business community to understand changing needs and identify and address barriers to investment.

LPAs should have a clear understanding of housing needs in their area. LPAs are required to produce a SHMA to assess needs and SHLAA to assess land availability.

- The SHMA should identify the scale, mix and range of tenures needed over the plan period which:
  - meets household and population projections, taking account of migration and demographic change;
  - addresses the need for all types of housing, and of different groups in the community; and caters for demand and the scale of supply necessary to meet this;
- prepare a SHLAA to establish realistic assumptions about the availability, suitability and the likely economic viability of land to meet the identified housing need.

LPAs should use this evidence base to assess:

- the needs for land/floorspace for economic development, including the quantitative and qualitative needs for all types of employment use over the plan period;
- the existing and future supply of land and its suitability to meet identified needs. Reviews of ELR should be undertaken or combined with SHLAAs;
- the role and function of town centres;
- the capacity of existing centres to accommodate development;
- locations of deprivation which may benefit from planned action;
- the needs of the food production industry and any planning barriers to investment.

Environment policies should be based on up-to-date information, including an assessment of existing and potential components of ecological networks. A SA should be an integral part of the plan preparation process, and should consider all the likely significant effects on the environment, economic and social factors. Local Plans may require other environmental assessments, including under the Habitats Regulations, SFRA and assessments of the physical constraints on land use. Where possible, assessments should share evidence base and be conducted over similar timescales.

The NPPF requires careful attention to viability and costs in plan-making. Sites and future development should not be subject to obligations and policy burdens which threatens their ability to be developed viably. The costs of any requirements should, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable.

LPAs should assess the likely cumulative impacts of all existing and proposed local/nationally required standards, SPDs and policies. The cumulative impact of these should not put implementation of the plan at serious risk, and should facilitate development throughout the economic cycle. Evidence supporting the assessment should be proportionate, using only appropriate available evidence.

Where practical, CIL charges should be worked up and tested alongside the Local Plan. The CIL should support and incentivise new development and place control of a meaningful proportion of the funds raised with neighbourhoods.

### Planning strategically across local boundaries

The NPPF sets out a 'Duty to co-operate' on planning issues that cross administrative boundaries, particularly those which relate to the strategic priorities.

LPAs should work collaboratively to ensure strategic priorities across local boundaries are properly coordinated.

LPAs should work collaboratively on strategic planning priorities to enable delivery of sustainable development in consultation with LEPs and Local Nature Partnerships. LPAs should also work collaboratively with private sector bodies, utility and infrastructure providers.

### Examining local plans

The NPPF outlines soundness requirements:

- Positively prepared – the Plan meets objectively assessed development and infrastructure requirements;
- Justified – the Plan should be the most appropriate strategy, when considered against the reasonable alternatives, based on proportionate evidence;
- Effective – the plan should be deliverable and based on effective joint working on cross-boundary strategic priorities; and
- Consistent with national policy – the plan should enable the delivery of sustainable development in accordance with the NPPF

### Implementation

The NPPF strengthens local decisions making and reinforces the importance of up to date plans. The NPPF must be taken into account in preparing plans.

Due weight should be given to relevant policies in existing plans according to their degree of consistency with NPPF (the closer the policies in the plan to the policies in the NPPF, the greater the weight that may be given).

Weight may also given to relevant policies in emerging plans according to:

- the stage of preparation;

- the extent to which there are unresolved objections
- the degree of consistency of policies to the NPPF

The NPPF lists all documents it has replaced in Annex 3

<http://www.communities.gov.uk/planningandbuilding/planningsystem/planningpolicy/planningpolicyframework/>

### **PPS10: Planning for Sustainable Waste Management (21st July 2005)**

PPS 10 sets out the Government's policy to be taken into account by waste planning authorities and forms part of the national waste management plan for the UK.

Paragraph 3 states that all planning authorities must help deliver sustainable development through driving waste management up the waste hierarchy, addressing waste as a resource and looking to disposal as the last option, but one which must be adequately catered for;

- provide a framework in which communities take more responsibility for their own waste, and enable sufficient and timely provision of waste management facilities to meet the needs of their communities;
- help implement the national waste strategy, and supporting targets, are consistent with obligations required under European legislation and support and complement other guidance and legal controls such as those set out in the Waste Management Licensing Regulations 1994;
- help secure the recovery or disposal of waste without endangering human health and without harming the environment, and enable waste to be disposed of in one of the nearest appropriate installations;
- reflect the concerns and interests of communities, the needs of waste collection authorities, waste disposal authorities and business, and encourage competitiveness;
- protect green belts but recognise the particular locational needs of some types of waste management facilities when defining detailed green belt boundaries and, in determining planning applications, that these locational needs, together with the wider environmental and economic benefits of sustainable waste management, are material considerations that should be given significant weight in determining whether proposals should be given planning permission;
- ensure the design and layout of new development supports sustainable waste management.

### **Planning Policy for Travelers sites**

The document sets out the Government's planning policy for traveller sites. It covers both gypsies and travellers and travelling showpeople and should be read in conjunction with the NPPF.

The new Planning Policy for Traveller Sites replaces two previous traveller planning circulars (Circular 01/2006: *Planning for Gypsy and Traveller Caravan Sites* and Circular 04/2007: *Planning for Travelling Showpeople*).

LPA's should:

- make their own assessment of need for the purposes of planning;
- identify land for sites to meet this need;
- plan for sites over a reasonable timescale;
- protect Green Belt from inappropriate development;
- promote more private traveller site provision;
- reduce the number of unauthorised developments and encampments and make enforcement more effective;
- increase the number of sites in appropriate locations to address under provision and maintain an appropriate level of supply;
- ensure provision of suitable accommodation from which travellers can access education, health, welfare, and employment infrastructure

For plan making LPA's should:

- set pitch targets for gypsies and travellers and plot targets for travelling showpeople which address the needs of travellers in their area;
- identify and update annually five years' worth of sites against local targets;
- identify a supply of developable sites or broad locations for growth, for years six to ten and, where possible, for years 11-15;
- consider production of joint development plans that set targets on a cross-authority basis;
- set criteria policies to guide allocations where there is identified need;
- ensure that traveller sites are sustainable economically, socially and environmentally;
- where there is a lack of affordable land to meet local traveller needs LPA's should consider allocating rural exception sites solely for affordable traveller sites.
- Developments in rural areas should not be of a scale which would dominate the nearest settled community.
- Mixed use sites should be considered including for travelling show people who require mixed use yards comprising residential and use and equipment storage.

LPA's should ensure that their policies:

- promote peaceful and integrated co-existence between the site and the local community;
- promote access to health services and ensure children can attend school on a regular basis;
- provide for proper consideration of the effect of local environmental quality (such as noise and air quality) on the health and well being of any travellers that may locate there;

- do not locate sites in areas of high flood risk;
- reflect the extent to which traditional lifestyles (whereby some travellers live and work from the same location thereby omitting travel to work journeys) can contribute to sustainability;

## **Technical Guidance to the National Planning Policy Framework**

This document provides additional guidance to local planning authorities to ensure the effective implementation of the planning policy set out in the NPPF on development in areas at risk of flooding and in relation to mineral extraction.

This guidance retains key elements of Planning Policy Statement 25 and of the existing minerals policy statements and minerals planning guidance notes which are considered necessary and helpful in relation to these policy areas. The retention of this guidance is an interim measure pending a wider review of guidance to support planning policy.

<http://www.communities.gov.uk/publications/planningandbuilding/nppftechnicalguidance>

### **2.3 Regional Planning Context**

The regional and sub-regional policy context is set out in:

- The Regional Economic Strategy for Yorkshire and the Humber
- The Regional Housing strategy for Yorkshire and the Humber
- The West Yorkshire Local Transport Plan
- Leeds City Region Development Programme

#### **The Regional Economic Strategy (RES) 2006-2015**

The Regional Economic Strategy (RES) 2006-2015 provides the 10 year blueprint for economic development in Yorkshire and the Humber. It provides a framework of common priorities around which businesses, public agencies, voluntary groups and communities can focus their investment and effort. The strategy is owned, and can only be delivered, by the whole region.

The Strategy's six objectives are:

1. More Businesses that last – because higher levels of enterprise are so important
2. Competitive Businesses – making indigenous businesses more productive because they innovate and invest
3. Skilled People benefiting business – with talents that employers value and which offer due reward
4. Connecting People to good jobs – because levels of employment make a big difference to people and the economy, and we need more people in jobs in deprived areas.

5. Transport, Infrastructure and Environment – a strong economy needs good sustainable transport connections and to make the best of the environment and infrastructure
6. Stronger Cities, Towns and Rural Communities – to ensure they are attractive places to live, work and invest

In accordance with government policy, all Regional Development Agencies (RDAs) closed on 31 March 2012 and were abolished on 1 July 2012. Archive information for Yorkshire Forward can be found at the following Department of Innovation and Skills website:

<http://www.bis.gov.uk/policies/economic-development/regional-support/rda-archive>

Following the abolishment of the RDAs the Regional Economic Intelligence Unit (REIU) was established to ensure a coordinated approach to the use of key intelligence resources (such as the Regional Econometric Model).

The objectives of the unit are to:

- Support the work of Local Enterprise Partnerships (LEPs) across Yorkshire and Humber
- Work closely with local authorities in analysing, monitoring and evaluating their local economic areas
- Work with the public and private sectors in the economic appraisal of potential investment projects
- Provide bespoke economic advice and evidence

Further information can be found at:

[http://www.leeds.gov.uk/Business/Pages/Regional-Economic-Intelligence-Unit-\(REIU\).aspx](http://www.leeds.gov.uk/Business/Pages/Regional-Economic-Intelligence-Unit-(REIU).aspx)

### **Regional Housing Strategy 2005- 2021**

The Regional Housing Board was responsible for producing a Regional Housing Strategy as the basis of advice to ministers on strategic housing priorities in the region. The Regional Housing Strategy sits within the context of the region's strategic framework, Advancing Together, and is consistent with other key strategies, such as the Regional Economic Strategy, the Regional Spatial Strategy and the Northern Way Growth Strategy. Regional Housing Strategies must also align with national priorities and strategies and Ministerial requirements.

The Regional Housing Strategy has 3 main purposes:-

- To influence regional, sub-regional and local strategies across a range of housing priorities such as delivery of affordable housing, energy efficiency, fuel poverty, sustainable design and construction, and fair access to housing policies.
- To set out regional housing priorities to steer the use of the accompanying regional investment strategy and its single housing pot
- To steer wider investment towards integrated housing, economic and social activity

On 31 March 2009, the Assembly closed. The work of the Assembly will be taken forward by Local Government Yorkshire and Humber.

Further information can be found on the Local Government Yorkshire website: [www.lgyh.gov.uk](http://www.lgyh.gov.uk)

## 2.4 Sub-Regional Planning Context

### Leeds City Region

Leeds City Region comprises the 10 local authority districts of Barnsley, Bradford, Calderdale, Craven, Harrogate, Kirklees, Leeds, Selby, Wakefield, and York, which reflects the true area of how the economy of Leeds and the other cities, towns and rural areas in the city region functions; for example, 95% of people who live in the city region also work in the city region.

A City Region Partnership comprising the councils of each of the 10 districts, plus North Yorkshire County Council (which has strategic responsibilities in three of the districts), was set up in 2004, and since then have been working together to look at how policy and delivery at this broad area level can be changed to improve economic growth and competitiveness. On the 1st April 2007 the Partnership became the City Region Leaders' Board, which is constituted as a Joint Committee. The Board comprises of the Leaders of each of the eleven constituent authorities, and has the remit of 'Promoting the economic wellbeing of the Leeds City Region.'

Figure 2a: Bradford in the Leeds City Region



Source: Core Strategy FED

The Board will provide the political accountability and 'voice' of the City Region. The City Region Development Programme (CRDP) November 2006 has been prepared and agreed by the 11 councils and is essentially the economic plan for the city region, focussed on areas where we can add value and deliver our Vision for the city region which is to 'Develop an internationally recognised city region; to raise our economic performance; to spread prosperity across the whole of our city region, and to promote a better quality of life for all of those who live and work here.' This second iteration of the CRDP builds on a 2005 document, but provides a more robust and evidence-based programme for prioritising policy and programmes that will accelerate economic growth in the Leeds City Region.

The CRDP puts forward a growth scenario to achieve 4% per annum growth in GVA per capita across the city region over the coming ten years. This growth rate would be sufficient to close the productivity gap with the England average over the same time period and contribute to the Northern Way's aim to close the £30 billion gap in the North. This would create around 150,000 net new jobs and result in a £21.5 billion increase in GVA across the city region over the ten year period.

The financial and business services sector is identified as the key industry that will drive the city region's economic growth and competitiveness over the next 10 years. Future economic growth will not be driven solely by the City of Leeds and therefore a key element of the CRDP is to ensure that the city region has a 21st Century transport infrastructure that supports stronger links around the city region, particularly between growth locations and to rural hinterlands.

Realising a stronger and more competitive economy that will benefit all areas within the city region will require co-ordinated and complementary action from all partners and stakeholders within the city region as well as the support of Government in helping address barriers to growth. Only then can the full economic potential of the Leeds City Region be realised and the benefits felt throughout.

Priorities and Objectives of the Leeds City Region are to:-

- Improve city regional, inter-region and international connectivity
- Encourage a culture of innovation in both individuals and businesses in enterprise, science and greater knowledge transfer
- Encourage and support the development of higher and more relevant skills in the workforce
- Accelerate the development of a world-class infrastructure within which all businesses innovate and can thrive
- Enhance and promote the City Region as a place to live and work

Recently, the Leeds City Region established its business-led board (Local Enterprise Partnership Board), to work alongside the Leaders Board in order to effectively address the city region's economic challenges.

With the impending revocation of the RSS the Partnership has a key role to play in strategic alignment and delivery. A first step towards this was in the adoption by the Leaders Board of

the Leeds City Region Interim Strategy Statement. This statement reaffirms the commitment of the 11 authorities to the key principles of RSS in developing their Local Plans.

### Leeds City Region Urban Eco Settlement Programme

The Bradford-Shipley Canal Road Corridor was identified by the Leeds City Region Partnership in 2008 as one of four Urban Eco Settlements in the Leeds City Region.

The Urban Eco Settlement programme aims to deliver Eco Town standards across the city region, with the focus on major urban growth and regeneration areas. The programme focused on four major brownfield regeneration areas located within key existing centres of housing and economic growth:

- Aire Valley Leeds
- Bradford-Shipley Canal Corridor
- York Northwest
- North Kirklees/South Dewsbury

The Programme of Development will enable the City Region to accelerate housing delivery and to address the following objectives:

- Providing the right housing offer to help sustain economic growth; and
- Creating a step change in the provision of affordable homes
- Meeting sustainability and environmental challenges
- Assisting regeneration of existing settlements.

The vision for the Bradford-Shipley Canal Road Corridor is *“to deliver a ‘great place’ consisting of a series of vibrant and diverse new sustainable settlements that will provide a quality environment for local people to live, work and thrive and to which new residents will want to move whilst significantly contributing to Bradford’s role as a key regional economic driver”*.

The Bradford-Shipley Canal Road Corridor Urban Eco Settlement looks to deliver improved connectivity and quality of place in an area which spans the existing urban centres of Bradford and Shipley. It will provide:

- improved access to walking and cycling opportunities through a new Sustrans cycle route;
- major transport improvements including a re-aligned and improved Canal Road, Shipley Eastern Link Road and a new railway station at Manningham;
- new education facilities for Shipley College;
- flood alleviation measures throughout the UES and making space for water;
- a high quality green corridor alongside a re-instated Bradford Canal;
- social and community infrastructure to complement new and improved residential areas; and
- over 40 hectares of developable brownfield land.

Sustainable development proposals will deliver a high quality of place and residential offer, with development to at least Code Level 4, changing perceptions and raising aspirations that will seek to be replicated across the city and elsewhere. Bradford-ShIPLEY Canal Road Corridor will link green infrastructure improvements with open space provision, make space for water, enhance biodiversity and provide walking and a new Sustrans cycle network to promote and encourage healthy lifestyles

The programme points out that the early delivery of Crag Road (incorporating 500 homes) will provide the stimulus for the development of the whole corridor and will help to strengthen connectivity through its direct relationship with ShIPLEY station and ShIPLEY town centre. It will provide the first of a number of Communities along the corridor that will be linked by the highest standards of sustainable transport infrastructure, and help demonstrate the potential for behavioural change in relation to sustainable movement.

A joint study with the Government, [Urban Eco Settlements Deliverability Assessment](#), investigating the delivery potential of each of the proposed four UES locations was completed in January 2009.

The study concluded that all four locations have significant potential for creating new urban eco communities in major regeneration priority areas, and each has the potential to achieve early progress and outcomes over the next two years.

For the Bradford-ShIPLEY Canal Road Corridor the study highlighted that in the short to medium term further work is required to establish a compelling vision for the area, to assemble and treat sites, prepare planning guidance and procure development partners. Consequently it recommends that funding is allocated to progress a programme of visioning, feasibility and physical enabling works to unlock sites with early delivery potential.

Further details of the Urban Eco Settlement Programme and studies can be found here: <http://www.leedscityregion.gov.uk/ues.htm>

### **Leeds City Region Green Infrastructure Strategy**

The Leeds City Region Green Infrastructure Strategy was published in 2010 and seeks to guide environmental investment to underpin economic vitality and environmental health. It is built on the following vision:

*“Green infrastructure will shape the future economic, social and environmental success of the Leeds City Region by harnessing the potential of existing environmental resources to promote sustainable economic growth and to tackle climate change.”*

The strategy seeks to:

- identify the value of green infrastructure assets and reinforce and promote the compelling case for investing in them;

- establish the current priorities for green infrastructure investment at the city region level;
- complement national and pan regional efforts to make the most positive use of our current and potential green infrastructure;
- identify the existing green infrastructure assets and partnership strengths on which the strategy will build;
- set out existing and potential mechanisms to finance ambitious green infrastructure investment priorities

The Bradford Shipley Canal Road Corridor Urban Eco-Settlement is identified as a green infrastructure growth area. This settlement will deliver 5,000 homes, 1,500 retro-fitted homes and create 5,900 jobs. The goal is to create a “series of vibrant and diverse new sustainable settlements ... linking the existing urban and economic centres of Bradford and Shipley”. It envisages “the landscape between the settlements will be important, and that is likely to not just include the corridor itself” and includes ambitions for new walking and cycle routes, new open spaces, enhanced biodiversity and remediation of brownfield land.

Green infrastructure planning will therefore be undertaken for each Growth Area to influence the design process by:

- establishing aims and objectives for how green infrastructure should form part of the future development proposition;
- locating and describing all known existing green infrastructure features on site(s),
- explaining how green infrastructure assets should relate to other infrastructures, e.g. SUDS and renewable energy;
- proposing and locating key green infrastructure functions on site or offsite, using the opportunity to co-ordinate actions across a range of sites to ensure all sites benefit;
- identifying areas of green infrastructure which should be created or enhanced and areas which may be lost and why; and
- set out the criteria of protection that may be afforded to each typology of green infrastructure.

Further information can be found here: <http://www.leedscityregion.gov.uk/gi.htm>

### **West Yorkshire Local Transport Plan (LTP3): MyJourney West Yorkshire**

MyJourney West Yorkshire is a new 15-year Local Transport Plan (LTP). The West Yorkshire LTP is the statutory plan for transport in West Yorkshire and sets out the needs, objectives, ambitions and strategy over the medium to long term as well as detailed spending proposals in its first three years. LTP3 will be delivered through 3 year Local Implementation Plans.

The objectives of the Plan are:

1. To improve connectivity to support economic activity and growth in West Yorkshire and the Leeds City Region.

1. To make substantial progress towards a low carbon, sustainable transport system for West Yorkshire, while recognising transport's contribution to national carbon reduction plans.
2. To enhance the quality of life of people living in, working in and visiting West Yorkshire.

The LTP continues to be seen by DfT as a key means of pulling together long term transport aims and the delivery plan for achieving these within a local area and relevant adjoining areas and setting this within the wider corporate agenda. Continuing to deliver on LTP2 objectives and establishing well thought out proposals under LTP3 will be critical to achieving aspirations for transport infrastructure.

For more information see: <http://www.wyltp.com/getinvolved/>

## **2.5 Local Policy Context**

### **Replacement Unitary Development Plan 2005**

The Replacement Unitary Development Plan (RUDP) is the statutory Development Plan that the Council has produced to fulfil its obligations under the 1990 Planning Act.

The Development Plan is a land use strategy for the Bradford District and is the prime consideration when the Council makes decisions on planning applications. It includes policies to guide development and proposals for the use of land to ensure that the needs of the District's population for homes, jobs, shopping, recreation and other facilities can be met. The Replacement Unitary Development Plan (RUDP) for the Bradford District was adopted by the Council on the 18th of October 2005.

#### *RUDP Saved Policies: October 2008*

Under Government legislation relating to the transition between the old UDP system and the LDF system, the RUDP policies were 'saved' for 3 years. The Council has received a Direction from the Secretary of State which now saves the vast majority of RUDP policies beyond this 3 year period. The direction letter and schedule indicates which RUDP policies are still saved and therefore still form part of the statutory Development Plan for Bradford.

The key objectives of the RDP are:

- To maximise the potential for the built up areas to meet the development needs of the District.
- To promote the conservation and improvement of the built and natural environment.
- Improve the quality of the built environment through a high standard of design in buildings, streets, public spaces and neighbourhoods, which respects local distinctiveness.
- To ensure the provision of adequate housing and community facilities to meet the districts needs.
- To help promote economic success.

- To provide a location strategy for accommodating development and ensuring environmental protection in a way which promotes access to services and minimises dependence on the private car.
- To manage the use of the District's natural and renewable resources including energy efficiently and with care.
- To help ensure pollution and waste are minimised and managed efficiently.

The RUDP promotes the following settlement hierarchy:-

- First priority to locating development within the Main Urban Area of Bradford / Shipley / Baildon;
- Second priority is to meet development needs through the reuse of suitable previously developed land and buildings within the urban areas of Keighley, Ilkley, Bingley and Queensbury;
- Next is extensions to the above urban areas which provide integration of uses such as transport, housing and industry, starting with the Main Urban Area;
- Then locating development at Menston, Burley, Steeton and Thornton which are considered to be nodes in good quality public transport corridors
- Finally development to meet local needs in the less well located smaller settlements, which are predominantly in the rural parts of the District.

With regard to the Hierarchy of Retail Centres, Bradford City Centre is at the top of the hierarchy as a city centre followed by Keighley, Ilkley, Shipley and Bingley as Town Centres, and then by District and Local Centres.

### **The Core Strategy**

The Core Strategy is one of the key documents that will part of the emerging Local Plan for Bradford. It will:

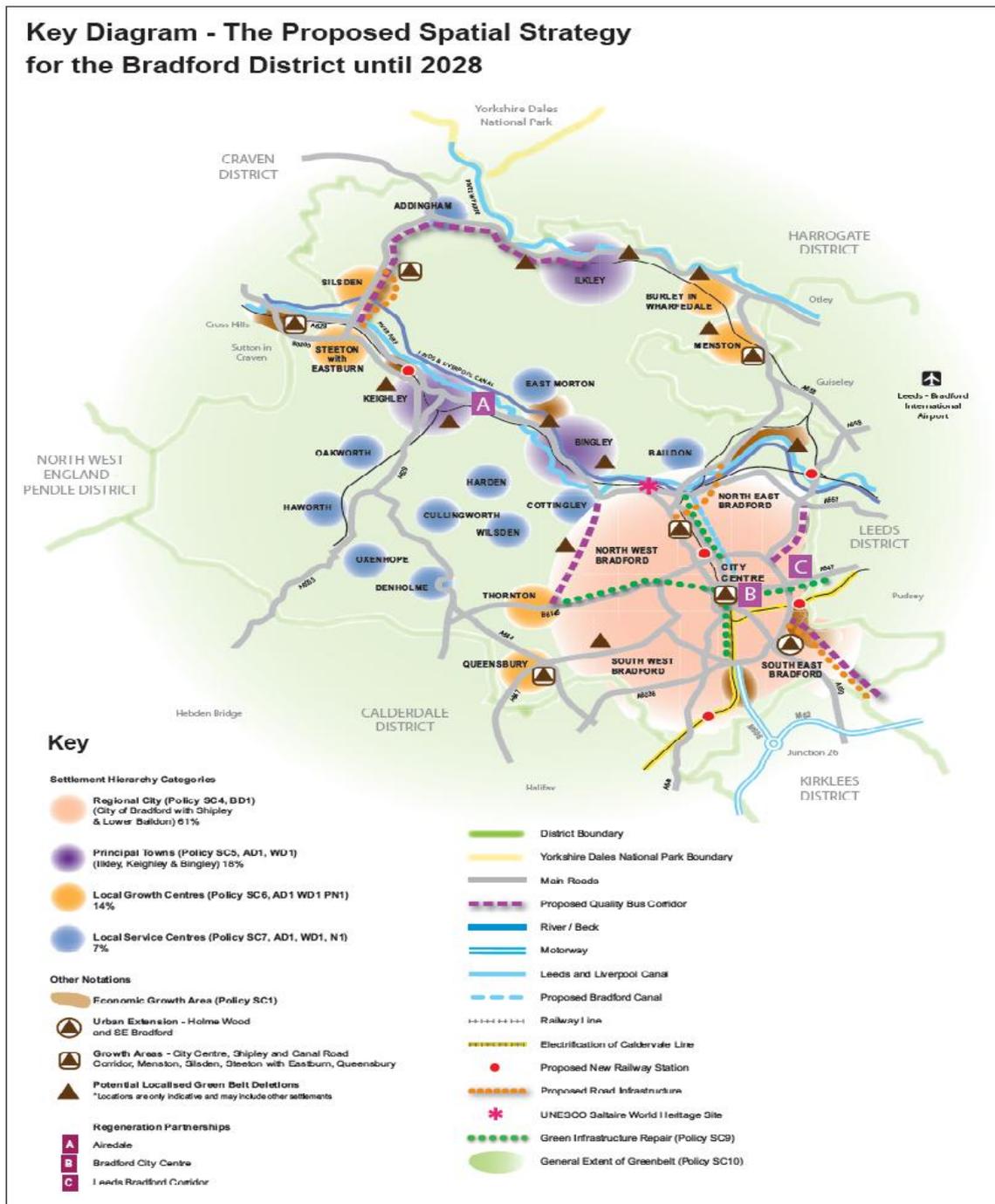
- Set out the broad aims and objectives for sustainable development in the District for the next 15-20 years until 2030;
- Set out broad policies for steering and shaping development within the district;
- Set out the broad locations for new housing, employment and infrastructure investment; and
- Take account of national and regional policy and the Council's aims as set out in the Sustainable Community Strategy.

The Core Strategy is currently at the Publication (draft) Stage and has yet to be subject to an Examination in Public or adopted by the council.

The Core Strategy sets out a locally defined settlement strategy and places particular emphasis on the importance of promoting the delivery of new infrastructure in tandem with development to enable regeneration and growth to be delivered across the district.

The Core Strategy Key Diagram illustrates how the Spatial Strategy will be applied across the district.

**Figure 2b : Core Strategy Key Diagram**



Source: Core Strategy Further Engagement Draft, 2011

The Vision set out in the Core Strategy for the Bradford District states that

*“By 2028 the Bradford District has become a key driver of the Leeds City Region’s economy and a much sought after and desirable location where people want to live, do business, shop and spend their leisure and recreation time. The district has demonstrated that it is a place that encourages sustainable lifestyle choices and responds positively to the challenge of climate change.*

*The growth of the City of Bradford and the towns along Airedale and Wharfedale has been supported by a significant increase in the delivery of new houses, both market and affordable. This growth has driven the economic and social transformation of the district. Sustainable development and management has been at heart of this growth and prosperity over the last 20 years. The District’s unique landscapes, heritage and biodiversity assets have played a vital role in making great places that encapsulates what makes Bradford so special.*

*Economic transformation of the district has been achieved by building on Bradford’s key strengths of its unique young, growing and international workforce as well as its culture of entrepreneurship, high quality places where businesses can thrive and its rich historic and cultural identity.’<sup>2</sup>*

This vision has been derived from the challenges, issues, opportunities and aspirations expressed in the Big Plan, other regional and local plans and strategies and consultations during the development stages of the Core Strategy.

The vision reinforces the role for Bradford as a key driver at the heart of a successful and growing Leeds City Region, driving the economic and social transformation of the district through sustainable growth and development.

Central to the strategy is the rejuvenation of the city centre and the delivery of the council’s key regeneration priorities including Airedale, Mannigham and the Shipley and Canal Road Corridor.

The Core Strategy Publication Draft set out that approximately 42,100 new homes will have to be built in the district between 2013 and 2030, to meet the needs of the growing population and the increase in household formation. Similarly, during this period, there will be significant economic growth linked to this population increase, which will result in further development of employment, retail, education, leisure and ancillary uses.

### **The Bradford City Centre Area Action Plan (BCCAAP)**

The Bradford City Centre Area Action Plan (BCCAAP) will set out the strategy, spatial plan and policies for directing and guiding regeneration in the City Centre. The Plan will help :-

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<sup>2</sup> CBMDC (2011) *Core Strategy Further Engagement Draft*. CBMDC.

- Deliver proposed growth of the city centre over next 15 years (as established in the Local Plan – Core Strategy) through series of development proposal statements and planning policies.
- Prepare up to date development plan with a catalogue of potential developments sites (land use allocations) will provide certainty to investors, developers and land owners
- Stimulate regeneration through use of planning tools such as Local Development Orders (LDOs)
- Assist with land assembly through, for example, Compulsory Purchase Orders (CPO) to enable development and critical infrastructure
- Protect and enhance built heritage whilst proactively accommodating new developments
- Ensure developments are of an appropriate scale, mix and design quality
- Update planning policies to reflect regeneration objectives.

The BCCAAP will also take forward the work already undertaken in the city centre by the Council as well as ongoing emerging working on the Bradford City Plan.

The development principle for the City Centre has already been established in the emerging Local Plan - Core Strategy. Once adopted the BCCAAP will be a formal Development Plan Document having statutory plan status and form part of the Bradford District Local Plan.

The timetable for the production of the next stage of BCCAAP has recently been reviewed and it is expected that the Preferred Approach report of the Plan will be published in Summer 2014.

### **The Shipley and Canal Road Corridor Area Action Plan (SCRC AAP)**

The Shipley and Canal Road Corridor Area Action Plan (SCRC AAP) is part of the Bradford District Local Plan. It sets the vision and spatial strategy in support of the regeneration of Shipley town centre and the ambitions to create the Shipley and Canal Road corridor as a housing and economic growth area. This development principle for the corridor has also been established in the emerging Local Plan - Core Strategy.

The spatial vision for the SCRC AAP is planned to be achieved through-

- Delivering an Urban Eco Settlement of over 3000 new homes within the AAP boundary by 2028.
- Promoting the effective use of land by delivering at least 60% of new housing development within the AAP on previously developed land.
- Providing a range of well designed high quality dwellings built to high environmental standards, to cater for current need and future housing growth in the district.
- Promoting and supporting a successful growing economy by enhancing established employment areas and providing a wide range of high quality employment

opportunities including; new business development in existing industrial areas and town centre uses in Shipley.

- Supporting and enhancing the vitality and viability of the city and town centres of Bradford and Shipley as thriving places for shopping, leisure, tourism and business.
- Enhancing Shipley and improving links between the town centre, Saltaire, Shipley station and the Leeds Liverpool Canal through new mixed use development, enhancements to the public realm and encouraging leisure and tourist developments, whilst respecting the 'outstanding and universal value' of the UNESCO World Heritage status of Saltaire.
- Protecting and enhancing biodiversity and green infrastructure by establishing and protecting ecological networks and establishing a linear park; consisting of a chain of green spaces and natural environments linked to the Bradford Beck and Canal Road Greenway.
- Reducing the impact of climate change through mitigation and adaptation, particularly through reducing pollution and managing the risk of flooding along the Corridor, including from the Bradford Beck, and using opportunities provided by new development to maximise renewable energy generation and energy efficiency.
- Maintaining and improving Canal Road as a key strategic transport link and promote sustainable transport options by developing critical road and public transport infrastructure including; improvements to Shipley and Frizinghall train stations, developing public transport opportunities and creating safe and attractive cycle and pedestrian routes linked to the Linear Park and Canal Road Greenway, connecting Shipley and Bradford.
- Enhancing resident's health and education outcomes through improved access to good quality homes, jobs, high quality open space, recreation and community facilities and managing air quality along the Corridor, particularly in identified Air Quality Management Areas.

The first stage of the preparation of the SCRC AAP i.e. determining the key issues and developing options to address them has been carried out by the Council in early 2013. This is built on the considerable work already undertaken, in particular the Strategic Development Framework Masterplan (to support the AAP process) prepared for the Council by consultants BDP for Shipley town centre and the corridor, and the New Bolton Woods Masterplan by joint venture company Canal Road Urban Village Limited for the centre section of the Canal Road Corridor regeneration area.

The timetable for the production of the next stage of SCRC AAP has recently been reviewed and it is expected that the Preferred Approach report of the Plan will be published in Summer 2014.

## **The Big Plan- Sustainable Community Strategy**

The Big Plan is the District's Sustainable Community Strategy which sets out clear objectives to face the emerging challenges that reflect changing circumstances. The new challenges are to-

- Regenerate the city and our major towns to create opportunities and impetus for sustained economic growth
- Improve education outcomes to prepare people for an active and prosperous life
- Improve skills at all levels to meet the needs of business and build a knowledge economy.

These challenges have led to the identification of regeneration priorities for the District. The Council is now refreshing its Sustainable Community Strategy and evidence in this study will help shape its priorities.

### **Big Plan Regeneration and Prosperity Priorities**

#### **Promoting business growth**

- support manufacturing and key growth sectors such as financial services, health, environmental, tourism, digital, cultural and creative industries

#### **Shaping quality places**

- progress delivery of the masterplans for Bradford city centre, Airedale, Manningham and the Canal Road Corridor focussing on transformational priority projects

#### **Sustainable and affordable housing**

- ensure an adequate supply of land for housing development in places with good transport links, through the LDF and a revised Housing Strategy

#### **Enhanced transport and connectivity**

- progress the Shipley Eastern Bypass and Canal Road improvements
- seek further investment to ensure better rail and bus integration, and improve interchange facilities at Shipley and Bingley
- increase accessibility for all, improving public transport and promoting cycling and walking and access to footpaths and bridleways through the use of 'active design' principles

#### **Improving perceptions of the district, its neighbourhoods and cultural life**

- Bring derelict land back into use for new businesses or housing

The Big Plan has identified four regeneration priority areas to deliver sustained economic growth and regeneration in the district. These are the City Centre, Airedale, Manningham and the Canal Road Corridor.

An update to the Big Plan has outlined four broad and high level outcomes to be achieved between 2011-14:

- Bradford's economy is increasingly resilient, sustainable, and fair, promoting prosperity and wellbeing across the district;
- Bradford becomes an increasingly inclusive district where everyone is able to participate in the life of their communities and neighbourhoods, and understands their rights and obligations;

- Bradford's people experience improving good health, wellbeing and quality of life, irrespective of their community, background or neighbourhood;
- Bradford becomes a more attractive district supported by good connectivity and infrastructure.

Further information can be viewed at:

[http://www.bradford.gov.uk/bmdc/bdp/our\\_work/community\\_strategy/the\\_big\\_plan](http://www.bradford.gov.uk/bmdc/bdp/our_work/community_strategy/the_big_plan)

### **Bradford Local LTP Implementation Plan (2011-2014)**

The first Bradford Local LTP Implementation Plan (2011-2014) has been approved in June 2011 which, as well as setting out an overview of the transport issues in the District, can be used when engaging local stakeholders and communities on transport issues. LTP3 thus provides greater flexibility for ITAs to determine the scope, nature and duration of its strategy and implementation plans.

The West Yorkshire Local Transport Plan 2011 – 2026 (LTP3) and this Local Implementation Plan supersedes the Bradford District Transport Strategy 2006-2021 approved by Bradford Council Executive on 24 April 2007

The introduction of the Local Transport Act in 2008 changed the governance of transport issues in England and Wales. One of the requirements of this Act was the formation of the West Yorkshire Integrated Transport Authority (WYITA) to oversee transport policy development in West Yorkshire.

The WYITA has produced the 15-year West Yorkshire Local Transport Plan Strategy – My Journey West Yorkshire – Local Transport Plan Strategy 2011-2026) and detailed 3-year Implementation Plans which set out the transport policy and programmes in West Yorkshire.

The Local Transport Plan has been informed by the Leeds City Region Transport Strategy and Connectivity Study, which identified key strategic transport interventions required across the City Region. This document sets out many of the transport aspirations of the Bradford District over the same period.

In terms of highway improvements, schemes proposed for delivery in the first 3 year Implementation Plan period include improvements to the Canal Road corridor to ease congestion and provide better walking and cycling facilities.

The plan highlights that there is likely to be an absence of significant levels of Government funding for new major transport schemes in the District at least in the early part of the Local Transport Plan period. It is therefore envisaged that more expensive transport infrastructure enhancements (such as link roads or bypasses) would only be implemented if substantially funded by the private sector through emerging Community Infrastructure Levies or Tax Incremental Financing. Such schemes will be developed through planning agreements, or through partnership arrangements, identified in the Local Plan, which support new housing or create jobs.

Masterplans for Airedale and the Canal Road corridor will influence the provision of transport enhancements within these areas over the Local Transport Plan period (eg Shipley Eastern Relief Road and further improvements to Canal Road).

To view the Bradford Local LTP Implementation Plan see:

<http://www.bradford.gov.uk/NR/rdonlyres/DF0F9794-F840-4AD0-BBFC-BD4CF3A6FF93/0/LTP3BradfordImplementationPlan.pdf>

### Connecting Airedale

The 'Connecting Airedale' Transport Improvement Project is being developed through a partnership between Bradford Council, Metro and the Airedale Partnership. The Airedale Masterplan gained widespread support from local residents and businesses and Connecting Airedale is a key element in the delivery of the Masterplan.

The Project's main aim is to address transport problems in a sustainable way to improve the safety and efficiency of the local transport system for all users. This is of critical importance for the regeneration of this regionally important area which will lead to more, and better, jobs and houses.

There are five stages to Connecting Airedale but all are at an early point in their development and require Government Department for Transport funding for their progression. The schemes indicated in the documents accessed via these web pages are at the concept stage and are likely to change as a result of the scheme development and consultation process. As such they should not be viewed as definitive proposals. The Stages are as follows:

- [Stage 1 – Shipley Town Centre & Saltaire Improvements](#)
- [Stage 2 – Manningham Rail Station](#)
- [Stage 3 – Canal Road Improvement and A650 Quality Bus Corridor](#)
- [Stage 4 – Shipley Eastern Relief Road/Leeds Road High Occupancy Vehicle Lane/Otley Road Bus Lanes](#)
- [Keighley Transport Improvements](#)

<http://www.airedalepartnership.org/masterplan.asp>

## 3.0 Regeneration Context

This section identifies and assesses a range of current and proposed regeneration initiatives affecting the future of the district.

### 3.1 Bradford Vision – Local Strategic Partnership

Created in 2008 the Bradford District Partnership (BDP) is the districts Local Strategic Partnership (LSP). The Government requires districts to have an LSP to assist in the planning and delivery of more effective services for local people. The BDP will ensure that the district's Big Plan and Local Area Agreement (LAA) are delivered in the best way possible - and that all the partners work closely together to make things happen.

In doing so the BDP will champion the well being and prosperity of all of the districts residents and ensure that they have the opportunity to realise their true potential.

The aim is to achieve the vision for the future of Bradford District as set out in the 2020 Vision - Community Strategy 2006 - 2009– a plan that includes the five key ambitions local communities have for their future. The Community Strategy has been prepared by the Partnership with City of Bradford Metropolitan District Council (CMBDC) as part of the partnership.

The Vision set out the 5 main objectives for the future of the district:

- Creating a vibrant economy and prosperous District
- Improving the District for children and young people
- Building safer and stronger communities
- Making healthier communities and improving the quality of life of older people
- Creating foundations for long term prosperity

The BDP Board has 15 senior people from some of the key partner agencies – the Council, The Primary Care Trust, The Police, The Chamber of Commerce, Bradford Community Housing Trust, The University, The Child and Young Peoples partnership, the Environment Partnership and the Business and Voluntary/Community Sectors.

This means that when the BDP makes decisions the partners will be committed to making them happen.

The Board is supported by 5 Strategic Delivery Partnerships covering the following themes:

- Children and Young People
- Economy, Skills, Housing and Transport
- Environment
- Safer Communities
- Health and Well Being

These partnerships have the responsibility for ensuring that an area of the Big Plan and LAA is developed and delivered, raising any key issues with the Board where necessary.

To support the BDP Board and its partnerships, the council co-ordinates a multi-agency officer team known as the Partnership Delivery Team (PDT). PDT is lead by the council's Deputy Chief Executive, and it helps the deliver and performance manage the Big Plan and the Local Area Agreement.

The Strategic Delivery Partnerships and the Board are supported by a range of cross cutting partnerships that work with them to ensure that a range of issues are reflected in all aspects of the LSPs work. They include the following:

- The Cultural Consortium
- The Strategic Disability Partnership
- The Older Peoples Partnership
- The Neighbourhood Improvement Strategic Partnership (NISP)
- The Building Communities Partnership
- The Community Network (Cnet)

### **3.2 The Bradford City Centre Masterplan**

In February 2003, Alsop Architects were appointed to prepare a Masterplan for the Bradford City Centre. This was published in September 2003 and set out a new vision for the future of the city centre.

The big idea of the Masterplan is to create a new city centre park that will change people's perceptions of Bradford and differentiate it from other cities.

The idea is based on exploiting Bradford's topography – the city lies in a bowl formed by the valley of Bradford Beck. The Masterplan proposes rediscovering the 'BradfordBowl' by getting rid of poor quality buildings which we do not need and forming a new city centre park.

This would be a series of linked spaces, landscapes and water features, which breathes new life into the city's historic fabric.

The Masterplan identifies four separate neighbourhoods or 'fingers of intervention':

**The Bowl** – proposes a large pool of water outside City Hall at the centre of the new park. Radiating out from the Pool are, a Pier attached to the National Museum, a new Business Forest, and the other three neighbourhoods.

**The Channel** – proposes reintroducing the Bradford Canal to the city centre alongside which is a new canalside community.

**The Market** – proposes an alternative multi-cultural retail offer with new public spaces.

**The Valley** – proposes bringing Bradford Beck back to the surface, with a green corridor along Thornton Road including Wetlands and an Orchard.

The aim of this approach is to promote a step change in the economy, inspire better quality development, and create a city centre that is used and cared for by all of the city's different cultures.

The Masterplan can be viewed in full on the BCR website -<http://www.bradfordurc.com>

### **The Response to the Masterplan:**

#### ***The Public***

A public exhibition of the Masterplan was held between 15th October 2003 and 19th December 2003 at the former Dillons Bookstore on Market Street, Bradford. A total of 2,497 comment forms were returned.

Overall,

- 65% of the respondents rated the Masterplan as either 'Wow' or 'Exciting',
- 12% thought it was 'OK',
- 13% hated it, and
- 10% were undecided.

#### ***The Council***

On 14th October 2003, City of Bradford Metropolitan District Council's Executive welcomed the Masterplan for the city centre. Subsequently at the meeting of the Executive on 9th March 2004 it was resolved that the Council would:

- Prepare a replacement planning document for the Bradford Centre Regeneration area as a high priority.
- Co-operate with BCR in the commissioning of studies and project plans.

At the meeting of the City of Bradford Metropolitan District Council Regulatory and Appeals Committee on 8th March 2005 it was resolved that: The Masterplan for Bradford City Centre be treated as a material consideration in the determination of planning applications.

The Council and BCR in 2005 and 2006 commissioned consultants to produce the following:

- City Centre Design Guide
- City Centre Streetscape Manual
- Neighbourhood Development Framework for each of the four neighbourhoods identified in the Masterplan.

The purpose of these documents is to take forward the vision of the Masterplan and demonstrate how it can be delivered.

### **3.3 Bradford City Centre Design Guide:**

In 2005 a consultancy team led by Urbed was commissioned to produce a Design Guide for the city centre for City of Bradford Metropolitan District Council.

The purpose of the Guide is to articulate the Masterplan vision for the city centre into a set of design rules. This includes guidance on tall buildings, the character of streets, enclosure of space and public realm.

The Guide is used to assess the design of new development proposals in the city centre. It was adopted by the Council in March 2006 as a Supplementary Planning Document (SPD) following public consultation. As an SPD, the guide is a material consideration when determining any planning applications within the city centre.

The Bradford City Centre Design Guide can be viewed at – <http://www.bradford.gov.uk/bccdgc> or alternatively viewed at any of the Council's Planning Offices.

BCR in 2006 commissioned consultants Landscape Projects to take the public realm guidance within the City Centre Design Guide further and produce a Streetscape Design Manual for the city centre. This will provide a set of rules and specify a palette of materials for new public realm works.

### **3.4 The Neighbourhood Development Frameworks (NDFs)**

The Masterplan identifies four separate neighbourhoods in Bradford City Centre – The Bowl, The Channel, The Market, and The Valley.

In late 2004/early 2005 consultants were commissioned by City of Bradford Metropolitan District Council and BCR to produce a framework for each of the four neighbourhoods.

These have been called *Neighbourhood Development Frameworks (NDFs)*. The purpose of the NDFs is to build on the aims of the Masterplan and produce a deliverable strategy and a set of projects for each neighbourhood.

The NDF's set out development proposals for each of the four separate parts of the city centre and take into account a number of issues that have been identified in each area. The NDF's carry out a baseline assessment of each area and a SWOT analysis, which they have used to compile the regeneration proposals put forward in the frameworks.

The NDFs have been prepared by:

The Channel – Arup

The Market – Arup

The Valley – Urbed

The Bowl – Alsop

The Draft Neighbourhood Development Frameworks can be viewed in full at [http://www.bradford.gov.uk/environment/land\\_and\\_premises/planning/city\\_centre\\_neighbourhood\\_development\\_framework.htm](http://www.bradford.gov.uk/environment/land_and_premises/planning/city_centre_neighbourhood_development_framework.htm)

or alternatively by visiting any of the Councils Planning Offices

## **Response to the NDFs:**

The Draft NDFs were published separately for public comment between March and December 2006. The comments received have been used to inform the Bradford City Centre Area Action Plan - Issues and Options Report (this document).

On 16th January 2007, the City of Bradford Metropolitan District Council considered consultation responses to the NDFs and resolved that comments would be accepted as evidence for inclusion in the preparation of the City Centre Area Action Plan.

On 7th February 2007, the City of Bradford Metropolitan District Council's Regulatory & Appeals Committee resolved that: the four Draft Neighbourhood Development Frameworks for the City Centre be treated as material considerations in the determination of planning applications pending the adoption of the Bradford City Centre Action Area Plan.

In addition to the above, a number of background and feasibility studies have been completed as part of the masterplanning process. These are detailed in Section 1.4 'The Evidence Base' of the BCCAAP Issues and Options report.

### **3.5 Bradford City Plan**

The Councils Executive Board on 4th December 2012 endorsed commencement of work on the Bradford City Plan. The City Plan will act as the overarching regeneration plan for the development of the city, including the establishment of shared principles to govern regeneration in the city centre, establish investment priorities, align planning and infrastructure investment and ensure a partnership approach to tackling issues affecting the city centre. It will also provide an articulation of the issues, challenges and opportunities facing the city centre over the short, medium and longer term.

It is proposed that the plan should have a number of underlying principles which will govern its development and delivery. These are outlined below:

- **The plan will be publicly created**, including active engagement with businesses, retailers, residents and community groups in the spirit of the partnership approach.
- **Will have a clear list of prioritised actions**, ensuring enhanced and increased delivery and investment in the city centre.
- **Will be effectively and transparently governed**, forming an overarching regeneration plan for the development of the city
- **Has a clear and defined boundary of approximately 170ha**, which reflects the City Centre Growth Zone and proposed AAP boundary

- **Will operate on a number of scales – S, M, L, XL, XXL**, from public realm improvements at the micro level to transport linkage to Leeds Bradford International Airport at the macro level.
- Will be based on (and will encourage) **brilliant design** as, ultimately, poor design costs more.
- **We will take a team of teams approach to create a lasting plan**, ensuring the professional advice from across the Council and business world is inputted.
- **The plan will be holistically created (social, economic, and physical)**, with each of the 4 sub plans tackling key areas of People, Place, Prosperity and Property.
- It will be simple but smart (specific, measured, ambitious, realistic and targeted).
- The plan is built up from previous foundations – Alsop masterplans etc.

The plan will be made up of four sub plans – people, place, prosperity and property. Taken together these will provide a holistic approach to delivering the aims of the City Plan.

The City Plan will inform the Bradford City Centre Area Action Plan (as the statutory development plan) to deliver the schemes and associated infrastructure over the next 15 years.

It is envisaged that the City Plan will be adopted by the Council in summer 2013.

### **3.6 URBO and Canal Road Masterplan**

URBO is a joint venture between Balderstone PLC, Arnold Laver & Co. and ADG. Urbo have been working alongside the Council since 2005 to masterplan and deliver a revitalised central area of the Canal Road Corridor comprising some 40ha (100 acres) of land.

In 2006, Urbed were commissioned by URBO to look at the potential of the Arnold Laver depot on Canal Road in Bradford and the surrounding land. This resulted in the production of the Canal Road Corridor Masterplan which considered the future of the Canal Road Corridor for a mix of uses.

The two key drivers for the masterplan were Arnold Laver's intention to relocate operations from a range of sites on Canal Road to a single facility elsewhere in Bradford, as well as the proposals to reopen the Bradford Canal.

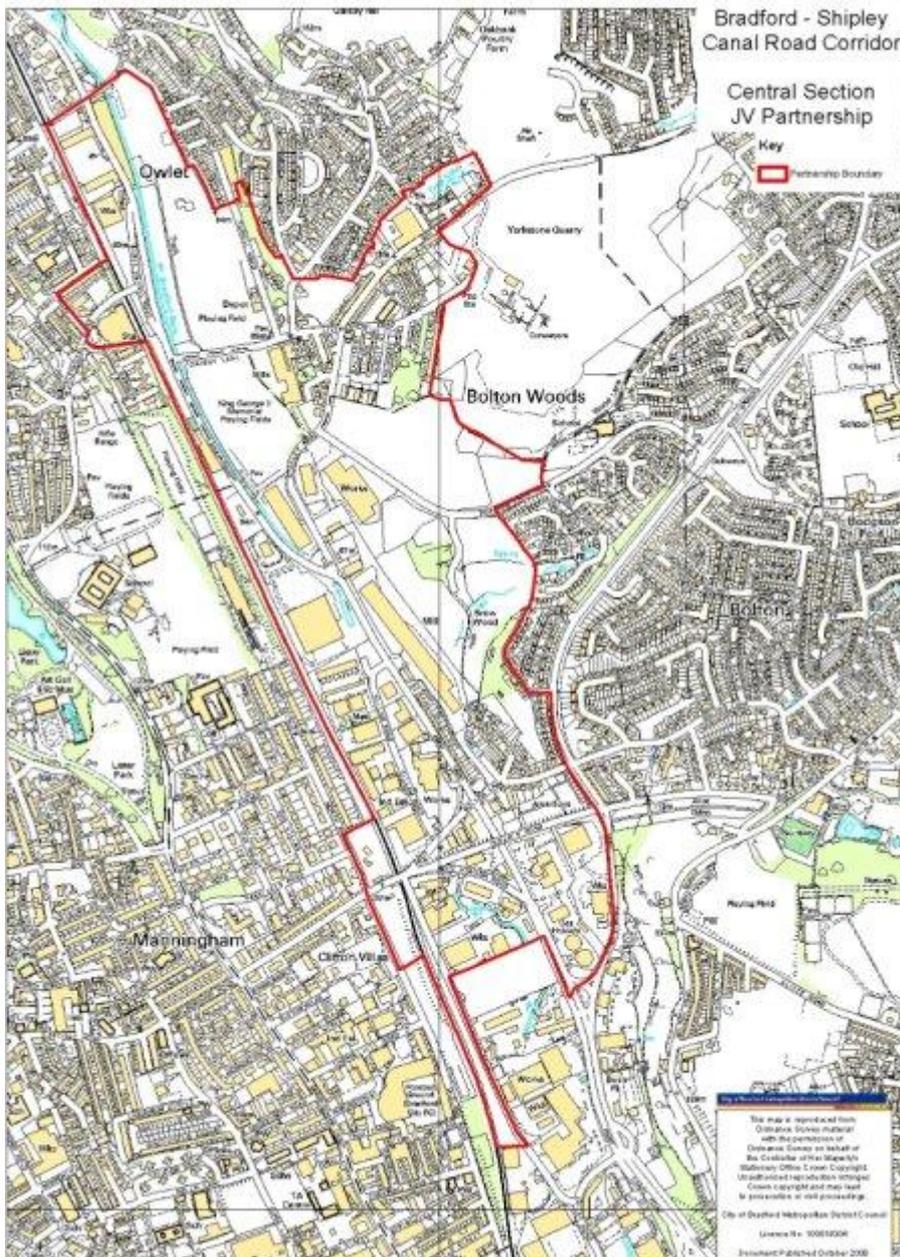
The key objectives of the masterplan were:

- To maximise the regeneration and development potential of the Canal;
- To encourage a complementary mix of uses to create both a sustainable and vibrant destination;

- To balance the existing and future roles of the Corridor as a strategic transport corridor and new waterside community;
- Maximise the linear and cross corridor links to ensure good access to adjacent communities and the City Centre; and,
- To satisfy the strategic objectives of Arnold Laver as key landowner and potential delivery partner.
- The masterplan aimed to facilitate the development and implementation of the canal whilst capitalising on the regeneration and development opportunities, which the re-introduction of the canal would bring to the Canal Road Corridor.

<http://www.investinbradford.com/NR/ronlyres/AA7C4B0A-4A47-4A2E-9963-8AF4DA78F220/0/CANALROADMASTERPLAN.pdf>

**Map 3a: Centre Section Joint Venture Partnership Area**



On the 17th November 2009 the council's Executive granted approval for the establishment of a Joint Venture Company (JVCo) with Urbo Regeneration Ltd as part of the preferred mechanism to pursue proposals to implement the comprehensive regeneration of the Bradford- Shipley Canal Road Corridor Area.

The fundamental principle behind the 'asset based' joint venture is to deliver large scale regeneration activities through maximising the development potential, latent value and borrowing capacity of the combined land assets of both parties within the designated Centre Section Joint Venture Partnership Area (shown edged red on the plan in Figure X). For the Council, this will mean the setting aside of its property assets within the Partnership Area until such time as they may be drawn down to deliver individual or phased development schemes.

Known as Canal Road Urban Village Ltd, the joint venture company's first major task will be to produce a master development plan for the central area that will be prepared in parallel with and be guided by the Strategic Development Framework and ultimately the Area Action Plan.

Further information can be found at:

[http://www.bradford.gov.uk/bmdc/regeneration/canal\\_road\\_corridor/latest\\_news](http://www.bradford.gov.uk/bmdc/regeneration/canal_road_corridor/latest_news)

### **3.7 Bradford Canal Road Corridor Strategic Development Framework**

BDP supported by specialist economic, property and environmental partners have been commissioned by the council to produce a Strategic Development Framework (SDF) for the Bradford Shipley Regeneration Corridor. The SDF will provide a vision and framework to guide future investment in the corridor and assist in meeting the strategic needs of Bradford District and the local needs of the neighbourhoods along and adjacent to the corridor, including Shipley Town Centre. It will also influence development in the City Centre fringe.

This work will also inform future planning policy documents produced by the Council and the detailed masterplanning and development considerations of the Council's Centre Section Joint Venture Company and other development proposals as they come forward along the corridor.

Further information can be found at:

[http://www.bradford.gov.uk/bmdc/regeneration/canal\\_road\\_corridor/masterplan\\_and\\_appointment](http://www.bradford.gov.uk/bmdc/regeneration/canal_road_corridor/masterplan_and_appointment)

### **3.8 Manningham Masterplan and Neighbourhood Development Plan**

In 2004, the City of Bradford Metropolitan District Council and Yorkshire Forward commissioned a masterplan for Manningham, which aimed to build on Manningham's assets, including Lister Mills and Lister Park and encourage investment in the housing stock. It was premised on a series of key objectives:

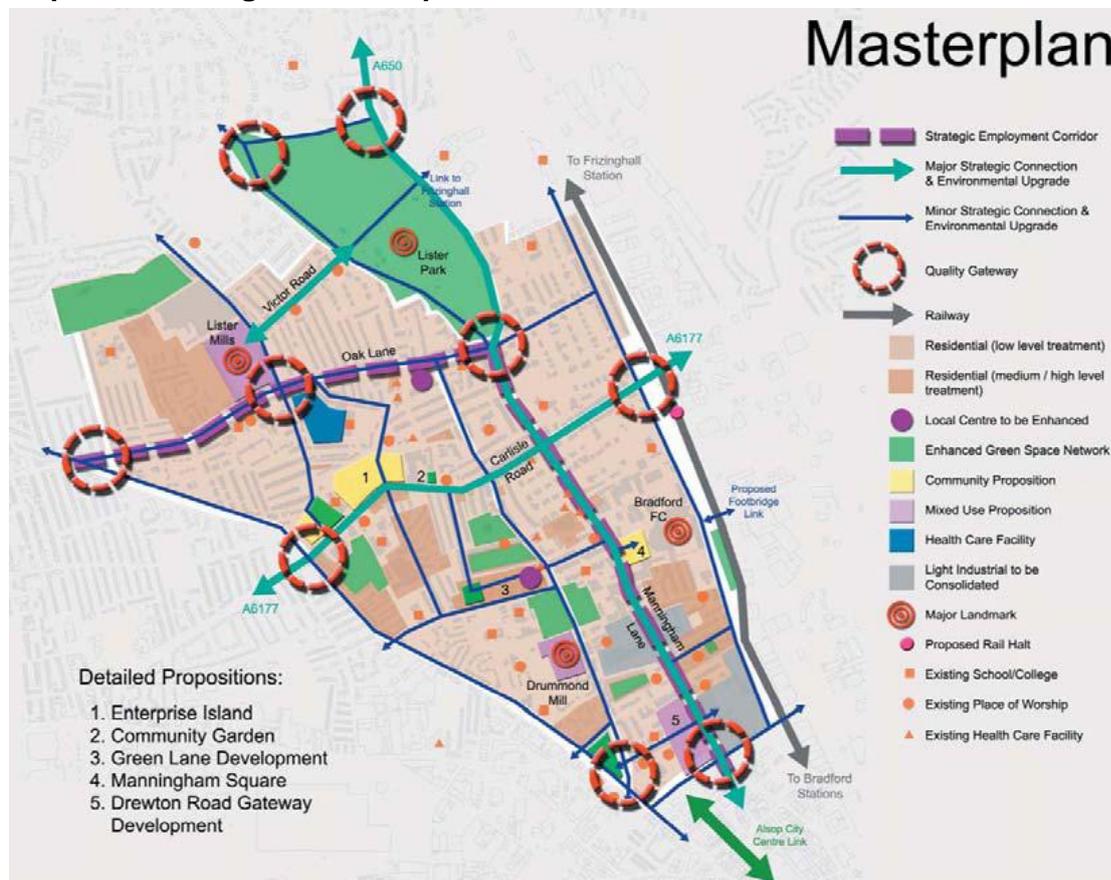
- encourage new business start up and the growth of existing businesses

- encourage investment in Manningham with businesses moving into the area
- bring back into use derelict sites and support projects improving the environment
- improve the housing in the area with new houses being built and existing houses improved
- overall improvements to the area including investment in the appearance of the major roads
- promote the involvement of local residents in decision making through neighbourhood management support efforts to enhance educational achievement and to create new learning opportunities
- maximise Manningham's Economic, Transport and Social linkages with Bradford and the West Yorkshire Sub-Region

Key Projects proposed as part of the Masterplan included:

- Lister Mills Development – creation of a dynamic, viable and sustainable heart to Manningham, with the aim of creating significant quality employment opportunities for the local community and establishing a new housing market within the neighbourhood.
- Drummond Mill Development - redevelopment of Drummond Mill to provide residential accommodation in addition to improved business accommodation and a hub of activity which will support existing retail and leisure uses along Lumb Lane.

**Map 3b: Manningham Masterplan**



## Detailed Propositions

At the time the masterplan was prepared, the five detailed masterplan propositions included:

- Encouraging a Brighter Future – Enterprise Island – development of contemporary iconic building which contains 5 internal zones to promote enterprise ideas
- Bringing People Together – Community Garden - opportunity to reuse the area of derelict land located on Carlisle Road to create an attractive place to meet, sit and stage small scale events through the creation of an Islamic inspired walled garden.
- Raising the Quality of Life – Green Lane Development – redevelopment of area to provide high quality homes and renewed community facilities.
- Bringing People Together – Manningham Square – provision of new square to accommodate outdoor events and activities.
- Link between Manningham and Bradford City Centre – Drewton Road Gateway Development - development of a new mixed use scheme on this corner to replace the existing retail sheds. The buildings would provide shopping and business opportunities.

In order to update the masterplan and take account of current economic conditions and the impact on the property market, the Council commissioned a follow up piece of work. The Manningham Neighbourhood Development Plan (NDP) was undertaken in 2010 by DBA Associates. Rather than seek to replace the masterplan, the NDP builds upon the achievements of the masterplan and seeks to provide a delivery framework for regeneration in the Manningham area, focusing upon identifying housing, property and environmental interventions with current potential to deliver in the immediate term, short terms and longer term. It does not address the enterprise and skills agenda.

Further details can be found at:

<http://www.manninghammasterplan.co.uk/>

### **3.9 Airedale Corridor Masterplan**

The Airedale Partnership was established in February 2003 to provide strategic leadership for the regeneration of Airedale. This grouping of leaders from business, education and the community, in conjunction with Bradford Council and Yorkshire Forward, saw the need for a strategic masterplan to deliver the aspirations of the Bradford 2020 Vision for Airedale.

In 2004, Arup were commissioned by the Airedale Partnership, City of Bradford District Council and Yorkshire Forward to develop a masterplan and strategy for Airedale.

The aim of the masterplan and strategy was to establish a framework that will deliver a step-change in the local economy that benefits local people and protects and enhances the environment. It will advise future planning frameworks and investment plans for the Bradford District and the wider region.

The key aspects of the brief were to establish how to deliver the Bradford 2020 Vision in Airedale and:

- Stimulate economic growth;
- Support the development of key employment sites;
- Encourage the renaissance of the town centres;
- Promote e-business technologies;
- Support skill development;
- Connect local people to economic opportunity;
- Support the rural economy;
- Develop cross boundary initiatives.

Airedale masterplan has a particular role in supporting the city centre initiatives, including transport connectivity and developments along the line of the proposed Bradford Canal that forms a green link between Airedale, Manningham and the city centre. Integration of the thinking behind the Airedale, Manningham and Bradford city centre masterplans will deliver major benefits to Bradford District, and together they will help to provide the evidence base that will shape the future Local Development Framework.

### **3.10 Bradford Learning Quarter Design and Delivery Framework**

Farrell and Clark Architects were commissioned by the University of Bradford to produce a masterplan for the University campus area. The study aimed to bring together a number of development ideas in a format that demonstrates to others the intent of the University. It seeks to illustrate the possibility for improvements to the public realm by improving and clarifying the spaces around buildings, improving physical links and routes and allowing the development of landscaping where appropriate.

The study undertakes an analysis of the area, covering 11 key themes:

1. Green Spaces
2. Car Parking
3. Vehicular Circulation
4. Pedestrian Routes
5. Key Buildings/Pedestrian Space
6. Bus Routes
7. Space Use Analysis
8. Building Heights and Topography
9. Street Patterns
10. Links to College and Coty
11. Cycle Provision

The study recognises a number of issues in these key themes:

- Mixed quality green space
- Car dominance
- Inconsistent poor quality pedestrian routes
- Mixed quality public realm

- No direct link between bus stops and circulation routes
- Poor land use planning
- Weak links to the City Centre

The University has also produced an Estate Strategy, 2004-2014. This sets out the University's vision for what the campus should look like in the next 10 years (from 2004). The strategy covers key themes of Security, Landscaping, student facilities, conference facilities and student accommodation.

### **3.11 Neighbourhood Development Plans**

#### **Neighbourhood Development Plan (NDP) for Barkerend, Beech Grove, Bradford Moor, Thornbury, Woodhall and Laisterdyke.**

A Neighbourhood Development Plan (NDP) was jointly commissioned with Inspired Neighbourhoods in 2008 in order to identify how committed and future funding could be used to best effect in East Bradford to achieve the Council's aims of:

- Regenerating the private sector housing stock
- Rejuvenating the failing housing market
- Transforming the public realm on this key route between Bradford and Leeds

The NDP area lies within the wider Leeds Bradford Corridor; this Corridor is identified in the Housing Strategy as having the potential for growth.

The NDP looks to address priorities for prosperity and regeneration, safer communities, improving the environment, and strong and cohesive communities as set out in the Big Plan 2008 – 2011. The NDP also addresses objectives relating to housing quality and growth, affordability and sustainability identified in Bradford Council's Joint Housing Strategy 2008 - 2020

The plan identifies six key themes for action, these are:

1. Existing Housing – how to improved standards
2. New Houses – how to provide greater choice
3. Local High Streets – how to make them more successful and attractive
4. Public Space – how to support a sense of community ownership
5. Green Space – how to improve access
6. Movement – how to make it safer

A total of 28 projects are identified that sit within the six themes, these projects are designed to deliver the key regeneration outcomes. Projects range in terms of scale; a number of projects require significant capital investment, others relate to the provision of advice and support to residents and householders and require no capital investment.

The scope of the NDP which includes major regeneration initiatives suggests a delivery timescale of 10 – 15 years.

Delivery of the interventions and projects identified in the NDP will achieve the following key outputs:

- Improvement to 212 homes
- Construction of 1,408 new homes
- Improvement of 3,350 linear meters of backstreets
- Creation of 1.2 ha of public open space
- Improvement to 6,000 m2 of public high streets
- Improvement to 4km walking and cycling routes

The projects and interventions identified in the NDP, should they be implemented in full, would achieve a total inward capital investment of £191 million. In order to deliver interventions identified as short term priorities, (up to three years) total inward capital investment £18 million will be required.

The NDP is available online from the following website:

<http://www.inspiredneighbourhoods.co.uk/index.php>

A detailed description of each Project Proposal can be found in Chapter Four of the NDP. Chapter Five provides a quantitative breakdown of the Project Proposals and a costing breakdown that identifies short term, medium term, and long term indicative costs.

### **Neighbourhood Development Plan for Holme Wood & Tong**

Holme Wood and Tong is an area located on the south eastern edge of Bradford. It contains the Holme Wood housing estate, areas of greenspace, green belt land and the historic village of Tong. The area has good access to the neighbouring countryside and to a number of employment sites in Bradford, Leeds and Wakefield.

Bradford Metropolitan District Council has commissioned the Holme Wood and Tong Neighbourhood Development Plan ('NDP') to provide a vision and delivery framework for regeneration, housing quality and growth.

The Neighbourhood Development Plan also proposes a series of projects which are designed over time to provide better homes, to deliver better shops and services and an environment where people choose to live.

#### **3.12 Key Facts**

- The Community Strategy is a key document for Bradford District, allowing a district level focus through a tiered partnership approach, whilst outlining key ambitions that are of note for the Core Strategy and other Development Plans.
- The City Centre Masterplan and Neighbourhood Development Frameworks provide good analysis of the entire city centre and comprehensive information on specific

areas of the centre. The masterplan and NDF's are a good launch pad for the City Centre AAP.

- The Canal Road Master Plan identifies some key issues surrounding one of the main corridors into the City Centre and set out details of a major regeneration scheme, the reopening of the Bradford Canal that could have a significant impact on the City Centre.
- The Airedale Corridor Masterplan sets out the future regeneration of Airedale, with the City Centre Masterplan identifying the area as a major employment corridor. The future development of this corridor will have a major influence on the City Centre and the masterplan identifies key transport and developments along the Bradford Canal.
- The Learning Quarter Design and Delivery Framework will play an important role to coordinate the development and environmental investment activities happening around the university and college area. The spatial themes identified in the framework would also help integrate the learning quarter with the city centre and achieve the visions of the City Centre AAP by shaping the future role and function of the land uses in this area.

## 4.0 Socio-Economic Appraisals

This appraisal is based on the analysis of a range of data on the socio-economic characteristics of the Bradford District. Data and statistics at the district level have been discussed along with that of the region to make it comprehensive in relation to a wider setting. Where appropriate/relevant information on the district or region was not available data for the UK as a whole has been considered.

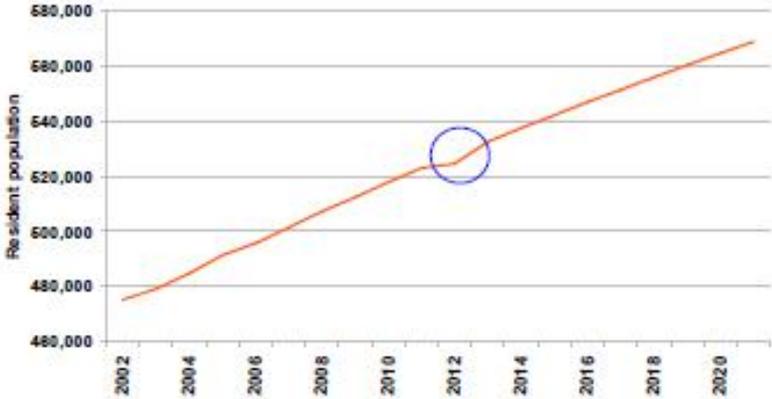
The baseline assessment of the socio-economic characteristics of the Bradford District has largely been a desk-base exercise using published data from a range of sources including-

- ONS Census (2011)
- A Picture of the District (CBMDC, 2010)
- Sustainable Community Strategy 2011-14 (CBMDC, 2008)
- Joint Strategic Needs Assessment (NHS Airedale, Bradford and Leeds, 2012)
- Understanding Bradford District (CBMDC, 2013)
- Bradford District Economic Assessment (CBMDC, 2012)
- Economic Strategy for Bradford District 2011-2013 (CBMDC, 2010)
- Leeds Bradford Corridor Study (Genecon, King Sturge, Gillespies 2007)
- Bradford Positioning Statement (Regeneris, 2005)
- BCR Performance Framework (Genecon, 04/05-05/06)

### 4.1 Population

Bradford's population is 524,600 (ONS 2012 mid-year estimate). The District is the 4<sup>th</sup> largest metropolitan district in England after Birmingham, Leeds and Sheffield. The population increased by 52,300 between 2001 and 2011, an 11.1% increase, the largest in West Yorkshire and higher than the national average of 7.1%.

**Figure 4a: Population increase 2002 - 2021**



Source: ONS mid-year population estimates 2002-2012 & 2011-based interim population projections

According to the latest ONS population estimates, the population has increased by a further 1,500 between July 2011 and July 2012. This is an increase of 0.3%, lower than the average for England of 0.7% and also lower than the annual population increase in the District of recent years.

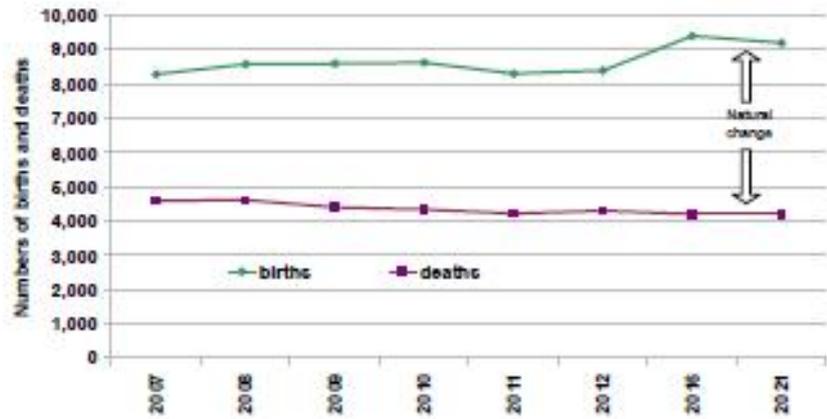
The population is forecast to increase by a further 44,400 (8.5%) to 569,000 by 2021, a higher rate of increase than the average for England.

Most of the population growth in the District is concentrated in particular parts of the District. Between 2001 and 2011, the population of City, Queensbury and Little Horton wards increased by over 20%, whereas the population increased by less than 4% in Baildon, Craven and Wibsey.

**Natural population growth is driving population increase**

The District’s population growth is mainly due to natural population change - the difference between the number of births and deaths in the District. There are significantly more births than deaths due to our younger age profile, producing a recent annual natural population increase of around 4,000 per year – which is expected to rise over the next ten years. Most of this natural population change is taking place in particular parts of the District.

**Figure 4b: Natural population change 2007 - 2021**



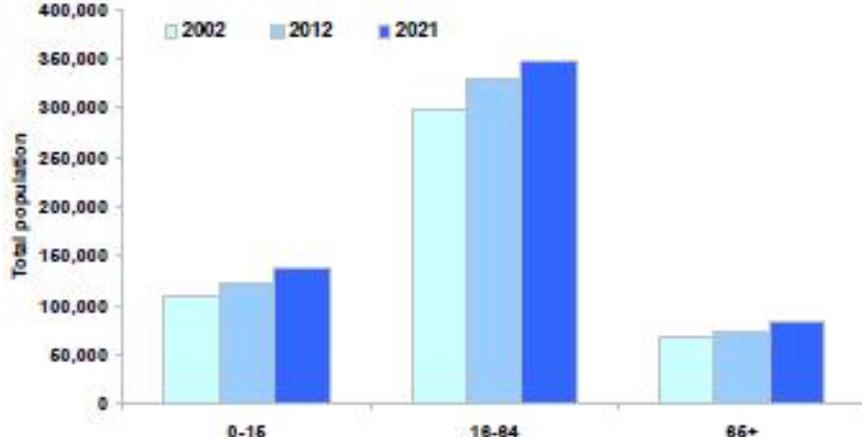
Source: ONS births and death registrations data (2007-2012) and ONS 2011 based interim population projections

**Projections: more children**

There are 123,100 under 16 year olds in the District, 23.5% of the population. This is the 3rd highest percentage in England, just lower than the London Borough of Barking & Dagenham and Slough. Bradford is the youngest English city outside London.

Between 2002 and 2012, the number of under 16 year olds increased by 13,500 (12.3%) and is expected to increase by a further 13,200 (10.7%) to 136,300 by 2021.

**Figure 4c: Population growth by age group**



Source: ONS mid-year population estimates 2002-2012 & 2011-based interim population projections

There are more children in some wards

than others. Over 30% of the population in Little Horton (31.1%) and Bradford Moor (31.0%) are 0 to 14 years of age, compared to 15.3% in Craven and 15.5% in Baildon..

### **Projections: bigger workforce**

There are 329,700 16 to 64 year olds in the District, 62.8% of the population - slightly lower than the average for West Yorkshire (64.6%) and England (64.1%). Between 2002 and 2012, the number of 16 to 64 year olds increased by 32,000 (10.7%) and is expected to increase by a further 18,200 (5.5%) to 347,900 by 2021. This is an annual increase of around 2,000.

### **Projections: older people**

There are 71,900 people aged 65 and over in the District, 13.7% of the population. Bradford's proportion of older people is the lowest in West Yorkshire and below the average for England of 16.9%.

Between 2002 and 2012, the numbers increased by 4,000 (5.9%). A significant part of this increase occurred over the past year, with more people than previously becoming 65, reflecting high birth rates just after the Second World War. This age group is expected to increase by a further 12,800 (17.8%) to 84,700 by 2021.

There are currently 9,800 people aged 85 and over in the District, 1.9% of the total population and 13.6% of the over 65s. This very elderly population is expected to increase by 2,900 (29.6%) to 12,700 by 2021.

The distribution of elderly people in the District is uneven. Over 20% of the population in Ilkley (25.3%), Craven (22.0%), Baildon (20.5%), and Wharfedale (20.3%) are 65 or over, compared to only 5.6% in City ward and 6.5% in Bradford Moor.

*ONS population estimates and projections supporting note:*

<http://www.westyorkshireobservatory.org/resource/view?resourceId=3589>

### **Diversity**

Bradford has a diverse population. The White British population remains the largest group at 64%. Over 80% of the District population was born in the UK, and it is births over deaths rather than migration that have been driving the District's population growth. Over the last decade there has been a 6% increase in the percentage of people of Pakistani origin and the same in total for a number of other smaller ethnic groups. At

20%, Bradford has the largest percentage of people of Pakistani origin in England. Over 60% of people with a Pakistani origin were born in the UK.

English is the main language in 83% of Bradford households. 95.1% of individuals either have English as their main language or speak it well or very well. Only 0.9% do not speak English at all.

In the past Bradford has had relatively high levels of international migration. In the last year

this has reduced significantly, as part of a national trend, although international migration movements do still add 1,500 people to the District's population each year. Population movements in and out of Bradford but within the UK reduce the District's population by around 4,000 a year – a relatively high rate nationally. These two factors combined mean that migration is currently reducing the District's population, dampening the increase created by the relatively high birth rate.

Current and historic trends in migration and population growth serve to link the District internationally, by country of origin, language and faith, making Bradford an international district. While this can create challenges in terms of service delivery and community relations, it is also a great asset for the District in terms of trading links and cultural richness.

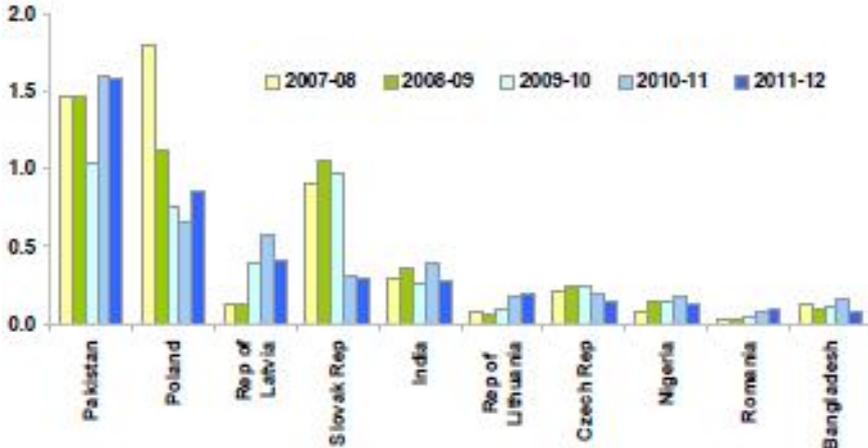
Migration has had a minimal effect on overall population numbers in the District over recent years. Generally as many people move out of the District - both to other parts of the country and abroad - as come to live here.

However, between 2011 and 2012, lower than previous estimates of immigration, and higher numbers of people moving to other parts of the UK, produced a negative net migration figure of -2,500, one of the highest figures in the country. This dampened the effect of natural change on the level of annual population increase.

Over recent years ONS estimate that around 5,000 people per year have come to live in the District from outside the UK. However, according to the latest estimates, this changed between 2011 and 2012, with a drop in the level of immigration to 3,800. With estimated emigration at 2,300, net international immigration was 1,500 - lower than previous years.

Migration levels to other parts of the UK have been around the 17,000 mark for the past few years. However, the most recent estimate from ONS puts this at 17,500. With the number of people moving here from other parts of the UK relatively stable at 13,600 - the District lost approximately -4,000 people through movements to and from other parts of the UK – one of the highest rates in the country.

**Figure 4d: NINO registrations for top ten countries of origin 2012, Bradford (000s)**



Source: National insurance registrations to foreign nationals, DWP

Using National insurance number registrations (NINos) as a proxy measure for the country of origin of recent international migrants to the District, most arrivals come from Pakistan. In the year to March 2012, there were 1,580 registrations issued to Pakistani nationals. This was nearly double that for the next largest group of new arrivals, 860 for people from Poland. Trends have changed over recent years. In 2007, the largest number of registrations was to Polish nationals, and over the past few years there has been a significant fall in the number of registrations issued to Slovak nationals.

*Migration trends supporting note:*

<http://www.westyorkshireobservatory.org/resource/view?resourceId=3578>

## 4.2 Education

The District has a strong trend of improvement from the relatively recent position where educational attainment lagged far behind national attainment. This is being driven by strong improvement in the standard of teaching and of school inspection results – far more of the District’s schools are now being judged to be good or better.

In the context of high levels of deprivation educational improvement is essential to driving up the skill levels in the District’s future adult and working population, increasing employment choice for the District’s young people and ultimately increasing the prosperity of the District.

The school estate is diversifying. An increasing number of schools have academy status. As of the end of May 2013 the District had 209 schools.

In addition there is a virtual school arrangement for Looked After Children (those who live in foster placements or residential homes). A dedicated headteacher tracks and monitors their educational progress to ensure that outcomes are improving. The District has completed a large scale re-organisation of Special Educational Needs<sup>2</sup> education, with the opening of a new school for children with emotional and behavioural needs in September 2013 and an existing school’s move onto a new site.

**Table 1a: Schools in Bradford District**

Type of school	Number	Age range of pupils	Maintaining Authority/Department
Nursery school	7	3- 5	Bradford LA
Primary school	147	3-11	Bradford LA
Primary Academies	8	3-11	DfE
Primary Free Schools	2	3-11	DfE
Secondary	19	11-19	Bradford LA
Through Academies	2	3-19	DfE
Secondary Academies	7	11-19	DfE
Secondary Free Schools	2	11-19	DfE
Special schools	7	3-19	Bradford LA
Pupil Referral Units	7	5-19	Bradford LA
Studio Schools	1	14-19	DfE
<b>TOTAL</b>	<b>209</b>		

### **Growth in the pupil population**

With one of the fastest-growing child populations in the country, there are approximately 1,150 more one-year-old children living in the District than there are 11-year-olds

(measured by children registered with GPs at August 2012) creating the need for 320 additional class groups across the primary sector compared to 10 years ago. As the higher number of children currently aged 2 to 11 moves into the secondary sector the District will require around 200 additional secondary class groups.

### **Progress on school standards**

School standards are the key to improving educational attainment. There has been real progress on the proportion of Bradford children who are taught in schools that OFSTED has judged to be good or outstanding. From August 2012 to June 2013 the proportion of primary pupils taught in good or outstanding schools increased from 65% to 80% - a picture of rapid improvement. Across secondary schools the figure increased from 28% to 47% of pupils – remaining below the national position.

There has also been good progress against the minimum standard of pupil achievement and pupil progress that schools must now meet. If the District had been judged against this standard in 2007, more than 50 out of approximately 150 primary schools and 16 out of 29 secondary schools would have fallen below the standard. By August 2012, only 8 out of 150 primary schools and 1 out of 28 secondary schools fell below the standard. This confirms that a large majority of pupils are now making the expected degree of progress.

Although the District is improving on most measures of attainment, pupil progress and standards of teaching, national attainment has risen broadly at the same rate meaning if Bradford is to catch up there is still more to be done.

### **Different rates of progress**

There are variations across Bradford in how well pupils make progress. A third of primary schools have made progress to close the gap between how well pupils who are eligible for Free School Meals do compared to their peers. A small number of primary schools have both improved results overall *and* closed the attainment gap for Free School Meals Pupils to zero, or almost zero, for their disadvantaged pupils. Case studies on Bradford Schools Online<sup>3</sup> share with other schools how they have achieved this.

The under-achievement of Pakistani pupils and white British boys on Free School Meals (FSM) remains an issue (Free School Meals are a measure used to show the impact of poverty on children's educational achievement), as is the gap between Looked After Children (LAC) and their peers. The level of deprivation in the District poses barriers too - the Department for Education estimate that 59% of the District's 2 year olds will be eligible for its new early learning programme for deprived 2 year olds, compared to 46% nationally.

Steady improvement in the District's educational outcomes over the last five years means there is an overall positive trend of improvement for the end of key stage outcomes in

Bradford in all age groups, explored in more detail below. However, with a similar level of improvement in national outcomes, the gap between national and Bradford outcomes has narrowed in some cases but has not yet closed. This is particularly the case at the Early Years stage and in Key Stage 1.

### 4.3 Employment and skills

This section looks at the local labour market and provides a summary of how Bradford's working age population fares when it comes to employment, unemployment and skills and what has changed since the recession.

*Labour market supporting note:*

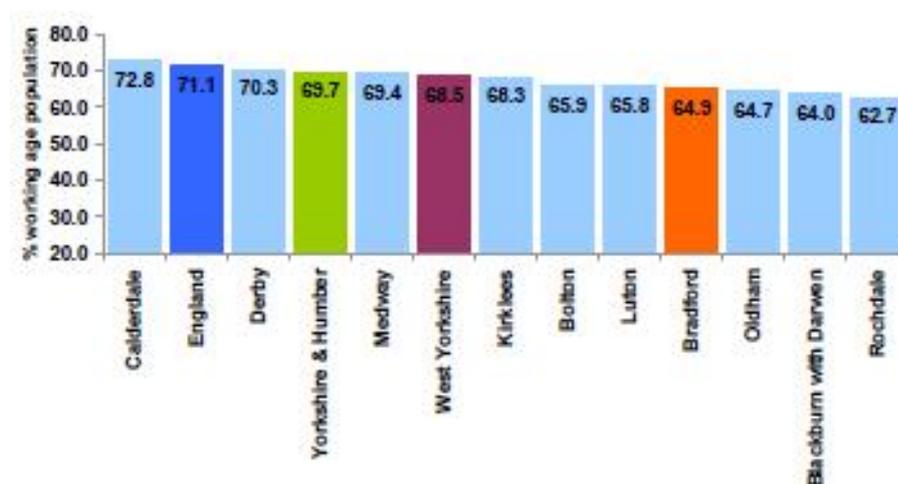
<http://www.westyorkshireobservatory.org/resource/view?resourceId=3579>

#### Employment

Despite significant improvements over the last 12 months Bradford's employment rate at 64.9% is still well below prerecession levels and is below the regional and national averages as well as being the fourth lowest of our statistical neighbours.

Rates of employment are lowest among Pakistani and Bangladeshi communities as well as the smaller Gypsy and Irish traveller populations. Conversely the highest employment rates are seen among the Other White (which include European migrants), Indian and White British groups.

**Figure 4e: Employment Rates March 2013**



Source: Annual Population Survey, Nomis

Other groups with low employment rates include those with low or no qualification levels, those with an illness or disability (in particular those with mental health problems), lone parents and those with caring responsibilities.

Bradford has a higher proportion of employees working part-time than the national average and since the start of the recession the District has seen a significant increase in the

proportion who work part-time, particularly among males. The 2011 Census results show the proportion of males working part-time has doubled from 10.9% in 2001 to 21.3% in 2011. Together with a reduction in the average number of hours worked this shift from full-time to part-time working indicates a rise in underemployment.

**Occupations and earnings**

Bradford has more people than average employed in the lower paid elementary occupations, and fewer managers and directors than average. According to the 2011 Census, elementary occupations account for 12.7% of Bradford’s employed residents. While this is less than in 2001, it remains higher than the average for West Yorkshire, Yorkshire & Humberside and England.

At the other end of the occupation profile, there are 20,571 or 9.4% of Bradford’s employed residents employed as managers, directors and senior officials. The number has fallen by about 20% since 2001 and remains lower than the sub-regional, regional and national averages.

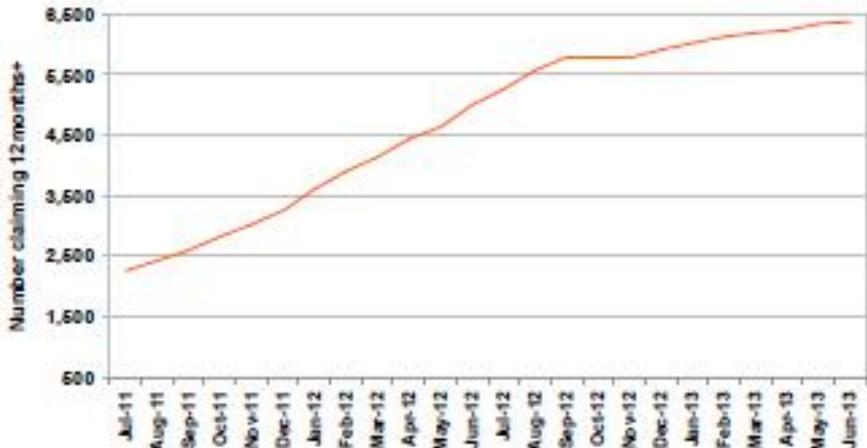
Wage levels reflect the occupation profile of Bradford’s residents. Mean weekly full-time earnings for Bradford residents are £427, well below regional and national averages, and among our statistical neighbours Bradford is second lowest. However, growth in earnings since 2008 has been at a slightly faster rate than regional and national growth and the gap has narrowed slightly.

**Unemployment and worklesses**

Bradford has higher rates of unemployment than regional and national averages, and has particularly high levels of economic inactivity when compared with our statistical neighbours.

Around 119,200 people aged 16-64 in Bradford are out of work. 25,900 are classed as unemployed (seeking work and available to start work) and 93,300 are classed as economically inactive (not actively looking for a job and/or not available for work).

**Figure 4f: Long term unemployment in Bradford JSA claimants over 1 year duration**



Source: Jobcentre Plus data, Nomis

Unemployment levels were rising in Bradford even before the recession in 2008, and increased at a faster pace between 2008 and 2012. Although numbers have fallen

significantly over the last year, there are still nearly 50% more people unemployed now than in December 2008.

In June 2013, 19,259 were claiming Jobseekers Allowance (JSA), more than double since the start of the recession. Long term unemployment is of particular concern. Analysis of claimants shows that the number of people claiming JSA for more than 12 months has increased more than fivefold since the start of the recession – from 940 in June 2008 to 6,370 in June 2013. Long term claimants now account for a third of the total. Among our statistical neighbours only Wakefield has seen a bigger increase. Being out of work for over a year can increase an individual's risk of poverty, social exclusion and becoming dependent on benefits. It can have a significant impact on their confidence and employability.

Bradford has an economic inactivity rate of 28.1%, the highest of all districts in the Yorkshire & Humber region and the fourth highest among our statistical neighbours. Of the economically inactive only 17,100 (18%) would like to work – the rest do not want a job. The main reasons for not wanting a job are looking after the home or family.

Bradford's female inactivity rate is particularly high, at 35%, but male economic activity has increased at a faster rate since 2008 – by 27% compared to a national rise of only 3%. There are also significant gender and cultural differences in economic inactivity among different ethnic groups.

As of December 2011, 39,555 households were classed as workless in Bradford. This equates to 24.0% of all households in the District, significantly higher than regional and national averages, and over the 12 months to December 2011 the number increased by 5.8% compared to a small decline across the UK as a whole. 23,000 children aged under 16 live in households that are workless. This represents a fifth of all children in the District.

The highest levels of worklessness in Bradford are concentrated within inner urban areas of Bradford and Keighley and some outlying social housing estates. The map above shows hot spots of out of work benefit claimants. In parts of Manningham, Holme Wood, Central Keighley and Little Horton, more than 40% of the working age population is claiming an out of work benefit.

### **Out of work benefits**

Benefit dependency in Bradford is high, with 50,150 working age people in Bradford claiming a key out-of-work benefit. This is 15.1% of the working age population, higher than the regional and national averages.

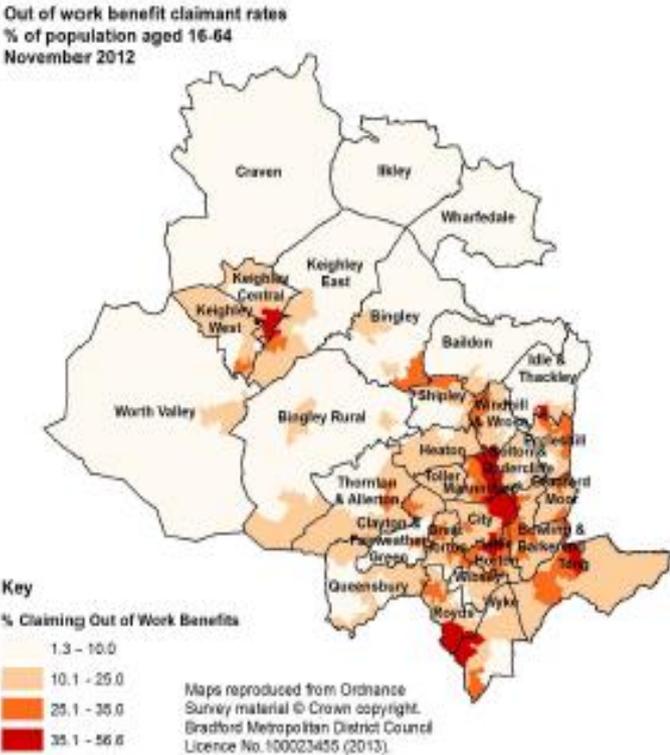
The largest group of claimants are those claiming ESA or Incapacity benefits, at 23,430 people. While this number is declining as more people move from incapacity benefits to jobseekers allowance, the number of people living in the District with work-limiting illnesses or disabilities is of concern. This group are among those who face the greatest barriers to employment.

In the 2011 Census, around 38,000 men and 48,000 women aged over 16 in Bradford reported to have a long term illness or disability which limited their day to day activities. Of these only 20% were in employment.

**Young people and unemployment**

Over the last few years there has been a significant drop in the number and proportion of young people aged 16-18 who were NEET (Not in Education, Employment or Training). For the three months Dec 2012-Jan 2013 we had a record low of 5.5%, which was 0.3 percentage points below the England figure.

Although still low, both the NEET number and the proportion have been increasing during 2013 above seasonal expectations. In May 2013 there were 1,104 residents aged 16-18 who were NEET. This generates an adjusted NEET rate of 6.3%.



**Map 4a: Out of work benefit claimant % of population aged 16-64 (Nov 2012)**

Beyond 18 we have seen a sharp rise in young people out of work. More than 1 in 10 young people aged 18-24 in Bradford are claiming Jobseekers Allowance. The number of claimants has increased by 88% since the start of the recession to 5,400 in June 2013. Among our statistical neighbours only Kirklees has shown a bigger increase.

The increase in long-term claimants among 18-24 year olds has grown from only 30 claimants in June 2008 to 1,140 in June 2013. More than a fifth of all claimants aged 18-24 have been claiming for over 12 months.

**Further and Higher education**

Apprenticeships remain a key economic development priority for the District with the aim to substantially grow the number on offer. In 2011/12 there were 4,950 apprenticeship starts in Bradford. This is more than twice the number of starts in 2008/09 (2,280). Achievement rates for Bradford residents on apprenticeships were 51.9% in 2011/12.

This is slightly above the Yorkshire & Humber (50.7%) and England (49.7%) averages.

2010 data from the Higher Education Statistics Agency showed that only 29.9% of young people in Bradford continued to higher education. This is the second lowest of Yorkshire and Humber districts behind Hull (18.6%).

### Adult qualification levels

Despite improvements in educational attainment, qualification levels among Bradford's working age population are lower than the regional and national averages.

Only 59.7% of adults are qualified to level 2 (equivalent of 5 good GCSEs and considered to be entry level by most employers). This is well below the national average. 51,800 people have no qualifications at all. While this has reduced by 10.5% since 2007, our rate of improvement is below average.

There are 72,200 residents qualified to at least level 4 – equivalent to degree level – accounting for 22% of the working age population. But this is below the national average (33%).

Employment rates increase as qualification levels increase, and the gap between Bradford's employment rate and the national rate is widest for those without qualifications. Before the recession, Bradford actually had a slightly higher employment rate for those with higher qualification levels. Since the recession, employment rates have dropped for all residents, but more drastically so for those without qualifications.

### Skills gaps and in-work training

A skills gap exists where employers report having employees that do not have the full set of skills required for their jobs. The National Employer Skills Survey 2011 showed that 17% of employers in Bradford had reported skills gaps.

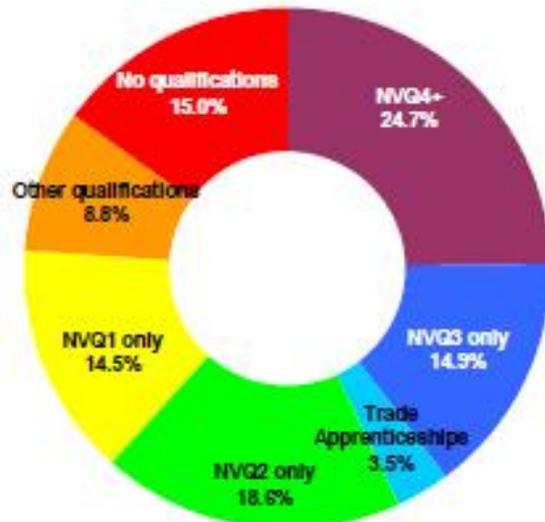
The Annual Population Survey for January to December 2012 shows that in Bradford, 11.9% of the population aged 16-64 received job-related training in the last 13 weeks.

This is significantly lower than the averages for West Yorkshire (17%), Yorkshire (18.8%) and England (18.9%). The figure has also declined by 5.2 percentage points since 2008 – compared to a 0.6 percentage point fall nationally.

### Travel to work and commuting

Bradford was a net importer of labour into the District in 2001<sup>4</sup>, with 3,500 more people commuting into work than commuting out. There were significant movements of workers travelling between districts within the Leeds City Region, although the highest two way flow was between Leeds and Bradford. There was a net inward flow of commuters into Bradford from all surrounding districts except Leeds, which received a net gain of 6,000 Bradford commuters.

Figure4g: Qualification Levels of Bradford Residents (age 16-64) 2012



Source: Annual Population Survey, Jan -Dec 2012, Nomis

Bradford received a net gain of people in higher level occupations from surrounding districts. On the other hand more people in lower-level occupations commuted out of the District to work than commuted in, leading to a net export of lower-level employees to surrounding districts.

In Bradford 77.3% of the working age population is able to access key employment centres across West Yorkshire within 30 minutes using the core public transport network. Car or van ownership levels are generally lower in Bradford than national average levels - 69.5% of Bradford households have either a car or van compared to 74% nationally.

Morning peak speeds on Bradford 'A' roads have improved by 9% since 2007 to 20.8mph in 2012. According to the Metro Tracker Survey public satisfaction levels have also improved in the District with regard to levels of congestion, the condition of road surfaces and the standard of street lighting.

For the latest economic and labour market analysis go to: [http://www.bradford.gov.uk/bmdc/business\\_and\\_industry/bradford\\_economy](http://www.bradford.gov.uk/bmdc/business_and_industry/bradford_economy)

On these pages you can find updates on a range of data including monthly claimant unemployment, youth unemployment, labour market updates, workless households data and out of work benefit claimants updates.

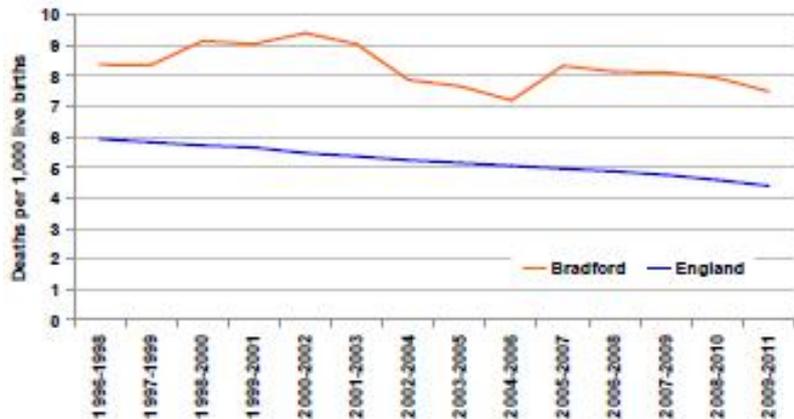
**4.4 Health, Wellbeing and Social Care**

There is a difference between people’s perception of their general health within Bradford and what their health is actually like. This chapter considers life expectancy, infant mortality and the prevalence in the District of various diseases that affect quality of life, including diabetes and obesity

**Infant mortality**

Bradford’s infant mortality rate (IMR) is one of the highest in England and Wales, with between 60 and 70 babies dying every year. Infant mortality rates in Bradford have been falling gradually since 2005-2007, but are continuously higher than the average for England. Between 2009-2011, Bradford’s infant mortality rate was 7.5 deaths per 1,000 live births compared to 4.4 per 1,000 live births for England.

**Figure 4h: Infant mortality rate**



Source: The NHS Information Centre for health and social care

### Life expectancy at birth

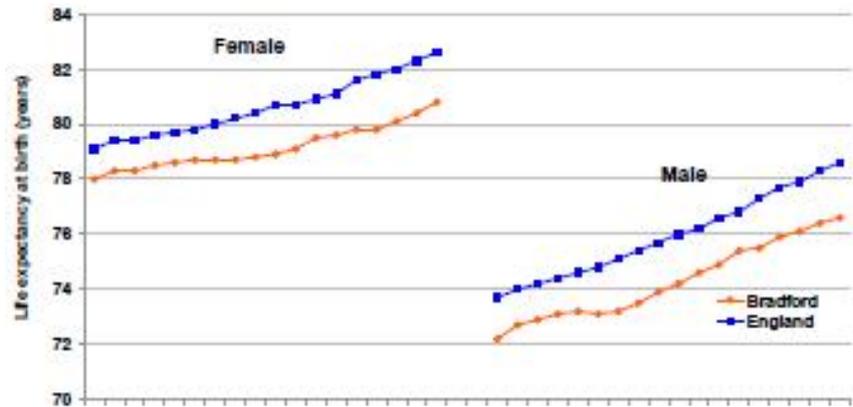
Average life expectancy is a good summary indicator of the health status of the District's population as all health determinants will have an impact on it.

Between 1991-1993 to 2008-2010, life expectancy at birth in Bradford has increased by over 4 years from 72.2 years to 76.6 years for males and by over 2 years from 78.0

years to 80.8 years for females. Life expectancy in Bradford is below the England average for both males and females (78.3 years and 82.3 years in 2007-2009 respectively).

Although life expectancy in males has increased more than in females, the gap in life expectancy between males and females, which reduced between 1991-1993 and 2005-2007, has been increasing over the more recent period. Females are more likely to live 4.2 years longer than males in Bradford.

Figure 4i: Life expectancy at birth



Source: The NHS Information Centre for Health and Social Care

### Obesity

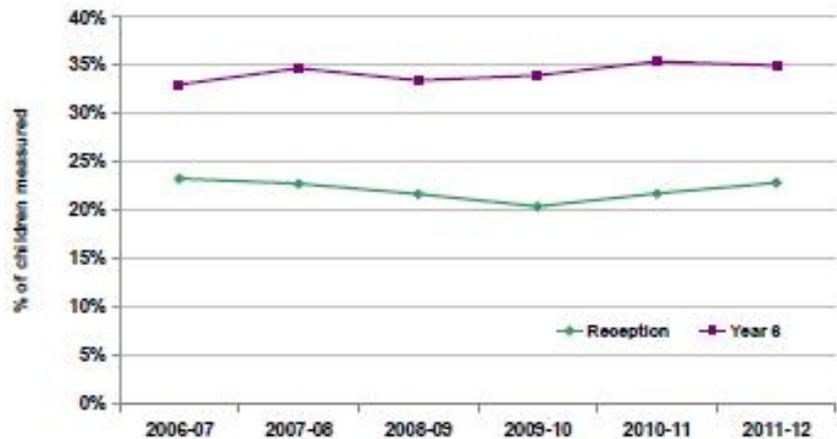
The percentage of reception aged children who are obese or overweight is 22.9%.

This had been falling until 2009/10 but has risen again in the last 2 years and is higher than the England average of 22.6%. The percentage of Year 6 age children who are obese or overweight is 35.0%.

This has increased since

2008/09 and although there was a slight fall 2011/12, it is higher than the 33.9% England average

Figure 4j: Proportion of overweight & obese children



Source: National Child Measurement Programme

### Sport and physical activity

Sports and physical activities affect health and well being. One of the measures of physical activity in children is the amount of 2 hour sports and extracurricular activities undertaken by children in schools. Between Key Stages (KS) 1-3 there is a 86% participation level in 2 hours of sports / PE. During KS4, when children move towards GCSEs and other curricular examinations, there is a reduction to 41.3%. Other parts of the UK have shown a similar

reduction at this Key Stage.

For 2011/12 the Active People's Survey showed that 35.3% of Bradford's adult population were undertaking at least one session of 30 minutes intense exercise (including cycling, hill walking, running, PowerWalking etc.) a week, which is lower than the West Yorkshire average, and slightly lower than the national average. Since 2005, Bradford has largely followed West Yorkshire trends.

### **Older people and care**

Older people with care needs may vary in intensity and can fluctuate over time. Reflecting identified needs, care provision also ranges in intensity of support, from domiciliary care through day care and other community based care to residential and nursing care.

The total number of people aged 65 and over receiving long term adult social care services in Bradford was 7,025 in 2012/13 – a rate of 10,067 per 100,000 population. The majority of this support came in the form of community based services.

The two largest forms of community based services are home care and provision of equipment. Home care services for people aged 65 and over were at a rate of 5,640 per 100,000 population during 2012/13. Day care services were at a rate of 782 per 100,000 population during 2012/13. People from some groups are under represented in their attendance in local authority day centres, and more frequently access social day care provided by the voluntary sector:

- South Asian communities experiencing social deprivation
- Residents of isolated rural communities
- Wealthy people living in sought-after neighbourhoods

Equipment services were provided at a rate of 2,554 per 100,000. Direct payments provided to people aged 65 and over were at a rate of 259 per 100,000 population.

Rates of people aged 65 and over still at home 91 days after discharge from hospital into reablement / rehabilitation services were considerably higher than regional rates at 92% during 2012/13. In particular Bradford achieves better than average rates for the 75 - 84 and 85 and over age groups.

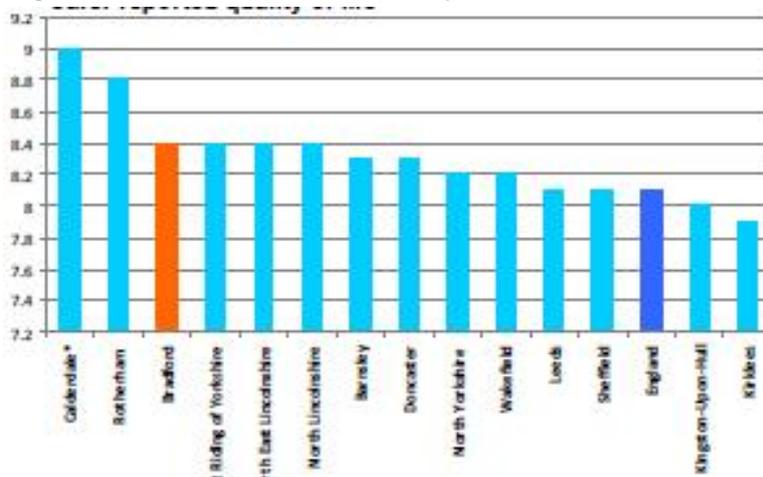
Avoiding permanent placements in residential and nursing care homes is a good indication of delaying dependency, and where possible people tend to prefer to stay in their own home. Residential care rates of 2,101 per 100,000 in 2012/13 are broadly in line with regional and statistical neighbour averages, although nursing care rates in Bradford of 858 per 100,000 population are higher.

Although the number of people in residential and nursing care has reduced year on year over the last three years, permanent admissions of older people to residential and nursing care homes are 847 per 100,000 population – significantly higher than national or regional averages.

Quality of life for people with care and support needs in Bradford closely mirrors national and regional averages. Control over daily life is one of the key outcomes derived from personalisation policy. Rates of control over daily life in Bradford for people who use services are 76.7% - very similar to the regional average of 77.3%.

Demographic pressures and demand on care and support services; increasing numbers of older adults, working age adults and levels of disability, as well as increased complexities of needs; will create a predicted increase in demand for care and support services over the next 15 years

**Figure 4k: Carer reported quality of life**



In 2011, 51,026 (9.6%) of people in the District indicated that they provided some form of unpaid care or support. This compares to 10.5% in Yorkshire and the Humber region and 10.3% in England. Not all carers perform this role full-time or on a regular basis.

Source: Personal Social Services Survey of Adult Carers in England 2012/13

Previous analysis of the 2001 Census data suggests that 21.9% of carers were providing more than 50 hours of care per week.

Of carers over 18, caring for someone over 18 and in receipt of services funded by Social Services, significantly fewer carers in Bradford live with the person they care for (50.3%) compared to the national average – 71%.

Bradford carers scored 8.4 out of a maximum possible score of 12 for quality of life – slightly higher than the national average of 8. 33% of carers reported they have as much control as they want over their daily lives – higher than the national average of 29%. A relatively high proportion of carers in Bradford (47.6%) have as much social contact as they want with people they like, compared to the national average of 42%. 67.1% of carers in Bradford feel they are able to look after themselves in terms of getting enough sleep and eating well (compared to 60% nationally).

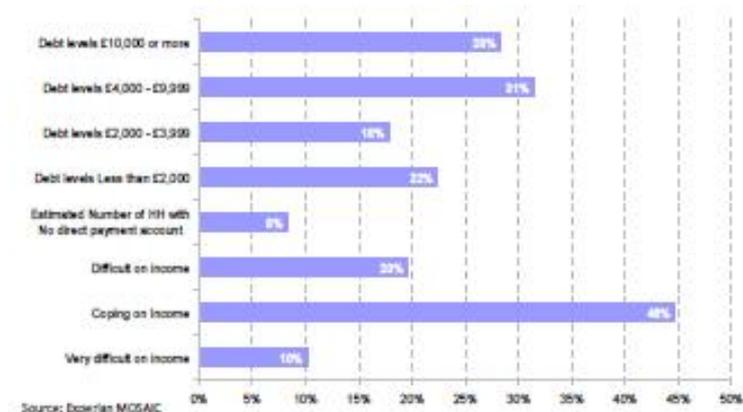
### Financial exclusion

The Index of Multiple Deprivation (IMD 2010) measured income deprivation in 2010. Bradford district was the fifth most income deprived<sup>12</sup> district in the UK, although there were fewer areas of the district in the worst 10% of the UK than in 2007. IMD 2010 also showed a wide variation of deprivation both between wards, and within wards.

In 2011, 10% of Bradford households were finding it very difficult to cope on their income, while 45% households were coping. 59,664 households have debt levels of £10,000 or more and 37,666 households have debt levels between £2,000 and £3,999.

It is estimated that 17,510 households do not have a direct payment account which puts them at risk once Universal Credit is introduced in Bradford. Some simple bank accounts do not support direct debits, which will make it more difficult for people to manage outgoings. Young women in abusive relationships could be further disadvantaged by joint payments.

**Figure 4I: MOSAIC Households under Financial Stress Indicators 2011**



Source: Experian MOSAIC

Bradford has a good network of food banks and there has been a reported increase in take up of services. Over the last two years, the Bradford Metropolitan Food Bank has seen an increase in its distribution of food parcels. There has been a distribution of seven times more food parcels a month than was the case two years ago. Monthly food parcel distribution recently rose to 722 – compared with 109 in July 2011.

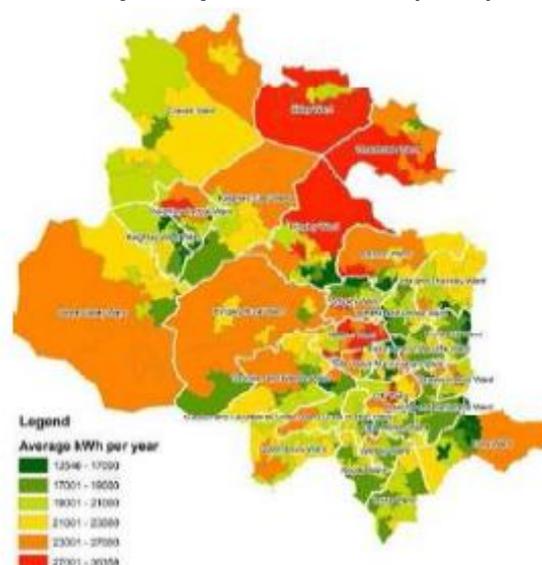
### Fuel poverty

Households are considered to be in fuel poverty if more than 10% of their net income is spent on heating and hot water.

35,662 households were living in fuel poverty in 2011, down from 37,507 households in 2010. 75% of the fuel poor in the UK are either unemployed or economically 'inactive' and over 87% are on the lowest 30% of incomes.

Reductions in benefits and an increase in utility prices will increase the number of households experiencing fuel poverty.

**Map 4b: Average Domestic Gas & Electricity Consumption per household (2010)**



Source: DECC Electricity and Gas Consumption Tables

The most affluent areas of the District have higher average energy consumption while the most deprived have lower consumption. There are clear 'cold' spots on some of the District's social housing estates such as Holme Wood, Ravenscliffe, Bierley, Allerton,

Lower Baildon and Windhill. A reduction in benefits and an increase in utility prices will increase the number of vulnerable residents experiencing fuel poverty.

Fuel poverty is associated with a range of additional adverse health outcomes. In 2010/11, there were 240 excess winter deaths in Bradford. Over 90% of excess winter deaths occur among the over-65s. For infants, after taking other factors into account, living in fuel poor homes is associated with a 30% greater risk of admission to hospital or attendance at primary care facilities. Adolescents living in fuel poor homes are at significantly greater risk of multiple mental health problems.

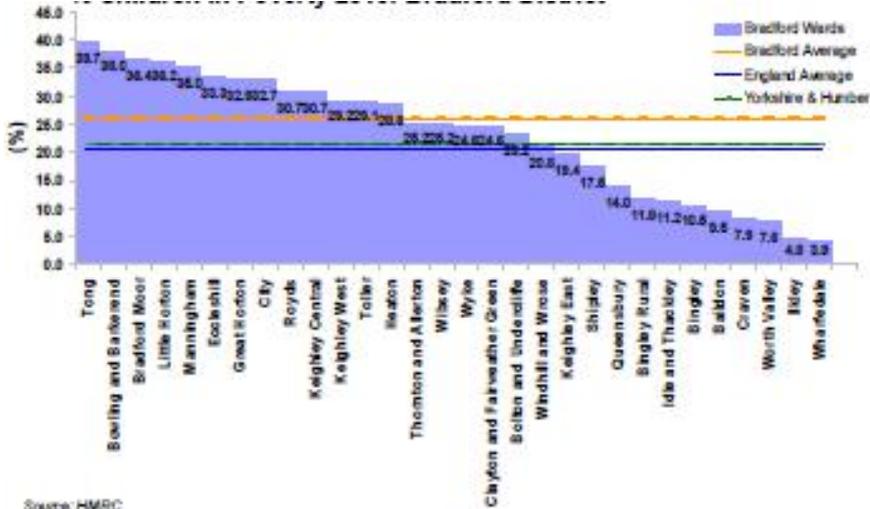
**Child poverty**

One in four children in the District lives below the poverty line (households with less than 60% of average income) equating to 36,080 0-18 year olds. Bradford’s rate is more than the national average or West Yorkshire rate. A further third of the District’s children live in households that have low income plus material deprivation<sup>13</sup>.

The most recent official child poverty figures for 2009/10 showed a fall of 1.2% in the child poverty rate to 26.1% but the child poverty rate is predicted to rise across the country from 2013-2020. The number of children living in poverty in Bradford is likely to rise disproportionately as areas with the largest recent number of births have the highest numbers of children currently living in poverty

Child poverty in Bradford is highly concentrated in a small number of wards. On the most recent figures just over half of children living in poverty lived in 8 out of the District’s 30 wards. In order of the highest number of children in poverty per ward these were: Bradford Moor, Little Horton, Bowling and Barkerend, Manningham, Tong, Toller, Great Horton and Keighley Central.

**Figure 4m: % Children in Poverty 2010: Bradford District**



Source: HMRC

There are hot spots of child poverty in more affluent areas. For example, although Shipley ward has relatively low levels of child poverty overall there are concentrations of child poverty in several small areas of the ward.

Both in Bradford and nationally, families with four or more children are more likely to be living in poverty than those with 1, 2 or 3 children. While having more children does not necessarily cause poverty, there is an association between the two factors.

There are some important respects in which child poverty in Bradford is different to national trends. Across England, the child poverty rate is markedly higher in the 0-4 age group then declines as children grow older whereas in Bradford, roughly 1 in 4 children live in poverty across every age bracket.

Living in a couple-headed household is generally regarded as a protective factor against poverty, as two adults can be in work rather than just one. Nationally, nearly two thirds of children in poverty live in households headed by a lone parent. In Bradford District this figure is much lower at 54%. Low wages and high levels of economic inactivity in Bradford District may be why living in a couple headed household tends not to have the same effect in Bradford District.

Babies born in the most deprived areas have a poorer start in terms of their health. The most deprived 20% of the District has twice the level of babies with a low birth weight (10.9%) as the least deprived 20% (5.2%) and a significantly higher level of infant mortality (9.9 deaths per 1,000 births) compared to the District average (8 deaths per 1,000 births).

Deprivation related health inequalities accumulate through childhood and into adulthood. Children who live in the most deprived areas of Bradford are more likely to be admitted to hospital for a range of conditions and injury and have higher rates of teenage conception. Emergency admission rates for injury are highest in the most deprived areas of Bradford, with rates of 16.4 per 1,000 children for the most deprived 20% of the population, compared to 10.7 for the least deprived 20%.

Health inequalities linked to deprivation add up to shorter life expectancy. Life expectancy for girls born in the most deprived areas is nearly 7 years shorter than it is for those born in the least deprived areas, and for boys it is nearly 10 years shorter.

#### **4.5 Economic Activity**

Following the onset of the recession in 2008, Bradford experienced significant falls in business numbers and employment. Signs of improvement appeared in 2012 and the local economy is now growing but will take a number of years to get back to pre-recession levels.

Between 2011 and 2012, the number of businesses in the District increased by 370 to 15,285. Economic output increased by 1.8% over the year to 2011. This expansion in the local economy has resulted in an increase in the District's employment rate. Today Bradford has the second largest economy of all districts in West Yorkshire with GVA at £8.3 billion and a fifth (20.4%) of all businesses in West Yorkshire.

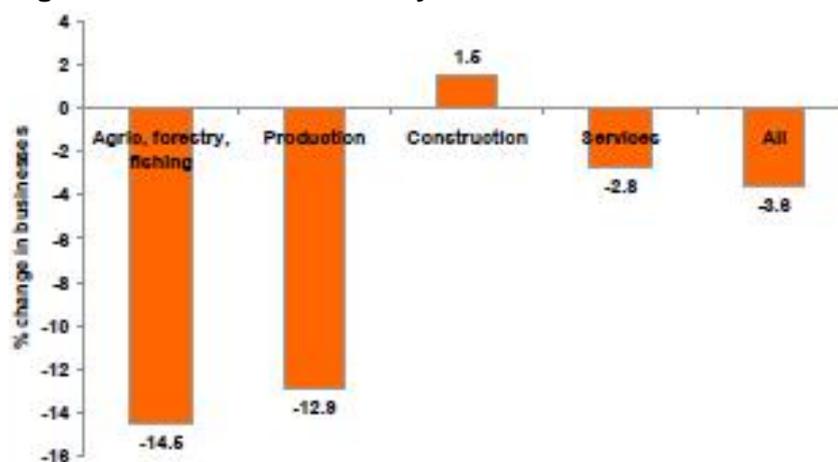
**Table 4b: Bradford businesses - key data**

Bradford businesses - key data	Bradford	West Yorkshire	England
Total businesses 2012	15,285	74,835	2,610,535
Services	80.7%	79.7%	79.5%
Construction	9.0%	10.5%	10.5%
Production (manufacturing & utilities)	8.4%	8.0%	5.8%
Agriculture, forestry, fishing	1.9%	1.8%	4.2%
Bradford share of W. Yorkshire businesses	20.4%	-	-
Growth in businesses 2011-12	2.5%	2.4%	2.6%
Rates per 10,000 adult population 2011			
Business birth rate	39.2	42.3	54
Business death rate	35.6	38.8	47
Business stock (density)	367.3	390.7	481.9
Survival rate - one year from 2010	88.7%	87.1%	86.8%
Survival rate - five years from 2006	41.4%	43.0%	44.8%
Social enterprises (approx fig 2010)	1,000	-	-
Not for profit business start ups 2012	282	-	-

**Business numbers**

370 additional businesses were added to the local economy between 2011 and 2012, an increase of 2.5%. However, Bradford's total number of businesses in 2012 is just 96% of its 2008 total compared to around 99% nationally. Business and jobs growth will need to continue to keep pace with the forecast population growth in the District.

**Figure 4n: Business trends by sector - Bradford 2008 to 2012**



Source: Inter Departmental Business Register

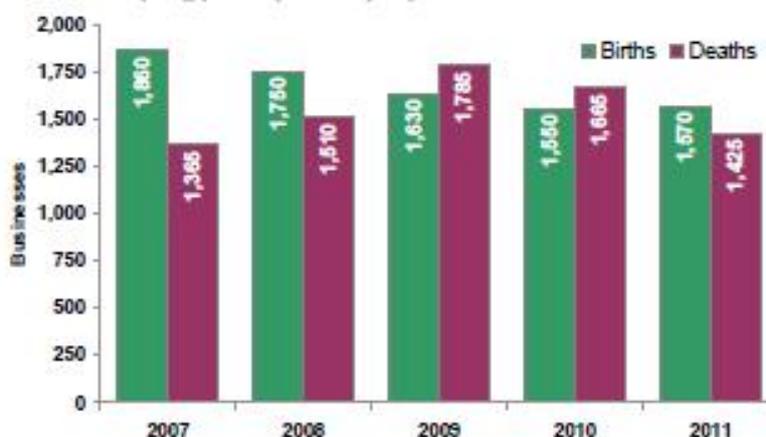
The shift from manufacturing to the service sector continued in the District to 2011, moving Bradford's industrial structure closer to England's while still retaining a greater share of manufacturing.

**Business start ups, closures and survival**

Business start ups are important to improving the District's relatively low business density level. The recession reduced the number of business births by 290 between 2007 and 2011. Latest data shows an upturn in business births and decrease in deaths although the birth growth rate at 1.3% was below West Yorkshire and England averages of +2.5% and +12% respectively. Business closures reached a high of 1,785 in 2009 but fell for two consecutive years to 1,425 in 2011.

Banksearch data shows that in 2012 84.5% of all new business births were in the service sector while manufacturing accounted for just 5% of all start ups. The highest percentage shares were in “real estate, professional services and support activities” (25%) followed by “wholesale and retail” (23%). Between 2008 and 2012 there was growth in “wholesale and retail”, “accommodation and food service” and “transport, storage and communications” industries.

**Figure 4o: Business births and deaths in Bradford**



Source: Business Demography 2011, ONS

### Employment by sector

Looking at employment by sector, health is the biggest employer in Bradford District with a total of 29,800 employees or 15.5% of all employees. Other major employment sectors are manufacturing (24,500 or 12.7%), education (23,000 or 12.0%) and retail (19,200 or 10.0%).

**Table 4c: Employees by industry**

Industry	Bradford			West Yorkshire	England
	2009	2011		2011	2011
	number	number	%	%	%
Mining, quarrying & utilities	2,200	2,600	1.4	1.3	1.1
Manufacturing	25,700	24,500	12.7	11.3	8.7
Construction	6,300	6,800	3.6	4.4	4.5
Motor trades	3,200	3,400	1.8	1.8	1.8
Wholesale	10,500	10,000	5.2	5.1	4.2
Retail	23,800	19,200	10.0	9.3	10.2
Transport & storage	5,900	8,300	4.3	5.1	4.7
Accommodation & food services	9,600	8,100	4.2	5.2	6.8
Information & communication	5,600	6,200	3.2	3.0	4.2
Financial & insurance	7,400	7,300	3.8	5.0	4.0
Property	3,200	2,400	1.3	1.2	1.6
Professional, scientific & technical	8,000	10,900	5.7	6.7	7.5
Business admin & support services	11,800	12,000	6.2	8.6	8.3
Public administration & defence	12,200	10,800	5.6	5.3	5.0
Education	22,700	23,000	12.0	9.9	9.5
Health	29,200	29,800	15.5	12.6	12.7
Arts, recreation & other services	7,000	6,800	3.6	3.9	4.5
<b>Total</b>	<b>194,200</b>	<b>192,200</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source: Business Register and Employment Service, 2011, NOMIS

Bradford has a notably higher proportion of employees in manufacturing, education and health compared to England averages. Employment in construction, accommodation & food services, professional services, business services and arts and recreation is lower than England as a whole. The low representation of high value knowledge based industries such as professional and business services is a weakness in the local economy and addressing this is key to moving the District towards a higher value, higher wage economy.

*Businesses in Bradford supporting note:*

<http://www.westyorkshireobservatory.org/resource/view?resourceId=3579>

### **Bradford - The Producer City and District**

The Producer City provides a distinctive economic identity for the city and District and describes an economy in which businesses create, make and trade. It is based on real strengths in key industries and businesses across the District. This includes companies such as:

- Pace - the world's number one designer and manufacturer of digital set-top boxes.
- Hallmark Cards – World leading greetings card manufacturers and retailers.
- Yorkshire Building Society - the second largest building society in the UK.
- WM Morrison Supermarkets – the UK's fourth largest supermarket chain.
- BorgWarner – leading global supplier of innovative turbo-charging systems.

It relates not only to the manufacture of physical goods but also to the creation and sharing of knowledge to produce new and improved goods and services that can be successfully marketed and traded in an increasingly competitive global economy. The model provides a focus for building on the District's established sector strengths and other key assets to promote investment, business growth and job creation.

### **Innovation**

Innovation-intensive manufacturing and service activity is increasingly responsible for economic growth with the OECD estimating that innovation has been responsible for two thirds of all recent private sector productivity growth in the UK. Research by the Work

Foundation found a divergence of innovation performance in UK cities. London and cities in the greater South East have developed highly successful innovation ecosystems while cities in the north of England and some coastal towns and ports, have struggled. Bradford falls into the Work Foundation's category, "low innovation cities" defined as those cities which have failed to sustain innovative firms and adjust to the knowledge economy.

Despite the innovation classification given to Bradford, the District has many innovation assets including the presence of major companies like Pace, BASF, Denso Marston and Radio Design. The University of Bradford has world class strengths in key technologies and good public/private innovation networks.

*Innovation supporting note:*

<http://www.westyorkshireobservatory.org/resource/view?resourceId=3587>

## **Social enterprise**

Social enterprises are businesses with primarily social objectives whose surpluses are principally reinvested in the business or community. Local data is not available but extrapolating from national figures gives a total of around 1,000 in Bradford in 2010<sup>3</sup>. In Bradford social enterprises are engaged in a wide range of business activities. Education and training and health are the main activities followed by arts and caring activities.

## **The informal economy**

The OECD defines informal activity as “legal production activities that are concealed from public authorities” – it does not include illegal activities. The informal economy is estimated to be worth between £120 billion to £200 billion per annum in the UK. Most informal workers are self employed with part or all of their informal operations in low-skilled and labour-intensive industries in occupations such as hairdressing, construction, cleaning, child minding, gardening etc. Informal enterprising activity occurs within all social groups, usually providing a top-up or alternative income. Research has shown that it may help to develop the skills and experience of those individuals working informally.

Recent research by Barnado’s and Bradford University School of Management<sup>4</sup> suggests that informal activity may be prevalent in Bradford as the industries in which it is most typically found are over-represented in the District. The Bradford report looked specifically at young people and found that those over 19 years face the greatest difficulty entering the labour market. The report also suggests that the local economy could potentially receive a significant boost if informal enterprise activity was harnessed and more people were helped to run legitimate businesses.

## **GVA**

GVA (Gross Value Added) is used to indicate total business output in an area. Bradford’s total GVA for 2011 was almost £8.3 billion. GVA per head of population was £15,956, which is significantly lower than the West Yorkshire (£18,172) and England (£21,349) averages. Over the most recent year 2010 to 2011 Bradford’s GVA increased at a faster pace than the West Yorkshire average (+1.8% compared with 1.6%) but this was slower growth than that experienced across England (+2.3%).

GVA per filled job is relatively low in Bradford compared to the national average but is higher than most other districts in Yorkshire and the Humber and has been improving since 2006.<sup>5</sup>

## **Economic forecasts**

Pre-recession levels of employment in Bradford District are not likely to be achieved until

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<sup>3</sup> LEA Theme Report – Social Enterprises – December 2010

<sup>4</sup> Get Bradford Working – from the Shadow to the Sustained Economy Phase 1: Research Report. Report submitted to CBMDC Children’s Services by Barnado’s and Bradford University School of Management

<sup>5</sup> For more information go to [http://www.ons.gov.uk/ons/dcp171766\\_306233.pdf](http://www.ons.gov.uk/ons/dcp171766_306233.pdf)

around 2018. However, the rate of employment growth in Bradford is forecast to outstrip both the West Yorkshire and national growth rates over the long term (2013-20), over the medium term (2013-17) Bradford's forecast to have around the same growth rate as West Yorkshire. Public administration employment is set to decline and employment losses are anticipated in some manufacturing industries. Professional and other private services, education, health and retail are expected to undergo the largest increases in employment between 2013 and 2020.

For the latest economic analysis go to:

[http://www.bradford.gov.uk/bmdc/business\\_and\\_industry/bradford\\_economy](http://www.bradford.gov.uk/bmdc/business_and_industry/bradford_economy)

#### **4.6 Key Facts**

- The district's population is projected to grow and change in the next 20 years. It is likely that it will have the fastest growing population of any area outside London.
- The population will become more ethnically mixed with significant growth among younger age groups, BME groups and within the more deprived areas of the District. This shift towards groups that traditionally experience lower labour market attainment, poses a challenge for Bradford. The free flow of labour across Europe and the effects of globalisation also suggest that communities will become more culturally mixed.
- Bradford has one of the lowest proportions of working age residents in employment of any local authority in the Yorkshire and Humber region and is lower than the national average. Correspondingly the district has one of the highest unemployment rates. However, recent data shows that employment rates continue to improve and the gap with regional and national rates is narrowing. Economic activity rates are also improving and the gap with national rates has reduced.
- Worklessness and dependency on benefits such as JSA and Incapacity Benefit is a particular issue for Bradford, where significant pockets of worklessness within Bradford push up the average figures for the District. Unemployment and worklessness is higher among BME groups and the situation is not improving.
- Mortality and life expectancy data across the Clinical Commission Group's areas demonstrate a link between deprivation and poor health outcomes exist within the district.
- Economic inactivity rates in the district is highest within Yorkshire and Humber and there are a high proportion of people without qualifications (15%). Average weekly earnings are also below regional and national average but have increased at a faster rate since 2008.
- The recession brought significant falls in employment in the District as businesses folded or contracted. Signs of recovery appeared in 2012 with more new

businesses forming and growth in the District's economic output (GVA) outstripping the West Yorkshire average.

- Bradford is an enterprising district where local residents are more likely to aspire to start a business than people elsewhere in the region. The number of business start ups per annum is increasing and business deaths are decreasing, but business density levels (businesses per capita) remain relatively low.
- Bradford retains a relatively strong manufacturing base. However the biggest industries in terms of business numbers and employment are all in the service sector
- Travel to work by car is increasing, and the level of out-commuting to surrounding Districts is estimated to have risen significantly. This places increasing pressure on the District's road infrastructure and levels of congestion.

## 5.0 Housing

The following section provides details of the types of residential properties in Bradford and details of the housing and household characteristics within the district. It also highlights details of the National, Sub-regional and Local policy framework with which any future housing developments must conform, and outlines a detailed analysis of the current Housing Market in the district.

### 5.1 National, Sub-regional and Local Housing Policies and Strategies

This section contains details on

- National Planning Policy Framework
- The Leeds City Region
- Local Housing studies

#### **NPPF: Housing**

Significantly increasing the supply of housing is a key element of the NPPF. To deliver a wide choice of high quality homes, widen opportunities for home ownership and create sustainable, inclusive and mixed communities, the NPPF required local planning authorities to:

plan for a mix of housing based on current and future demographic trends, market trends and the needs of different groups in the community  
identify the size, type, tenure and range of housing that is required in particular locations, reflecting local demand; and  
where they have identified that affordable housing is needed, set policies for meeting this need on site

Empty housing and buildings should be brought back into residential use in line with local housing and empty homes strategies. The NPPF states that the supply of new homes can sometimes be best achieved through planning for larger scale development, such as new settlements or extensions to existing villages and towns that follow the principles of Garden Cities.

In rural areas local planning authorities should be responsive to local circumstances and plan housing development to reflect local needs, particularly for affordable housing, including through rural exception sites where appropriate.

With regards to the evidence required to inform housing policies and strategies, the NPPF requires a Strategic Housing Market Assessment (SHMA) to assess the full housing needs and to identify the scale and mix of housing and the range of tenures needed over the plan period. This should meet household and population projections and address the need for all types of housing including the needs of different groups.

Local Planning Authorities should prepare a Strategic Housing Land Availability Assessment (SHLAA) to establish realistic assumptions about the availability, suitability and the likely economic viability of land to meet the identified need for housing over the plan period.

### **Regional Spatial Strategy (RSS): The Yorkshire and Humber Plan**

Whilst the policies included in the Regional Spatial Strategy (RSS) no longer form part of the statutory development plan, the evidence base used to develop them can still be used to inform Local Plans. The evidence base that was developed to support the preparation of the Yorkshire and Humber Plan, the RSS Partial Review and the more recent evidence that was intended to inform the proposed Integrated Regional Strategy has been documented.

A key housing issue for West Yorkshire identified from this evidence base is a need to ensure that housing plays its part in supporting and facilitating economic growth. This includes ensuring an adequate supply of housing and a high quality housing offer.

### **Leeds City Region Local Economic Partnership Plan**

Strategic priorities identified in the Leeds City Region Plan include creating the environment for growth and facilitating a low carbon economy. Providing sufficient high quality housing that meets resident's need is identified as critical to supporting these strategic priorities. A key goal for the Leeds City Region plan is therefore to provide sustainable housing that ensures everyone has a decent and affordable home.

The Leeds City Region Urban Eco Settlement Programme seeks to address the barriers to development and provide innovative eco homes within major towns and cities in the Leeds City Region.

The Urban Eco Settlements Programme is the Leeds City Region's alternative to a freestanding Eco Town, which aims to meet the housing and regeneration needs and ambitions of the city region. The Shipley and Canal Road Corridor has been identified by the Leeds City Region Partnership as one of four locations offering the potential for an Urban Eco Settlement, along with Aire Valley Leeds, York Northwest and North Kirklees/South Dewsbury. The Urban Eco Settlement proposals complement the Leeds City Region's housing growth agenda whilst seeking to deliver Eco-Town principles in major urban brownfield locations, within the heart of some of the city region's major economic and population centres.

### **Local Housing Studies**

CBMDC has collected and produced substantial evidence on housing markets and housing need in the district. These include the following studies;

- **Bradford Strategic Housing Market Assessment 2010 and 2013 Update (SHMA):** The SHMA is a key element of the Local Plan evidence base. It analyses the housing market in Bradford and provides information on the types of housing needed in different areas and the need for affordable housing.
- **Bradford District Housing Requirements Study 2013 and update Addendum Report 2013:** One of the key roles of planning is to estimate the future level of new housing required and to set housing requirement targets in the Local Plan which then determine the amount of land needed for new development. The study used the most up to date data, together with projections of the future performance of the local economy taken from the Regional Econometric Model to develop a robust, transparent and effective means of determining an appropriate and justifiable local housing requirement for the Bradford District. The update report re-runs the two core scenarios within the initial report using the data from the Interim 2011 Based Sub National Household Projections issued by the Government in April.
- **Private Sector Stock Condition Survey 2007:** Provides a picture on stock condition in the district.
- **Housing Market Tracker:** A set of 55 indicators that track the state of the housing market in Bradford.
- **Housing and Homeless Strategy for Bradford 2014 – 2019:** The Council is currently revising its District Housing Strategy. Policies and plans will need to support the emerging vision and four key objectives which include: more homes, safe and healthy homes, affordable homes and support independence and prevent homelessness.
- **Housing strategy for the over 50s:** “Great Places to Grow Old” is Bradford’s housing strategy for the over 50s 2011-2021 and sits under the joint housing strategy for the district.
- **Tackling Empty Homes in the Bradford District: Delivery Plan 2011-2014:** Tackling Empty Homes in the Bradford District is Bradford’s strategy for dealing with empty homes in the district. The strategy looks at how the district can bring more empty homes back into use and sits under the joint housing strategy for the district

### **Housing Development Frameworks**

- **Neighbourhood Development Plan for Barkerend, Beech Grove, Bradford Moor, Thornbury, Woodhall, & Laisterdyke Plan:** Has identified a number of potential development sites and recommended these as part of a package of proposals to achieve environmental improvements.

- **Holme Wood and Tong Neighbourhood Development Plan:** Completed in January 2012. This plan sets out a range of prioritised interventions to achieve a greater quantity and quality of homes, economic prosperity, strong neighbourhoods and a quality local environment within the Holme Wood and Tong area
- **Leeds – Bradford Corridor Housing Development Framework:** One of a series of documents to be produced or commissioned by the Council in support of the Joint Housing Strategy

## 5.2 Housing Profile of the District

This section provides details on:

- The current housing stock
- Building Activity
- Future Housing stock
- Property type
- Tenure
- Stock Condition
- Vacancy
- Occupancy

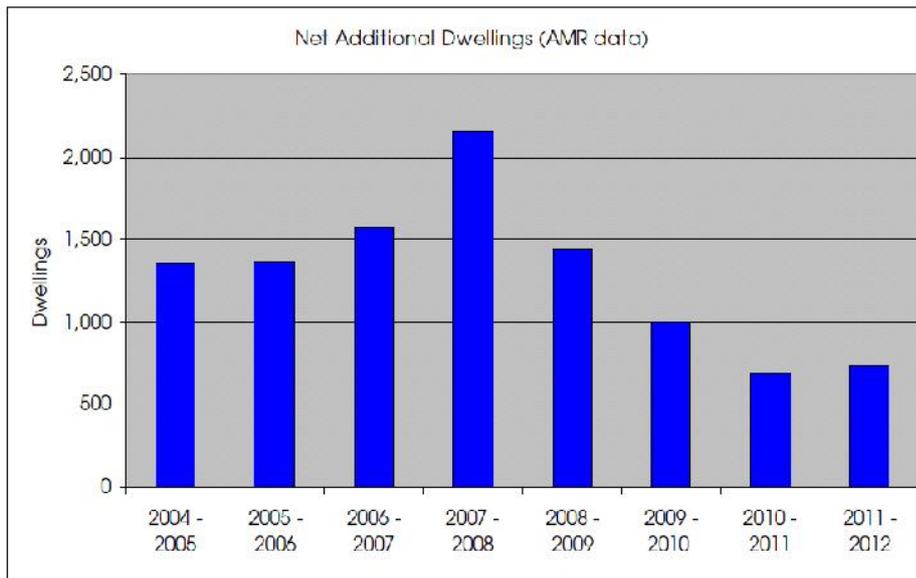
### Current Housing Stock

Total dwelling stock as at 2013 is around 210,000 residential dwellings across Bradford District (derived from Council tax data, 2013). Just under 70% of households are owner-occupiers. In comparison to regionally or nationally, Bradford has a low proportion of social housing – around 15%. Over the last ten years the number of households renting from a private landlord has increased significantly, to 18%.

### Building activity

Over the 8 years between 2004 and 2012 there have been approximately 10,332 net additional dwellings completed across Bradford (CBMDC Annual Monitoring Report). This equates, on average, to the addition of 1,292 houses annually. This pace of delivery has not, however, been consistent. Net completions rose between 2004 and 2008, peaking with the delivery of 2,156 net new houses in 2007/08. In line with the national picture completions have subsequently fallen over the following three years, reaching a low of 696 in 2010/11. The recorded net completions for 2011/12 show a small recovery but the 733 built in this year still only represents approximately a third of those completed in 2007/08.

**Figure 5a: Annual Net Additional Dwellings**



Source: 2010 – 2011 Annual Monitoring Report, Bradford City Council

The district's housing stock has grown by 3,601 homes since 2008. Housing has been built right across the district but almost 20% of the growth was in City ward (Figure 5a).

**Table 5a: : Change in Housing Units by Wards**

Ward	Change in stock April 2008 - April 2012
City	917
Bingley	289
Balldon	283
Bingley Rural	257
Shipley	241
Bowling and Barkerend	215
Tong	190
Idle and Thackley	186
Bolton and Undercliffe	184
Worth Valley	165
Ecoleshill	151
Craven	130
Toller	130
Thornton and Allerton	126
Queensbury	124
Keighley West	117
Wyke	112
Clayton and Fairweather Green	110
Wharfedale	100
Ilkley	88
Wibsey	87
Royds	84
Great Horton	67
Windhill and Wrose	67
Manningham	53
Keighley East	52
Keighley Central	38
Little Horton	33
Heaton	29
Bradford Moor	-7

Source: Bradford City Council housing monitoring data, 2012

Despite over 2,000 new affordable homes being built between 2001 and 2011, the number of households living in social housing grew by just 163 in comparison to the overall number of households in the district increasing by 19,000 over the same period. This is largely due to the loss of social housing through Right to Buy and demolitions of low demand/poor quality social housing.

### **Future Housing Stock**

An analysis of future households has been carried out as part of the Council's 2013 Housing Requirements Study which was finalised in February 2013 and then updated in the form of an Addendum Report in August 2013. The analysis has considered different scenarios for population change built using POPGROUP software with population forecasts translated into household projections.

The number of households across Bradford District is expected to increase over the period 2011-2028 by between 29,831 and 42,333 based on the Housing Requirements Study estimates. The overarching conclusion of the Housing Requirements Study is a recommendation that the Council adopts a housing target of around 2,186 dwellings each year. Much of this increase will be from the indigenous population and an important underlying driver is the growth of the BAME population. Population trend profiles mean that more homes are needed in particular for younger people forming new households, and for a growing older population.

Given the current projections for population and household growth within the district there is likely to be a need to increase supply through the plan period. In regards to market housing the SHMA identifies, that there is a need to maintain the delivery of a variety of dwelling types and sizes to ensure that a better balance between demand and supply is achieved across the District.

There are identified shortfalls in affordable housing across the District. Analysis in the SHMA Update 2013 suggests an annual net shortfall of 587, with a particular emphasis on the delivery of one and two bedroom dwellings.

In summary evidence suggests there is a need to provide a range of housing including affordable housing and higher value housing, in order to both retain and attract residents and investment. Symptoms of insufficient housing supply are evident across the district: overcrowding has increased to nearly 10% of households, and homelessness is also increasing. If housing growth does not keep up with population growth, overcrowding and homelessness will get worse, and impact upon the district's economic growth prospects.

### **Property type**

Figure 5b reviews the profile of occupied dwelling stock by size and type. Overall, the vast majority (78.8%) of properties are houses, 14.5% are flats/maisonettes and 6.5% are bungalows.

**Figure 5b: Property type and size**

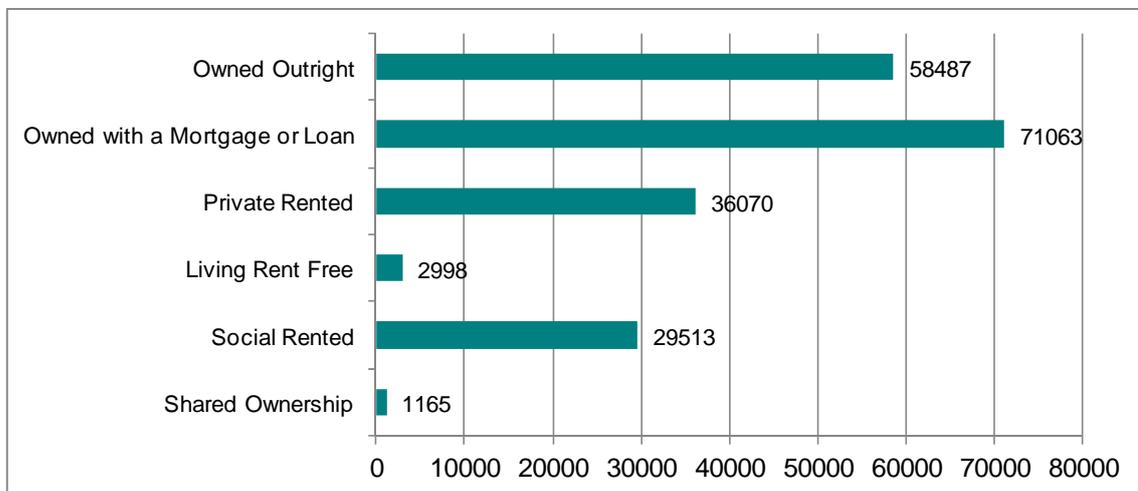


Source: Bradford SHMA Update 2013

**Tenure**

The 2011 census provides an up-to-date view of the tenure of dwelling stock across Bradford District. Overall, across Bradford District, 65% of households are owner occupiers, 19.6% rent privately or rent free and 15.4% live in affordable housing (either social/affordable renting or living in intermediate tenure dwellings). This contrasts with the tenure profile in the 2010 SHMA which reported that 70.1% of occupied dwellings were owner-occupied, 15.1% were social rented, 14.1% were private rented and 0.3% were intermediate tenure (e.g. shared ownership).

**Figure 5c: Bradford District tenure profile**



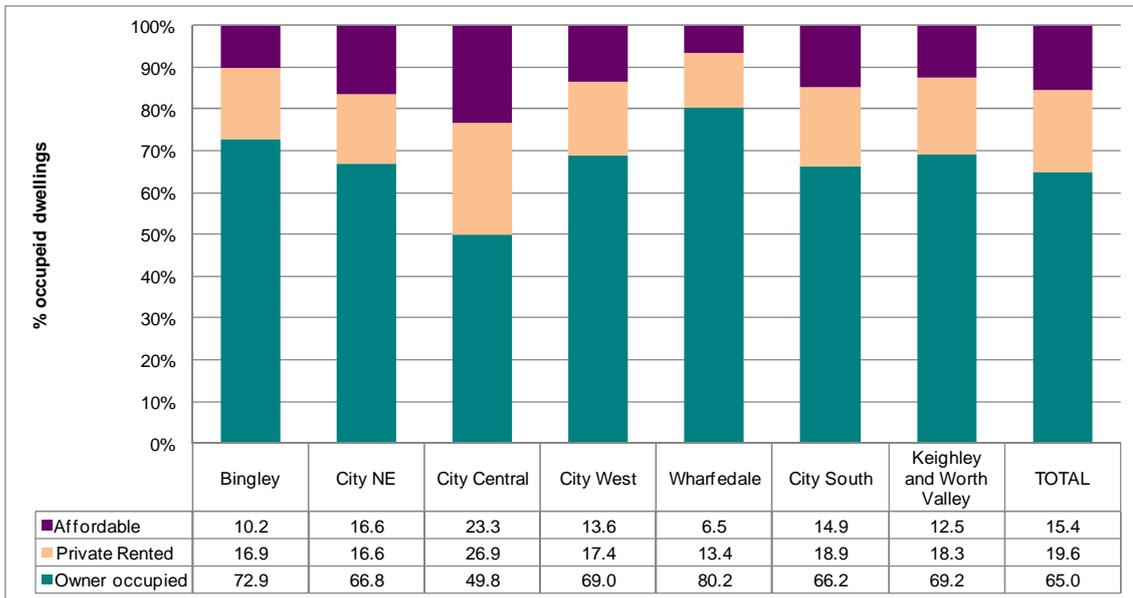
Source: ONS 2011 Census

The long-term trends of decline of the social rented sector and growth of owner-occupation and private renting have served to dramatically change the nature of the housing market over the last 25 years. Right-to-buy (RTB) and demolition of local authority housing reduced the stock of social housing markedly during the 1980's and 1990's. Most recently, the growth of buy-to-let has sped up private rented sector growth, particularly in lower value, inner core neighbourhoods.

The private rented sector has expanded over the last few years, this has occurred for a number of related reasons. Firstly, general factors influencing increased demand include greater household dissolution, a growth in single person households and an emphasis on job mobility; secondly, the rapid expansion of the buy-to-let investment market; thirdly, rising house prices across the district have made affordability for owner-occupation increasingly difficult for first time-buyers and fourthly, the increased provision of flats and apartments across the District being typically attractive to the investment market and young professionals.

The latest tenure profile of Bradford District is summarised in Figure X. Variations in broad tenure groups by sub-area is summarised in Figure X. Overall, 65% of occupied dwellings are owner-occupied, 15.4% are social rented, 19.6% are private rented.

**Figure 5d: Bradford District tenure profile by sub-area**



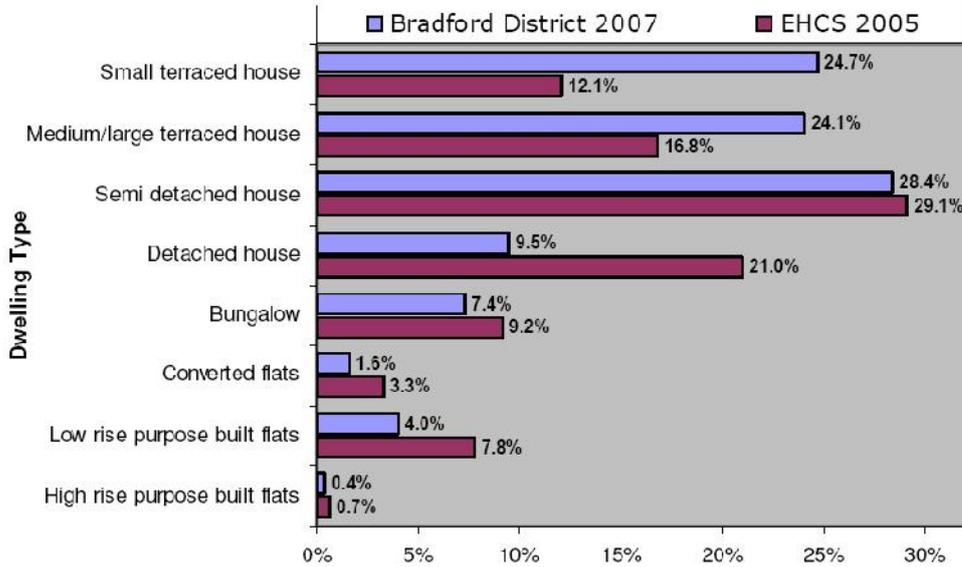
Source: Bradford SHMA Update 2013

### Stock condition

In the private sector Bradford is dominated by older terraced housing. 25% of the stock is small terraced housing (compared with an English average of 12%) and 24% is medium/large terraced housing (compared with 17%). Flats make up only 6% compared with a national average of 12%. 6% (9500 homes) are back-to-back, a

fundamentally unsatisfactory house type that is now largely confined to Bradford and Leeds. This older terraced stock brings with it serious housing condition problems that continue to be a major challenge.

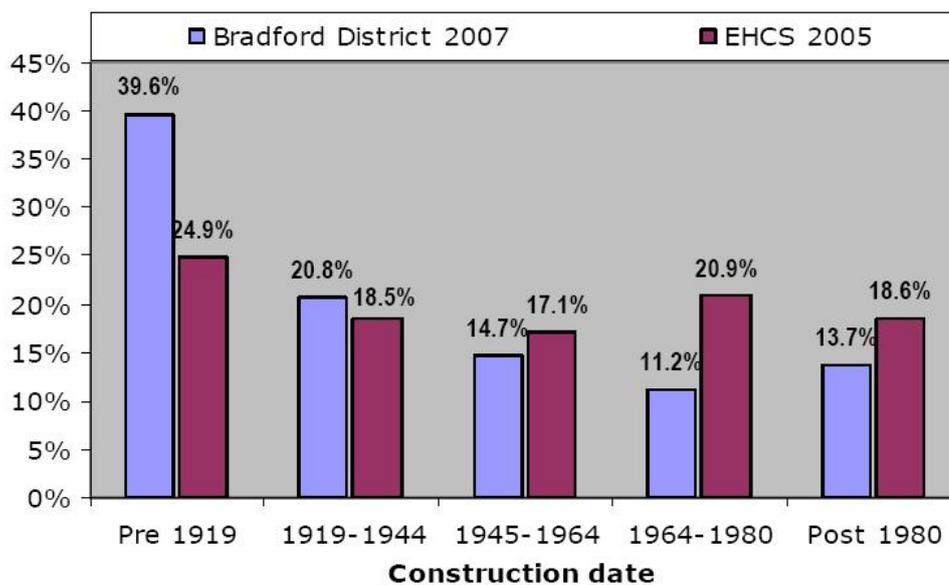
**Figure 5e: Dwelling type profile The City of Bradford and England**



Source: Private Sector House Condition Survey 2008, p.21

The age of the total private stock in the district differs from the average for England in that the stock profile contains a larger proportion of pre-1919 and interwar (1919-1945) stock compared to the national average. There is a consequent dip in the number of dwellings post 1944, particularly in the post 1964 dwellings; however this has been steadily increasing in recent years as the result of private sector new build.

**Figure 5f: Dwelling age profile England and the City of Bradford District**



Source: Private Sector House Condition Survey 2008, p.20

The following characteristics were identified in relation to private sector non-decency in Bradford, as seen in Table 5b.

**Table 5b: Bradford Private Sector Non-decency**

	<b>Private Sector Non Decent</b>	<b>% Private Sector Non Decent</b>	<b>England % Non decent</b>
<b>Bradford</b>	<b>65,100</b>	<b>40.5%</b>	<b>27.1%</b>

Source: Private Sector House Condition Survey 2008, p.6

Over 65,000 homes fail the Decent Homes standard (40.5% of private sector stock, substantially higher than the English average of 27.1%). The problem is worse in both the private rented stock (58.8% compared with 40.6% nationally) and owner-occupied stock (37.6% compared with 24.9% nationally)<sup>6</sup>.

Bradford's private sector housing stock has a higher level of non decency than that found nationally, particularly with thermal comfort and category 1 hazard failures. Practical issues regarding improvement to older dwellings exist, and meeting national priorities especially for improving energy efficiency will be challenging in many cases<sup>7</sup>.

48.6% (23,580) of private residents classified as vulnerable live in non-Decent homes (compared with an English average of 33.9%). Of the 23,580, 17,950 are owner-occupied (76%) and 5990 (24%) private rented. To reach the national target of 70% of vulnerable households in the private sector to be in decent homes by 2010 will require 9025 homes to be improved to the Decent Homes Standard. The shortfall against the Decent Homes Standard is a major challenge in its own right, but the quality issues associated with older private housing, go well beyond the basic Decent Homes Standard. Poor environment and street-scene, and poor and cramped internal layouts are also common problems<sup>8</sup>.

In the private sector 7% of all dwellings unfit. This is the highest proportion across the 5 West Yorkshire local authorities. The MSOA areas with the overall poorest condition of housing stock are: Laisterdyke, Manningham Central, West Bowling, Bradford Central and Girdlington. The MSOA with consistently the best condition is Eldwick/Crossflatts/Bingley Moor<sup>9</sup>.

<sup>6</sup> District Housing Strategy 2008-2020

<sup>7</sup> Private Sector House Condition Survey 2008

<sup>8</sup> Private Sector House Condition Survey 2008

<sup>9</sup> Local housing Assessment 2008

In the social sector all housing associations are on target to achieve the Decent Homes standard by 2010. By 2010, therefore the physical condition of social rented housing will be the best it has been for many years<sup>10</sup>.

## Vacancy

The total number of dwellings in Bradford District at 1st April 2012 was 209,439, with 197,446 occupied dwellings and 6,244 long-term vacant dwellings. Table 9 summarises this data at sub-area level. The proportion of dwellings that are long-term empty is highest in City Central at 5% compared with a District average of 3%. This compares with a total of 206,969 self-contained dwellings across Bradford District as reported in the 2010 SHMA. Of these, 12,489 (6%) were vacant and 194,480 are occupied.

**Table 5c: Dwelling stock and vacancy rates by sub-area**

Sub-area	Dwelling stock at 1 Apr 2012			
	Total	Occupied	Long Term Empty	% LT empties
Bingley	30831	29372	575	1.9
City Central	54784	50262	2745	5.0
City North East	28837	27572	592	2.1
City South	27201	25851	616	2.3
City West	21091	20066	522	2.5
Keighley & Worth Valley	27371	25804	823	3.0
Wharfedale	19324	18519	371	1.9
<b>TOTAL</b>	<b>209439</b>	<b>197446</b>	<b>6244</b>	<b>3.0</b>

Source: Bradford SHMA Update 2013

## Overcrowding

Overcrowding has increased from 2001. 9.7% of households are considered to have at least one room too few for their needs, 4,523 more households than in 2001. Severe overcrowding is concentrated around Great Horton Road, Manningham, Barkerend Road and Central Keighley

### 5.3 Household characteristics

This section contains information on:

- Household composition
- Household structure and formation
- Future changes in household numbers

<sup>10</sup> District Housing Strategy 2008-2016

## Household composition

The total number of dwellings in Bradford District at 1<sup>st</sup> April 2012 was 209,439, with 197,446 occupied dwellings and 6,244 long-term vacant dwellings. Table X summarises this data at SHMA sub-area level.

**Table 5d: Dwelling stock and vacancy rates by sub-area**

Sub-area	Dwelling stock at 1 Apr 2012			
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<b>TOTAL</b>	<b>209439</b>	<b>197446</b>	<b>6244</b>	<b>3.0</b>

Source: Bradford SHMA Update 2013

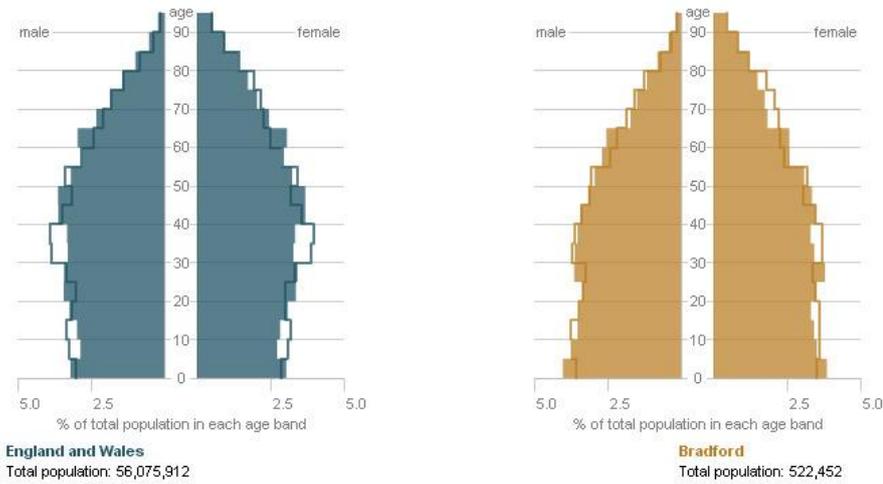
## Household structure and formation

The significant growth in population seen between 2001 and 2011 has resulted in changes to the age profile of the population across the authority. This is illustrated in the following charts produced by the ONS.

Comparing the 2011 age profile of Bradford against England and Wales it is evident that Bradford has a notably more youthful population, with higher proportions of both sexes in the age category's from 0 – 20 years old. Bradford also has a slightly higher proportion of males aged 25 – 40 and females aged 20 – 35 compared to the national figure which is an important factor in terms of the size of the relevant potential workforce in the authority.

Contrasting the 2001 profile with the 2011 profile in Bradford shows that in 2011 there has been a slight reduction in the proportion of the population aged 30 – 40, although this is much less marked than that seen across England and Wales. In contrast there has been an increase in the proportion of people aged 55 – 65 which reflects the general evolution of this generation through the pyramid.

2011 Census: population estimates for England and Wales (outlines show 2001)

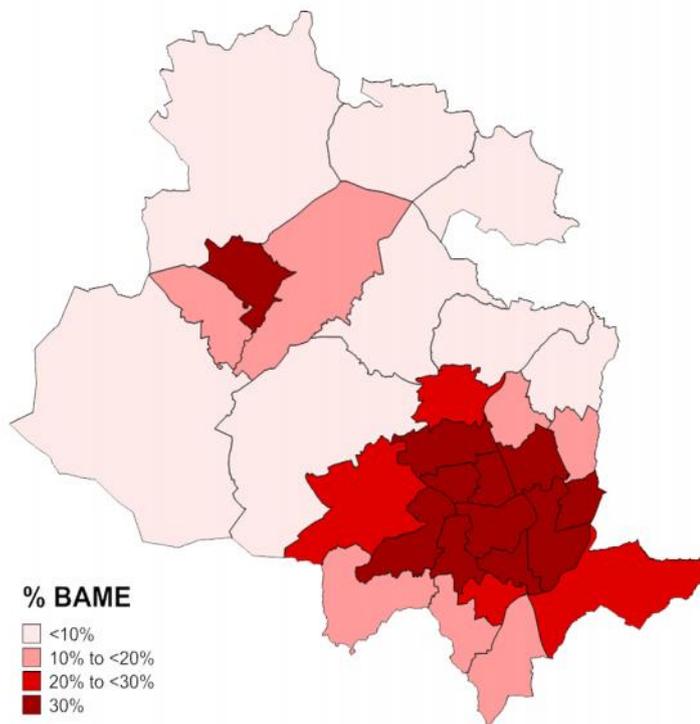


Source: 2011 Census, 2001 Mid-Year Population Estimates  
Graphic by ONS Data Visualisation Centre

Source: Understanding the Bradford District 2013

There is considerable ethnic diversity within Bradford and 36.1% of residents identify with a Black and Asian Minority Ethnic group<sup>11</sup>. Map x summaries ethnicity by ward.

**Map 5a: Black and Asian Minority Ethnic Households in Bradford District**



Source: Bradford SHMA Update 2013

<sup>11</sup> ONS 2011 census

## Gypsies and Travellers

Across the District there are two Local Authority sites. The first, of which, opened in 1973 and is in Esholt – providing 19 plots. The second is the Mary Street site, which opened in 1976 and now has 28 plots. Overall there is a caravan capacity of 94 – with 56 capacity at Mary Street and 38 at Esholt<sup>12</sup>.

The needs of Gypsies and Travellers have been assessed in a West Yorkshire-wide study. This suggests for the period 2008 to 2026 a total additional requirement of 62 pitches for Gypsies and Travellers and 18 pitches for Travelling Showpeople (Table 5e).

**Table 5e: Pitch requirements for Gypsies, Travellers and Showpeople**

<b>Gypsies &amp; Travellers</b>	Need for 2008-12	19 standard pitches 6 transit pitches
	Need for 2013-15 (based on family growth)	6 standard pitches
	<b>Total requirement 2008-15</b>	<b>31 pitches</b>
	Additional requirement 2016-2026	31 pitches
	<b>Total requirement 2008-2026</b>	<b>62 pitches</b>
<b>Travelling Showpeople</b>	Need for 2008-12	6 pitches
	Need for 2013-15 (based on family growth)	2 pitches
	<b>Total requirement 2008-15</b>	<b>8 pitches</b>
	Additional requirement 2016-2026	10 pitches
	<b>Total requirement 2008-2026</b>	<b>18 pitches</b>

Source: Bradford SHMA Update 2013

## Future changes in household numbers

An analysis of future households has been carried out as part of the Council's 2013 Housing Requirements Study. The analysis has considered different scenarios for population change built using POPGROUP software with population forecasts translated into household projections.

In the Addendum report two specific scenarios have been rerun to take account of the 2011-based sub-national population projections (SNPP): the 2010 SNPP rebased to take account of the baseline population of the 2011 census; and an employment-led (REM) scenario. Each scenario has had two assumptions regarding headship rates applied: a trend-based assumption post-2021 and a fixed headship rate post-2021 (Table X)

<sup>12</sup> Local Housing Assessment 2008

**Table 5f: SNPP Projected household change**

<b>Scenario</b>	<b>Households 2011</b>	<b>Projected households in 2028</b>	<b>Change in households 2011-2028</b>	<b>Average annual (17 years)</b>	<b>Dwellings required 2011-2028 (3% vacancy assumed)</b>	<b>Net annual dwelling requirement</b>
<b>SNPP 2010 Trend (2011-based interi household projections)</b>	<b>199,172</b>	<b>227,155</b>	<b>27,983</b>	<b>1,646</b>	<b>28,822</b>	<b>1,695</b>
<b>SNPP 2010 Fixed (2011-based interi household projections)</b>	<b>199,172</b>	<b>228,532</b>	<b>29,360</b>	<b>1,727</b>	<b>30,241</b>	<b>1,779</b>
<b>SNPP 2010 (2008-based household projections)</b>	<b>199,400</b>	<b>235,778</b>	<b>36,478</b>	<b>2,146</b>	<b>37,572</b>	<b>2,210</b>
<b>Employment-led (REM) Trend</b>	<b>198,774</b>	<b>228,605</b>	<b>29,831</b>	<b>1,755</b>	<b>30,726</b>	<b>1,807</b>
<b>Employment-led (REM) Fixed</b>	<b>198,774</b>	<b>229,904</b>	<b>31,130</b>	<b>1,831</b>	<b>32,064</b>	<b>1,886</b>
<b>Employment-led (REM)</b>	<b>198,048</b>	<b>241,381</b>	<b>42,333</b>	<b>2,490</b>	<b>43,603</b>	<b>2,565</b>
<b>Employment-led mid-point (Trend and REM model average)</b>			<b>36,082</b>	<b>2,122</b>	<b>37,165</b>	<b>2,186</b>

Source: Housing Requirements Study 2013 and Addendum Report 2013

Key conclusions from the 2013 Housing Requirements Study and Addendum report include:

- Planning for demographically-driven demand as set out in the SNPP 2010-based population projections does not take into account economic changes in Bradford over the plan period, nor the resultant requirements for labour to fill potential job opportunities;
- The REM model provides an agreed economic forecast which is reflective of the economic growth potential of Bradford;
- Scenarios using 2008-based household projections could produce an overestimate of housing need if the sort of economic and housing market conditions which underpinned those projections do not return during the period covered by the Local Plan
- A recommendation that Bradford's housing requirement should not be set with reference to the 2011-based interim household projections alone as this could imply a continuation of the economic conditions (i.e. a recession) of the plan period. This would not be supportive of the Council's aspirations to achieve economic growth and regeneration, provide sufficient affordable homes and reduce problems of overcrowding in parts of the urban area.

The overarching conclusion of the Housing Requirements Study is a recommendation that the Council adopts a housing target of around 2,186 dwellings each year. This takes account the uncertainty over where the real future performance of the economy and housing market might fall in the spectrum between assumptions underlying the 2008 and 2011-based household projections.

## **5.4 Housing Markets**

This section contains information on:

- Bradford Housing Market Area
- Property values
- Affordability
- Housing Need

### **Bradford Housing Market Area**

The Bradford SHMA concluded that the Bradford District can be described as a self-contained housing market area, with 76.8% of households moving within the District and 78.6% of employees working in the District. This corroborates the findings of Regional SHMA work prepared by ECOTEC<sup>13</sup>.

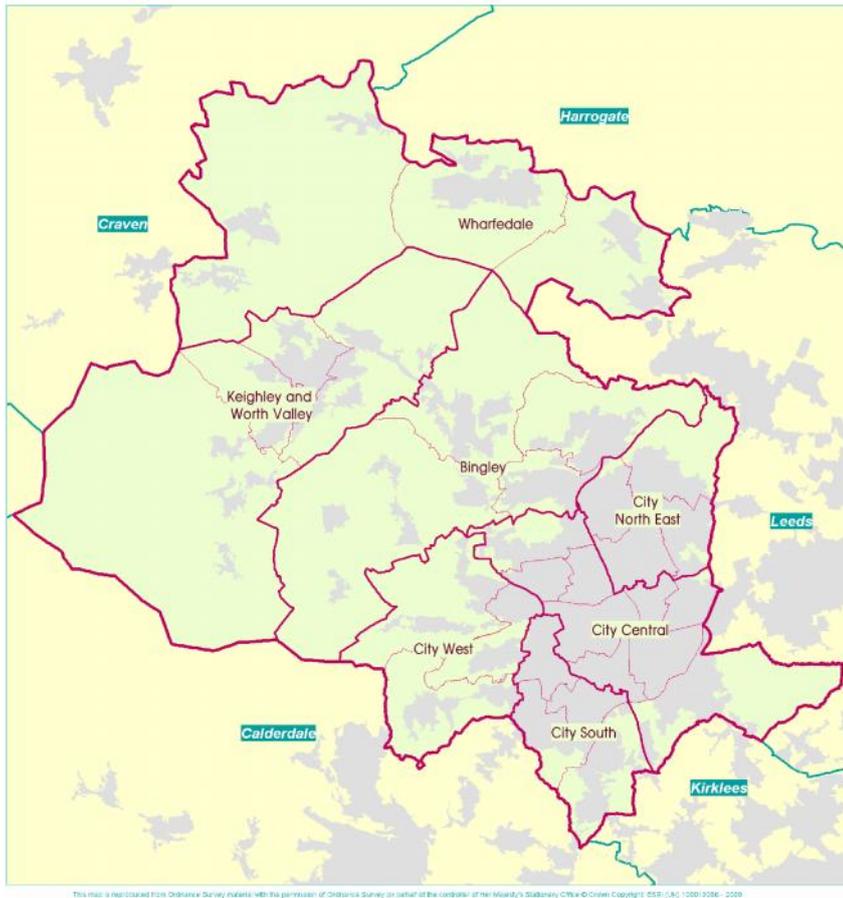
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<sup>13</sup> Strategic Housing Market Assessments for Yorkshire and the Humber: Final Report Bradford Housing Market Area, Ecotech, June 2008

## Housing Markets in Bradford

The SHMA also considered a range of data to identify a number of distinctive sub-areas. The urban area of Bradford was split into four localities, with the remainder of the District divided into: Bingley, Baildon and Shipley; Keighley and Worth Valley; and Wharfedale.

**Map 5b: Bradford sub-areas**



Source: Bradford SHMA

Having carried out this analysis, the proposed sub-areas were considered by the project steering group and the Housing Partnership. There was general agreement that this sub-area breakdown was appropriate for Bradford District. However, it is not suggested that these are different housing market areas but rather distinctive sub-areas of a larger Bradford Housing Market Area. On the basis of updated evidence in the SHMA Update 2013 these sub-areas remain an appropriate way of sub-dividing the District.

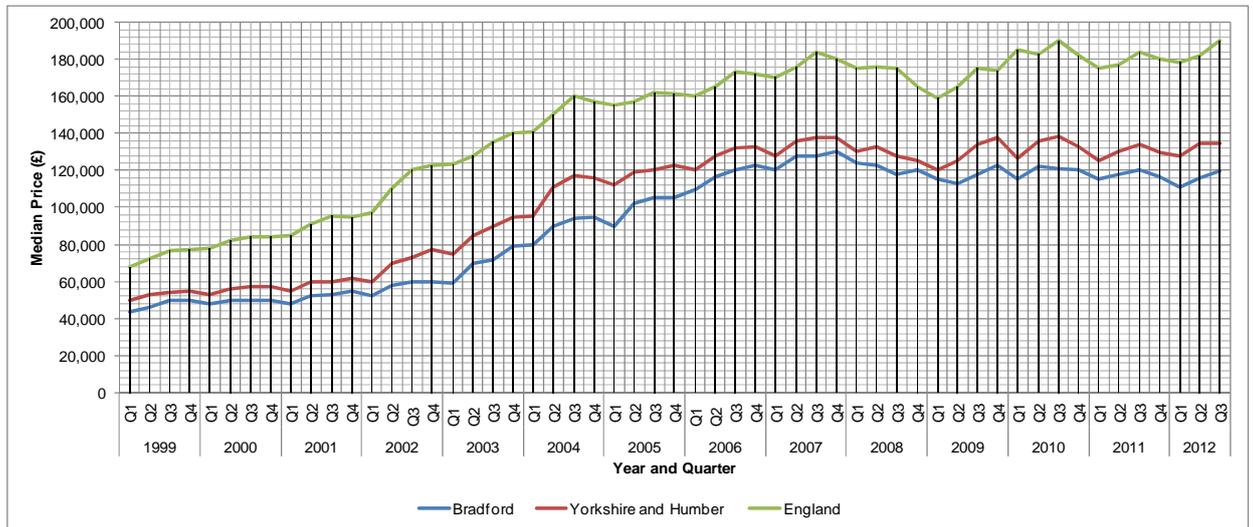
## Property Values – Levels and Trends

Figure X shows how house prices across Bradford District have increased 160% over the period 1999 to 2012, with median prices rising to £129,950 during 2007 and,

following a slight fall, reaching £119,725 in Q3 2012. The median price across the District has been consistently lower than both the regional and national median price.

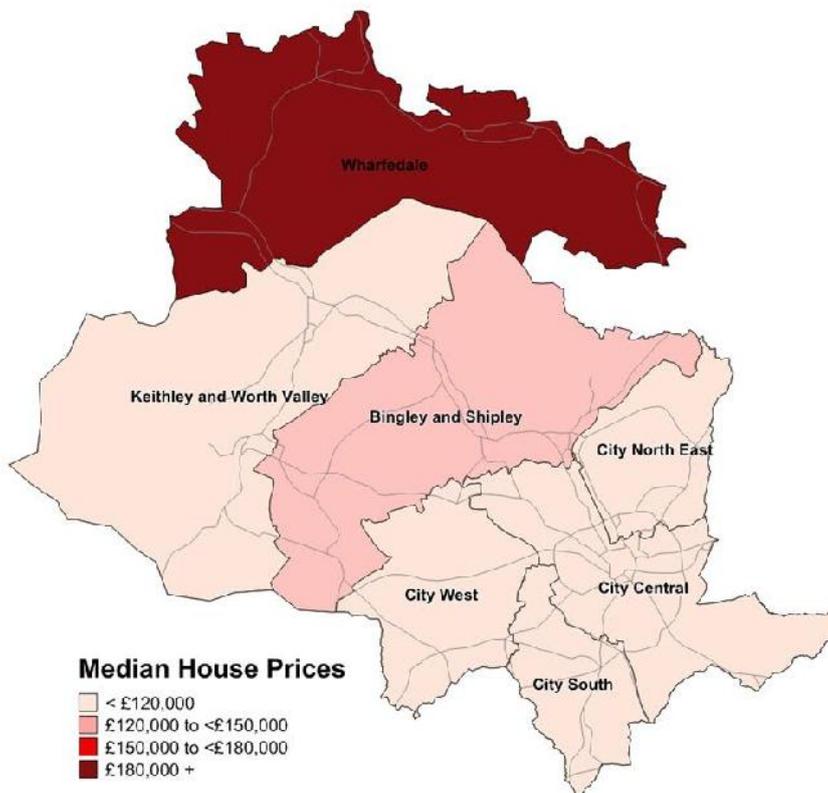
The distribution of average house prices is illustrated in Map 5. This indicates that prices are relatively higher in the Wharfedale and Bingley and Shipley areas and lowest in Bradford City Central and urban area of Keighley.

**Table 5g: House prices 1999 to 2012: Bradford, regional and national trends**



Source: Bradford SHMA Update 2013

**Map 5c: Median house prices in 2012**



Source: Bradford SHMA Update 2013

## Affordability

The relative affordability of open market dwellings in Bradford District compared with the other 21 districts in Yorkshire and the Humber is shown in Table 14. Table 14 presents lower quartile house prices, lower quartile gross income of full-time workers and a ratio of lower quartile incomes to house prices. Overall, Bradford District is ranked the 10<sup>th</sup> most affordable district in the Region. The 2010 SHMA reported an income to house price ratio of 6.1 however latest data indicates a ratio of 7.1 indicating that relative affordability has deteriorated.

**Table 14:** Relative affordability of lower quartile prices by Local Authority

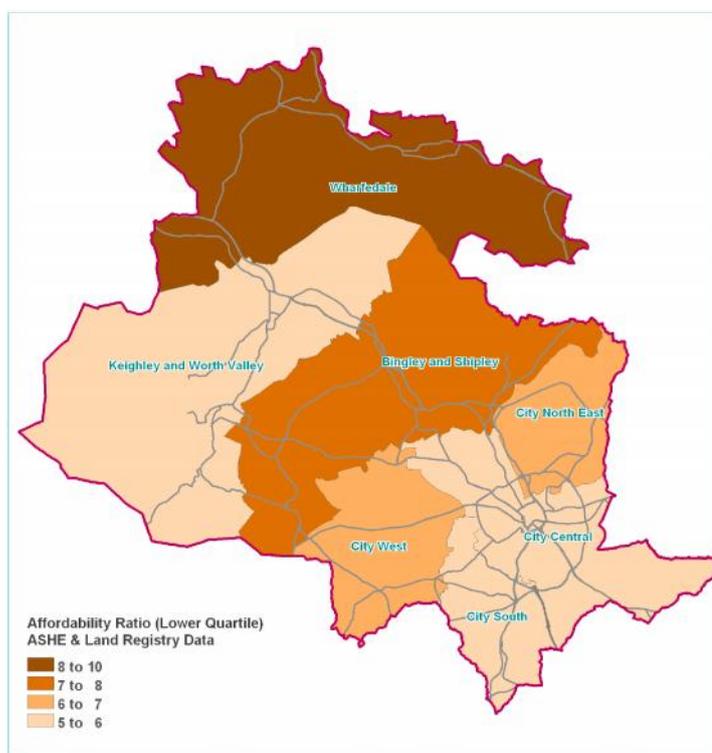
	Lower Quartile House Price Q3 2012	LQ Gross Income per week	Annual Gross Income	Income to House Price ratio
Harrogate	£222,500	£357	£18,574	12.0
Ryedale	£193,500	£320	£16,614	11.6
Craven	£191,000	£330	£17,139	11.1
Hambleton	£195,000	£343	£17,836	10.9
Richmondshire	£190,000	£362	£18,824	10.1
York UA	£184,998	£354	£18,424	10.0
Selby	£165,000	£357	£18,548	8.9
Scarborough	£139,975	£325	£16,921	8.3
Leeds	£143,500	£355	£18,460	7.8
Yorkshire and the Humber	£134,328	£340	£17,680	7.6
Sheffield	£135,000	£344	£17,878	7.6
East Riding of Yorkshire UA	£140,000	£359	£18,668	7.5
<b>Bradford</b>	<b>£119,725</b>	<b>£323</b>	<b>£16,770</b>	<b>7.1</b>
Wakefield	£119,000	£321	£16,692	7.1
Doncaster	£115,000	£317	£16,494	7.0
Kirklees	£124,000	£346	£17,987	6.9
Rotherham	£118,000	£333	£17,290	6.8
Calderdale	£120,000	£350	£18,190	6.6
North East Lincolnshire UA	£110,000	£328	£17,046	6.5
North Lincolnshire UA	£115,000	£350	£18,174	6.3
Barnsley	£105,000	£345	£17,924	5.9
Kingston upon Hull, City of UA	£88,500	£308	£16,032	5.5

Sources: Bradford SHMA Update 2013

Within Bradford District there are considerable variations in house price and relative affordability (see Map 6). Map 6 considers the relative affordability of properties by comparing lower quartile incomes with lower quartile property prices. This suggests a four-way split between highest ratios in Wharfedale (where lower quartile prices are 9.8 times a lower quartile income); a ratio of 7.9 in the Bingley/Shipley area; ratios of

6.1 in City West and City North East sub-areas; and ratios between 5.2 and 5.7 in remaining Bradford City areas and Keighley/Worth Valley.

**Map 5d: Relative affordability of properties in Bradford**



Source: Bradford SHMA 2010

**Housing Need**

A robust and defensible assessment of housing need is essential for the development of affordable housing policies which need to be articulated in. The needs assessment model advocated by the CLG was used in the 2010 SHMA and this has been refreshed using choice-based lettings data in 2012. The 2013 SHMA analysis indicates a net annual shortfall of 587 affordable dwellings. Table 15 summarises the overall affordable shortfalls by property designation (i.e. general purpose and older person) and property size (number of bedrooms).

**Table 5h: Annual affordable housing requirement 2012/3 to 2016/17**

Designation	No. Beds	Gross	Net
General Needs	One	586	586
	Two	143	121
	Three	0	-129
	Four +	3	-5
Older Person	One	36	31
	Two or more	1	-17
<b>TOTAL</b>		<b>769</b>	<b>587</b>

## Conclusions

Future housing development needs to be managed to address relevant markets in the district, including meeting identified housing needs of specific groups including families, older people and BME households. It will be vital that planning policy considers housing mix alongside future economic growth and re-structuring to enable access by all groups, whilst also addressing the current trend of out-migration, especially within higher income groups.

The overarching conclusion of the Housing Requirements Study is a recommendation that the Council adopts a housing target of around 2,186 dwellings each year. Recent research supports the need for 20-25% of these new homes to be affordable. The current rate of new housing development averages 1292 homes per year over the last decade, of which only a relatively small proportion has been affordable. These new targets will be a major challenge to achieve.

### 5.5 Key Facts

#### Stock Profile

- Total dwelling stock as at April 20012 was 209,439 residential dwellings across Bradford District
- The stock is dominated by private sector dwellings, with levels of social housing below the regional average.
- Levels of private renting have increased over the last few years.
- The stock is dominated by terraced housing, which accounts for roughly half of the total stock, and semi-detached housing.
- Reflective of limited local offer of higher value housing is the fact that detached homes make up a smaller proportion than the regional and national average.
- Flats represent a smaller percentage of the stock than the national average.

#### Stock condition

- The stock contains a larger proportion of pre-1919 and interwar stock compared to the national average. Roughly 40% of Bradford's total stock was built pre-1919 compared to the national average of 25%.
- Bradford has very high levels of private sector non-decency and a higher percentage of dwellings unfit than other West Yorkshire authorities.

- 6% of homes are back-to-back, a fundamentally unsatisfactory house type that is now largely confined to Bradford and Leeds. This older terraced stock brings with it serious housing condition problems that continue to be a major challenge.

#### Household characteristics

- Compared with regional and national data the household type profile of Bradford District generally mirrors that of the Region and England, although the District does have considerably more multi-person households and lower proportions of couples with no children compared with the Region and England.
- The average household size in the Bradford district is 2.6. This is not as low in many other areas due mainly to the sizeable local BME community.
- Roughly a quarter of Bradford's population is under 15, this is higher than regional and national averages.
- Bradford has a significantly higher proportion of minority ethnic households than the region as a whole.
- The older population in Bradford is not as significant as in some other areas of the region

#### Future Change in Households

- The population of Bradford is growing and is forecast to grow very strongly in future years. Economic growth and restructuring across the sub-region; strong internal population growth; and international migration are major drivers which will continue to determine the direction of housing market change in Bradford over coming years.
- The period to 2030 is expected to see substantial household growth in the Bradford district, with around an additional 37,400 households estimated.
- This predicted increase in households is reflected in the annual housing target for Bradford of around 2200 homes per year.
- Although growth of the older population (aged 65+) is not expected to be as marked in Bradford as in some other areas of the region, the district will need to commence planning for increasing demand as nearly a quarter of the district's population increase will be accounted for by a growing population of older people.

- Bradford has a significantly higher proportion of BME households than the region as a whole. Independent forecasts predict strong population and household growth in Bradford driven by strong natural growth.

#### Housing Markets

- Bradford District is a relatively self contained housing market area but there are strong links to Leeds, Kirklees, Craven and North Yorkshire.
- Bradford consists of a range of complex and diverse housing sub areas.
- The highest priced markets remain concentrated in suburban and semi-rural locations such as Wharfedale, Bingley and Baildon.
- The inner suburbs remain characterised by lower sales values
- Access to affordable housing is a key issue for the district.
- Overcrowding and poor housing are issues in central Bradford. The inner suburbs of Bradford suffer from higher levels of overcrowding than other areas of the district due to a coalescence of small properties and large household sizes.

#### Affordability

- House prices are below the regional and national average.
- Affordability ratios for Bradford are slowly increasing, though are still below those of West Yorkshire and the Region. However, the district-wide picture masks much larger localised affordability problems.
- Affordability issues are most obvious in Wharfedale, Airedale, the Worth Valley and some outlying suburbs of Bradford.
- Affordability is a major issue for both urban and rural areas due to a low income and high house prices respectively.
- The annual shortfall of affordable housing supply is currently estimated to be in the region of 587 (net) units per year

## 6.0 Landscape Character and Historic Environment

To understand Bradford District as a place it is useful to understand the physical form and the landscape character of the area and also the influence of the historic environment and the built heritage of the district. This section therefore undertakes an assessment of the existing landscape and historic environment of the district and the contribution these aspects have on the overall shaping of the area.

The key documents and reports that helped analyze these aspects of the District include-

- Heritage at Risk register 2009-2013 (English Heritage)
- Landscape Character SPD (CBMDC, 2008)
- Saltaire WHS Environmental Capacity Study (Atkins, 2006)
- Conservation Area Assessments (CBMDC, 2003-2005 )
- Bradford City Centre Design Guide SPD (Urbed, 2007)
- Good-Bad-Ugly: Notes on a Heritage Weekend Walk in Bradford City Centre (Bradford Building Preservation Trust, 2004)
- Land Ownership Schedule for Bradford City Centre (Land Aspects, 2006)
- Archaeological Evaluation of the Broadway Centre Site (WYAS, 2002)
- City Centre Streetscape Design Manual (BCR and CBMDC, 2006)

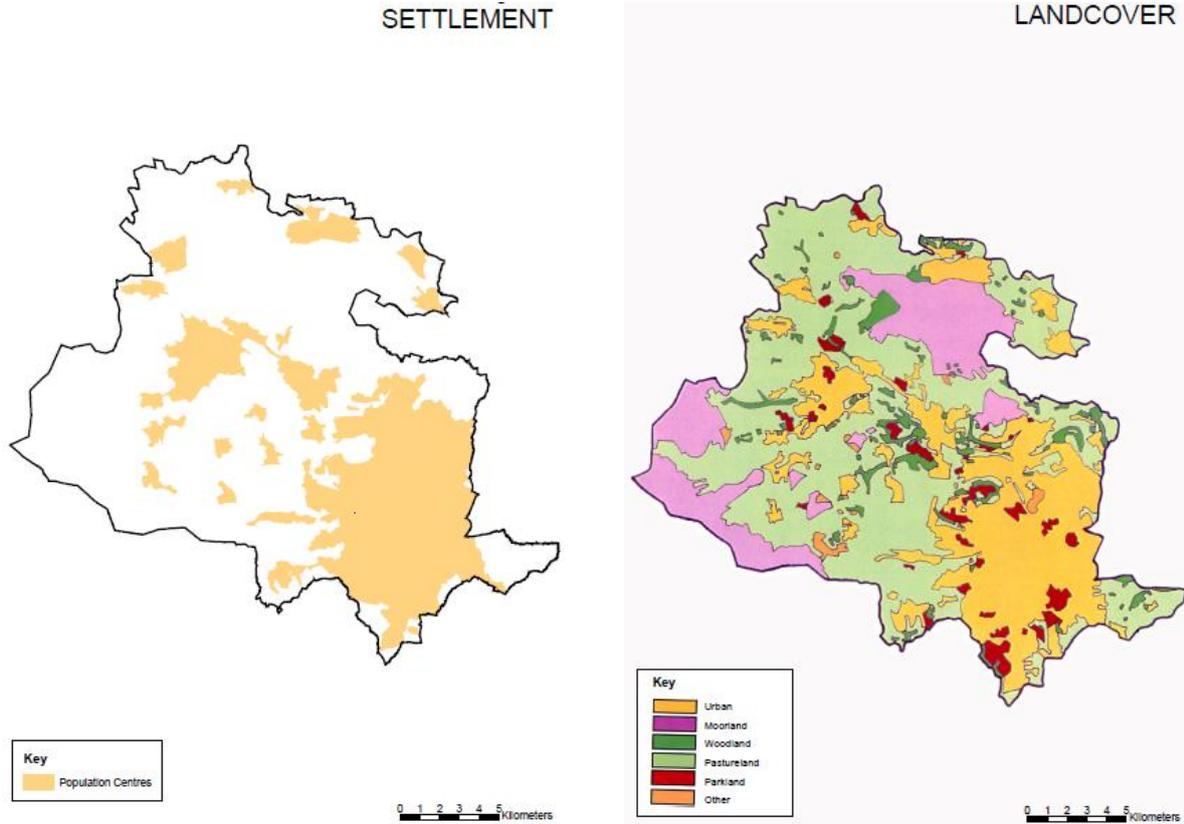
### 6.1 General Overview of the District's Natural Landscape Elements

The City of Bradford Metropolitan District comprises about 370 km<sup>2</sup>. Only about one third of the District is built up but this area contains about 86% of the population (See Figure 1 – Settlement Map). The main population areas of Bradford, Keighley, Shipley, Bingley and Ilkley are separated by areas of agricultural land, isolated villages, areas of undeveloped moorland, woodland and parkland (See Figure1 - Landcover Map).

One of the most striking features of the District is the quality of its landscape and in particular the proximity of the main urban areas to areas of high landscape value. The character of the District's landscape is very varied, ranging from the rugged open moorland of the South Pennine uplands to rolling farmland, and open river valleys to wooded hillsides.

The landscape elements of Bradford are the product of the interaction of both physical and human influences. This section of the report describes the main physical influences including topography, geology, soils, climate and biodiversity.

**Map 6a: Settlement and Landcover**



**Landform**

The District comprises a series of escarpments of plateaux with elevations up to 455m O.D., and a general decrease in the height of plateau in the east. The escarpments are dissected by the Rivers Aire and Wharfe and a number of smaller rivers, including Bradford Beck and the River Worth. The valley sides are commonly very steep, in contrast to the flat nature of the valley bottoms. The main urban areas and transport routes occur within the valley floor of the district. Within these urbanised areas the topography has often been altered artificially, with large areas of made ground, disturbed ground and excavation.

Geographically, the area is considered to be part of the upland Pennine penneplain generally slopes eastward complicated by valley incisions, and a series of step like features marking breaks in slope.

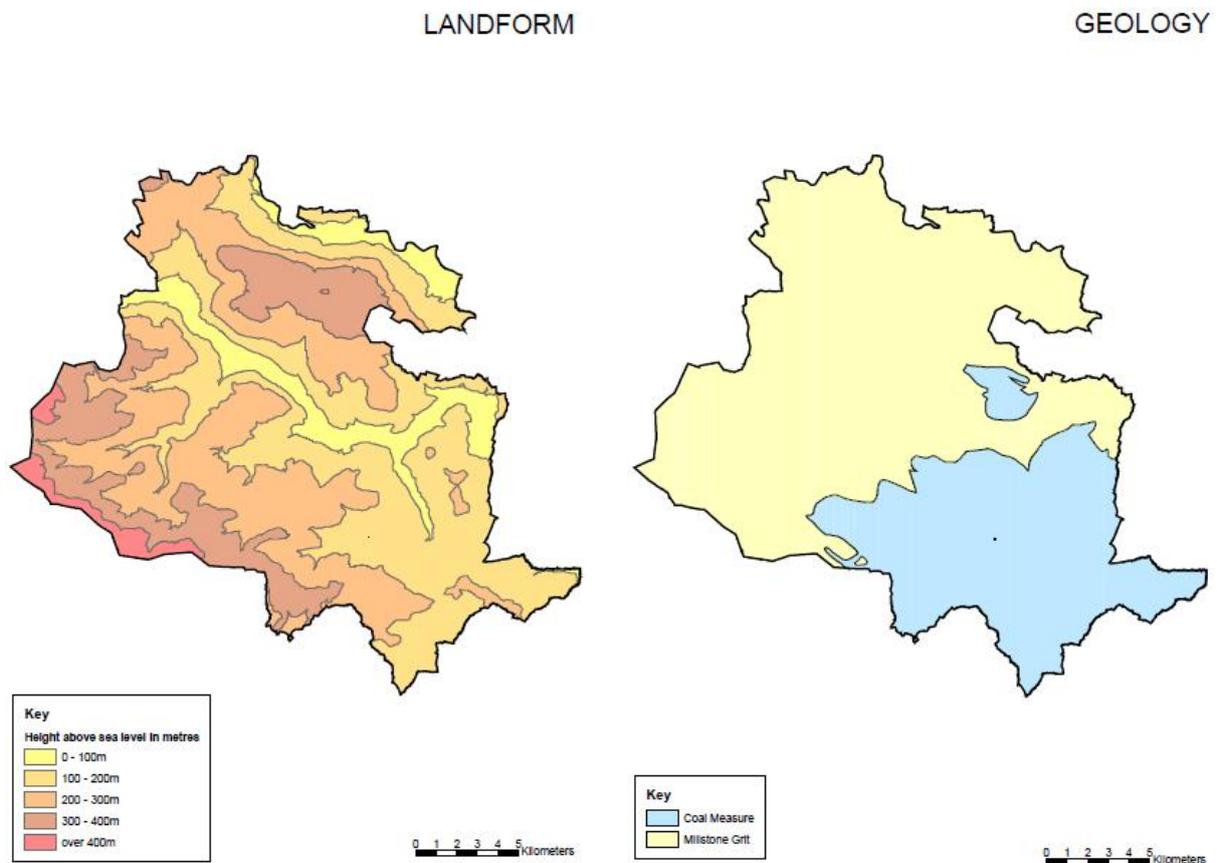
Rivers tend to flow eastwards following the actual slope of the land along major fault lines. See Figure 2 - Landform Map.

## Geology

The bedrock is composed entirely of rocks deposited during the Upper Carboniferous period, about 315 to 310 million years ago.

The south east of the District, including the main Bradford conurbation and the outlier of Baildon Moor is underlain by Coal Measures. The District is located at the northern margin of the exposed Yorkshire Coalfield.

### Map 6b: Landform and Geology



The Coal Measures have been extensively exploited notably during the 19<sup>th</sup> Century, not only for coal, but also for fireclay, brickclay and ironstone.

Although mining of these resources in Bradford was not at the same scale as the further south in the coalfield, it has had great effect in shaping the landscape, notably in triggering adjacent industrial growth.

The coal measures are underlain by the Millstone Grit, which outcrops over most of the north and west of the District and has been used extensively for building stone.

The dominance of the Millstone Grit is not only limited to the underlying geology. Its use has shaped the whole of the landscape we see today. The rock has been mined for centuries and has provided the material for the network of dry stone walls enclosing the pasture land and for the distinctive architecture of villages, towns and cities in the district. See Figure 2 - Geology Map.

The period of deposition of material to form the Millstone Grits and Coal Measures was completed some 280 million years ago and was followed by folding of the earth's crust. The asymmetric anticline created the upstanding mountain ridge, which, although considerably eroded, still dominates the District today.

About 60% of the District is covered by drift (natural superficial) deposits, most of which are a product of glacial and post glacial activity. Boulder clay is the main glacial deposit in the District forming an extensive featureless spread, generally less than 5m in thickness. The exceptions are the Aire and Wharfe valley bottoms where thickness exceeding 50m are known to exist. Various alluvial deposits of sand and gravel are evident throughout the District, for example at Keighley in the Aire Valley where deposits are up to 17m thick. Silty sand pebbles and gravels can also be seen exposed on the riverbank of the Wharfe and have previously been exploited creating the Ben Rhydding gravel pits, now a Site of Ecological or Geological Interest (SEGI).

### **Soils and Agricultural Land Classification**

Soils which form the final layer on the landform reflect the interaction of solid and drift geology, altitude, climate and past human land use. Generally local soils are poor and naturally acid, due to the high silica content of the parent material, lack of neutralising minerals such as lime, and due to the high rainfall. The often relatively low temperatures in the District result in slow rates of soil formation, whereas the high rainfall leaches out soluble minerals such as calcium from the soil.

Thin soil tends to develop on steep slopes due to the progressive downslope creep of soils as they develop.

Although areas of higher quality soils that could support arable farming are to be found in the Wharfe Valley, they are not extensive enough to be economically viable.

As a result most rural land is either permanent grass for pasture, or rough pasture or moorland.

### **Agricultural land**

Most of the agricultural land in Bradford consists of improved and semi-improved pastures on the upland fringes of the north-west of the District or the neutral (neither alkaline nor acidic) grasslands to the east and south of the City. Agriculture in Bradford is generally based around rearing stock, mainly sheep, although cattle rearing takes place in areas along the river valleys and on the lowlands to the east of the District.



Countryside recreation is increasingly important as a rural land use and people are visiting the countryside in increasing numbers. However, it is important to recognise the impact visitors have on the countryside and that the pressures which result need to be carefully managed in order to prevent the quality of the countryside from being diminished.

## **Climate**

With a difference of 300m between the highest western part of the District and the low areas of the city centre, relief plays a major part in influencing local climate, affecting rainfall, the temperature and the number of hours of sunshine. Bradford has an annual rainfall of 34.15 inches, an annual mean temperature of 8.8 C with 1242 hours of bright sunshine. These figures indicate a much less favourable climate especially for agriculture, than that to the east of the county in, for example, the Vale of York.

The Pennines act as a climatic barrier, so that Bradford lies in the rain shadow of the upland mass and therefore benefits a lesser extent from the warming effects of the prevailing westerly winds. With a growing season defined as months over 6.1 C, Bradford has a growing season of about seven months in the lower lying areas and about six months over 275m.

The poor soils combined with this harsh climate restricted Bradford to small-scale, isolated agricultural settlements prior to the industrialisation of the 19<sup>th</sup> Century.

## **Biodiversity**

“...the diversity within habitats and ecosystems, the diversity of species and the interaction between species and their habitat...”<sup>16</sup>

The biodiversity of the Bradford District is not only varied but also contains good quality habitats and an interesting range of wildlife, including many internationally, nationally and regionally notable species of flora and fauna.

Of particular note are the internationally important South Pennine Moors, a Special Protection Area of nearly 21,000 hectares (of which 4489 hectares are located within the Bradford District). This area is significant for the variety and rarity of its bird life, including the merlin and golden plover, which is supported by the diverse and extensive upland plant communities. The South Pennine Moors are also a Special Area of Conservation designated for the variety of the upland habitat mosaic.

The main habitats through the Bradford District can be categorised as:-

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<sup>16</sup> Source = UK Bio Diversity Action Plan: 1994

## Moorland

The large areas of peat covered moorland give rise to a rich mosaic of habitats, including blanket bog, heather moors, wet heaths and 'in-bye'<sup>17</sup> land. These areas are remote and less likely to suffer from development pressure but they are fragile ecosystems and can easily be affected by pollution or changes in management brought about by declining agricultural activity.

## Woodland

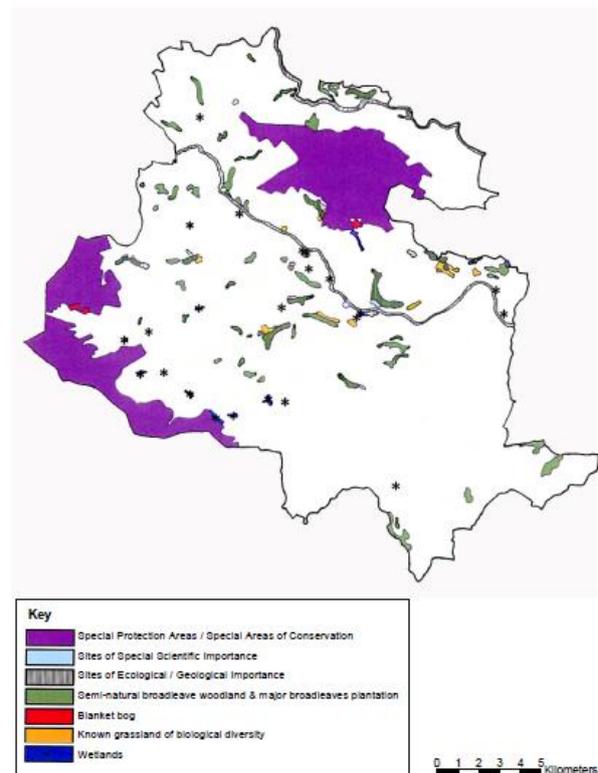
Only 4.6% of the Bradford District is covered by woodland, compared with the national average of 10%, although a large area is exposed moorland and upland, which would limit the growth of trees. Many of the woodlands are recently planted (within the last 150 years) but there are numerous examples of steep sided valleys and cloughs whose base-poor and acid soils support the remnants of ancient woodland, characterised by the oak/birch woodlands of South Pennines, many of which have an ecologically diverse ground flora.

## Grasslands

Much of Bradford's landscape is covered by grassland surrounded by the traditional gritstone walls. They are a mixture of improved, semi-improved and natural grasslands depending on the character of the underlying soils, the topography and management influences. Acidic grassland communities tend to be found on the exposed uplands and are generally species poor by nature. Although these are often classed as permanent pasture, many have been limed and fertilised to improve their grazing capacity; consequently, they have a greener, visually improved appearance but are ecologically poorer than the diverse meadows. The lower lying pastures in the valleys tend to be neutral short-growing grassland communities which have been improved and can be managed as short-term leys; some of these have a greater species diversity and were possibly former hay meadows. These have more interest for nature conservation and are increasingly rare. Surprisingly, Bradford has a larger proportion than Kirklees or Calderdale<sup>18</sup>. Wet grasslands are increasingly rare in Bradford District and

**Map 6d : Ecology and Heritage**

ECOLOGY



<sup>17</sup> Enclosed moorland of wet rush pasture which is also important as feeding and breeding areas for upland birds.

<sup>18</sup> Bradford Grassland Survey 1996

are often under pressure for land improvement and drainage schemes. However, they can contain a great variety of plant communities suited to damp conditions.

### Wetlands

The characteristic landform of the Bradford District has been carved as a result of the Ice Age, with glacial overflow channels and cloughs (steep sided tributary valleys) forming the frameworks for the water collection from the uplands. Many of these overflow channels now form valuable wetlands. Numerous reservoirs also collect water from the uplands which are not only an important water catchments area but these water bodies and the surrounding wetlands also provide important wintering and breeding habitats for the wide variety of wildfowl and waders. Small streams, springs and wet flushes flow from the uplands into the Rivers Worth, Aire and Wharfe. The Leeds and Liverpool Canal also acts as a valuable wildlife corridor across the District and a network of neglected mill ponds – a legacy of Bradford's industrial heritage – have been re-colonised by amphibians. In addition there are a few fragments of lowland raised mire, which are ecologically valuable but fragile and threatened habitats.

### Wildlife

Bradford District contains a wide variety of wildlife, according to the range of habitats. In particular, have healthy populations of deer and badger. The deer numbers are increasing and are generally migrating from the north towards Calderdale in the south west and also east along the Leeds and Liverpool Canal<sup>19</sup>, badgers are also well presented throughout the District and successfully protected against persecution. A range of bird species can be found in all habitats throughout, especially on the moorlands, as stated above. Bats are found in roosting sites such as trees, buildings (old and new), old parkland and bridges, especially over rivers. Amphibians and reptiles, however, are limited to the common species; great crested newts are unknown in the Bradford area. West Yorkshire was the northern limit for some butterflies and insects, however with global warming some species have increased their range northwards and the loss of diverse grasslands generally will have a long-term effect on these populations, with subsequent consequences throughout the ecosystem as a whole.

### Biodiversity Assets

There are 4 levels of designated nature conservation sites within Bradford District. In addition to the 4 SSSIs, there are 21 Sites of Ecological or Geological Importance and 16 Regionally Important Geological / Geomorphological Sites (RIGS). One of these SSSIs, the South Pennine Moors, represented by Rombalds Moor and Haworth Moor has been designated a Special Protection Area (SPA) due to the importance of its breeding bird populations. It is also a Special Area of Conservation (SAC), under the European Habitats Directive because it contains habitats which are rare or threatened within a European

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<sup>19</sup> Bradford Deer Survey 1996

context. There are also 152 sites of local nature conservation value, designated for both biodiversity interest and community benefits.

Table 6a: Biodiversity Asset			
Designation		No	Area/Details
Special Protection Area (SPA)	SPA	1 No	4489 ha – South Pennine Moors
Special Area of Conservation (SAC)	SAC	1 No	4489 ha – South Pennine Moors
Sites of Special Scientific Interest (SSSI)	SSSI	4 No	South Pennine Moors, Bingley South Bog, Trench Meadows. Yeadon Brick Works
Sites of Ecological/ Geological Interest (SEGI)	SEGI		
Ecological		21 No	340ha – Leeds/Liverpool Canal and River Wharfe
Geological		16 No	
Third Tier Sites		Over 100 No	Yet to be verified

A detail assessment of the habitats and wildlife species in Bradford district is also discussed in the 'Environment' chapter of this baseline report.

### 6.2 Landscape Types

The landscape character spd has identified the patterns of landscape within the Bradford District on two levels. At one level, the district has been broken down into ten specific, distinct, and unique landscape character areas that are all very different from each other, e.g. Airedale, Wharfedale, and Tong Valley, etc. At another, more detailed, level, it has identified areas of land very similar to each other that recur throughout the District, (and in theory throughout the country), for example moorlands, wooded valleys, and settlements. These are the generic landscape types.

There are 10 different landscape types identified within the district. These are summarised below:

1. **Gritstone Moorland:** The moorland landscape is typified by its wild open character; its uninterrupted views; its apparent, if not actual, naturalness; and by its extent and uniformity; as well as its subtlety of colour and texture.



2. **Upland Pasture:** A smooth, open treeless, landscape, dominated by bold linear patterns of drystone walls



3. **Mixed Upland Pasture:** An open landscape with rectangular pasture fields enclosed by drystone walls, and having some trees. Contains a wide variety of other landscape elements, giving the landscape a much more mixed character than the upland pasture, with more human influences.



4. **Wooded Valley:** These are narrow, linear, incised, wooded valleys cut into the landscape by the branching patterns of streams. This results in a very enclosed environment where the topography has strictly governed the landcover to produce a very strong and distinctive feature in the wider landscape.



5. **Wooded Incline:** Visually prominent blocks of mainly native broad-leaved woodland stretching along the sloping sides of Bradford's open valleys.



6. **Enclosed Pasture:** Enclosed pasture has a strong sense of enclosure brought about by the framework of small woods and tree groups that cross the pasture farmland. It is generally found on lower lying concave slopes of Bradford's open valleys.



7. **Parkland:** Broad open grassland dominated landscape which lacks small scale field enclosure and contains woodland and mature fields trees.



8. **Floodplain Pasture:** A very distinct, flat, open landscape with relatively large, rectilinear fields enclosed by hedges, occupying the low-lying floodplains of Bradford's open valleys.



9. **Industrial Corridor:** An enclosed, low lying landscape dominated by industrial development and the corridors of transport infrastructure necessary to support it.



10. **Settlement:** It is a very enclosed landscape, which exists where there is an area of land dominated by large numbers of mainly residential buildings, such that views within it are restricted primarily to sequences of short views contained by building groups.



*Source: Landscape Character SPD (CBMDC, 2008)*

The identification and definition of Bradford's ten landscape types was carried out through the completion of field study forms and photographic records on site; and their subsequent analysis through discussion and debate within the study team.

### The Issues

Some landscape types have been easier to identify than others. The Gritstone Moorland is a particularly characteristic landscape with fairly distinct boundaries. Likewise the wooded

valleys, wooded inclines, settlements, and floodplain pastures are relatively easy to identify in the landscape because the boundaries correspond to sudden, sharp, changes in topography or landcover.

However, the rest of the landscape often has very gradual, subtle, changes in landscape character, for example the pasture landscapes. These landscapes do vary dramatically, for example the pastures above Steeton are very different to those in the Tong Valley, which are very different to those between Denholme and Thornton. But the boundaries between these areas of very different character are often difficult to map because there is not strong visible boundary on the ground. This is an inherent quality of some landscapes and should inform the way that the inevitably exact lines on maps are interpreted and used in the future.

#### Summary Table of Distinguishing Landscape Elements

Table 2 was drawn up in order to provide a summary of the most easily perceivable landscape characteristics and elements that distinguish the ten different landscape types from each other.

It should be understood that the purpose of this table is to show how one landscape type can be distinguished from another, and not comprehensively describe each landscape type. Consequently the list of landscape elements down the left hand side is not a comprehensive list of all the landscape elements present in every landscape type, nor are the elements weighted in importance in any way. The elements listed have been chosen simply because they are those that most easily enable a person to distinguish between the ten landscape types.



**6.3 Landscape Character Areas**

The landscape of the Bradford District has been broadly influenced by its physical characteristics such as geology, soils and climate (especially glaciation) and subsequent modification by man in terms of land use.

The Joint Countryside Commission/English Nature ‘Character Map of England’ subdivides the District into three main character areas:

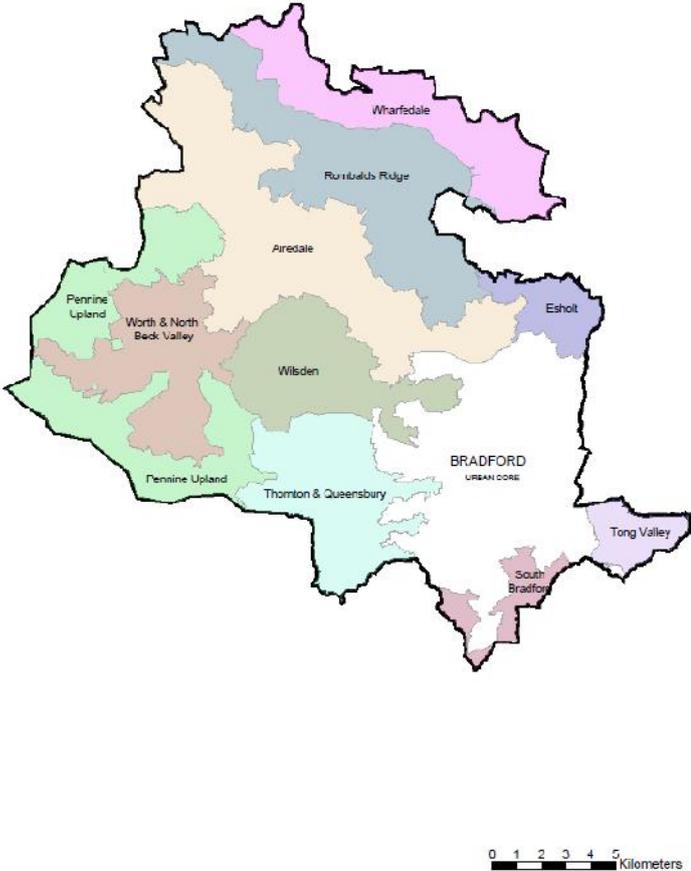
- 36 South Pennines
- 37 Yorkshire Southern Pennine Fringe
- 38 Nottinghamshire, Derbyshire and Yorkshire Coalfield

A small area in the north of the District lies within the YORKSHIRE DALES Character Area 21, but has limited influence on the landscape character of the Bradford District.

**Southern Pennines**

This area lies between the Peak District National Park and the Yorkshire Dales National Park. A sweeping landscape of upland moor and pasture, over 7 million people live within 1 hours drive of the South Pennines and the demands for transport, mineral extraction, power transmission and generation, urban encroachment, recreation sport and tourism have shaped the character accordingly. The heavily populated valleys contrast with the marginal economic viability of the uplands where the dual economy of part-time farming subsidised by other occupations prevails. Sheep grazing and small dairy/beef herds are the main agricultural occupations; stonewalls and small fields reflect the fluctuating moorland/grassland fringe. The moorland plateau gives extensive views over the lower lying towns, which reduces the sense of isolation. Whilst the quarries and vertical elements such as wind turbines, transmitter masts and pylons are often prominent and detract from landscape quality, there are also a strong industrial heritage of buildings and other remnants of the wool and cotton industries.

**Map 6e: Character Areas**



## **Yorkshire Southern Pennine Fringe**

This character area represents the transition of the Pennine Uplands to the lower undulating landscape of the Nottinghamshire, Derbyshire and Yorkshire Coalfield, characterised by gritstone industrial settlements in the valleys surrounded by pastoral agriculture in the foothills. The gritstone buildings and stone walls of the pastures give a visual unity to the landscape. Mills, factories and towns associated with the main transport routes lie in the valley bottoms. Tall mill chimneys and terraces are packed into the valley bottoms and rise up the hillside. Pylons and masts are prominent on the skylines. The industrial archaeology gives the area a strong historical character and visual identity.

## **Nottinghamshire Derbyshire and Yorkshire Coalfield**

This is a large area of densely settled countryside embracing major industrial towns. It has a low lying, rolling landform with escarpments and broad valley resulting from sloping alternate bands of wet shales and dry sandstones. This area is dominated by extensive urban influences and rapid expansion of industry, settlement and transport networks. Likewise the rural areas suffer from urban fringe influences and the resulting landscape is downgraded – the soils are relatively poor and the graded pastures are bounded by a mixture of walls, occasional hedgerows and post and wire fencing. ‘Horticulture’ is a popular activity among the complex mosaic of land uses, ribbon development and transport route dominated landscape. Broad-leaved woodlands, often large and fragmented, are relatively common.

The Countryside Commission’s character areas have been determined at a national level and are therefore broad-brush descriptions of large areas of countryside. The boundaries between these are not distinct and often occur gradually over several kilometres.

The Landscape Character SPD however, has defined the character of Bradford in more detail at a local scale by subdividing the district into 10 Character Areas on the basis of their overall characteristics and the recurring pattern of landscape elements contained within them. These are:

- 1) Airedale
- 2) Esholt
- 3) Pennine Upland
- 4) Rombalds Ridge
- 5) South Bradford
- 6) Thornton/Queensbury
- 7) Tong Valley
- 8) Wharfedale
- 9) Wilsden
- 10) Worth and North Beck Valleys

See Figure 6e - Character Areas Map

These Landscape Character Areas are defined on a geographical basis and named according to local terminology for ease of identification and recognition by a wide range of people.

Of the ten areas, two correspond to the major broad, deep, glacial river valleys of the AIRE and WHARFE, running parallel to each other approximately NW-SE, separated by a third character area of higher land in between forming the ROMBALD'S RIDGE and connecting Baildon Moor to Ilkley Moor and beyond towards Grassington and the Yorkshire Dales. The settled and industrialised wooded valleys contrast with the open empty windswept moorland and sparsely settled farmland of the Rombald's Ridge. Airedale is extensively developed yet retains a strong though fragmented green character with its wooded slopes and remnants of pastoral agriculture on the valley sides. The settlements in Wharfedale have well defined edges with substantial woodlands and tree cover giving the valley a more enclosed and 'lush' character.

Three smaller character areas lie immediately next to Bradford's urban core. These areas are ESHOLT, TONG VALLEY and SOUTH BRADFORD. They all show more common links to the Coal Measurers character area in the complexity of their elements and more urbanised influences, with low lying, rolling landform and fragmented woodland cover.

The four remaining character areas are all pasture dominated landscapes with typical stone wall boundaries overlooked by bleak windswept moorland on higher exposed land, affording long views and intersected by small intimate wooded valleys or cloughs. THE WORTH and NORTH BECK VALLEYS character area has a stepped profile with valley bottoms crowded with settlement and a patchwork of pastures on the upper slopes. It is surrounded to the NW and SW by the PENNINE UPLAND character area of high unenclosed moorland, isolated farmsteads, a treeless landscape with high nature conservation value where resources exploitation such as mineral extraction wind and water power generation and recreation have left their mark on the landscape. The WILSDEN and THORNTON/QUEENSBURY character areas, although similar in that they contain small/medium villages within a farmed landscape sloping to the east, are dominated by urban/sub-urban influences. Differences in landform, altitude and layout however do occur to make them distinct. The Wilsden character area is more domesticated, with improved enclosed pastures, smaller villages and more woodland cover.

The area covered excludes the urban core of Bradford City Centre, Shipley, Keighley and Ilkley. It also excludes all 'inset' areas defined as 'urban' or 'village' in the rUDP. It is intended that these areas will be the subjects of settlement studies at some future date.

Detailed description and analysis of the landscape of each character area along with a succinct set of policy guidelines for each landscape type is to be found in the Landscape Character SPD.

## 6.4 Built Heritage and Historic Environment

Bradford's District is a rich and diverse historic environment. It consists of the following elements which, when viewed as an entity, form the essential characteristics of local distinctiveness and environmental identity. These elements are highly valued today, for the positive contribution they make to the quality of the environment as well as for the benefits to the economy and tourism in particular.

### Listed Buildings

Bradford has over 5800 buildings, listed by the Secretary of State as being of special architectural or historic interest. These range from large industrial mill complexes to weaver's cottages; and from agricultural farmsteads to stately halls and manor houses. These buildings of architectural and historic interest make a vital contribution to the heritage character and attractiveness of the District.

Those buildings of the greatest historical or architectural value, listed grade I and II\* form a fraction of the total. In Bradford district buildings of this status comprise less than a third of the national average, hence the need to ensure that the elements which contribute towards their special character are safeguarded. Examples include Upper Headley Hall, Thornton with its courtyard walling, entrance gateway and aisled barn and the church of All Saints, Bingley. (National percentage grade I 2.5% City of Bradford area 0.34% national percentage grade II\* 5.2% City of Bradford 1.6%)

The first listed building survey was carried out from 1993 to 1995; this systematically surveyed all listed buildings in the district using the standard procedure. Recently the Council have completed a re-survey (2001-2005) of all the buildings to highlight changes since the previous survey (1993-1995). Whilst many listed buildings are reviewed regularly, especially if in a critical condition, or a subject of ongoing discussions, the district wide survey indicates if the number of buildings at risk is decreasing, identifies any new buildings at risk and shows any patterns of problem buildings or areas, which may need different approaches.

Current indications show that some 300 buildings and structures were identified as being 'at risk' or vulnerable. This information has since helped the Council identify priorities, targets efforts or resources and try to reduce the numbers.

Description of all the Listed Buildings in Bradford could be found in the following weblink-

[http://www.bradford.gov.uk/the\\_environment/planning\\_service/heritage\\_and\\_conservation/listed\\_building\\_descriptions.htm](http://www.bradford.gov.uk/the_environment/planning_service/heritage_and_conservation/listed_building_descriptions.htm)

There is also an online register of Bradford's Listed Buildings at Risk which could be accessed from this link-

[http://www.bradford.gov.uk/the\\_environment/planning\\_service/heritage\\_and\\_conservation/online\\_register.htm](http://www.bradford.gov.uk/the_environment/planning_service/heritage_and_conservation/online_register.htm)

## Conservation Areas

The District currently has 59 designated Conservation Areas, which vary from Victorian suburbs such as Little Horton Lane representing the 19<sup>th</sup> century growth of Bradford, to the historic linear upland villages such as Stanbury. The periodic re-assessment of boundaries and consideration of additional areas ensures the relevance of the designations remain valid. The process of character assessment and boundary review was carried out between 2001 and 2005. This has resulted in there being a Conservation Area Assessment document for each of the 59 conservation areas in the district.

The list of links below lead to the conservation area assessment document and the current boundary map for each conservation area.

- [Addingham](#)
- [Apsley Crescent](#)
- [Baildon](#)
- [Baildon, Station Road](#)
- [Baildon Green](#)
- [Ben Rhydding](#)
- [Bingley](#)
- [Braithwaite](#)
- [Brunthwaite](#)
- [Burley in Wharfedale](#)
- [Cathedral Precinct](#)
- [City Centre](#)
- [Clayton](#)
- [Cullingworth](#)
- [Devonshire Park and Cliffe Castle](#)
- [East Morton](#)
- [Eldon Place](#)
- [Eldwick Beck](#)
- [Esholt](#)
- [Goitside](#)
- [Goose Eye and Laycock](#)
- [Great Horton](#)
- [Hainworth](#)
- [Haworth](#)
- [Heaton Estates](#)
- [Hodgson Fold](#)
- [Idle and the Green](#)
- [Ilkley](#)
- [Keighley Town Centre](#)
- [Leeds Liverpool Canal](#)
- [Leeming](#)
- [Little Germany](#)
- [Little Horton Green](#)
- [Little Horton Lane](#)
- [Little London](#)
- [Low Utley](#)
- [Lower Wyke](#)
- [Menston](#)
- [Micklethwaite](#)
- [Middleton](#)
- [North Park Road](#)
- [Oakworth](#)
- [Oxenhope Lower Town](#)
- [Oxenhope Station Road](#)
- [Oxenhope Upper Town](#)
- [Queensbury](#)
- [Ryecroft](#)
- [Saltaire](#)
- [Silsden](#)
- [Southfield Square](#)
- [St Paul's](#)
- [Stanbury](#)
- [Steeton](#)
- [Thornton](#)
- [Tong](#)
- [Undercliffe Cemetery](#)
- [Whetley Grove](#)
- [Wilsden](#)
- [Wrose](#)

## Potential Conservation Areas

Residents, Councillors and organisations have contacted the Council and have suggested that, in their opinion, new conservation areas should be designated in certain localities. The Council's Conservation Team has assessed these suggested areas in order to determine whether all or any of them would be recommended for conservation area designation.

The areas which have been considered for potential conservation area designation are listed in the table below. After undertaking detail field surveys and following a period of public consultation in each area the Conservation Team has reported their findings to Area Planning Panels and Area Committees and recommended that only two of the areas, Baildon Green and Eldwick Beck, are appropriate characteristics to be designated as Conservation Areas.

### **Table: Areas with Potential Conservation Area Reports Completed**

- [Ambler Thorn](#)
- [Apperley Bridge](#)
- [Baildon Bank](#)
- [Beechcliffe](#)
- [Burley Woodhead](#)
- [Carr Syke](#)
- [Charlestown, Baildon](#)
- [Damems](#)
- [Greenholme](#)
- [Hawksbridge](#)
- [Heaton Village](#)
- [Ingrow](#)
- [Keighley Station](#)
- [Marsh](#)
- [Marsh Top](#)
- [Moor Side](#)
- [Mountain](#)
- [Oakworth Station](#)
- [Plevna Terrace, Bingley](#)
- [Thackley](#)
- [The Brow](#)

## World Heritage Site

The District has a World Heritage Site identified by UNESCO as having world-wide significance in association with the textile trade and the industrial revolution.

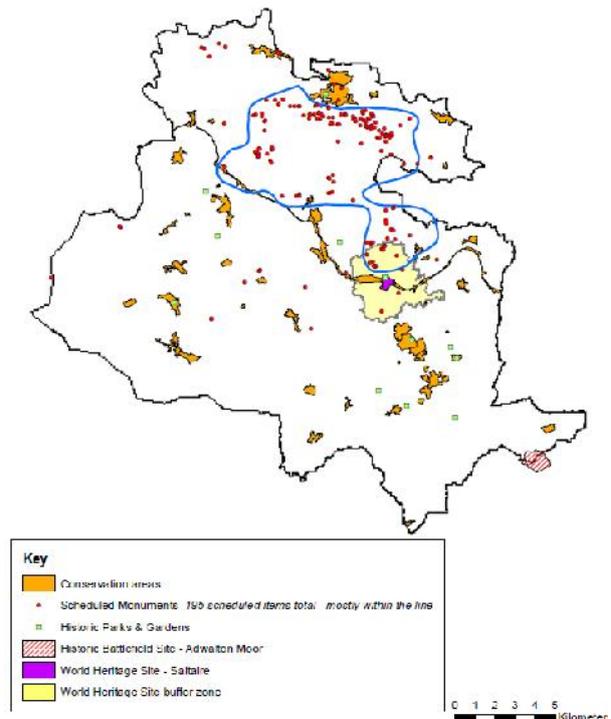
UNESCO inscribed Saltaire as a World Heritage Site on 16<sup>th</sup> December 2001. It is one of 27 in the United Kingdom. Developed from the 1850's and still an almost complete model village, Saltaire illustrates the combination of industrial processes and transport systems, the use of power and the early concepts of Town Planning with provision of model housing and social amenities. All of these factors are unified by dignified architectural detailing, the use of local materials and technological advances which illustrate a significant stage in human history and contribute to make the site of outstanding universal value.

Today, its textile mills, public buildings and workers' housing continue to operate as a living and working community. It is the duty of the international community as a whole, to co-operate in its protection. Saltaire has a Management Plan in place to direct this function. Recently an Environmental Capacity Study<sup>20</sup> has been carried out for the site in order to gain an appreciation of the level and type of change that can be accommodated within the World Heritage Site and its setting. The study also provides a mechanism to allow for positive change to take place, whilst putting management arrangements in place to monitor the impact of change and prevent change that exceeds the environmental capacity of the Site. This included addressing a range of pressures and demands facing the Site due its location in a strategic corridor e.g. traffic and transport issues, the need for economic and social regeneration and the maintenance of a high quality of life for residents.

The ECS has identified 8 key capacity issues which could affect the Site's Key Values now or in the future and employed a "monitor and manage" approach founded on a series of Capacity Indicators. The indicators measure changes in data through time and trigger action when thresholds are exceeded. This ranges from the need for further analysis and monitoring through to possible physical actions such as the provision of more car parking spaces in the area.

Map 6f: Cultural Heritage

CULTURAL HERITAGE



<sup>20</sup> Atkins (2008) Saltaire World Heritage Site Environmental Capacity Study. Atkins Heritage, Leeds.

The ECS also includes a timetable for the ongoing monitoring of the Site. This has been established over a rolling 6-yearly programme to tie-in with the UNESCO periodic review process. This is not however a static document and will continue to be reviewed and developed over the coming years as new challenges and issues emerge at the Site.

The ECS will play a significant role in the development of a revised WHS Management Plan for the Site. It will also inform a number of other emerging strategies including a tourism strategy and planning documentation within the Local Plan. The indicators identified by the ECS may be used as part of the annual monitoring report on the Local Plan and the accompanying Sustainability Appraisal.

**Parks and Gardens**

There are 13 sites within the District that are included in the Register of Parks and Gardens of Special Historic Interest in England designated by English Heritage. This is a reflection of the fact that the urban areas of Bradford are well provided with Victorian municipal parks. The historic layouts, planting and the structures generally survive to indicate the original form of the parks and gardens. Examples of notable significance include Bradford’s ‘city of the dead’ at Undercliffe Cemetery and the private grounds at Heathcote, Ilkley.

**Table 6c: English Heritage Register of Parks and Gardens of Special Historic Interest**

<b>Name</b>	<b>Grade</b>	<b>Date Registered</b>
1) Bowling Park, Bradford	II	02 Apr 2001
2) Central Park, Haworth	II	13 Nov 2002
3) Horton Park, Bradford	II	02 Apr 2001
4) Lister Park	II	01 Dec 1984
5) Lund Park, Keighley	II	02 Apr 2001
6) Peel Park, Bradford	II	02 Apr 2001
7) Prince Of Wales Park, Bingley	II	14 Mar 2001
8) Roberts Park, Shipley	II	01 Dec 1984
9) Heathcote, Ilkley	II	12 Jan 1984
10) Whinburn, Keighley	II	02 Sep 2002
11) St Ives Estate, Harden	II	28 Apr 2009
12) Scholemoor Cemetery	II	09 Jan 2002
13) Undercliffe Cemetery	II	20 Jul 1998

Source: English Heritage

Further details about each of the above historic parks and gardens can be found on the Council’s Leisure and Culture website below-

[http://www.bradford.gov.uk/leisure\\_and\\_culture/parks\\_and\\_gardens/parks\\_and\\_gardens.htm](http://www.bradford.gov.uk/leisure_and_culture/parks_and_gardens/parks_and_gardens.htm)

The District also contains four recognised Local Historic Parks and Gardens. These sites are of local interest, (not included on the national register) which display evidence of designated landscapes that are of local interest and any proposals, which affect the site or setting, should demonstrate a clear understanding of the original design and layout.

**Table 6d: Local Historic Parks and Gardens**

- 1) Bierley Hall Wood, Bradford
- 2) Heber's Ghyll, Ilkley
- 3) Cliffe Castle and Devonshire Park, Keighley
- 4) Milnerfield, Gilstead

Source: Bradford rUDP

### Scheduled Ancient Monuments

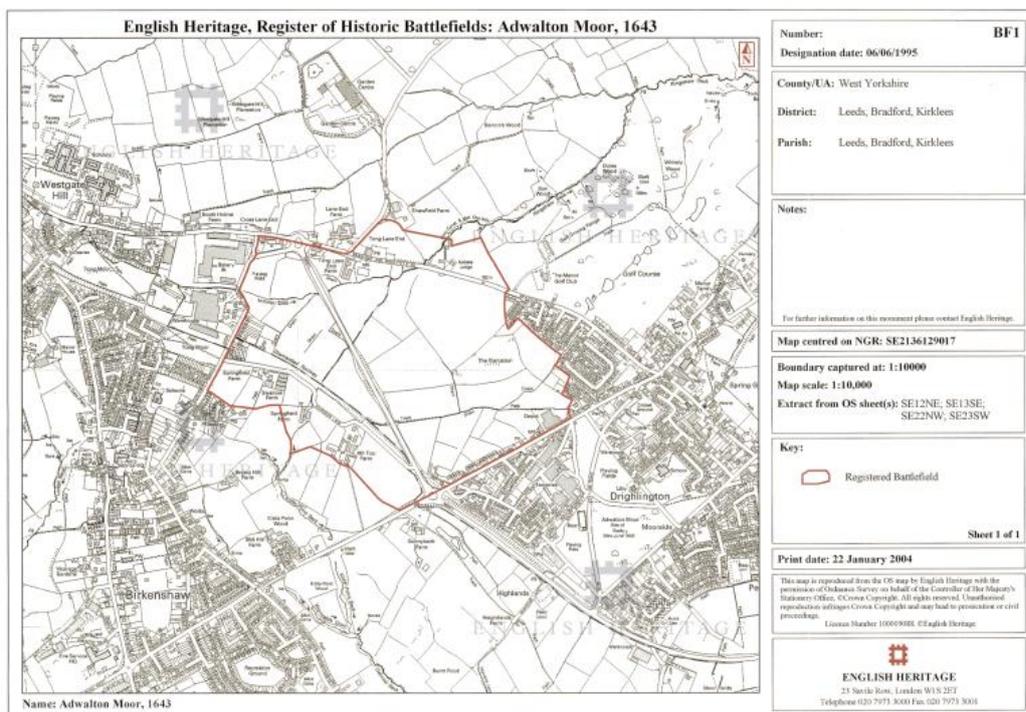
Bradford Metropolitan District has 202 scheduled monuments that range from the site of the Roman Fort at Ilkley to prehistoric earthworks and the unique concentration of carved stones on Ilkley Moor. The vast majority of the monuments are located in the north of the district.

### Historical Battlefields

The Register of Historic Battlefields in England is compiled and maintained by English Heritage. The inclusion of a site on this Register brings with it no additional statutory controls, but it is a material consideration when determining planning applications in the area.

The historic interest of a battlefield is judged by the documentary evidence that is available to pin point the site and the surviving physical features, such as the topography and archaeological evidence. Bradford Metropolitan District has one historic battlefield included on the Register: Adwalton Moor 1643 which extends into the districts of Kirklees and Leeds.

**Map 6g: Adwalton Moor Historical Battlefield**



Adwalton Moor 1643 - gave the Royalists control of the North of England for the remainder of that year. It was second only in significance to Marston Moor in the history of the Civil Wars

in the North. The battlefield landscape of 1643 was one of hedge-lined fields on the lower slopes and moorland with coal pits, some of which can still be identified today. The encroachment of development especially the railway, road and built developments over the last 150 years has dramatically altered the character of the battlefield by changes to the landscape. Nevertheless many elements of the landscape of the time of the battle remain such that it is still possible to trace the various phases of the conflict and to interpret the progress of the battle.

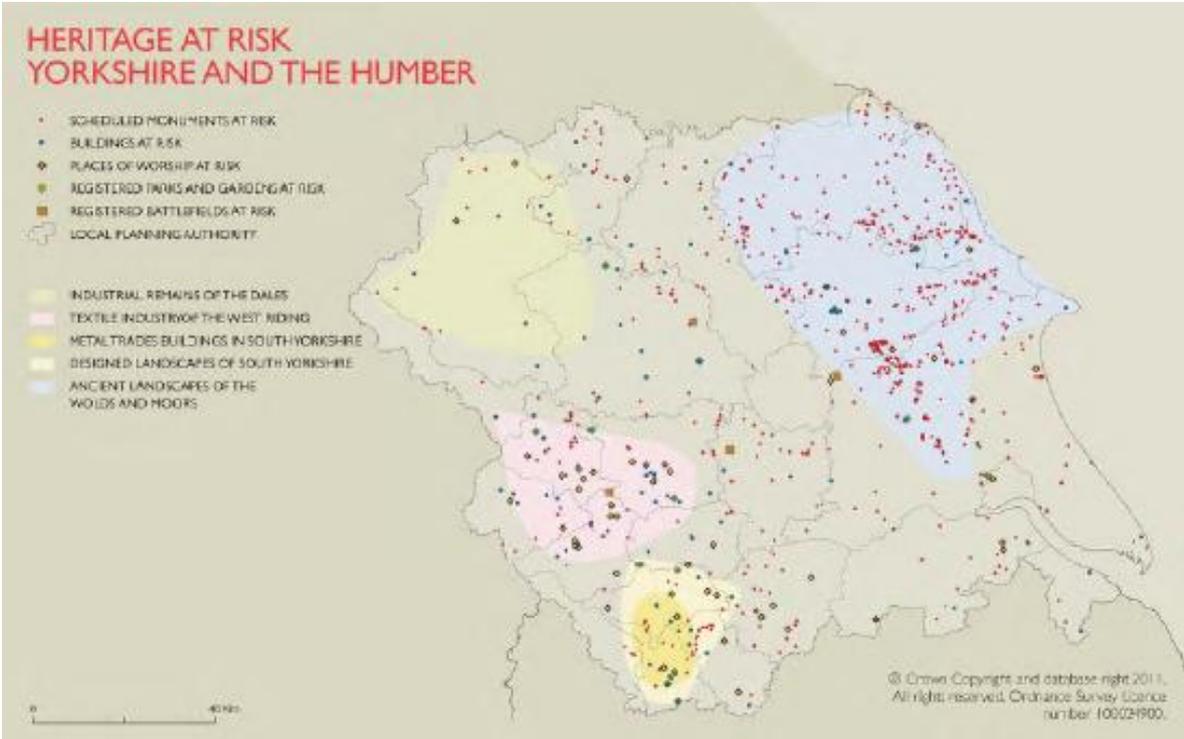
Further detail about the historic battlefield can be found from the web links below-  
[http://www.bradford.gov.uk/NR/rdonlyres/181CA68E-AA97-476E-B4C1-35172A5A759C/0/battle\\_of\\_adwalton\\_moor.pdf](http://www.bradford.gov.uk/NR/rdonlyres/181CA68E-AA97-476E-B4C1-35172A5A759C/0/battle_of_adwalton_moor.pdf)

And <http://www.english-heritage.org.uk/upload/pdf/Adwalton.pdf>

### Heritage at risk

The English Heritage publishes annual ‘Heritage at Risk Register’ which identifies historic assets that are in danger of losing their significance across the Yorkshire and Humber region. Recent reports (2009 to 2011) have summarised that while the condition of the region’s historic assets has improved over the years, generally they are facing slightly greater levels of risk than nationally, and highlighted the scale of the challenge and the resources needed for their enhancement and protection, both at a national and local level.

### Map 6h: Heritage at risk in Yorkshire and the Humber



Source: Heritage at Risk Register (English Heritage, 2011)

According to the latest 2011 'Heritage at Risk' report a total of 41 heritage sites, monuments and buildings are currently deemed 'at risk' in the Bradford District. Nine new sites have been added since 2009 assessment- an extra three conservation areas and six places of worship.

Buildings	4
Places of worship	6
Scheduled monuments	19
Registered parks and gardens	1
Registered battlefield	1 (stretches into Leeds and Kirklees)
Conservation areas	10
Source: Heritage At Risk Register ( English Heritage, 2011)	

The number of 'at risk' conservation areas is particularly high in the District compared to any other Local Authority area in Yorkshire and Humber. The mills listed above are particularly vulnerable because they lack interests from developers and remain largely empty.

The Battle of Adwalton Moor battlefield is also in the English Heritage's register. It is judged to be of a generally satisfactory condition but is said to be declining.

**6.5 Archaeology**

Bradford District contains a large number of significant archaeological sites, some of which are of international interest and many of which are of national or high regional importance. Bradford District falls into three land-use zones: upland, lowland and townscape. The upland zone comprises unenclosed moorland and enclosed rough pasture. The lowland zone roughly follows the lines of the area's watercourses and comprises improved enclosed pasture and other agricultural land, centred around scattered farmsteads. The townscape zone consists of all intensively settled land.

**The Upland Zone:** The little-disturbed upland landscape retains a large number of Prehistoric (Middle Stone Age to Iron Age) features. Many of the upstanding remains are designated as Scheduled Ancient Monuments. Known features include hundreds of carved rocks on the moorland above Ilkley, Keighley and Baildon. Other Prehistoric funerary/ritual sites survive here and elsewhere in the District. Settlement sites are also represented by a number of well-preserved earthworks. There are probably similar sites which now lack above-ground remains. Bradford District was crossed by a network of Roman roads, the true routes of which are not yet known in most instances. Currently unknown Roman sites may survive along the road lines. Medieval settlement in the uplands was scattered in small, dispersed settlements or farmsteads rather than discreet nucleated villages. Upstanding farm buildings, apparently of 18th- or 19th-century date, may have Medieval origins. Redundant farm buildings have been little studied, and represent a finite and diminishing building stock of archaeological interest. From the Medieval period onward, mineral deposits in the uplands have been extensively exploited, and well-preserved associated remains survive.

**The Lowland Zone:** The lowlands also appear to contain Prehistoric settlement remains. Large finds of worked flint along the Aire corridor suggest the presence of Middle and New Stone Age campsites, while a few known Prehistoric settlements, numerous spotfinds of Bronze Age metalwork, and scattered Roman finds indicate that occupation continued into later periods. Most Medieval settlement took the form found in the uplands. A small number of sites were administrative centres for the surrounding area, and here a number of fine Late Medieval and Post-Medieval houses survive which may have associated below-ground remains. The site of a Medieval convent survives at Esholt and a number of granges (small agricultural/industrial sites owned by the Medieval church) survive in the District. Well-preserved industrial sites survive, including iron-working sites, pottery kilns and corn mills. Some Medieval settlement sites evolved over into prominent private estates after the mid-17th century. These were often furnished with significant landscaped grounds. Early water-powered industrial sites were also redeveloped in the 18th century and later. Many of the District's numerous textile mills retain late 18th/early 19th century features or contain evidence for the development of technology over the course of the 19th/20th centuries.

**Townscape Zone:** Most of the evidence for Roman occupation in Bradford District roughly coincides with the areas of modern settlement, with occupation along the Wharfe valley (the Roman fort and associated civilian settlement at Ilkley), through Bingley and into central Bradford. Occupation continued into the Early Medieval phase, with Anglo-Saxon remains apparently surviving within Addingham, Ilkley, and central Bradford. With a few exceptions (Keighley; Addingham, where a number of small settlement foci merged to form a single settlement; Bingley, where the available evidence suggests the possible presence of a castle; Ilkley, where settlement formed around the area of the Roman fort; Bradford, where settlement formed at a crossing point of Bradford Beck), Medieval settlement consisted of small, dispersed building groups lying along a network of roads and access tracks. Industrialisation and population growth during the 19th century led to ribbon development on these road lines which enveloped pre-existing settlements. This type of development can be traced in areas where the Late Medieval and Post-Medieval building stock survives and forms a settlement 'core'. In areas such as central Bradford where the 'core' of earlier buildings has not survived, the modern building stock may mask below-ground Medieval and Post-Medieval remains. Recent work in urban centres has made it clear that the effect of 19th/20th century cellarage on the below-ground archaeology has not been as severe as formerly believed, and that appreciable pockets of early material may survive in situ.

Bradford's current replacement UDP aims to protect three categories of archaeological areas, identified by the West Yorkshire Archaeology Advisory Services (WYAAS), which are registered in the County Sites and Monuments Record. These are:

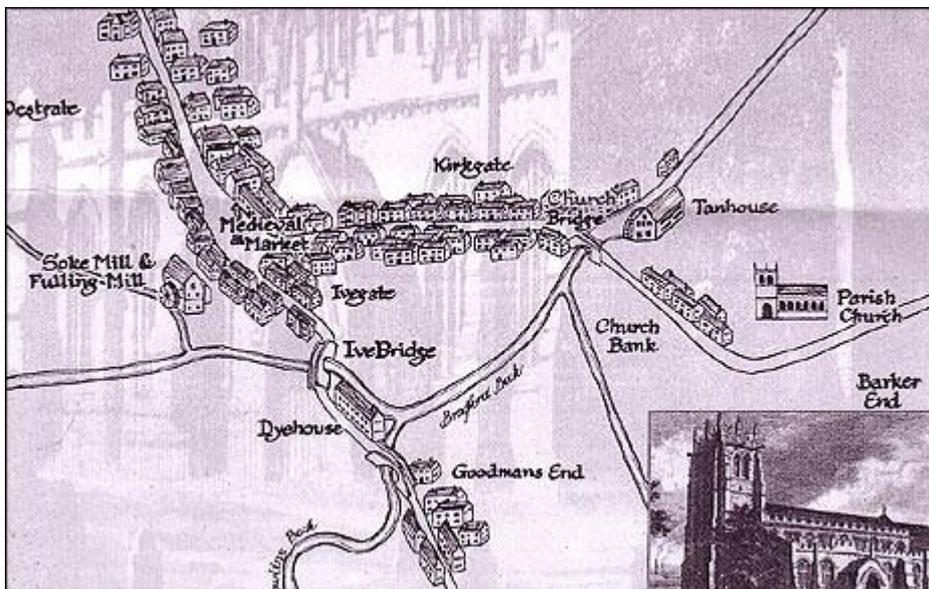
**Class I -Class I** areas are sites and landscapes of national importance which are protected as Scheduled Ancient Monuments under the terms of the Ancient Monuments and Archaeological Areas Act 1979.

**Class II and Class III-** Class II areas are sites and landscapes which are regionally important but unscheduled, and which merit preservation in situ. Class III areas are sites registered in the County Sites and Monuments Records as containing or likely to contain remains of

archaeological importance. The locations and extent of all Archaeological Areas are shown on the County Sites and Monuments Record.

Archaeological significance is not confined solely to below-ground remains but may be also assigned to any or all structures on a site. Where a Class II or Class III archaeological area is adversely affected by a development proposal, the current rUDP requires an archaeological evaluation is to be undertaken to assist in determining the importance of the archaeological remains and the appropriate course of action.

Up until now most of the existing knowledge about Bradford's past has come from written records and surviving maps. A historical map surviving from the 1720s, as well as descriptions from earlier records, was the only sources to provide an impression of Bradford as it might have appeared at the end of the Middle Ages:



**Map 6i : Bradford City Centre c1720**

Although Bradford was a bustling place in medieval times its earlier layout was almost completely masked by the city's dramatic growth in the 19th century. Even its main watercourse, the Bradford Beck, together with the 'broad ford' which is widely regarded to have given the settlement its name, is hidden beneath today's streets and buildings.

The demolition of the 1960s buildings and an archaeological evaluation undertaken by the WYAS in the Forster Square Area was the first of its kind in Bradford city Centre and it discovered historical evidences about the streets in 17th and 18th century Bradford and the industrial activities around the site. The archaeologists excavated an area between Forster Square and Cheapside near the site of the bridge which replaced the ford. Beneath the modern cables and piping, and even the remains of a 19th century pub, traces of what are probably 16<sup>th</sup> century buildings were discovered. Smaller finds included coins, pottery, clay tobacco pipes, a bone spoon and a bone toothbrush. Remains of buildings with some hint of some industrial processes going on down by the beck, a good water source there for

industrial activity, were also found. It was the earliest archaeological evidence found in Bradford<sup>21</sup>.

Earlier, in 2000 a desk-based assessment of the same site was carried out by WYAS.<sup>22</sup> Several artefacts (mostly coins) were found in the area date to the Romano-British period suggesting the possibility of an early settlement in the vicinity of the city centre. In addition, a possible late Roman/early Saxon empty stone coffin was found near Leeds road. The presence of early medieval settlement, suggested by documentary evidence, is supported by the presence of Anglo-Saxon masonry within the cathedral walls.

By the 14<sup>th</sup> century the town centre was flourishing with buildings erected surrounding the cathedral. Documentary evidence shows that the occupied area extended from Berkerend in the east towards Kirkgate and Westgate in the west. During the post-medieval period Bradford city centre was affected by a dramatic increase in wealth and population caused by the growth of the textile industry. This led to the expansion of the town centre and also to the redevelopment of the medieval core. The current city centre therefore should contain significant medieval and post-medieval remains.

The expansion and redevelopment of the town centre continued during the 19<sup>th</sup> and 20<sup>th</sup> centuries, possibly destroying the evidences of earlier activity. However, documentary evidence regarding the 20<sup>th</sup> century development of the area (i.e. the extent of cellarage), combined with the results of a recent test-pitting investigation at the junction of Kirkgate and Queengate, confirm the existence of undisturbed archaeological deposits in the city centre.

In summary, although the city centre has not been greatly disturbed in the past, the area is known to be of archaeological potentials that could be uncovered in the future through modern disturbances because of the huge amount of development in the city centre. The archaeological excavations in the Forster Square site were the first real field excavations in the city centre and indicate that medieval or earlier remains may still be well-preserved in small pockets in some areas within the city centre.

## 6.6 Key Facts:

- The character of the District's landscape is very varied, ranging from the rugged open moorland of the South Pennine uplands to rolling farmland, and open river valleys to wooded hillsides. Much of our moorland and woodland provides important conservation habitats, and draws visitors who enjoy our countryside.
- The landscape is, however, facing major pressures for change due, in particular, to agricultural change, diversification and increasing demand for leisure and recreation

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<sup>21</sup> BBC (2008). *Beneath Bradford's Streets!* [online]. BBC [cited 19 June 2008]. Accessed on: <[http://www.bbc.co.uk/bradford/content/articles/2006/04/28/archaeology\\_forster\\_square\\_bradford\\_feature.shtml](http://www.bbc.co.uk/bradford/content/articles/2006/04/28/archaeology_forster_square_bradford_feature.shtml)>

<sup>22</sup> Keith, K. (2000). *Broadway Centre, Hall Ings, Bradford, West Yorkshire: Desk-based Assessment*. Unpublished WYAS report (R778, 2 vols).

activities in the countryside. It is important that the distinctive character of the District's landscape is conserved and enhanced and that development which occurs is sympathetic to its character.

- The district enjoys a rich built heritage, including the World Heritage site of Saltaire, Little Germany, and the redeveloped Lister's Mill site. Four of our parks have green flag status, including the award winning Lister Park.
- Bradford District contains a rich and diverse historic environment which consists of elements that range from Victorian parks and buildings to historic battlefields and old cemeteries and form the essential characteristics of local distinctiveness and environmental identity. These elements are highly valued today for the positive contribution they make to the quality of the environment as well as for the benefits to the economy and tourism in particular.
- Grade I and ii\* listed buildings are of the greatest historical or architectural value but they form a fraction of the total heritage assets and comprise less than a third of the national average. Hence there is need to ensure that the elements which contribute towards their special character are safeguarded.
- The nature of district's conservation areas and scheduled ancient monuments varies significantly across the district and adds values to the historic landscape of the area. The number of such heritage assets at risk in Bradford is relatively low compared to other regional cities but they still need to be protected from disuse and decay as well as from pressure of new developments. Redevelopment of some of these assets e.g. residential conversion of Manningham Mills has been encouraged.

## 7.0 Transport and Accessibility

This section assesses key aspects of transport in the Bradford district by discussing the key opportunities and issues faced by the various transportation methods and identifying gaps in the promotion of sustainable transport infrastructure. The section also outlines detail national, regional and local transport policies which will mould the way these transport systems develop in the years to come.

A range of documents, studies and reports has provided valuable information for this section of the base line report. Some of the main documents are-

- The West Yorkshire Local Transport Plan 2011-2026 (Wyltp, 2011)
- The LTP Bradford Local Implementation Plan 2011-2014 (CBMDC, 2011) Bradford
- District Transport Strategy 2006-2021(CBMDC, 2007)
- The West Yorkshire Urban Congestion Target Delivery Plan (DfT, 2009)
- Leeds City Region Transport Vision (Appendix 4 of LCRDP, 2006)
- Bradford Channel and Market NDFs Transport Report (Ove Arup & Partners Ltd, 2005)
- Bradford Positioning Statement (Regeneris, 2005)

### 7.1 Local Policy Context

The following section briefly describes the key aspects of some local policies and strategies in relation to their implication for the current and future transport development in the district.

#### **The West Yorkshire Local Transport Plan 2011-2026 and Bradford Local Implementation Plan 2011-2014**

The West Yorkshire Integrated Transport Authority (WYITA) is currently delivering on LTP2, which runs from 2006 to 2011. LTP3 has been completed in March 2011 which consists of a 15 year strategy (2011-2026) and will be delivered through 3 year Local LTP Implementation Plans. The first Bradford Local LTP Implementation Plan (2011-2014) has been approved in June 2011 which, as well as setting out an overview of the transport issues in the District, can be used when engaging local stakeholders and communities on transport issues. LTP3 thus provides greater flexibility for ITAs to determine the scope, nature and duration of its strategy and implementation plans.

The third West Yorkshire Local Transport Plan Strategy 2011 – 2026 and its first Implementation Plan 2011 – 2014 have been developed by the WYITA with support from all five West Yorkshire Districts. Whilst the Department for Transport had previously been very prescriptive about the content and performance management of previous LTPs, this is relaxed for LTP3 giving more flexibility for the development of plans more suited to local circumstances. The current LTP has been developed to deliver three key objectives:

- To make substantial progress towards a low carbon transport system for West Yorkshire.

- To improve connectivity to support economic activity and growth across West Yorkshire and the Leeds City Region
- To enhance the quality of life of people in West Yorkshire

The objectives will be delivered through four strategic approaches:

- Maintaining and managing **Transport Assets**
- Providing information on, and encouraging use of sustainable **Transport Choices**
- Improving **Connectivity** through the delivery of an integrated and reliable transport system
- Making **Enhancements** to the transport system to provide greater capacity and better performance

In Bradford the Council aim to achieve the vision and objectives through:

- supporting the delivery of new housing and jobs and helping to regenerate existing local communities
- making it easier to access places, services and amenities by sustainable means
- creating high quality, distinctive, cohesive and safe environments
- reducing congestion and supporting greener fuel technologies
- serving the transport needs of the most vulnerable members of the community and reducing the harmful effects of road traffic within neighbourhoods.

The Bradford Local Implementation Plan 2011-2014 lists all the schemes that are programmed under the above strategic elements. See appendix A of the Bradford Local LTP Implementation Plan 2011-2014 for detail.

Over the last 3 years the Council has also been preparing annual Transport Delivery Plans setting out its priorities for delivery of transport related schemes which enabled the Council to deliver transport measures in partnership with WYITA. Some major achievements under the above plans include:

- Enforcement of access to the Bradford City Centre Pedestrianised Area has been improved through the introduction of rise and fall bollards.
- Work has commenced on site on junction improvement schemes for Little Horton Lane / Southfield Rd and Leeds Road/Laisterdyke.
- Phase 1 of the Living Street, which extends from the City Centre to Manchester Road, is nearing completion.
- Continued delivery of casualty reduction and local improvement schemes through partnership working with local communities and other stakeholders

Despite good progress in many programme areas there has been some delay in implementing a number of schemes in the programme which has necessitated re-phasing. This re-phasing is incorporated in the Council's Capital Investment Plan on an on-going basis.

Other major integrated transport capital investment in Bradford, funded through the West Yorkshire Strategic Programme of Schemes, is progressing as follows:

### **Bradford City Links – supporting highways measures for City Park**

This scheme is nearing completion - includes a bus only right turn at the junction of Little Horton Lane and Princes Way and a new pedestrian crossing on Princes Way.

**Saltaire Improvements** – following the successful outcome of an innovative stakeholder involvement process a detailed design work has now commenced and work on the scheme is scheduled to be complete by the end of 2013.

### **Low Moor Rail Station**

Proposals to develop a new passenger railway station at Low Moor have been in development for a number of years and in 2009 were prioritised by the five West Yorkshire Authorities through the West Yorkshire Strategic Programme of Schemes (WYSPS) with a funding allocation of £5.5m. This funding is now incorporated into the West Yorkshire Local Transport Plan programme and remains allocated to the delivery of the station.

In 2013 some key issues were identified through the GRIP4 (single option development) stage which had implications on the delivery of the project. The issues included:

- a) Track curvature;
- b) Project cost;
- c) Business Case;
- d) Railway Timetabling Issues; and
- e) Car park provision.

Metro and Bradford Council officers have been working to mitigate these issues. Significant progress continues to be made on these issues, and whilst further work remains to be done it is expected that a robust solution to take delivery of a new railway station at Low Moor forward in the December 2015 timetable change will be confirmed within the next few months.

Metro remain committed to delivering the station and previously committed funding remains ring-fenced.

### **Traffic Light Priority for Buses**

This West Yorkshire wide scheme originally included the introduction of equipment to provide bus detection for 60 sites in Bradford all of which were expected to be implemented by the end of the last financial year. A further four locations have been identified in Bradford where the implementation of TLP is desirable to assist the recently improved 72 bus route and these have been added to the project. This system, and around 50 further TLP installations implemented in Bradford before the West Yorkshire wide project, is giving priority to buses at traffic signals on key routes across the District. Detailed analysis of the project suggests that significant benefits for buses are accruing from the scheme.

**Other Considerations:**

Strategic Road Network- Highway Agency's previous modelling work has identified a need for a number of improvements to junctions on the SRN in and close to Bradford District to cater for traffic growth generated by proposed developments emerging from the Local Plan process in all of the Districts of West Yorkshire. Issues relating to the existing peak period congestion on the M62 eastbound between Junctions 24 (Ainley Top) and 27 (Gildersome) and westbound between Junctions 28 (Tingley) and 26 (Chain Bar) have been addressed by the Managed Motorway and Hard Shoulder Running scheme that is expected to commence by 2015. The objectives of this scheme are to increase capacity for strategic traffic and to relieve existing traffic delays. Although the M62 motorway does not enter Bradford District, the scheme will address congestion problems that have an adverse effect on traffic movement to and from Bradford.

Apperley Bridge Rail Station- The provision of a new station at Apperley Bridge is included in the Rail Growth Package Major Scheme which secured Programme Entry status in December 2011. The project is being led by West Yorkshire Metro with input from Bradford Council to the car park and access elements.

Construction work is currently underway for the new station. The new station, to be located off the A658 Apperley Lane, is being planned by Metro in partnership with Network Rail and Northern Rail. It will also include a 300 space car park and a new access road. The station is expected to open in 2015.

Caldervale Line- Bradford Council is working with officers from Leeds, Calderdale and Rochdale Councils, as well as Metro, the Greater Manchester Transport Executive, Network Rail and Northern Rail, to identify proposals that would improve the operation of, and journey times on, the Caldervale line. Any viable proposal could be subject of a future bid for funding in recognition of the importance of the line to the Districts through which it passes and it's potential to improve the economy of the Leeds and Manchester City Regions

**7.2 Travel and Transport in Bradford District**

The following part of the section will outline a general overview of the key dimensions of travel and transport in Bradford District.

**General traffic trend**

The use of the road system in Bradford District is dominated by private vehicles. These form some 80% of the vehicles on the road and carry around 70-75% of the travelling population. The journeys involved have a wide range of origins and destinations; they also have a wide range of journey purposes, from leisure to commuting. Other journeys occurring as part of the working process involving either travelling as part of the working procedure or the transfer of goods and equipment are an essential element of the district's business activity.<sup>23</sup>

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<sup>23</sup> Bradford District Transport Strategy (CBMDC, 2007)

Between 1979 and 1993 all day traffic in Bradford District increased significantly (by 45%); since then growth has levelled off - with an increase of only 1.3% between 1993 and 2005. Peak traffic levels within Bradford have remained fairly static over the last twelve years, with flows in 2005 slightly lower than those recorded in 1993. Census data, however, indicates significantly increased journey lengths for commuters between 1991 and 2001, with Bradford workers travelling an average 21% greater distances over that period. Government forecasts are for an increase in car journeys of 12% in Bradford District between 2005 and 2015.<sup>24</sup>

A more recent study has also highlighted that total vehicle traffic in Bradford has continued to increase, albeit at a much slower rate than the national and regional trend (8.7% compared to 13.5% and 11.4% respectively). Vehicle traffic is by far the highest in Leeds within the City Region with 6.4 billion km travelled per year and the greatest rise in traffic volume was in Barnsley with a 22.5% percentage increase between 1998 and 2007.<sup>25</sup>

**Table 7a: Total Vehicle Traffic (billion km per year) by Local Authority 1998-2007**

	1998	2004	2005	2006	2007
England	395.1	428.7	429.7	435.7	440.2
Yorkshire and Humber	38.0	41.6	41.8	42.6	43.1
Barnsley	1.6	1.9	1.9	1.9	2.0
Bradford	2.3	2.4	2.4	2.5	2.5
Calderdale	1.4	1.5	1.5	1.5	1.6
Craven	-	-	-	-	-
Harrogate	-	-	-	-	-
Kirklees	2.5	2.6	2.6	2.7	2.7
Leeds	5.9	6.3	6.3	6.3	6.4
Selby	-	-	-	-	-
Wakefield	2.4	2.6	2.6	2.8	2.8
York	1.1	1.3	1.3	1.3	1.3

Source: Road Traffic Statistics, Department for Transport  
N.B. Data is not available for lower tier Local Authority Districts

Trend data on traffic volumes within the Bradford urban areas (measured from the Bradford Monitoring Cordon) indicates that inbound peak period (0700-1000) traffic levels are less now than they were ten years ago. Traffic volumes fell between 2001 and 2007 (despite a rise between 2003 and 2005). The flows in 2007 were still some 5% lower than in 2001 and 3% below the 1997 level. For the shorter peak period (0800-0900), inbound flows in 2007 were some 8.0% below the 1997 level.

Modal share data from the Monitoring Cordon indicates increased rail patronage (up 13%) and a slight increase in bus use (up 3%) since 2005 in the inbound morning peak.

Forecast increases in employment for Bradford District, however, could potentially increase peak period traffic across the cordon by as much as 8% between 2005 and 2011. The LTP target to restrict this to 3% or less assumes that growth will be limited by a significant

<sup>24</sup> A Picture of the District (Report on the State of the District produced by CBMDC Research and Consultation Service 2006 and 2007 updates)

<sup>25</sup> Progress in Leeds City Region (LCR Secretariat and Yorkshire Future, 2009)

expansion in City Centre living, accompanied by the effects of increased rail use and car sharing (under the Liftshare scheme).

The Bradford SATURN model shows that the person journey times on the three Bradford congestion routes (A647 Leeds Road, A650 Aire Valley Road and Little Horton Lane) would rise by around 5% which is well within the overall West Yorkshire target of 7%.<sup>26</sup>

## **Congestion**

Congestion in Bradford is not a district wide problem though there are hot spots, especially at peak times. Whilst there is little change recorded at particular periods it is clear that public perception believes there to be increasing congestion. This is most likely manifested in lengthening of peak periods as drivers seek to avoid congestion. Studies included in the LTP reveal that whilst many of the key junctions and the corridors leading to them are congested in the morning peak period, a substantial number are remaining so throughout the inter-peak period, especially on the outer ring road, in the city centre and Airedale. (Congestion is defined as traffic speeds less than 70% of speed limit.) This is a concern for those journeys involving either travelling as part of the working procedure or the transfer of goods and equipment.

The Bradford District Transport Study<sup>27</sup> has identified eight major radial routes to and from central Bradford as being the most important transport corridors within the district. Of those eight radial routes, three were identified in the West Yorkshire Local Transport Plan as having regional significance and designated 'Congestion Corridors'.

The radial routes and congestion corridors within the Bradford district are:

- 1: A647 Leeds Road (Congestion Corridor);
- 2: A650 Wakefield Road;
- 3: A641 Manchester Road (Congestion Corridor is Little Horton Lane);
- 4: A647 Great Horton Road;
- 5: B6145 Thornton Road;
- 6: A650 Aire Valley Road (Congestion Corridor);
- 7: A6037 Canal Road;
- 8: A658 Harrogate Road.

The recent update of the West Yorkshire Urban Congestion Target Delivery Plan (UCTDP) has highlighted the current levels of congestions on these 3 Bradford congestion corridors which are among the 13 specifically chosen routes across the region to tackle congestion. The average journey time for vehicles on A650 Mannigham Lane is 5 mins/mile, equating an average speed of just 12mph, although that speed falls to an even lower level during peak periods. The average journey time on A647 Leeds Road is 4min 30 seconds and 3min 45 seconds on Little Horton Lane.

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<sup>26</sup> West Yorkshire Congestion Target Delivery Plan (2009)

<sup>27</sup> The Bradford District Transport Study (Interim report by Steer Davies Gleave, 2009)

The Bradford SATURN model shows that the person journey times on the three Bradford congestion routes would rise by around 5% which is well within the overall West Yorkshire target of 7%.<sup>28</sup>

In the future, major regeneration projects, particularly in the city centre itself are likely to lead to increased traffic movements on inner and outer ring roads. Employment growth in the M606 corridor is likely to lead to increased congestion on the M606-A6177-A650 and the A650. Future growth in the numbers of jobs and housing in the Airedale Corridor will put increased pressure on road and rail capacity in the Aire Valley where the topography concentrates local movements and through movements to North Yorkshire.

## **Environmental Issues**

Road traffic is the main source of air-borne pollution in Bradford. The Council has already established 4 Air Quality Management Areas in localities where levels of Nitrogen Oxide were found to be higher than acceptable. The location of all the AQMAs identified experience significant levels of traffic congestion. The large volume and varied types of vehicular traffics are the major sources of this pollutant at those sites. Measures to try and improve air quality in these locations are being considered. (See Environment chapter for further consideration of air quality matters.)

It is possible to reduce the impact of transport on the environment, especially with regard to its effect on air quality and its contribution to climate change by reducing the length and number of car journeys and encouraging the use of alternative modes of transport.

There are some locations where Travel Plans can have an impact on car usage, for example, major employers, schools and developments generating significant amounts of travel. Bradford Carshare scheme is now well established, with 600 members who have saved over 50 tonnes of CO<sub>2</sub>. The Bradford Council Walking Bus scheme now runs at seven schools in the district - Aire View Infants in Silsden, Eldwick Primary in Bingley, All Saints School in Ilkley, Parkwood School in Keighley, Wibsey School in Wibsey, St Walburga's in Shipley and Keelham Primary in Den-holme, which has significantly reduced the number of car trips to and from schools and helped children learn about traffic and road safety issues.<sup>29</sup> Moreover, over 30 employers in Bradford have now signed up to the West Yorkshire Travel Plan network which demonstrates that they are committed to implementing travel plan measures in their organisations.

## **Sustainability**

Over the past decade the environmental impacts of traffic and transport schemes have been presented as an issue for sustainability. These impacts, coupled with congestion, have led to investigation and introduction of demand management measures. The concerns are now part of the wider 'climate change' concerns and carbon reduction. Whilst demand

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<sup>28</sup> West Yorkshire Congestion Target Delivery Plan (2009)

<sup>29</sup> [http://www.thetelegraphandargus.co.uk/news/2260696.children\\_rank\\_high\\_in\\_walking\\_to\\_school/](http://www.thetelegraphandargus.co.uk/news/2260696.children_rank_high_in_walking_to_school/)

management will be important to tackle congestion, it is likely that alternative technology may in due course offer alternatives to the carbon content of current vehicle fuels. However, maintenance of the transport network has its own carbon footprint through electricity usage, especially for street lighting and traffic signals. Investment in low energy use therefore will become increasingly significant for investment programmes.

### **Greenways**

A system of greenways is also being developed to encourage biodiversity and enable people to become more active and get around the District without having to use a car. The initial strategic routes will be based around the following:

- The Sustrans routes on the canal towpath connecting Shipley to Leeds and Shipley to Keighley with links to the town centres of Shipley, Bingley and Keighley.
- The planned route along the side of the new canal spur from Shipley to Forster Square in Bradford and its extension through Bowling to link with the Spen Valley Greenway.
- The planned Worth Way route linking Haworth to Keighley.
- The Great Northern Trail linking Queensbury to Denholme.

### **7.3 Accessibility and connectivity**

In past centuries Bradford's location made communications difficult, except from the north. Nonetheless, Bradford is now well-served by transport systems. Bradford was first connected to the developing turnpike network in 1734, when the first Yorkshire turnpike was built between Manchester and Leeds via Halifax and Bradford. In 1740, the Selby to Halifax road was constructed through Leeds and Bradford. Several more local and long-distance roads were built through the rest of the century.

Today Bradford lies on several trunk roads:

- The A647 to Leeds
- The A650 between Wakefield and Keighley
- The A658 to Harrogate
- The A6036 to Halifax

The M606, a spur off the M62 motorway, connects Bradford with the national motorway network. Although it was originally planned to go directly into the city centre, this has never been built and is unlikely now ever to be.

Bradford also has a relatively competitive position in terms of its connectivity to wider destinations. Junction 26 of the major east-west M62 artery lies only three miles from the city centre, connected directly by the M606. Rail access is good, with direct services taking around 20 minutes and departing about 7 times per hour. There are also good direct services down the Aire Valley to Leeds (and the centre of Bradford) and from Ilkley to Leeds.

Frequent, direct rail links are also available to Manchester and York. Air links to the district are provided by Leeds Bradford Airport, which lies around six miles north-east of the city centre.

A key planning objective of the current national and local planning policies is to ensure that jobs, shopping, leisure facilities and services are accessible by public transport, cycling and walking. This is also particularly important in terms of social inclusion for people without access to a car.

However, one of the main transport issues for Bradford is the extent to which developments that attract large numbers of people should be allowed in areas of poor public transport accessibility. These are normally employment sites where redevelopment is proposed for either more intensive employment use or for mixed use; for example in the M606 corridor, which is accessible mainly by car. The impact may be mitigated to some extent through the effective use of 'Travel Plan' initiatives that offer people and businesses a choice of travel.

There are key services, employment and areas in Bradford, which are poorly served by public transport, cycling and walking. These include employment sites such as East Bowling in the M606 corridor as mentioned above, some housing sites in Bingley and Thornton and areas on the Outer Ring Road. Bradford Royal Infirmary for instance though served by buses from Bradford City Centre, is poorly accessed by direct bus services from adjacent residential areas, and areas to the north of the district such as Shipley and Baildon.

**7.4 Public Transport**

Detail assessment of the major public transport services are discussed below-

**Train Services**

There are 67 MetroTrain stations in West Yorkshire and Bradford is connected to all of them through a mix of long-distance and local services operating on 12 different metro train lines.

The city is centrally served by Bradford Interchange to the south of the city centre and by Forster Square to the north. There are 12 other trains stations located within the boundary of the district and served by a range of local and national services.



**Map 7a : Highways and Motorways serving Bradford**

MetroTrain stations in Bradford District are:

1. [Baildon](#)
2. [Ben Rhydding](#)
3. [Bingley](#)
4. [Bradford Forster Square](#)
5. [Bradford Interchange](#)
6. [Burley-in-Wharfedale](#)
7. [Crossflatts](#)
8. [Frizinghall](#)
9. [Ilkley](#)
10. [Keighley](#)
11. [Menston](#)
12. [Saltaire](#)
13. [Shipley](#)
14. [Steeton and Silsden](#)

Description of some of the major train stations and their services are presented below:

### **Bradford Interchange**

Bradford Interchange is on the Caldervale Line and is one of the two railway stations serving the city of Bradford. The other station is, as mentioned above, Forster Square, ten minutes' walk away.

During Monday to Saturday daytimes, services run every 15 minutes between the Interchange and Leeds, and hourly onwards to York and Selby respectively. On evenings and Sundays there is a half-hourly service to Leeds and usually hourly to York.

In the other direction there is a train every 15 minutes to Halifax with two trains an hour continuing to Manchester Victoria (one limited stop, the other serving all stations to Rochdale), one to Blackpool North and one to Wakefield Westgate via Huddersfield where customers can change for Sheffield and Manchester Airport.

Sundays there is a half-hourly service to Halifax with an hourly service on to Manchester Victoria and one train an hour alternates between Blackpool North and Huddersfield.

Due to the geography of Bradford, the station was built as a terminus. Trains have to reverse out of the station, and drivers have to change to the other end of the train.

A direct train service runs from Bradford Interchange to Kings Cross on a daily basis. Grand Central Railway - an open-access company that operates services between London and Sunderland, runs services into Bradford Interchange using the East Coast Main Line from Kings Cross via Halifax, Brighouse, Wakefield Kirgate, Pontefract Monkhill and Doncaster under the name the 'West Riding Service'.

## **Bradford Forster Square**

Trains from Bradford Forster Square are operated by Northern Rail and National Express East Coast. Most trains are run by Northern Rail; these are towards Leeds (on the Leeds-Bradford Line), Skipton (on the Airedale Line) and Ilkley (on the Wharfedale Line). During Monday to Saturday daytimes, trains operate every 30 minutes on each route. During the evenings, there are trains every hour to each of Skipton and Ilkley; on Sundays these run every two hours. At these times there are no trains to Leeds; passengers have to change at Shipley.

National Express East Coast operates around three services per day via Leeds and the East Coast Main Line to London Kings Cross.

## **Shipley**

Train services are mostly commuter services between Leeds and Bradford, and from the Airedale Line and the Wharfedale Line into Leeds and Bradford.

During Monday to Saturday daytimes, these operate every 30 minutes on each of the following routes:

- Leeds-Bradford Forster Square;
- Leeds-Skipton;
- Bradford Forster Square-Skipton;
- Bradford Forster Square-Ilkley.

In Evenings a half hourly service is maintained between Leeds and Skipton. Ilkley and Skipton to Bradford are hourly. There is no direct service between Leeds and Bradford but a shuttle from Shipley to Bradford connects with Leeds departures. On Sundays, Ilkley/Skipton - Bradford is every 2 hours with Skipton and Bradford to Leeds every hour.

There are also a number of trains each day from Leeds to Carlisle (six each way weekdays, seven on Saturdays and three on Sundays) and Morecambe (four on weekdays, two or four on Sundays; both routes operated by Northern Rail), and from Bradford Forster Square to London King's Cross (via Leeds), operated by NXEC.

## **Keighley**

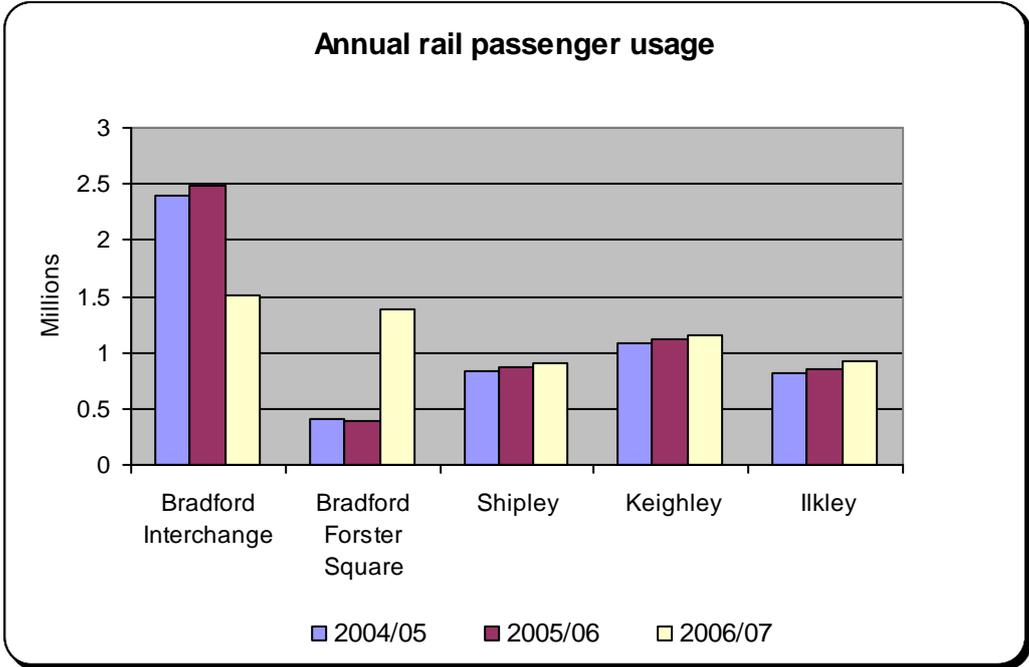
The station is located on the Airedale Line and managed by Northern Rail, who operate most of the passenger trains serving it. Electric trains operate frequently from Keighley towards Bradford Forster Square, Leeds and Skipton. Longer distance trains on the Leeds to Morecambe Line and Settle to Carlisle Line also call here.

Keighley is also the northern terminus of the Keighley and Worth Valley Railway. This is a heritage branch-line railway run by volunteers that was originally built by the Midland Railway and opened in 1867. Closed to passenger traffic in 1962, it was reopened by the K&WVR Preservation Society six years later and is now a popular tourist attraction.

There is a half-hourly service to both Leeds and Bradford Forster Square and four trains an hour on to Skipton during Monday to Saturday daytime. The evening frequency is hourly to Bradford and half hourly to Leeds, with three trains per hour to Skipton. On Sundays there is an hourly service to Leeds and a two-hourly service to Bradford with two or three trains per hour to Skipton. There is usually one longer distance train per hour to either Carlisle or Morecambe.

The Keighley and Worth Valley service runs daily during the summer and at weekends in other seasons.

**Figure 7a: Annual rail passenger usage of Bradford Stations\***



\* Annual passenger usage based on sales of tickets in stated financial year(s) which end or originate at Bradford Interchange from [Office of Rail Regulation statistics](#).

Rail is expected to continue to be the dominant public transport mode in those corridors where it exists, notably Airedale. Airedale and Wharfedale services are the busiest in the West Yorkshire network as are Shipley and the two Bradford stations. However, overcrowding on some peak services into both Bradford city centre stations is still an issue and needs to be addressed. Whilst the high standard of the Forster Square service is recognised, services to the south of the city are of poor quality in terms of both rolling stock and infrastructure provision and considerable investment is needed.

The immediate investment priorities for the local network are set out in Metro’s Rail Plan 7. This identifies two new stations in Bradford district with Apperley Bridge the most ready to be introduced in 2015. Work on a new station at Low Moor is also undergoing .

## Bus and Coach Services

First Group presently run the majority of the local bus network around Bradford, including the high-frequency core 'Overground' network, and services to Leeds, Halifax and Huddersfield.

Other services are run by:

- Arriva – operate longer distance services to Dewsbury, Wakefield and Sheffield
- Keighley and District Travel – operate the local Keighley network including a number of Bradford connections
- Black Prince Buses – operate a number of services to Leeds.

High frequency bus networks have been developed in Bradford and Keighley and there has been investment made by operators in high quality corridors such as the Keighley-Bradford 662 route. A 'guided bus' corridor has also been developed on Manchester Road (A640) which has retained patronage levels.

	<b>Bradford Interchange</b>	<b>Keighley Bus Station</b>	<b>Ilkley Bus Station</b>	<b>Shipley Market Place</b>
<b>Description :</b>	29 Drive-In Reverse Out stands. 1 set down only stand. Upper and lower concourse. On same site as Bradford Interchange railway station.	17 stand Drive-In Reverse-Out bus station with central passenger concourse.	3 bus shelters surrounding a layover and car parking area. Next to Ilkley rail station.	Drive through bus point on public highway (Market Square) - 9 stands.
<b>List of Main Operators using this bus station :</b>	Arriva, First, Halifax Joint Committee, TLC Travel, Transdev Keighley and District, National Express	Jacksons, Transdev Burnley and Pendle, Transdev Keighley and District, Tyrer Tours	First, Transdev Keighley and District, Pride of the Dales.	First, Transdev Keighley and District, National Express
<b>Daily Footfall :</b>	25,803	17,324	2,288	5,518
<b>Recent major improvement</b>	2001	Rebuilt in 2002	Rebuilt in 1998	Complete upgrading
<b>Staffed:</b>	Yes	Yes	No	No
<b>CCTV Coverage:</b>	Yes	Yes	Yes	Yeas
<b>Facilities:</b>	Baby Changing Facilities, Cafe*, Disabled Persons Toilet, Escalators, Information Help Point, Lifts, Newsagent*, Photo Booths, Toilets, Travel Centre,	Baby Changing Facilities, Cash Machines, Disabled Toilets, Newsagent, Photo Booths, Toilets, Travel Centre*, Telephones.	Real Time Information, Information Help Point, Newsagent, Telephones, Travel Centre	Cafe*, Disabled Toilet*, Newsagents*, Telephones, Toilets*
<b>Maintained by Metro:</b>	Yes	Yes	Yes	Yes
* Facility not provided by Metro				

The MetroConnect (737 and 747) services connect the city to Leeds Bradford International Airport and call at both the Interchange and Forster Square stations. MetroConnect MC3 provides services in Little Horton area connecting Smiddles Lane - Great Horton - Little Horton - West Bowling.

AccessBus, a dial-a-ride bus service operated by the Metro, provides door-to-door local transport to people who are unable to use conventional bus services. The service is free of charge to residents of Bradford and operates between:

- 9am and 5.30pm Monday to Saturday
- 9am - 5pm on Sunday.
- A limited evening service is available to groups of 5 or more.

Due to the very high demand for the service travel is restricted to local journeys only. Most trips are for shopping purposes, such as to the local supermarket or shopping centre, but also provides a limited number of journeys for social purposes, e.g. to the local community centres.

Bus services in Bradford are very well used across the district and is rated one of the top services within West Yorkshire. The outcome of a recent public opinion surveys undertaken earlier in 2008 by independent researchers on behalf of Metro has highlighted that 73% of Bradford respondents who used local bus services were satisfied with those services (BVPI 103). This was significantly higher than the West Yorkshire average of 67% and was the highest level of satisfaction of the five districts. Furthermore, 82% of Bradford respondents who used local bus services were satisfied with local provision of public transport information (BVPI 104). Again this was the highest level of satisfaction within West Yorkshire.

Satisfaction levels relating to the safety, cleanliness and reliability were also found to be higher in Bradford than the West Yorkshire average and these have increased compared to previous years.

National Express operates long distance coach services from Bradford Interchange. Coaches run from their own bays in the travel interchange to many towns and cities within the UK and also providing linking services between Leeds-Bradford International and other major Airports. The Euroline, also operated by the National Express, connects to over 500 European destinations. A network of 32 independent coach companies provides services to destinations covering the whole of Continental Europe, plus other destinations such as Morocco.

The New Bharat Coaches, based in Southall, also runs a service to and from the Bradford Interchange once everyday via Leicester and Derby.

In March 2009, the Stagecoach group, in partnership with East Midland Trains, has also introduced a new budget integrated bus and rail services connecting Bradford with London St Pancras station. The Megabusplus services depart from the bus stop located on Mayo Ave outside the Morrisons superstore.

**Taxis**

'Hackney Carriage' is the licensed Taxi services in Bradford. The Council has the right to regulate the number of Hackney Carriage licences it issues, or may decide to deregulate. Currently there are 224 Hackney Carriage taxis in Bradford and the council will review the situation in 2009.

Hackney Carriage fares are regulated by the Council. All Hackney Carriage vehicles are inspected at least once per annum to a standard determined by the Council.

Private Hire Vehicles cannot ply for hire in the street or at taxi ranks. Journeys must be pre-booked, normally by phone or in person at a booking office. Fares for private hire vehicles are not regulated by the Council - the cost of a journey will normally be based on a rate per mile or should be agreed with the company before the journey.

Private Hire vehicles must be licensed by the Council.

**7.5 Air Travel**

The city is served by both Leeds Bradford International Airport (LBIA), 6 miles (9.7 km) to the north east of the city, and Manchester International Airport located 50 miles (80 km) away at Ringway in the City of Manchester.

By the number of passengers handled, Leeds Bradford is the 16th busiest in the UK and Yorkshire's largest. There has been rapid expansion to the airport in recent years and direct flights are now available to over 70 business and leisure destinations (July 2009). Around 3 million passengers used the airport in 2006. It is the home base of economy Airline Jet2.com, voted Best European Short Haul Airline 2006.

**Figure 7b: Passenger Numbers at LBIA 1997-2008**



Source: UK Airport Statistics 2008-Annual

The airport was in public ownership until May 2007, when it was sold for £145.5 million to Bridgepoint Capital. Bridgepoint announced that a further £70 million would be invested in airport improvements, to boost passenger figures to over 7 million by 2015.<sup>30</sup>

Below is the full list of direct flights and holiday destinations available.

<u>Africa</u>	<u>Egypt</u>	<u>Pakistan</u>
<u>Tunisia</u>	<u>Sharm el Sheikh</u>	<u>Islamabad</u>
<u>Austria</u>	<u>France</u>	<u>Portugal</u>
<u>Innsbruck</u>	<u>Avignon</u>	<u>Faro – Algarve</u>
<u>Salzburg</u>	<u>Bergerac</u>	<u>Poland</u>
<u>Balearics Islands</u>	<u>Chambery</u>	<u>Krakow</u>
<u>Mahon – Menorca</u>	<u>La Rochelle</u>	<u>Mainland Spain</u>
<u>Palma – Majorca</u>	<u>Nice</u>	<u>Alicante – Costa Blanca</u>
<u>Ibiza</u>	<u>Paris</u>	<u>Almeria - Costa Almeria</u>
<u>Belgium</u>	<u>Toulouse</u>	<u>Barcelona - Costa Brava</u>
<u>Brussels</u>	<u>Germany</u>	<u>Girona - Costa Brava</u>
<u>Bulgaria</u>	<u>Düsseldorf</u>	<u>Malaga – Costa Del Sol</u>
<u>Bourgas</u>	<u>Greece</u>	<u>Murcia</u>
<u>Canary Islands</u>	<u>Corfu</u>	<u>Switzerland</u>
<u>Fuerteventura</u>	<u>Crete</u>	<u>Geneva</u>
<u>Gran Canaria</u>	<u>Rhodes</u>	<u>Turkey</u>
<u>Lanzarote</u>	<u>Zante</u>	<u>Bodrum</u>
<u>Tenerife</u>	<u>Holland</u>	<u>Dalaman</u>
<u>Amsterdam</u>	<u>Iceland</u>	<u>United Kingdom &amp; Ireland</u>
<u>Caribbean</u>	<u>Italy</u>	<u>Aberdeen</u>
<u>Barbados</u>	<u>Milan</u>	<u>Belfast City</u>
<u>Channel Islands</u>	<u>Pisa</u>	<u>Belfast International</u>
<u>Jersey</u>	<u>Rome</u>	<u>Bristol</u>
<u>Croatia</u>	<u>Sardinia</u>	<u>Dublin</u>
<u>Dubrovnik</u>	<u>Venice Marco Polo</u>	<u>Exeter</u>
<u>Cyprus</u>	<u>Verona</u>	<u>Edinburgh</u>
<u>Larnaca</u>	<u>Lapland</u>	<u>Glasgow</u>
<u>Paphos</u>	<u>Malta</u>	<u>Isle Of Man</u>
<u>Czech Republic</u>	<u>Malta</u>	<u>London Gatwick</u>
<u>Prague</u>		<u>Newquay</u>
		<u>Plymouth</u>
		<u>Southampton</u>

<sup>30</sup> [http://www.thetelegraphandargus.co.uk/news/1374024.airport\\_sold\\_for\\_145\\_million\\_to\\_bridgepoint/](http://www.thetelegraphandargus.co.uk/news/1374024.airport_sold_for_145_million_to_bridgepoint/)

The LBIA plays an important part in building the City Region's economy and its contribution to the region's economy is set to grow as the passenger throughput is expected to reach from 2.6m in 2005 to 5.1m in 2016.

Over 89% of passengers originate in the Leeds City Region using business or leisure flights on short and medium haul services within the UK and to mainland Europe. Similarly, it acts as a significant 'gateway' to tourist and business visitors to the Region, as around 900,000 overseas visitors came to the Yorkshire and Humber Region in 2003, spending approximately £294 million. By 2030, the Airport is forecast to handle 8.2 million passengers and support around 4,100 FTE jobs and provide £154 million of income<sup>31</sup>.

The Airport therefore has an increasingly important role to play in supporting this growing industry. It has developed a strategic masterplan 2005-2016 which shows how the airport might develop in the future in terms access, transport mode share and maximising the efficiency of its existing land and facilities.

Manchester airport provides much wider international destinations to the people of the district. This airport is the fourth busiest airport in the UK and the biggest outside of London, in terms of annual passenger throughput.

The airport provides regular direct flights to over 190 destinations worldwide by 84 airlines and is the main international gateway to and from the North-West of England. It offers non-stop scheduled flights to destinations across Europe, North America, Africa, South Asia, the Caribbean, Middle East and Far East.

Moreover, 65 tour operators utilise the airport's facility and many of Manchester's overseas routes are served by charter flights to holiday destinations, some being seasonal.

## **7.6 Cycling and Walking**

Cycling is not an intensively used form of transport in Bradford but provides a sustainable, healthy means of travel for a range of journeys that could otherwise be carried out by car, not only for leisure but also for some work and school journeys. Furthermore, encouragement of travel by cycle will assist in minimising the demand for road space from other road users. However, the numbers of accidents involving cycling casualties is high in relation to the levels of cycling that take place, highlighting the vulnerability of this group of road users. Allocation of road space for cyclists is a matter for local scheme design whereas the creation of long distance cycle routes including the National Routes 66 and 69 and the Great Northern Trail is of strategic importance to the district.

The Bradford City Cycling Map covers the whole Bradford District and shows a network of routes recommended by cyclists, consisting of a number of signed cycle routes, many quiet roads, traffic calmed areas and off highway links. The map was first produced in 2000 and

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<sup>31</sup> Leeds Bradford International Airport (2004) *LBIA Masterplan 2005-2016*. Leeds: LBIA.

now has been updated in 2009 taking account of the additional cycle provision across the district.

The Bradford Cycle map is available as a free hard copy map from tourist information centres, council buildings, libraries, bike shops, travel centres and leisure centres and other outlets around the district. Alternatively it can be downloaded from the following link:

[http://www.bradford.gov.uk/transport\\_and\\_infrastructure/transport\\_planning/bradford\\_cycle\\_map.htm](http://www.bradford.gov.uk/transport_and_infrastructure/transport_planning/bradford_cycle_map.htm)

## 7.7 Key Facts

- Bradford's road system is dominated by private vehicles with journeys involving a wide range of origins, destinations and purposes. Car ownership in Bradford is also set to rise at a faster rate than nationally.
- Commuters flow between Bradford and Leeds is the highest in Leeds City Region. There is a net inward flow of commuter into Bradford from all surrounding districts except Leeds, which receives a net gain Bradford commuters.
- Congestion in Bradford is not a district wide problem though there are hot spots, especially at peak times at the major radial routes to and from the central part of the district. In the future, major regeneration projects, particularly in the city centre and the Shipley canal road corridor together with employment growth in the M606 corridor are likely to lead to increased traffic movements at inner and outer ring roads. Future growth in the numbers of jobs and housing in the Airedale Corridor will also put increased pressure on road and rail capacity in the Aire Valley.
- Although Bradford District has a relatively competitive position in terms of its connectivity to wider destination, the city internally faces the challenge of planning for major infrastructure projects e.g. completion of city centre west ring road, and allowing large scale/intensive developments in areas of poor transport accessibility. There are also some key services, employment and housing areas in Bradford that are poorly served by public transport, cycling and walking.
- Road traffic is the main source of air-borne pollution in Bradford. All the four Air Quality Management Areas in the district experience significant levels of traffic congestion which causes the level of Nitrogen Oxide in those localities being higher than acceptable. Travel initiatives that reduce the length and number of car journeys and encourage using alternative modes of transport are increasingly becoming popular and thus contributing towards reducing the impacts of traffics on the environment.
- Bus services in Bradford are well used across the district and rated by public opinion survey as one of the top services within West Yorkshire. However, there are specific areas e.g. congestion, punctuality and better accessibility where further and effective measures are needed for improvement.

- Rail patronage in the district has increased significantly over the years and is expected to continue to be the dominant public transport mode in those corridors where it exists, notably in Airedale. However, lack of adequate park and ride facilities at stations and overcrowding on some peak services still remain a major issue and needed to be addressed.
- Air travelling to and from Bradford is set to increase as the city is now connected to more frequent and wider national and international destinations through the Leeds-Bradford International Airport and Manchester Airport. The LBIA is expected to play a much important regional role in the future and thereby directly contributing to the economy of the region.
- In the long terms good connections between all public transport modes will be increasingly important. The district is unlikely to create enough jobs on its own to meet the demands of a growing workforce, and therefore links with neighbouring districts will be important to connect people with employment and housing.

## 8.0 Environment

This section of the report appraises the current environmental situation across the district and also reviews the existing and ongoing studies that deal with the issues.

A wide range of research and study materials have been investigated to compile the facts on these subject areas. Some of the reports are-

- The Big Plan: Sustainable Community Strategy for Bradford District (CBMDC, 2008)
- Bradford District Environmental Strategy 2008-11 (CBMDC, 2007)
- Bradford District Air Quality Action Plan (CBMDC, 2010)
- Bradford District Air Quality Strategy (CBMDC, 2011)
- Air Quality Progress Report for Bradford (2010)
- Our District, Our Climate, Our Responsibility- Framework for Action to help tackle climate change in the Bradford District (Bradford District environment Partnership, 2010)
- Bradford District Carbon Management Programme 2007-12 (CBMDC, 2007)
- Bradford District Low Emission Strategy (CBMDC, 2013)
- Bradford Power: 2020 and beyond-Renewable Futures for Bradford Council (CBMDC, 2012)
- Bradford Strategic Flood Risk Assessment ( CBMDC, March 2003)
- Review to Consider the Future of Water Management and the Associated problems of Flooding in the Bradford District ( CBMDC, 2005)
- Inspection Strategy for Contaminated Land in the Bradford District (CBMDC, 2001)
- Bradford Local Biodiversity Action Plan- Draft (CBMDC, 2003)
- YH Regional Biodiversity Strategy (Y&H Biodiversity Forum, 2009)
- YH Regional Environment Enhancement Strategy 2008-13 (YHREF, 2009)
- Low Carbon and Renewable Energy Capacity in Y&H (AECOM, 2011)
- Weathering the Storm: Yorkshire and Humber Regional Climate Change Adaptation Study (Y&H Assembly, 2009)
- Climate Change Plan for Yorkshire and Humber 2009-2014 (LGYH, 2009)
- West Yorkshire Adaptation Action Plan (AWAY, 2010 )
- West Yorkshire Geodiversity Action Plan (WY Geology Trust, 2008)
- Saltaire World Heritage Site Environmental Capacity Study (Atkins, 2006)
- Conservation Area Review Programme (CBMDC, 2007/08)
- Listed Building at Risk Survey (CBMDC, 2005)

### 8.1 Air Quality

#### Local Air Quality in Context

The Environment Act 1995 laid the foundations for a nationwide system of Local Air Quality Management (LAQM) in which local authorities are required to review and assess the air quality in their areas, and to take action where the air quality objectives are at risk of being

breached. This system is an integral part of delivering the air quality objectives set out in the Air Quality Strategy for England, Scotland, Wales and Northern Ireland.

Air quality in relevant locations within Bradford has been found over several years to comply with all of the air quality objectives except for the annual mean and short-term objectives for nitrogen dioxide (NO<sub>2</sub>). Analysis suggests that this objective is currently exceeded at four locations and these have been designated as air quality management areas (AQMAS).

The four AQMAS are located in specific parts of the following roads:

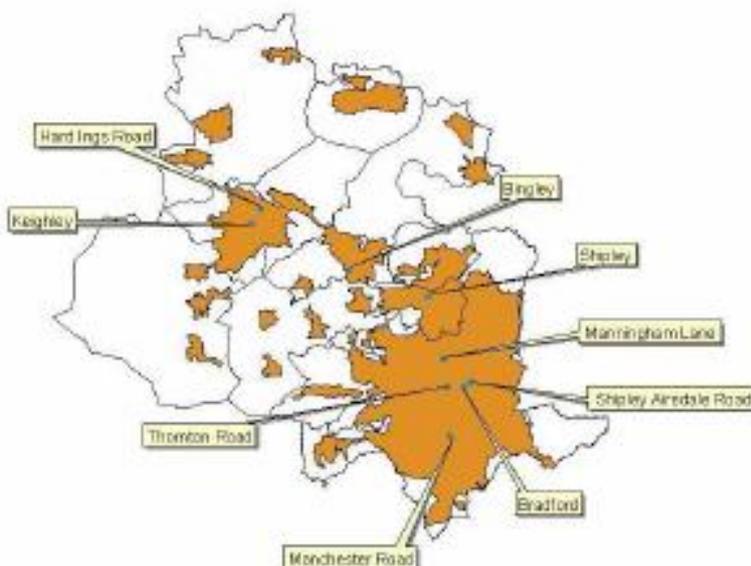
- Mayo Avenue, Bradford,
- Thornton Road, Bradford
- Manningham Lane, Bradford
- Shipley Airedale Road, Bradford

### Monitoring Air Quality in Bradford

Currently, air quality monitoring is carried out in Bradford on a routine basis to monitor oxides of nitrogen (NO<sub>x</sub> and NO<sub>2</sub>), sulphur dioxide (SO<sub>2</sub>) and particulate matter (PM<sub>10</sub>). All other air quality pollutants have been reviewed and assessed within Bradford and it has been found not necessary (or cost effective) to actively monitor for them.

Road transport is found to be the dominant local source of pollutant emissions. For example the following pie chart illustrates the contribution to annual mean nitrogen dioxide concentrations on the Shipley Airedale Road. Heavy goods vehicles and cars on this road in particular contribute significantly to total concentration in addition to background concentration which is defined as the contribution from all transport, industrial and domestic emission sources across the District.

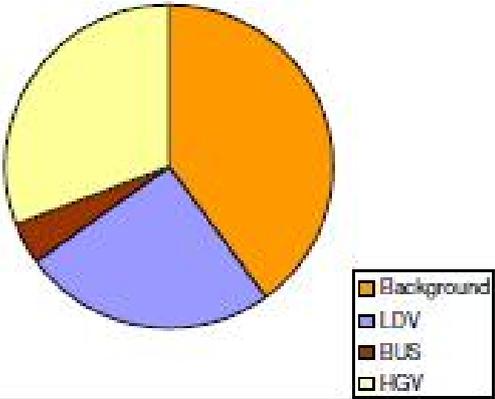
### Map 8a: Automatic Monitoring Sites



Source: Air Quality Progress Report for Bradford (2010)

Measurements and projections of air quality suggest that the air quality objective for NO<sub>2</sub> may be achieved by 2010 in the Manningham Lane and Thornton Road AQMAs under business as usual projections meaning additional local measures to reduce emissions in these AQMAs are of lower priority in terms of local air quality management. However, air quality in the remaining two AQMAs – Mayo Avenue and Shipley Airedale Road is predicted to exceed the objective through until at least 2015 unless action is taken to reduce pollutant contributions (NO<sub>2</sub> in particular) from road transport by 25-40%. Therefore additional measures to reduce emissions in these AQMAs are a higher priority in terms of local air quality management.

**Figure 8a: Contributions to NO<sub>2</sub> concentration in the AQMA**



Source: Air Quality Action Plan (2010)

**Review and Assessment Findings**

Previous work by the Council’s Environmental Health Service identified four areas in the district that are not achieving the UK air quality objective for nitrogen dioxide (annual mean concentration of 40µg/m<sup>3</sup> in relevant locations). Exhaust emissions from traffic on the roads within these areas is largely responsible. Heavy-duty vehicles (freight and buses) in particular contribute significantly to the emissions, although the number of these types of vehicle passing through the areas is relatively small.

The Council has a statutory duty to designate these locations as Air Quality Management Areas (AQMAs), which it did in September 2006, and to develop an action plan setting out the measures that it will adopt to make progress towards the achievement of the air quality objectives. The Air Quality Action Plan takes account of the contributory factors leading to the exceedance of the air quality objective and any limitations in Bradford Council’s ability to act on this issue.

**Table 8a: Air Quality Monitoring Data NO<sub>2</sub> in AQMAs**

Air Quality Monitoring Data (Nitrogen Dioxide) in AQMAs;

Site ID	Annual mean concentrations NO <sub>2</sub> (µg/m <sup>3</sup> )				
	Pre-2007	2007	2008	2009	2010
Shipley Airedale Rd	70	68	53	108* <sup>1</sup>	74* <sup>2</sup>
Manningham Lane	47	43	49	46	49
Mayo Avenue	54	-* <sup>3</sup>	71	81	83
Thornton Road	44	25	19	18	-* <sup>3</sup>

\*1 – Technical problems, data unreliable.  
 \*2 – Data collected over just six months (not annual average).  
 \*3 – Technical problems, no data.

The Council's Environmental Health Service has a rolling programme of further work in other parts of the district (as set out in the Government guidance). Air Quality must be reviewed annually and work is ongoing to identify any new areas of exceedance. This may include changes due to new developments, changes in the technical guidance or legislation and areas missed in previous rounds of review and assessment.

### **Air Quality Action Plan**

This Council has produced an air quality Action Plan in response to the designation of the four air quality management areas.

The Action Plan defines 'how the Local Authority will use its powers and work in conjunction with other agencies in pursuit of the air quality objectives'. In summary:

- Air quality problems in the Bradford district are mainly attributable to transport.
- The action plan has considered all available options for improving air quality within the AQMAs.
- All short-term and site specific options (e.g. alterations to traffic lights, low emission zones, etc.) were rejected. The plan includes reasoning for rejection of these options. It should be noted that some of options may have to be revisited during implementation of the Air Quality Strategy in order meet the Air Quality Regulations.
- Actions have been identified that aim to improve air quality across the district, including the AQMAs.
- The actions are mainly long term options that rely primarily on regional or national measures (e.g. introduction of new EURO standards for vehicle emissions) to improve air quality.

With significant development and house-building likely to be undertaken in the coming years in the District, the action plan also focuses on avoiding worsening problems. This would be a risk if air quality were not considered in future transport and development proposals. The action plan will ensure that the impact of new development on air quality is considered in a structured and well-managed fashion.

In 2011 the Council also produced an Air Quality Strategy for the District followed by a Low Emission Strategy introduced in 2013.

### **8.2 River and Water Quality**

The main river systems comprise:-

- The Becks in the south of the district which drain to the south into the River Calder;
- The streams around Bradford which drain into Bradford Beck and then into the River Aire;
- The River Worth which meets the River Aire in Keighley and drains the catchment from the moors in the west of the district;
- The River Aire which continues towards Leeds in the east;
- And the River Wharfe which drains across the north of the district towards the east.

The Environment Agency undertakes river water quality sampling across the district and the summary results are available on the web-site at [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk) 'What's in your backyard?' section. The information presented there, demonstrates that the water quality is more likely to be poor or bad (according to the EA's General Quality Assessment (GQA) classification system) in the urban areas such as the centre of Bradford, and in the becks to the south of the district which drain toward the Calder catchment. The Aire catchment tends to have better water quality until it reaches the confluence with Bradford Beck in Shipley. The Council is working with the Environment Agency to improve the quality of these watercourses. It is also running a trial involving two areas of reed beds – these are being used to evaluate their effectiveness in cleaning up diffuse pollution. The Wharfe water quality tends to be very good through the north of the district.

It should be noted that the GQA classification scheme is only for chemical parameters and there are other water quality issues involved including pesticides, pathogens and other criteria related to the current and previous industrial and other effluent impacts on the watercourses.

In recent years, increased investment in sewage treatment has also brought improvements in river water quality, but there is still concern about certain pollutants such as contamination from faulty combined sewer overflows, pesticides and industrial detergents. There are emerging issues relating to new pollutants such as synthetic human hormones used as contraceptives which have been detected in water samples. These chemicals are persistent in waterway ecosystems and may have a hormone disrupter effect on fish, invertebrates and other indicators of biological water quality. This highlights the need to monitor the connections between lifestyles and the potential consequences for human environmental impacts.

Through a system of permits the Environment Agency also regulates anyone wishing to dispose of effluent to rivers. As well as these point sources it also considers pollution from diffuse sources such as run-off from contaminated land. In addition to the grading systems for both chemical and biological pollution, an agreed target or River Quality Objective (RQO) has been set for certain stretches of a watercourse. The monitoring of waterways in the District shows an overall improvement in biological and chemical water quality in recent years.

The water for public supplies in the district comes from surface water. Most of it is from reservoirs, although there are also a number of licensed spring sources and significant quantities are abstracted from the River Wharfe. Water is 'imported' from higher up the Wharfe and from the Nidd Valley and pumped to the local reservoirs for distribution. Water is also abstracted under license for industrial cooling and processing purposes.

### **8.3 Flooding in Bradford**

The Draft Regional Flood Risk Assessment (RFRA) and the Strategic Flood Risk Assessment (SFRA) – Level 1, prepared at district level, provide a framework for the overall

appraisal and management of risk. The most important principle, in terms of managing risk is that development should only be permitted in areas of high flood risk when there is no reasonably available land in areas of lower flood risk and the overall benefits of the development outweigh the risks from flooding. Risk should be reduced, at a strategic level, by safeguarding land from development that is required for flood water storage and defences and using the opportunities offered by new development to incorporate sustainable urban drainage, green infrastructure for water storage and the re-creation of the functional flood plain.

Bradford District includes the catchment areas of the River Aire and the River Wharfe, the later forming a main river within the River Ouse catchment. Both the Aire and the Ouse play an important role in the future planning of neighbouring authorities within the Leeds City Region and beyond.

The upper reaches of the River Aire within Bradford District have a largely rural character and the flood plain in the Silsden and Steeton With Eastburn area is quite extensive. The River Worth is one of the larger contributing catchments and joins the River Aire at Keighley. The middle reaches of the River Aire are heavily urbanised and contain the towns of Keighley, Bingley, Shipley and the City of Bradford. Between Keighley and Leeds the valley floor steepens and becomes narrower. The density of development within the valley has resulted in significant restrictions to the natural floodplain.

The River Aire within Bradford District is characterised by a number of swift flowing upland streams which then flow down through the towns along the valley. Periods of heavy rainfall in the uplands can therefore produce high flows in the tributary catchments between Keighley and Bradford. This problem becomes most acute in densely developed areas where gradients are steep, for example there are locations within the Bradford Beck corridor, where water levels can rise significantly in just a few hours.

The channel of Bradford Beck has been heavily modified and while lengths to the west of the city are open, most of its length lies in culvert as it runs through the centre of the city. The Beck is known to have caused serious flooding in the past, however the construction of the flood alleviation tunnel in 1993 reduced the risk of flooding.

Recognising the importance of the Bradford Beck Corridor to regeneration of the District and the continuing need to manage flood risk, the Council commissioned new modelled flood event data, which takes into account both the sewer system and the diversion channel.

The River Wharfe skirts the settlements of Addingham, Burley-in-Wharfedale and the central area of Ilkley. It is a fast reacting river with flood flow rapidly passing downstream. As well as flows that come down from the upper Wharfe, there are a number of smaller streams and becks descending from the moors in Wharfedale, which can be a source of flood risk in extreme rainfall events.

Surface water flooding can occur where extensive rainfall exceeds the drainage capacity in an area, as happened in a number of locations in the UK in summer 2007. The shape of the

landform in Bradford, especially in and around a number of the built-up areas, makes the district potentially prone to flooding caused by direct rainfall, due to the extent of hard surfaces and a lack of sufficient sewer capacity. In addition to causing flooding to property, surface water runoff can lead to water quality issues and potential health risks.

An increased programme of investment is currently underway to improve the standard of protection to existing communities. The Authority works in partnership with a variety of organisations to address water management in the district. European funding has been accessed for flood alleviation capital projects. Water management strategies and programmes aim to:

- Reduce the risk of flooding
- Mitigate the effect of flooding
- Provide coordinated and effective emergency responses to flooding incidents

A Strategic Flood Risk Assessment for Bradford District was carried out in 2003 in consultation with the Environment Agency and Yorkshire Water. The study identified the main river flooding issues as given in following Table.

**Table 8b : Known Main River Flooding Issues – Bradford District**

Location	Flooding Issue
<b>River Wharfe</b>	
Ilkley	<ul style="list-style-type: none"> <li>• 22 properties identified at risk (flood warning area);</li> <li>• Flooding observed 1965, 1991, 1995 and 2000;</li> <li>• 3 properties affected November 2000;</li> <li>• Rapid increase in river levels;</li> <li>• Localised hydraulic constrictions increasing flood levels;</li> <li>• No formal flood defences</li> </ul>
Burley	<ul style="list-style-type: none"> <li>• Flooding observed 1950, 1965, 1975, 1982, 1990, 1991 and 1994;</li> <li>• Properties at risk include A65, Burley Wastewater Treatment Plant and isolated properties</li> </ul>
<b>River Aire</b>	
Stockbridge	<ul style="list-style-type: none"> <li>• 370 residential and 3 commercial properties affected during Nov 2000 event;</li> <li>• Significant flooding observed 1936, 1946, 1967 and Nov 2000</li> </ul>
Shipley	<ul style="list-style-type: none"> <li>• 4 residential and 3 commercial properties affected during Nov 2000 event</li> </ul>
Bingley	<ul style="list-style-type: none"> <li>• 28 residential and 2 commercial properties affected during Nov 2000 event</li> </ul>
Apperley Bridge	<ul style="list-style-type: none"> <li>• 6 residential properties affected during Nov 2000 event</li> </ul>
<b>Silsden Beck</b>	
Silsden	<ul style="list-style-type: none"> <li>• Flooding observed 1970, 1994, 1995, 1998, 1999 and 2000;</li> <li>• Observed flooding historically within Kirkgate, St John St and Mitchell Lane;</li> <li>• Critical structures susceptible to blockage (resulting in localised flooding)</li> </ul>

Source: Bradford Strategic Flood Risk Assessment Final Report 2003

The report also highlighted the known flooding issues related to the 'Critical Ordinary Watercourses' and also summarises Surface Water Drainage Related Issues across the district.

In March 2005 the council also published a *Review to consider the Future of Water Management and the Associated Problems of Flooding in the Bradford District*<sup>32</sup> that analysed information from agencies involved in water management and the public affected by flooding in order to support future policy development and implementation. The report particularly highlighted how the nature and the scale of flood risk in Bradford district could be affected by future developments in regeneration, the landuse planning system, new legislation, and new working practices. In conclusion, it outlined a range of recommendations based on its inquiry on the following key issues-

- The risk, nature and scale of flooding in the district
- Key actions required for reducing the risk of flooding
- Key actions required for mitigating the effects of flooding

The designation of the flood plains by the Environment Agency has seriously affected the availability of development sites where land and property are seen to be at risk. This not only restricts new development but also makes the redevelopment of existing buildings and brownfield sites potentially very difficult. The above report however envisaged that landuse plans (including the Airedale Master plan and the City Centre Master Plan) will recommend that new developments will include alternative methods of urban water management including rainwater harvesting, the use of reed beds, permeable hard surfaces, grey water recycling etc. The delivery of these innovative systems will require partnership working with the developers, the EA, YW and Bradford Council. There are of course other opportunities such as tree planting, and the creation of water storage and retention areas, which need to be considered.

The council has recently agreed to review the current SFRA in order to update the flood risk issues across the district and investigate the scope of the phase 2 recommendations outlined in the earlier SFRA. At the time of writing this report the council has commissioned JBA Consulting to carry out this assessment and the work is ongoing.

This flood risk assessment will influence the strategic choices for development that are to be addressed in the Core Strategy. When considering development in certain areas, particularly Bradford City and locations along the valley floor within Airedale, this will also help achieve a balanced view of the competing objectives of reducing flood risk and achieving sustainable regeneration across the district.

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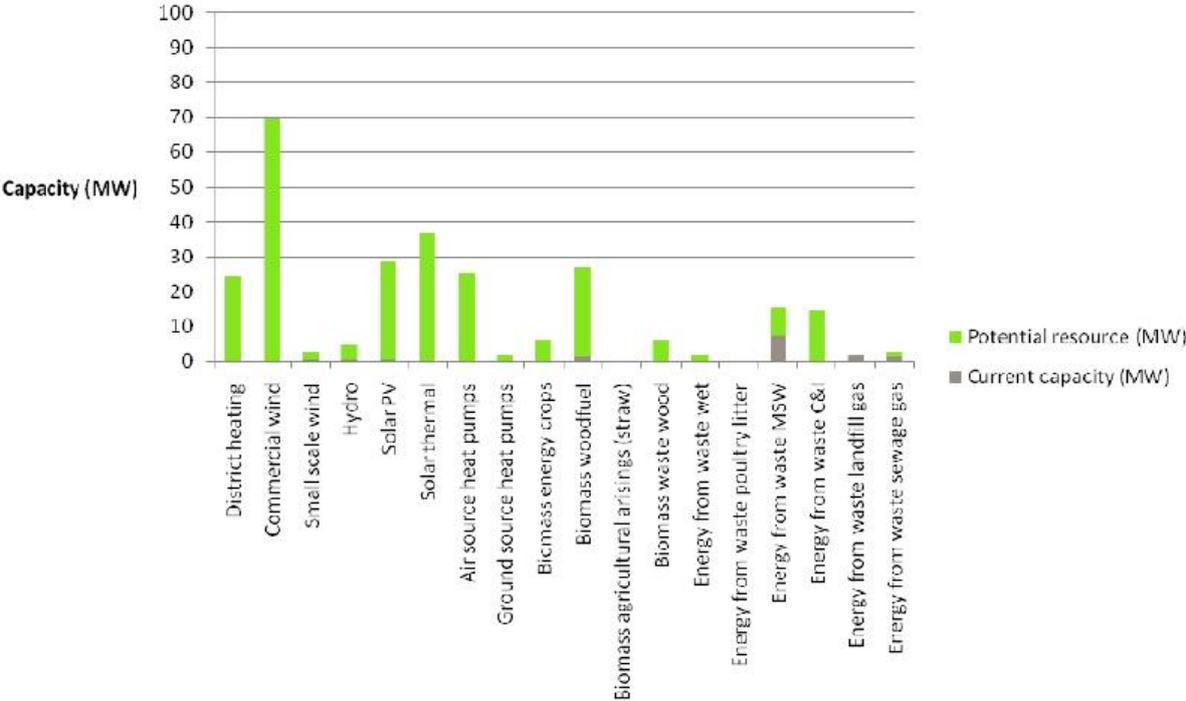
<sup>32</sup> BMDC (2005) *Review to consider the Future of Water Management and the Associated Problems of Flooding in the Bradford District*. Report dated March 2005. Policy Development Service, CBMDC.

### 8.4 Renewable Energy

In order to meet the Government’s carbon-cutting ambitions, both higher levels of energy efficiency and much greater use of renewable energy is required. National policies emphasise the important role of local planning authorities in encouraging much greater use of local renewable and low-carbon energy in new developments as part of their strategies for mitigating and adapting to climate change.

Analysis of Bradford’s renewable energy resource<sup>33</sup> shows the high potential for decentralising energy, significantly from commercial wind and solar photovoltaic panels. Hydro electric potential in the District is significantly better than many Yorkshire local authority areas. There is currently one hydro generation plant operating in Esholt, and a potential site identified at Greenholme Mills on the border with Harrogate district.

**Figure 8b: Renewable energy sources in Bradford**



Source: *Low carbon and renewable energy capacity in Y&H- Draft Final Report (AECOM, 2011)*

Renewable energy generation suffered a set back in February 2013 with the withdrawal of PFI (Private Finance Initiative) support for the waste recovery facility at Bowling Back Lane which included energy from waste capacity.

Because of Bradford’s hilly topography the main pressure has been for energy generation from the wind. The district is largely built-up to the east around Bradford but is more rural to west and north and incorporates areas of moorland. These extra-urban areas are mainly classified as having a high and very high sensitivity to wind development. For these reasons wind developments are most likely on a small scale in appropriate pockets of land within suburban and green belt land.

<sup>33</sup> Low carbon and renewable energy capacity in Y&H- Final Report (AECOM, 2011)

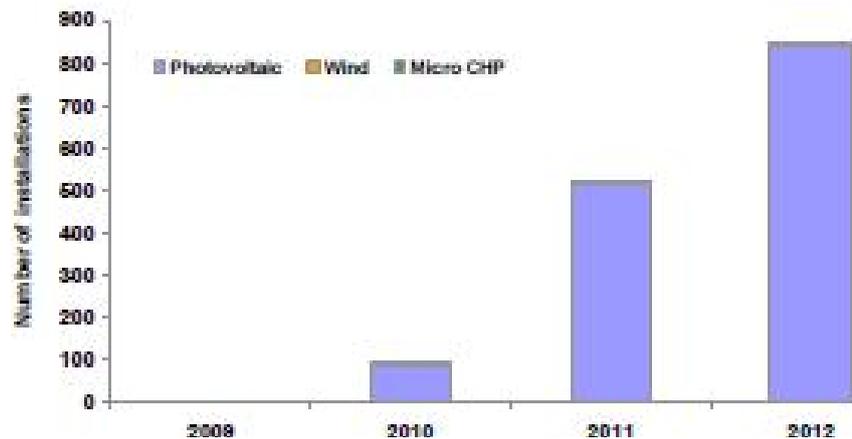
In addition, the built-up areas in Bradford provide an opportunity for exploiting PV which should make a significant contribution to renewable energy generation and can stand above average for any LA's in the region. By 2021 biomass technologies can provide significant opportunities to further diversify Bradford's power supply. There should also be potential for growing energy crops on brownfield sites and as an alternative to agricultural crops on established farmland.

Bradford is one of the smaller LA's in the region in terms of land size but has a population that is above the average. The town of Bradford has the density necessary to support district heating networks. The Energy Opportunities Plan shows that there are many public buildings in the town that could provide anchor loads for such networks.

There has been rapid uptake in small scale renewable energy installations over the past four years. The uptake has been driven by the government's Feed in Tariff, and more recently the Renewable Heat Incentive. Against the background of economic recession, renewable energy has been viewed as one of the most attractive financial investments in recent years.

The council itself runs an Eco-Management and Audit Scheme (EMAS) for its own buildings and properties. In support of the process it has an ongoing programme of works aiming to reduce energy consumption in council buildings and to increase use of renewable sources of energy where appropriate.

**Figure 8c: Feed In Tarriff (FIT) renewable energy installations in Bradford**



Source: AECOM 2011

The Council is also in the process of carrying out an 'Environmental Constraint Assessment' for the district which will look into the different level of environmental sensitiveness across the district (e.g. greenbelt, flood zone, low wind speed zone etc) and help identify potential locations for renewable energy sources e.g. wind farms, individual turbines etc. An initial overview of the study suggests that the most potential sites for wind turbines in the district lies in the south-west at Denholme-Queensbury area near the Ovenden Moor.

However, despite the good potential for various renewable opportunities, the overall potential for Bradford to generate renewable energy is lower than the average for LA's in the region due to the District's lower potential for wind developments. (Source: AEA Planning for Renewable Energy Targets, Yorkshire & Humber, 2004).

## **8.5 Land Contamination**

Bradford has a legacy of land used for industry resulting in land contamination. Certain past and present human activity will have potentially caused contamination of the ground. However, existing assessment and knowledge suggest that the potential contamination sources are limited to previous manufacturing and industrial activity, chemical or fuel storage and treatment or disposal of waste.

Although the precise extent of the problem is still being investigated, the Council is developing various strategies which include assessing and prioritising the treatment of contaminated sites as part of the regeneration process across the District. Recently a guide to submitting planning application for development on contaminated land has been published which aims to help developers identify the best way of dealing with possible contaminated land and bring those lands back into use releasing pressure on other environmentally sensitive areas.

The current 2020 Vision highlights the potential for using previously developed sites, also known as “brown field” sites, to aid urban regeneration, improve the environment of the inner urban areas, and minimise the pressures on “green field” land. Some sites could be used for woodland and quality green-space, whereas certain sites could be regenerated for more affluent uses. For example, the former Gaswork site on Thornton road has been through a Council Land Reclamation Scheme to get rid of the pollutants in order to make it fit to cater for major urban regeneration projects. However, decisions regarding the preferred uses of these sites will be made through consultation with local communities, specialist agencies, and the development assessment process.

The current rUDP policies emphasise the need to ensure public health and safety and, in order to determine the level of suspicion in relation to contamination, suggest developer carry out phase I and later phase II site investigation (if it is considered from phase I study that the contamination would adversely affect the proposed development) to the satisfaction of the council before the status of the planning application is determined. The type and level of contaminants present on the site and the remedial measures proposed will be prime consideration to deal with such issues.

The council also has a contaminated land inspection strategy which highlights the possible sources and receptors of land contamination across the district and outlined the aims, objectives and key action areas in order to deal with the issue.<sup>34</sup>

## **8.6 Hazardous Installations**

Within the District there are certain sites and pipelines for example High Pressure Gas pipelines designated by the Health and Safety Executive (HSE) as notifiable hazardous installations because of the quantities of hazardous substances stored, used or transmitted.

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<sup>34</sup> contaminated land inspection strategy

Hazardous substances and their specified quantities are set down in The Planning (Hazardous Substances) Regulations 1992 as amended by The Planning (Control of Major-Accident Hazards) Regulations 1999 (COMAH). These latter regulations implemented the land use planning requirements of the Seveso II Directive [Council Directive 96/82/EC of 9 December 1996]. The notifiable installations under these regulations, as at April 2002, are listed below and shown on the rUDP proposals maps.

Sites within Bradford Designated Under the Control of Major Accident Hazards (Planning) Regulations 1999 (Comah)\*:

**Bradford North**

- British Gas Plc, Peace Street, Bradford
- British Gas Plc, Canal Road, Bradford
- Towler & Staines Ltd, Leeds Road, Bradford

**Bradford North**

- A H Marks, Wyke Lane, Wyke
- Ciba Speciality Chemicals, Cleckheaton Road, Low Moor
- Coales & Son, 21 Comondale Way, Euroway Trading Estate, Bradford
- Ellis And Everard (Uk Ltd), Holme Lane, Bradford

**Bradford North**

- Cytec Industries Uk Ltd, Bowling Park Drive, Bradford
- Yorkshire Water Services, Chellow Heights
- Water Treatment Works, Haworth Road, Bradford

**Keighley**

- Transco Plc, Marley Road, Thwaites, Keighley
- Towler & Staines Ltd, Bradford Road, Keighley

**Shipley**

- Filtronic Comtek Uk Ltd,
- Woolcombers Shed, Salts Mill, Saltaire

*\*(Sites As At April 2002)*

Bradford also has a number of sites where significant quantities of potential hazardous chemicals are used and stored. These chemical plants are a major source of local employment but the storage and use of these chemicals can place significant restrictions on certain kinds of development in the vicinity. When considering development on land in the vicinity of COMAH sites the council aims to strike the proper balance taking account of the costs and benefits and the nature of the risk as well as the level of risk. Unacceptable risk is determined with regard to what is considered to be an acceptable level of safety in relation to the potential accident affects on people in the surrounding area, taking account of HSE advice and appropriate comparable acceptable levels of risk.

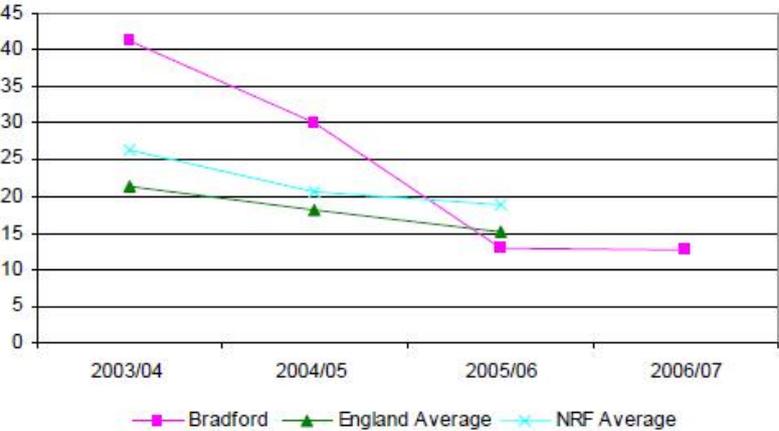
### 8.7 Litter and Dereliction

Litter and related problems are one of the big concerns for ensuring quality city living in Bradford. The districts emerging Sustainable Community Strategy has highlighted this fact and pointed out that poor quality of some parts of the urban environment, particularly due to fly-tipping, litter and dereliction, is an important factor behind the trend of the higher socio-economic groups moving out of inner urban areas towards the suburbs and outskirts of the District. Research commissioned on behalf of the Environmental Task Force in July 2006 in the 10% most deprived wards of the District highlighted the following:

- 59% of people surveyed felt that rubbish and litter was a very big or fairly big problem
- Only 29% of people felt the quality of the environment in their neighbourhood was very good or fairly good
- In some wards satisfaction with Bradford Council in keeping land clear of refuse and litter was just 32%

This graph below shows Bradford’s performance against the England and Neighbourhood Renewal Local Authority average on unacceptable levels of litter and detritus as judged by Government. The trend shows positive progress particularly in comparison with other NR Local Authorities however considerable work is needed to bring Bradford in line with the England average.

**Figure 8d : Percentage of Unacceptable Levels of Litter and Detritus**



Source: The Bradford District Environment Strategy 2008-11

The most recent survey across the district however saw a 17% increase in satisfaction of cleanliness standards. The percentage of people satisfied with the cleanliness of the District has increased from 45% in 2003 to 63% in 2007, while the levels of cleanliness of our streets has risen from 60% to 88% (using the Tidy Britain/ENCAMS standard).<sup>35</sup>

Derelict land and buildings refer to the amount of land identified in NLUD as ‘Previously Developed Land (PDL)’. These are lands or buildings so damaged by previous development,

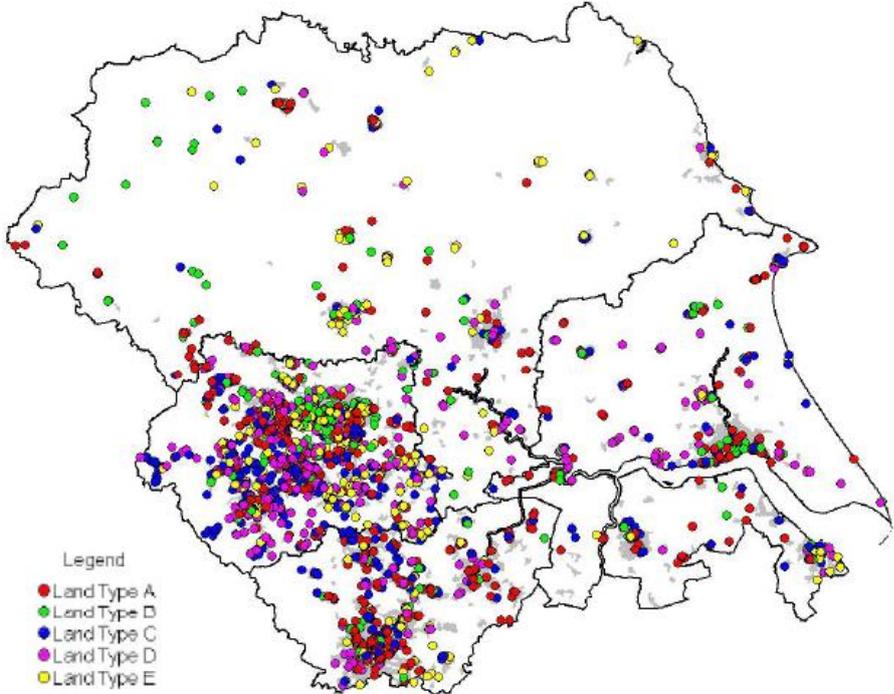
<sup>35</sup> BMDC (2007) *Bradford District Sustainable Community strategy- Information pack and Fact Sheets*. Policy Development Service, Bradford Council.

e.g. contamination, sub surface structures, that they are incapable of beneficial use without treatment. In 2007 the total amount of all previously developed land in Bradford district was 182 hectares of which only 41% (75 hectares) was in use and/or have planning permission or redevelopment potential. The rest of the PDL was vacant (77 hectares) and derelict land and buildings (29 hectares) <sup>36</sup>.

The breakdown by different category is:

- Land Type A – Previously developed land now vacant- 48 hectares
- Land Type B – Vacant Buildings- 29 hectares
- Land Type C – Derelict Land and Buildings- 29 hectares
- Land Type D – Land or buildings currently in use and allocated in the local plan and/or having planning permission- 72 hectares
- Land Type E – Land or buildings currently in use with redevelopment potential- 3 hectares.

**Map 8b: Distribution of PDL in Yorkshire and Humber by Land Type 2004**



Source: National Landuse Database of PDL- Y&H Summery, 2004

The map above shows the extent of the PDL across Bradford district by various land types. It is clear from the map that PDL is mostly concentrated within the existing built-up areas both in urban and rural locations.

<sup>36</sup> DCLG (2008) *Previously-developed land that may be available for Development: England 2007*. Report dated August 2008. London:DCLG.

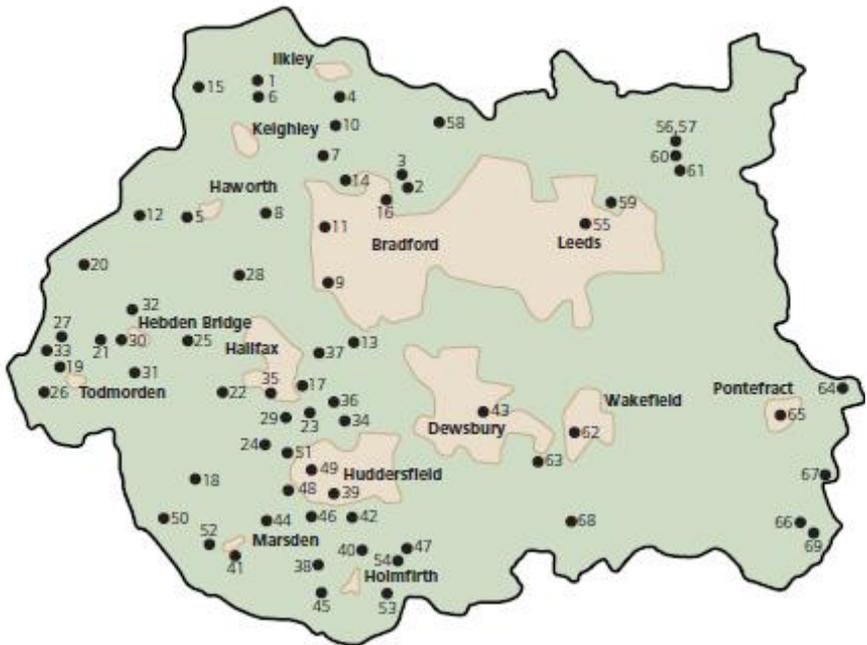
### 8.8 Biodiversity and Wildlife

Biodiversity is the widespread term for biological diversity, which represents the richness and variety of plants, birds, animals and insects throughout the world. Biodiversity is not just about rare, or threatened species or habitats, but peoples day to day quality of life and experience of nature.

Biodiversity conservation and caring for the district’s wildlife and their natural habitats is important from both global and local points of view, and this has direct implications for the health and quality of life of local people. Bradford has a wide range of ecosystems from Pennine uplands to lowland pasture, woodland, parkland, river floodplain and numerous reservoirs. While these environments have suffered degradation, such as habitat and species loss to development and agricultural practices, they still support a rich diversity of native plant and animal species.

A wide range of legislative provisions exists at the international and national level that can impact on planning decisions affecting biodiversity and geological conservation issues. **Working with the Grain of Nature: a Biodiversity Strategy for England** sets out the Government’s vision for conserving and enhancing biological diversity, including the broad aim that planning should have a minimal impact on biodiversity and enhance it wherever possible. **NPPF** also supports biodiversity, stating that the reversal of biodiversity loss/decline is a national planning priority. The Plan puts emphasis on restoration and enhancement of biodiversity and geological assets, based on the view that maintaining a wide range of species is vital to the future.

Map 8c: RIGS in West Yorkshire



1. Addingham Edge Millstone Quarry
2. Baildon Bank and Baildon Green Quarries
3. Baildon Moor
4. Cow and Calf Rocks, Ilkley
5. Dimples Quarry, Haworth
6. Doubler Stones, Addingham Moorside
7. Eldwick Crag and Quarry
8. Goitstock Waterfall, Cullingworth
9. Horton Bank Country Park, Bradford
10. Lanshaw Delves, Ilkley
11. Noon Nick, Shipley
12. Ponden Clough, Haworth
13. Royds Hall Beck, Wyke
14. Shipley Glen
15. Throstle Nest, Silsden
16. Wrose Hill, Shipley

Source: West Yorkshire Geodiversity Action Plan (WY Geology Trust, 2008)

The **West Yorkshire Geodiversity Action Plan** (WY Geology Trust, 2008) also provides a framework to safeguard, manage and promote the geodiversity of the county, especially the existing and potential Regionally Important Geological/Geomorphological Sites (RIGS). Objectives of the Action Plan includes identification and monitoring of the RIGS in west Yorkshire and ensuring that they are included on the Local Plan proposal map for each local authority.

**The Yorkshire & Humber Regional Biodiversity Strategy** sets out a framework for the integration of biodiversity into regional and local policies, programmes and processes, and provides a means of promoting a coherent approach to biodiversity action in the region. It complements and implements the biodiversity elements of the Regional Spatial Strategy and identifies key mechanisms and actions required of different partners and sectors across the region.

In addition to indicating the location of designated sites, the local development frameworks should identify any areas or sites suitable for the restoration or creation of new priority habitats that contribute to regional targets. Distinctive elements in the biodiversity resource of the region, that are relevant to Bradford are upland heath and floodplain habitats, where urban regeneration is seen as an opportunity to create and restore habitat corridors. The Local Plan should also protect ancient woodland, to the extent of refusing proposals that would harm it, whilst also protecting networks of connected corridors from development. Core strategy policies especially need to reflect national, regional and local biodiversity priorities and objectives, including those agreed by local biodiversity partnerships.

A **Local Biodiversity Action Plan for the Bradford District** (draft) was prepared in 2003. Action Plans have been prepared for local species and habitats that have been highlighted for their conservation concern. The LBAP gives in-depth descriptions of the different habitats and species that can be found within the District.

Important objectives in the Bradford LBAP (draft) are- safeguarding locally and nationally valued species and habitats and raising public awareness of and commitment towards local biodiversity issues. Key habitats and species identified in the local BAP are set out in the later section, as are the four tiers of protected sites. Additional strategic documents relating to nature conservation are the **Nature Conservation Strategy for Bradford** and the more recent **Woodland Strategy**. The latter expresses the Council's commitment to improving the amount of woodland cover and quality of woodlands in Bradford.

Existing policies in the RUDP offer strong support for the four levels of designated sites and also wildlife corridors. Policy NE10 aims to ensure that development respects important landscape and geological features and Policies NE11 and 12 require ecological appraisals and landscape and wildlife enhancement schemes, where appropriate. Outside designated areas, where there are competing priorities for development gain, a lack of information about species and habitats and limited resources for evaluation can lead to the biodiversity asset being undervalued.

## Bradford's Biodiversity: Habitat Summary

The habitats of the Bradford District are largely influenced by their underlying geology. The Millstone Grits of the Southern Pennines to the west of the District give rise to substantial areas of upland heathland and blanket bog, whilst the softer shales of the Coal Measures have produced more woodlands, valley wetlands and unimproved grasslands. The demand for development on the lower-lying Coal Measures has fragmented these habitats, although unique habitats have also been created throughout the District as by-products of industrialisation, such as reservoirs, canals and quarries.

The main habitats through the Bradford District can be categorised as:-

**Upland:** A combination of geology, historic agricultural practice and high rainfall has produced the acidic infertile soils of the upland plateaux and this mosaic of expansive heather moorland, blanket bog and acid grassland forms a substantial part of the District and were the dramatic setting for Charlotte Bronte's 'Wuthering Heights'. However, much of it is considered to be of international nature conservation value – Rombald's Moor (Ilkley Moor, Burley Moor and Bingley Moor) and the other South Pennine Moors in the Bradford District (Oxenhope Moor, Haworth Moor, Stanbury Moor, Oakworth Moor and Keighley Moor) have been designated as a Special Protection Area and Special Area of Conservation under European Directives for their moorland breeding birds and their upland habitats.

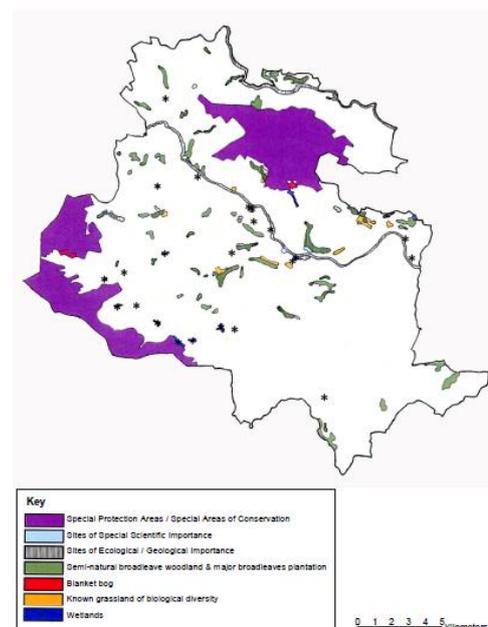
**Woodland:** Only 4.6% of Bradford District is woodland, compared to a national average of 10%. Within the upland areas of the District, remnants of woodlands remain in steep sided ravines (cloughs).

The trees here are a mixture of oak, birch, rowan, alder and ash, with a surprisingly varied ground flora. There are also a number of conifer plantations of more recent origin, with a limited biodiversity value. Much of the woodland in the lower lying valleys originated in the mid nineteenth century when the Victorians became aware of the value of planting trees to replace resources lost to the Industrial Revolution. Only fragments of ancient semi-natural woodlands remain in the Bradford District, totalling approximately 200 hectares. Middleton Woods at Ilkley, Hirst Wood and Shipley Glen are good examples.

**Wetlands and watercourses:** The characteristic landform of the Bradford District has been carved as a result of the Ice Age, with glacial overflow channels and cloughs (steep sided tributary valleys) forming the frameworks for the water collection from the uplands. Many of these overflow channels now form valuable wetlands. Numerous reservoirs also collect water from the uplands which are not only an important water catchments area but these

Map 8d : Ecology and Heritage

ECOLOGY



water bodies and the surrounding wetlands also provide important wintering and breeding habitats for the wide variety of wildfowl and waders. Small streams, springs and wet flushes flow from the uplands into the Rivers Worth, Aire and Wharfe. The Leeds and Liverpool Canal also acts as a valuable wildlife corridor across the District and a network of neglected mill ponds – a legacy of Bradford’s industrial heritage – have been re-colonised by amphibians. In addition there are a few fragments of lowland raised mire, which are ecologically valuable but fragile and threatened habitats.

Two main rivers flow through the district, the River Aire and the River Wharfe. Both the River Wharfe, which supports a variety of fish, including salmon, brown trout and grayling and the Leeds and Liverpool Canal are designated as SEGIs for their nature conservation value. The River Aire has been affected by years of pollution, although recent dramatic improvements to water quality have seen otters return to these waters. There are also numerous ponds and reservoirs of nature conservation importance, especially those which support notable bird populations such as Thornton Moor Reservoir.

**Grassland:** Bradford District has a variety of grasslands, from the species-poor waterlogged, acid grasslands of the uplands to the more fertile, mesotrophic grasslands on the valley floor. In between, on the moorland fringes, occur the ‘in-bye grasslands’; traditionally enclosed for winter pasture and summer hay. The inbye supports a range of invertebrates which support a range of waders and birds such as twite, whose numbers are declining drastically. However, many of the grasslands in the District are classified as ‘improved’ fertilised or seeded as grass leys for more intensive stock-grazing, and therefore have limited wildlife value.

The majority of the field boundaries of Bradford District consist of dry-stone walls, with few hedges concentrated around areas such as Silsden, Addingham and Menston. Stone walls, as wildlife habitats and linking other habitats as wildlife corridors, provide cover for mammals, such as stoats, weasels, mice and voles, and create a variety of microclimates and niches for the invertebrates which inhabit the wider environment.

**Boundaries:** The majority of the field boundaries of the district consist of dry-stone walls, with a few hedges concentrated around areas such as Silsden, Addingham and Menston. Stone walls, as wildlife habitats and linking other habitats as wildlife corridors, provide cover for mammals and create a variety of microclimates and niches for the invertebrates which inhabit the wider environment. Hedgerows, although of limited extent throughout the district, also act as important wildlife corridors between other habitats as well as support their own range of flora and fauna. Hedges are an important habitat for a variety of birds as well as bats and small mammals. Many hedgerows in the district however have been neglected or poorly managed.

**Quarries:** Bradford District has a legacy of abandoned mineral quarries, which have developed into good wildlife habitats, supporting birds such as peregrines which nest on the cliff faces, as well as bats in old mine shafts.

## **Wildlife: Species Summery**

**Flora:** Bradford District's climate and its predominantly acid, often water-logged, soils do not favour a particularly diverse range of flora. The habitats which are formed by the range of plant communities in composite are perhaps more valued than the individual species. Nevertheless, it does host an array of interesting species, with some notable rarities.

**Mammals:** Bradford District contains a variety of mammala, according to the range of habitats. In particular, have healthy populations of deer and badger. The deer numbers are increasing and are generally migrating from the north towards Calderdale in the south west and also east along the Leeds and Liverpool Canal<sup>37</sup>. Badgers are also well presented throughout the District and successfully protected against persecution.

Recent exciting news about the District's mammals includes the return of the otter, with sightings on both the Rivers Wharfe and Aire, indicating cleaner water quality and the recovery of this, once seriously threatened, species. However, the news is not so good for the water voles whose number in the district have plummeted. The population of Brown hare has also been reduced by illegal poaching and habitat loss, although they are still present in the district in key strongholds. Unfortunately, red squirrel is no longer found in the Bradford District.

The District has only 3 or 4 of the 16 species of mainland UK bats living in a variety of roosting sites such as trees, buildings (old and new), old parkland and bridges, especially over rivers.

**Birds:** A range of bird species can be found in all habitats throughout, especially on the moorlands. A total of 241 bird species have been recorded within the Bradford Ornithological Group recording area, although there area covers places outside the district.

**Amphibians and Reptiles:** Amphibians and reptiles, however, are limited to the common species; great crested newts are unrecorded in the Bradford area. Frogs and toads are widespread in the district, though their numbers are thought to be declining as wetlands are drained and ponds infilled.

**Invertebrates:** Apart from bees, butterflies, moths and dragonflies many invertebrates in Bradford District are under-recorded. However, the wide range of habitats supports a good range of known species. The heathland habitat of Harden Moor, in particular, is known to support an interesting range of bees, wasps as well as several ant species.

West Yorkshire was the northern limit for some butterflies and insects, however with global warming some species have increased their range northwards and the loss of diverse grasslands generally will have a long-term effect on these populations, with subsequent consequences throughout the ecosystem as a whole.

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<sup>37</sup> Bradford Deer Survey 1996

One of the locally important invertebrates, the white clawed or freshwater crayfish, generally found in clean rivers and canals, is unfortunately suffering from a variety of problems and its location is now limited to the River Wharfe.

A detail description of these habitats and species are to be found in the **Bradford Local Biodiversity Action Plan** (draft) report.

The **Bradford Local Biodiversity Action Plan** (draft), in common with many other LBAPs, includes a series of detailed action plans for priority habitat and species. These cover firstly the current status of the habitats/species, factors causing loss or decline in the local context and current action being undertaken, followed by more detailed recommendations for site safeguard, habitat management, habitat creation, policy requirements, data needs, research and advisory work.

The following table depicts the priority habitat and species from the **UK Biodiversity Action Plan** which are found in the Bradford district and also local priority habitats and species which have been selected by the Bradford Biodiversity Partnership as being important and locally threatened.

Habitats and species in **bold** indicate those which have been chosen for the first tranche of the Local Biodiversity Action Plan for Bradford District. Other habitats and species will hopefully have action plans written for them as part of the subsequent phases of the Bradford Biodiversity Action Plan.

<b>Table 8c: Habitats and Species Found in the Bradford District</b>		
<b>HABITATS FOUND IN THE BRADFORD DISTRICT</b>		
<b>National/Yorkshire and Humberside Key Habitats</b>		<b>Local Key Habitats*</b>
<b>Species Rich Hedgerows</b>	<b>Upland Oakwood</b>	<b>In-Bye Pasture</b>
Lowland Heathland	Upland Mixed Ashwood	<b>River Corridors</b>
Upland Heathland	Wet Woodlands	
Fens	Lowland Hay Meadow	
Reedbeds	Lowland Dry Acid Grassland	
Blanket Bog		
<b>SPECIES FOUND IN THE BRADFORD DISTRICT</b>		
<b>National/Yorkshire and Humberside Key Species</b>		<b>Local Key Species*</b>
<b>Water Vole</b>	Linnet	<b>Lesser Twayblade</b>
<b>Brown Hare</b>	Tree Sparrow	<b>Yellowhammer</b>
<b>Otter</b>	Spotted Flycatcher	<b>Lapwing</b>
<b>Pipistrelle</b>	Black Grouse	<b>Twite</b>
Skylark	Song Thrush	<b>Green Hairstreak Butterfly</b>
Reed Bunting	<b>White Clawed Crayfish</b>	<b>White Letter Hairstreak Butterfly</b>
Bullfinch	Killarney Fern	<b>Blue Butterflies</b>
Grey Partridge		

\* Selected by the Bradford Biodiversity Partnership as being locally significant in the Bradford District

The LBAP acknowledges the Council's role in the protection of these species and habitats, and states that 'site and species protection policies, negotiations as part of the development control process and the using of planning conditions and Section 106 Agreements all provide mechanisms to protect, manage and enhance the existing areas of wildlife importance and establish new areas for wildlife'.

## Biodiversity Assets

The wildlife interest of the Bradford District is influenced by its climate, topography and latitude, with many species at the limit of their range. On a national scale the climate of the Bradford District lies on the transition zone between the warmer drier lowlands of Britain and the cool, wet, uplands. The microclimate is influenced by topography, whereby the sheltered and more humid valleys and cloughs cut into the Pennines following glaciation, contrast with the open, exposed moorland plateaux. The soils closely reflect the pattern of bedrock and superficial deposits, varying from acidic peat and thin, nutrient-poor brown earth soils and badly drained boulder clay deposits from the last Ice Age along the Wharfe and Aire valleys to the east.

There are 4 levels of designated nature conservation sites within Bradford District. In addition to the 4 SSSIs, there are 21 Sites of Ecological or Geological Importance and 16 Regionally Important Geological / Geomorphological Sites (RIGS). One of these SSSIs, the South Pennine Moors, represented by Rombalds Moor and Haworth Moor has been designated a Special Protection Area (SPA) due to the importance of its breeding bird populations. It is also a Special Area of Conservation (SAC), under the European Habitats Directive because it contains habitats which are rare or threatened within a European context. In addition, there are also 152 sites of local nature conservation value and Bradford Wildlife Areas (BWAs),, designated not only for their biodiversity interest, but also for their community benefits in respect of their accessibility for the quiet enjoyment of nature, their educational value or their heritage associations (such as mill ponds).

<b>Table 8d : Biodiversity Asset</b>			
<b>Designation</b>		<b>No</b>	<b>Area/Details</b>
Special Protection Area (SPA)	SPA	1 No	4489 ha – South Pennine Moors
Special Area of Conservation (SAC)	SAC	1 No	4489 ha – South Pennine Moors
Sites of Special Scientific Interest (SSSI)	SSSI	4 No	South Pennine Moors, Bingley South Bog, Trench Meadows. Yeadon Brick Works
Sites of Ecological/ Geological Interest (SEGI)	SEGI		
Ecological		21 No	340ha – Leeds/Liverpool Canal and River Wharfe
Geological		16 No	
Third Tier Sites		Over 100	Yet to be verified

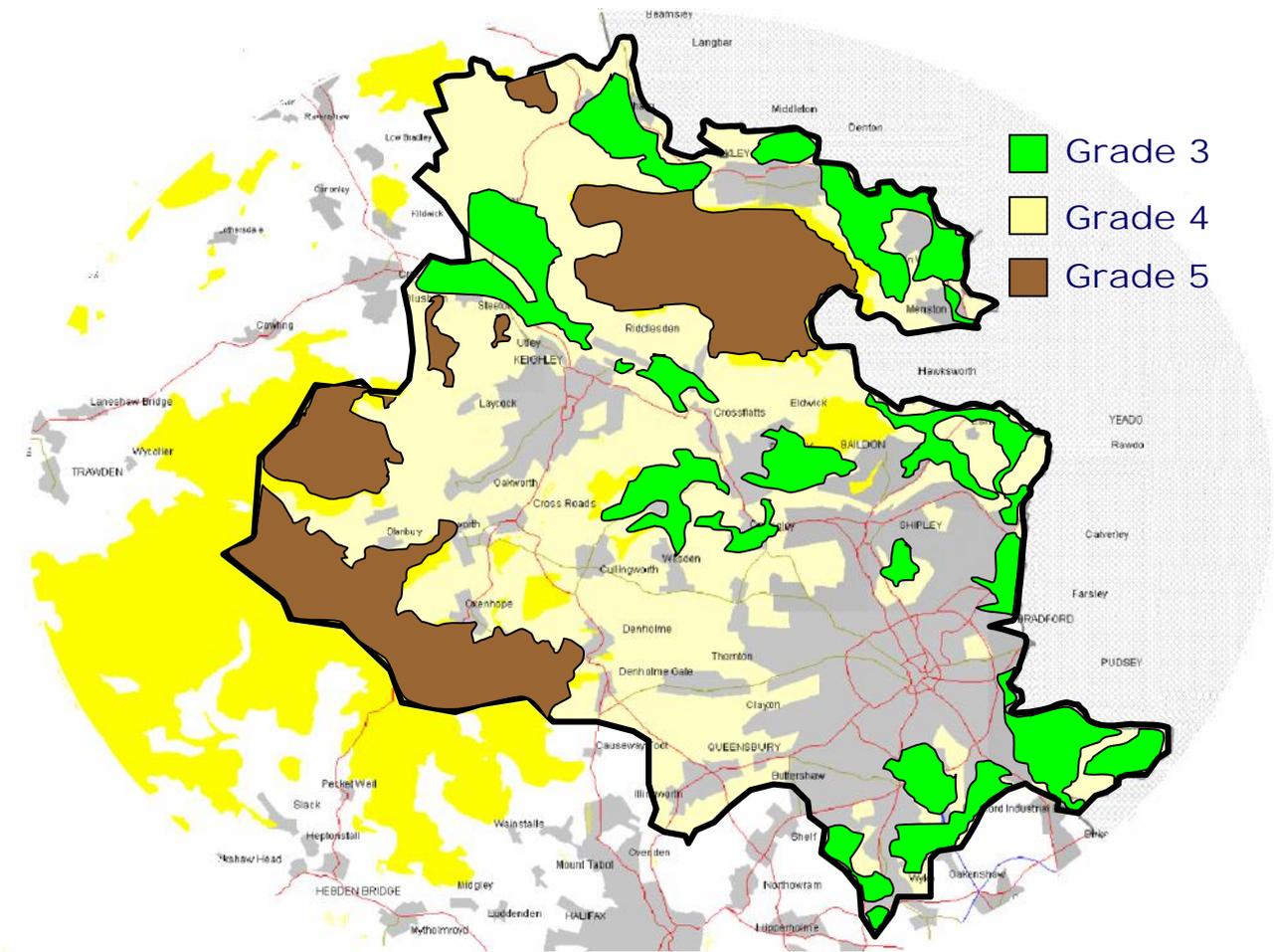
For detail description of the 4 SSSIs, including maps and most up to date condition summery, are to be found on natural England website by clicking the link below-

<http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm>

### 8.9 Agricultural Land

Most of the agricultural land in Bradford consists of improved and semi-improved pastures on the upland fringes of the north-west of the District or the neutral (neither alkaline nor acidic) grasslands to the east and south of the City. Agriculture in Bradford is generally based around rearing stock, mainly sheep, although cattle rearing take place in areas along the river valleys and on the lowlands to the east of the District.

Most of the farmland in Bradford District can be described as marginal, constrained by climate and physical topography. Nearly half of the farmland is classed as Grade 4 or 5<sup>38</sup>; that is, land with severe limitations which significantly restricts the range of crops and is mainly suitable for pasture grazing. However, there are also some grade 3 lands made up of alluvial soils along the flood plains of the River Wharfe and River Aire which are more productive.



**Map 8e: Bradford agricultural land classification<sup>39</sup>**

38 The ALC system classifies land into five grades, with Grade 3 subdivided into Subgrades 3a and 3b. Grade one is best quality and Grade five is poorest quality. A number of consistent criteria used for assessment which include climate (temperature, rainfall, aspect, exposure, frost risk), site (gradient, micro-relief, flood risk) and soil (depth, structure, texture, chemicals, stoniness).

39 [http://www.self-willed-land.org.uk/rep\\_res/rur\\_vis\\_bfd.ppt](http://www.self-willed-land.org.uk/rep_res/rur_vis_bfd.ppt)

An interactive map showing the agricultural land classifications within Bradford can be viewed online by clicking the [link](#) below.

<http://www.magic.gov.uk/website/magic/opener.htm?startTopic=maglandclass&xygridref=408406,438698&startScale=250000>

Countryside recreation is increasingly important as a rural land use and people are visiting the countryside in increasing numbers. However, it is important to recognise the impact visitors have on the countryside and that the pressures which result need to be carefully managed in order to prevent the quality of the countryside from being diminished.

**8.10 Climate Change and Energy Efficiency**

The national indicator for CO2 emissions within the scope of local authority influence (NI186) shows a steady decline in emissions falling from over 3 million tonnes in 2005 to around 2.6 million tonnes in 2009 (a 17% reduction). The greatest reduction in CO2 has been realised in the commercial and industrial sector whilst the transport sector saw the least reduction.

Carbon modelling accounts for changes in the district such as housing and population growth. When these factors are included, the ‘business as usual’ CO2 trajectory levels out at around 3 million tonnes without intervention. The marked reduction between 2008 and 2009 could be associated with low or negative economic growth. Increased economic development could result in emissions growth and therefore the challenge is to mitigate CO2 particularly from the commercial and industrial sector. Compared with other authorities in the UK Bradford’s emissions fell at a higher rate than the national average of 15% between 2005 and 2009.<sup>40</sup>

**Table 8e: Bradford CO2 emissions per head of population in the LA area.**

Year	2005	2006	2007	2008	2009	Reduction since 2005
CO2 emissions per capita (t)	6.4	6.3	6.1	5.9	5.3	17%

Source: DECC 2011

To get on the road to GHG reduction the Council in January 2010 agreed to CO2 reduction targets for this District as below: “to work with the District’s Environment Partnership in 2010 to ensure that the Partnership adopts the minimum target of a 40% cut in Districtwide carbon emissions by 2020, using 2005 as a baseline year,”

<sup>40</sup> Our District, Our Climate, Our Responsibility- Framework for Action to help tackle climate change in the Bradford District (Bradford District environment Partnership, 2010)

**Our Bradford District emissions currently are:**

3 000 000 tonnes CO<sub>2</sub>e annually  
or  
5.8 tonnes CO<sub>2</sub>e per person per year

The source of the CO<sub>2</sub> is made up of:

- 1.14 million tonnes from domestic dwellings
- 0.60 million tonnes from road transport
- 1.23 million tonnes from industry and commerce

To hit our 2020 target our emissions needs to be 1 800 000 tonnes CO<sub>2</sub>e

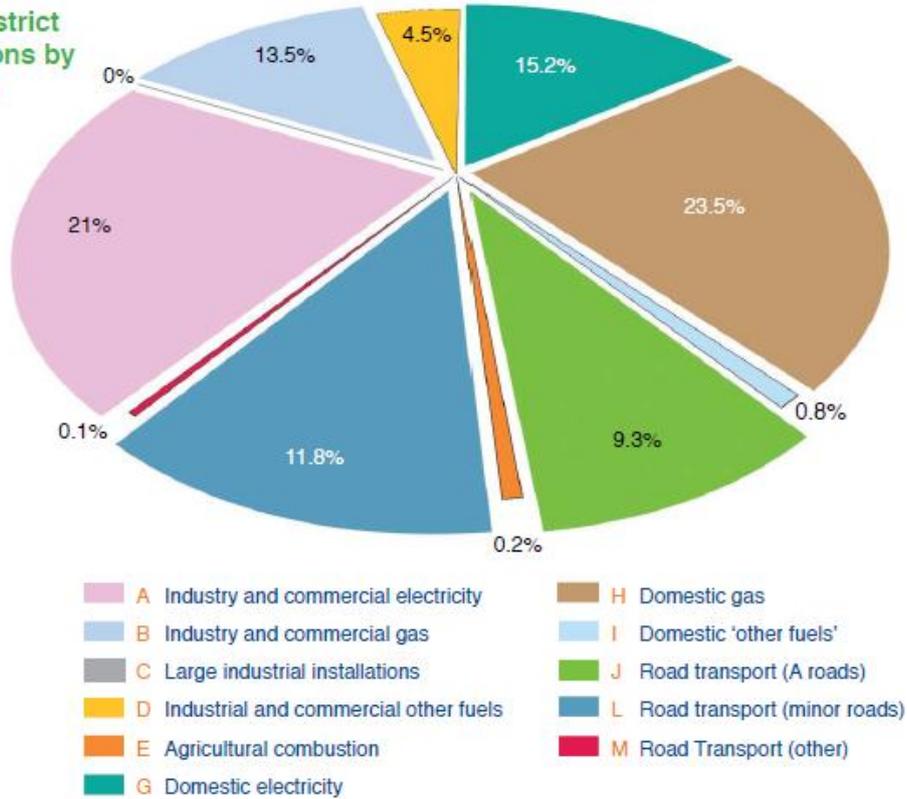
**What this means in people terms is:**

5.8 tonnes CO<sub>2</sub>e per person per year reducing to 3.5 tonnes CO<sub>2</sub>e per person per year

When: 1 tonne = 3000 miles by car  
1 tonne = reduce meat and dairy consumption by 75%  
1 tonne = making one less long haul trip (outside of Europe)

The numbers were gathered through limited GHG data and consolidated at national level for what the last Labour Government used to call National Indicator 186, (Per capita in reduction in District CO<sub>2</sub> emissions) this was a measure of our district's CO<sub>2</sub> emissions. The data sets on the district's greenhouse gas inventory are gathered as high level summary data and do not currently provide a robust and detailed local sourced evidence base, to underpin the development of actions that will drive building resilience to climate change impacts. More detailed work is required to develop a carbon reduction trajectory to achieve the 40% reduction target by 2020. There is a need to be smarter to ensure that action is based on sound information and critical understanding.

**Bradford district CO<sub>2</sub> emissions by sector 2007**



**Figure 8e: Bradford District CO<sub>2</sub> emissions by sector**

Bradford Council has made good progress in developing an understanding of the greenhouse gas emissions (GHG) from its own operations. This has informed the development of a strategic approach to carbon budgeting to meet agreed carbon reduction targets. The Council's, Environment & Climate Change Unit is currently working with the Air Quality team to prepare a detailed district GHG inventory.

**Table 8f: District CO2 by Sector**

LA Region name	2005	2006	2007	2008	2009
A Industry and Commercial Electricity	659.0	685.8	652.5	661.0	558.9
B Industry and Commercial Gas	465.0	411.2	447.0	381.4	358.0
C Large Industrial Installations	0.0	0.0	0.0	0.0	0.0
D Industrial and Commercial Other Fuels	146.5	138.2	141.8	133.5	119.4
E Agricultural Combustion	6.3	5.9	5.6	5.6	5.7
G Domestic Electricity	468.4	481.2	472.2	448.2	404.4
H Domestic Gas	725.6	707.0	676.3	691.2	623.5
I Domestic 'Other Fuels'	21.4	20.9	21.1	21.8	21.9
J Road Transport (A roads)	267.6	266.0	263.2	253.2	247.0
L Road Transport (Minor roads)	340.0	333.0	340.1	328.2	313.8
M Road Transport Other	3.1	3.1	2.9	2.8	2.5
<b>Grand total</b>	<b>3102.8</b>	<b>3052.3</b>	<b>3022.5</b>	<b>2927.1</b>	<b>2654.9</b>
Population ('000 mid-year estimate)	486.2	491.6	496.2	501.4	506.8
Per Capita Emissions (t)	6.4	6.2	6.1	5.8	5.2
% per capita reduction since 2005					18.0%

Source: DECC

The emissions “pie” chart below shows each sectors share of CO2. One can see clearly the effects of energy use at home with the Domestic and Industrial being the two big slices of pie.

The Government has required the Council to report on the District's CO2 emissions for the last few years. The table below shows this data for the years 2005 to 2009. Over this period CO2 emissions have decreased steadily to the 5.9 tonnes of CO2 per person per year.

### 8.11 Key Facts:

- Fine particles and nitrogen dioxide are the two pollutants likely to have the most impact on the District's air quality. Heavy traffic movement is identified as one of the major sources of these pollutants. The District also has a number of industrial

processes subject to local authority air pollution control but they are unlikely to cause a breach of national air quality objectives.

- Water quality within Bradford district tends to be 'poor or bad' in urban areas and 'better' in the Aire and Wharfe catchment. Increased investments in sewage treatment and improved monitoring of trade effluents have brought overall biological and chemical improvements in district's waterways. However issues related to pesticides, pathogens, industrial detergents are still to be explored further; but currently they are unlikely to cause any detrimental effect to the river ecosystem or public health.
- Poor quality of some parts of the inner city/town urban environment, particularly due to fly-tipping, litter and dereliction, is a major problem and studies suggest that it causes the affluent residents of those areas to move out towards the suburbs and outskirts of the District. Most up to date studies and opinion surveys however show that public satisfaction about the cleanliness of the district's streets and neighbourhoods have increased in recent years.
- Land contamination is not expected to be a major problem although the precise extent of the contamination is still being investigated. Existing assessment and knowledge however suggest that the potential contamination sources are limited to previous manufacturing and industrial activity and treatment or disposal of waste.
- The delineation of Bradford's natural floodplains is well understood as experienced from the recent flood events. The main flood risk areas lies along the course of river Wharfe, River Aire and Silsden beck covering their catchment areas mainly in Ilkely, Burley, Stockbridge, Shipley, Bingley, Apperley Bridge and Silsden. Developments in those floodplains are strictly controlled by dedicated planning policies and through extensive consultation process with related partners including the the Environment Agency.
- The wildlife and habitat interest in Bradford District is influenced by its climate, topography and latitude, with many species at the limit of their range. There is a range of designated nature conservation sites within Bradford some of which are specially protected because of their nationally and internationally recognised species and habitats. There are also a number of Wildlife Areas and sites with Local Nature Conservation value which, apart from their biodiversity interest, provide community benefits in terms of quiet enjoyment of nature and educational value.
- Climate change is a major concern worldwide and it has already impacted on some of the council's services. There are ongoing schemes and strategies that are coordinated to tackle this issue in the district primarily by focussing on energy efficiency through better design and by exploring potentials for alternative technologies.

- The overall potential for Bradford to achieving any renewable energy target is lower than the average for LA's in the region. Although there is good potential to make alternative technologies, such as biomass and photovoltaic, more commercially viable, there is a lower potential for wind turbine developments across the district.
- There has been no comprehensive assessment of the archaeological history of the district. However, desktop analysis and field investigation of certain development sites have indicated the presence of early medieval settlements in Bradford which flourished in later centuries most prominently surrounding the cathedral.

## 9.0 Minerals and Waste Management

This section of the report provides details about the existing Minerals resources within the district and highlights the issues being faced by the industry. The section also reviews the district's Waste Management issues- the types of wastes produced in Bradford, how this is currently being managed and the challenges faced by the Local Authority to meet the regional and national waste management targets.

The information used in this section were mostly derived from:

- Waste DPD Issues and Options (CBMDC, 2009)
- Core Strategy Further Issues and Options: Topic Paper 7 and 8 (CBMDC, 2008)
- Municipal Waste Management Strategy (CBMDC, 2005)
- Yorkshire & Humber Regional Waste Strategy (2003)
- Identifying mineral resources in the Bradford District – local distinctiveness and protection of heritage (Jon Ackroyd, 2008)
- British Geological Survey, 2009. Mineral Resource Data for City of Bradford MDC
- Yorkshire and Humber Region Aggregates Working Party Annual Report 2008.
- Yorkshire and Humber Regional Aggregates Working Party: Sand and Gravel Study (British Geological Survey, 2004).

### 9.1 Minerals

National minerals planning policy is set out in Minerals Planning Guidance Notes (MPGs) and the new replacement Minerals Policy Statements (MPSs). The key national policy document relevant to the forward planning of minerals in the Bradford District is **Minerals Policy Statement 1: Planning and Minerals (MPS1)**. MPS1 sets out the Government's key overarching policies and principles which apply to all minerals, applying the principles of sustainable development.

The key policy messages in MPS1 are:

- the need to maintain sufficient supply to meet the anticipated need for minerals consistent with environmental acceptability;
- the need to protect designated areas of national and international importance;
- the need to encourage efficient use of extracted materials and the use of substitute or recycled materials in place of primary minerals wherever practicable; and
- the need to ensure that where extraction does take place, restoration and aftercare of sites are of high quality.

#### Aggregates

The **Regional Aggregates Working Party (RAWP)** is a Yorkshire and Humber regional technical working group with the purpose of monitoring aggregate and sand and gravel landbanks within the region. An annual monitoring report is published providing information on the length of sub-regional landbanks

The tables below illustrate the position in West Yorkshire in terms of sand & gravel and crushed rock. The Region intends to monitor the situation to ensure that sub-regional apportionments are met and that the use of substitute/secondary aggregates is maximised.

Table 9a: Sub-Regional Apportionment of the National and Regional Guidelines for Aggregates Provision, 2001 to 2016 (Million Tonnes)

	Land-won sand and gravel	Land-won crushed rock
West Yorkshire	5.5	17.8

(Source: Yorkshire and Humber Region Aggregates Working Party Annual Report 2007 Aggregates Monitoring 2007)

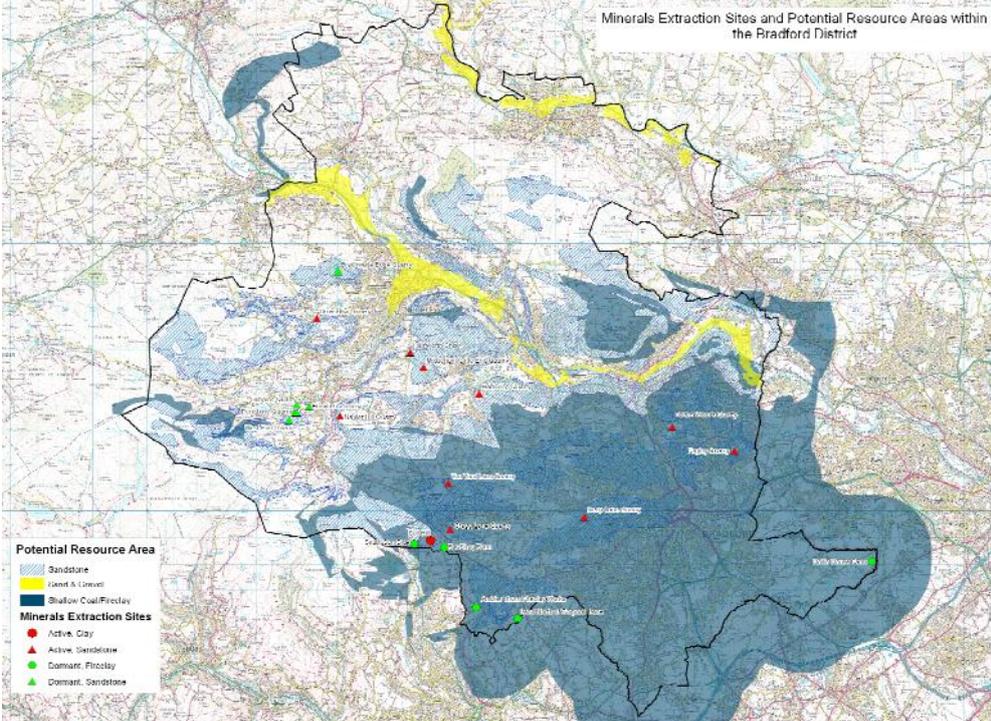
Table 9b: Crushed Rock Reserves and Landbanks

	Reserves at 31.12.07 (million tonnes)	Sub-regional Apportionment (million tonnes per annum)	Landbank at 31.12.07 (yrs)
West Yorkshire	40.8	1.11	36.6

(Source: Yorkshire and Humber Region Aggregates Working Party Annual Report 2007 Aggregates Monitoring 2007)

The figures for the sub-region (shown in table above) indicate that in West Yorkshire there are significant permitted reserves of crushed rock aggregate (40.8 million tonnes), with a landbank of over 36 years. The apportionment for West Yorkshire between 2001-2016 is 17.8 million tonnes, which is actually less than the current permitted reserves. However West Yorkshire currently makes a minimal contribution to sand and gravel supply within the region.

Figure: Mineral extraction sites and potential Resource areas within Bradford



Source: CBMDC Minerals and waste Planning

## **Sand and Gravel**

Due to the low number of sites within the West Yorkshire sub-region (only 1 site was recorded as active during 2007 with another site inactive but possessing permitted reserves) data on landbank length cannot be published due to commercial confidentiality. However the report acknowledges that there is a 'low' level of permitted reserves within the sub-region.

The Yorkshire and Humber Assembly (YHA) has estimated that there is a 32 million tonne shortfall in the permitted reserves of sand and gravel in the Yorkshire and Humber Region to meet the apportionments likely to be set by the government up to 2021.

There are currently 13 operational minerals extraction sites in the Bradford district, mainly extracting sandstone in a block form, with aggregate production a secondary activity. The sites vary in size, from the relatively small, extracting an average of 10,000 tonnes per annum to some larger scale sites, extracting of up to 80,000 tonnes per annum.

Most of the sites are established historical sites, run by local companies. They are mostly situated in green belt (including the moors) to the north west of the City Centre and to the south of Keighley.

Many of the sites are approaching the exhaustion of their permitted reserves.

During a meeting of the Regional Aggregates Working Party the sand and gravel industry expressed doubts about the viability of exploiting sand and gravel resources within Bradford in terms of finding sites with sufficient accessible resources to make them commercially viable. The British Geological Society (BGS) has been commissioned by the Yorkshire and Humber Assembly (YHA) to undertake a reality checking exercise which will involve the sand and gravel industry in identifying constraints to commercial sand and gravel extraction within West Yorkshire, including Bradford.

## **Building, Roofing and Flag Stone**

The government commissioned a report on the planning issues related to the supply of natural stone building materials which was published in March 2004, ***Planning for the Supply of Natural Building and Roofing Stone in England and Wales***. Research was carried out on building and roofing stone supply through survey work, analysis of published statistics and case studies. Demand was discussed but not quantified, due to the variable and unpredictability of building stone markets.

The supply data analysed indicated that there was a generally slowly rising trend in building and roofing stone production in England and Wales between the period from 1992 to 2001. However the proportion of building and roofing stone demand being met by imports increased dramatically over this period, with imports being 14% greater than domestic production in 1992 but 200% greater by 2001.

The survey found that the majority of quarries are relatively small scale (under 3ha) with relatively low output (up to 2,000m<sup>3</sup>) per annum and are often only worked intermittently.

However the majority of production is concentrated within a small number of relatively large operations.

The report highlights the significance of carboniferous sandstones in terms of building and roofing stone production, which account for both the largest number of individual quarries and the greatest level of output. The importance of Yorkshire, in terms of the supply of carboniferous sandstones, commonly known as York Stone, is particularly noted.

Imports are stated to be the perceived biggest threat to the UK building stone industry. In particular sandstone from India and China is noted to be competing directly with materials such as York Stone paving at less than half the price (ODPM/ Symonds group, 2004).

The need for natural stone building materials within the district is integrally linked to housing, built heritage and design policy objectives. The most significant element of building, roofing and flag stone demand is for new build projects, including new housing developments and public realm projects. The Local Plan would set out benchmark figures for housing provision within the Bradford District. Depending upon the location of the housing and the design policies adopted by the Council, a certain proportion of the building materials required to construct these new houses will comprise natural sandstone products such as sandstone walling masonry. Likewise design objectives are likely to require natural Elland Flag paving and decorative/ monumental stone for a certain proportion of public realm projects.

Locally produced building stone, and in particular flagstone, is also sold throughout the UK for both new paving and building projects and the restoration of historic buildings. Stone produced in the district has been recently been used in projects at nationally significant sites such as Saltaire World Heritage Site, York Minster and Buckingham Palace.

The need for materials for the repair, alteration or extension of historic and culturally important buildings within the district, such as listed buildings and many buildings within Conservation Areas, is less significant in terms of sales but of significant importance in terms of the maintenance of the traditional character of Bradford's built environment.

To inform the development of minerals policies the Council's Design and Conservation team have produced a report (Jon Ackroyd, 2008) discussing the relationship of the built heritage of the district with minerals resources. The report notes that the character of the settlements within Bradford and the 'sense of place' of the inhabitants is primarily derived from the local building stone materials and that the use of artificial stone, brick or contrasting materials can dilute local character and result in the loss of a sense of place.

The report goes on to note that there are only a limited number of operational quarries supplying building stone with appropriate aesthetic characteristics for use within the district. The scarcity of supply of coarse grained 'gritstone' walling, suitable for use in settlements to the north of the district, and stone slate roofing are particularly highlighted. Concerns are raised that the natural stone materials currently imported from outside the district can have subtly different aesthetic characteristics to local stone, in terms of colour, texture and course thickness. The report concludes that there is a clear need for greater availability of local

stone for local use, and that particular emphasis should be placed on increasing supplies of roofing stone.

Enquiries have been made with both English Heritage and the West Yorkshire Archaeological Advisory Service (WYAS) to establish if any records exist of specific quarries within the District which may be important in supplying materials for the repair and maintenance of historic sites and monuments. English Heritage indicated that they intend to undertake a survey of building stone quarrying within West Yorkshire, but that, pending the outcome of the survey, they cannot provide any assistance in identifying such sites. WYAS likewise indicated that they do not hold any records of sites within Bradford which could provide material for the repair of historic sites or monuments.

In December 2008 discussions were held between English Heritage and the Yorkshire and Humber Assembly regarding the potential for a jointly funded regional building stone study. However these discussions have been postponed pending the reorganisation of the Regional Planning Body, with the intention of recommencing in April 2009.

### **Coal and Fireclay**

Fireclays are sedimentary mudstones mainly found underlying coal seams. Fireclay was traditionally valued as a raw material for manufacturing refractories for lining furnaces, however demand from refractory manufacturers has diminished and fireclay is now more commonly used for manufacturing high quality buff coloured facing bricks (BGS, 2006). In the past fireclay workings were widespread to the south of the district around the settlements of Denholme, Queensbury, Thornton, Tong and South of Bradford City Centre. These workings supplied several brickworks and refractory manufacturers within the district. In recent years fireclay has been extracted at a site to the south of Oxenhope to supply a refractory business located in Queensbury.

There are currently no active mineral workings within the district supplying fireclay, all brickworks located within the district have closed and the MPA are not aware of any proposals for future fireclay extraction within the district to supply markets for either brick or refractory production. One site in the Denholme area has recently obtained permission for the extraction clay for engineering purposes; however this is for a surface deposit of glacial till rather than deeper fireclay resources.

There has been widespread historic deep mining of coal within the district; however no large scale opencast coal mining has taken place. There are currently no active deep or opencast coal mines within the district and the MPA are not aware of any proposals for future deep or surface coal extraction.

Fireclay resources are largely coincident with shallow coal resources, and the viability of fireclay extraction is usually dependant upon the recovery of other minerals, principally coal; therefore potential fireclay resources identified within the district correspond with potential shallow coal resources (BGS, 2006). Resource maps obtained from the coal authority indicate that a wide area surrounding the City of Bradford contains shallow coal resources potentially suitable for surface extraction. Much of this area is heavily urbanised, however the

potential resource includes areas of countryside to the east and west of the City including areas around Tong, Thornton, Queensbury and Denholme.

## **9.2 Current Minerals Supply Situation within Bradford**

The predominant mineral extracted within the Bradford District is sandstone used to produce building, roofing or flag stone. Crushed sandstone aggregate production also takes place utilising material unsuitable for producing natural stone building materials, but no large scale primary aggregate quarries operate in the District. Although resources exist, there are no active fireclay, coal or sand and gravel extraction sites located within the District. One site has recently obtained permission for the extraction of a surface deposit of boulder clay to be used for landfill engineering applications.

There are currently 10 active building or flagstone quarries within the District; however several of these sites are only intermittently worked. The majority of sites are located west of the City of Bradford around the settlements of Bingley, Cullingworth, Wilsden, Thornton, Denholme and Oxenhope. However several 'urban quarries' are located within the City of Bradford. The sites vary in size, from the relatively small scale, operations with low or intermittent output, producing up to 10,000 tonnes per annum, to several relatively large scale operations producing up to 80,000 tonnes of building stone, flag stone and aggregates per annum. It is understood that there is a small amount of stone slate roofing produced within the district however this is restricted to a small number of sites.

Most of the active quarries are long established sites that have provided stone for the construction of buildings within the Bradford District for over 100 years, where the quarries themselves form part of the character of the landscape. The landscapes in which the quarries within the district tend to be situated are predominantly either mixed upland agricultural areas or gritstone moorland. The exploitation of certain sandstone resource areas, such as resources to the north of the district, and the production of certain types of natural stone materials, such as riven flags and stone slate roofing has declined substantially.

Many of the active building stone quarries are thought to be approaching the exhaustion of their permitted reserves and several have closed within recent years. However further survey work is to be undertaken to gather data on currently permitted reserves and output within the district. Several quarry operators have suggested areas of land which they would wish to extend their operations into in order to extend the operational life of their sites. These and other sites will be considered for inclusion in the Allocations Development Plan Document at a later stage of the Local Plan process.

There are 10 dormant minerals permissions within the district, equally split between fireclay and sandstone extraction sites. Under the Review of Minerals Permissions legislation these sites can be re-activated through an application to the Planning Authority for the determination of a modern set of planning conditions. The dormant sites are concentrated around the settlements of Haworth, Denholme and Queensbury.

As a consequence of the historic widespread working of building, roofing and flag stone within the Bradford district, there are known to be a number of disused quarry workings. The viability of re-opening disused workings would depend upon the circumstances of each site in terms of the extent and quality of the remaining resource, surrounding highways infrastructure, neighbouring land uses and ecological, geological or cultural designations. In order to determine whether any of these sites are likely to be suitable for minerals extraction within the plan period, further survey work will be necessary.

### **9.3 Waste Production in Bradford**

In 2007 (the latest data available) the total amount of waste produced (known as waste arisings) in the District is estimated to have been at least 852,489 tonnes excluding Construction Demolition and Excavation Waste<sup>41</sup>. This rises to a best estimate of 1,424,003 tonnes when all waste types are included:

- Agricultural waste: waste arising from a farm or market garden, including organic matter such as manure, slurry, silage effluent and crop residues, but also packaging and films, and animal treatment dips;
- Commercial waste: waste arising from wholesalers, catering establishments, shops and offices (in both the public and private sector). This also includes municipal waste collected by commercial waste agencies;
- Construction and demolition waste: waste arising from the construction, repair, maintenance and demolition of buildings and structures.
- Hazardous waste: defined in European Law as those wastes included within the European Waste Catalogue because they possess one or more of the hazardous properties set out in the Hazardous Waste Directive. Waste data figures for hazardous waste type is taken from the Hazardous Waste Interrogator 2007;
- Industrial waste: waste arising from factories and industrial plants; and
- Municipal waste: includes household waste and other waste collected by waste collection authorities.

The figures below outline the waste arisings within the District in 2007. They illustrate large contributions to the total waste arisings across the District from Municipal Solid Waste and Commercial and Industrial, together accounting for over 56% of total estimated waste arisings. Construction, Demolition & Excavation waste is also likely to produce large contributions to total waste arisings although these figures are only estimates from regional data.

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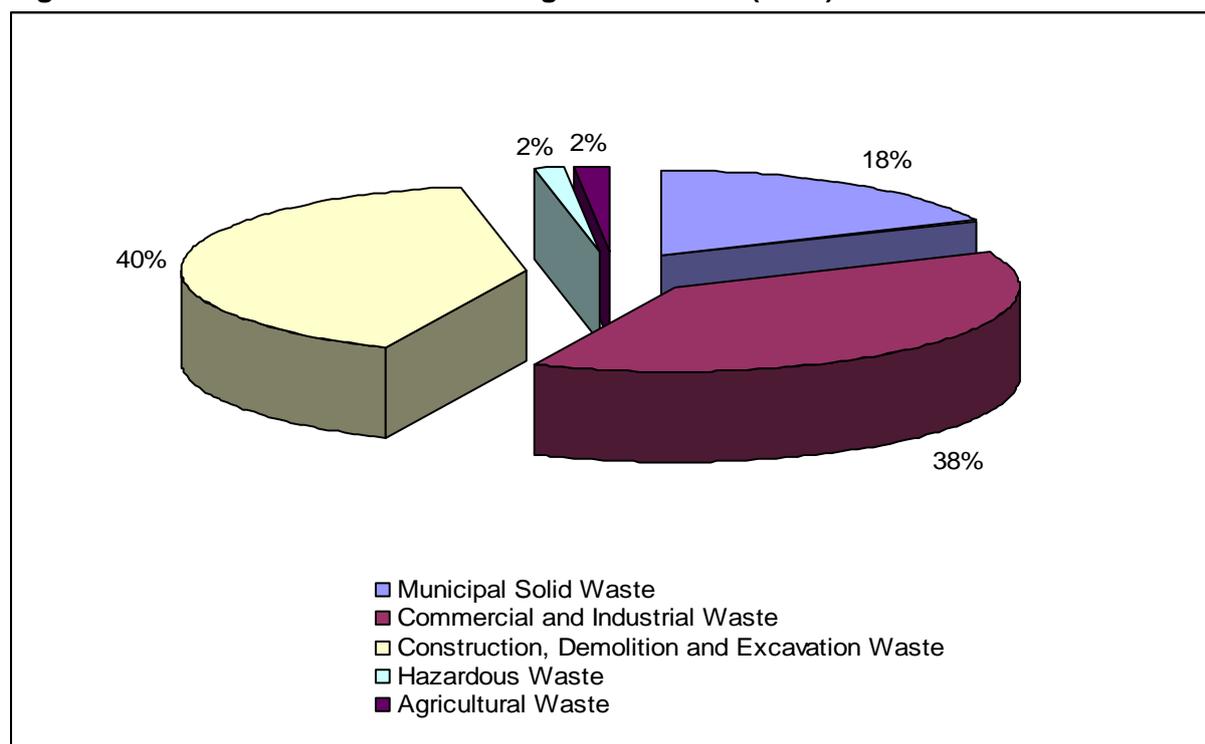
<sup>41</sup> Data taken from Waste Data Interrogator 2007 produced by the Environment Agency

**Table 9c: Summary of Waste Arisings in Bradford (2007)**

Type of Waste Arising	Arisings (tonnes)
Municipal Solid Waste (CBMDC only)	261,065
Commercial and Industrial Waste	547,131
Construction, Demolition and Excavation Waste <sup>42</sup>	571,514
Hazardous Waste	21,821
Agricultural Waste <sup>43</sup>	22,472
<b>TOTAL</b>	<b>1,424,003</b>

Source: Waste and Hazardous Waste Data Interrogator, 2007, Environment Agency

**Figure 9a: Breakdown of Waste Arisings in Bradford (2007)**



Source: Waste and Hazardous Waste Data Interrogator set, 2007, Environment Agency

## 9.4 Municipal Waste

Bradford MDC covers an area of 141 square miles (36,536 hectares), and contains some 200,000 domestic properties. The vast majority of municipal waste is delivered directly to the 2 transfer stations (in Bradford to the south of the District, and Keighley to the north). The waste is bulk loaded and transported by road to landfill sites in Wakefield and Skipton (outside the district). The volume of waste produced is currently growing at approximately 2-3% per annum.

<sup>42</sup> NB: Robust data is not available at the time of writing specific to Bradford. In order to generate a figure for Construction, Demolition and Excavation Waste arisings for Bradford the Yorkshire and Humber total has been divided by 21 (the number of UA / District areas within the region) as an average. It is noted that in the context of Bradford relative to the other administrative areas across the region that this figure is likely to be a low estimate.

<sup>43</sup> NB: Data on Agricultural Waste arisings across Bradford is believed to be a low estimate based on some data being excluded or counted as commercial and industrial waste due to licensing of premises additionally the Environment Agency does not count most of this type of waste. Agricultural waste arisings excludes manure or straw. Manure and slurry when spread at the place of production, for the benefit of agriculture, is not considered waste.

The types of municipal waste produced in Bradford (for 2005/06) are identified in the table below. The information was derived from the Waste Treatment Project Outline Business Case January 2008.

**Table 9d: Wastes produced in 2005/06<sup>44</sup>**

Type of waste	Bradford District (tonnes)
Residual domestic kerbside collections	147,691
Domestic kerbside recycling	11,211
Domestic kerbside composting	1,792
Other domestic residual	5,229
<b>Total Collected Domestic</b>	<b>165,933</b>
HWRC residual	21,961
HWRC recycling	7,370
HWRC composting	15,520
<b>Total HWRC</b>	<b>44,851</b>
Bring sites (+MRF)	4,024
<b>TOTAL DOMESTIC WASTES</b>	<b>214,808</b>
Non domestic trade waste	35,603
Non domestic sweepings	11,402
<b>Total Non Domestic Wastes</b>	<b>47,005</b>
<b>TOTAL MUNICIPAL SOLID WASTES</b>	<b>261,813</b>
<b>Total recycling and composting</b>	<b>39,927 Total: 22,615 (recycling) and 17,312 (composting) (19% of domestic waste)</b>
<b>Total residual</b>	<b>221,886</b>
<b>Total MSW</b>	<b>261,813</b>

Source: Environ (2008)

## 9.5 Waste Collection, Treatment and Disposal Services

The Council operates 4 very different and discrete waste collection services. Operating from two bases, Harris Street at Bradford and Stockbridge at Keighley, 185 operational staff, utilising 60 frontline vehicles, collect approximately 210,000 tonnes of waste per annum.

**Table 9e: Waste Collection Services**

### Domestic Refuse Collection

The domestic collection service is delivered with 31 operational rounds, of these 28 service the urban areas utilising 26 tonne vehicles with a driver and 2 loaders. The rural areas represent 60% of the district are serviced with 3 rounds operating on 11 tonne vehicles with a driver and loader. The Authority began the introduction of wheeled bins in 1998 and

<sup>44</sup> Source: Bradford Waste DPD Sustainability Appraisal Scoping Report Revision (Environ, 2008)

completed the process in December 2000. The weekly service collects 162,000 tonnes annually of domestic waste from 200,000 households.

#### **Recycling**

The division collects paper and glass via separate 240 litre wheeled bins from 120,000 households across the District. The monthly service uses 26 tonnes compaction vehicles to collect over 10,000 tonnes of recyclates per annum.

#### **Bulky Household Collection**

Three dedicated bulk collection crews of a driver and one operative collect 3,000 tonnes of bulky waste from around of 30,000 requests per annum.

#### **Trade Waste Service**

The trade portfolio has 5,500 customers and a turnover of £3.7m. There are 22 operational staff operating 10 frontline vehicles. The service collects 43,000 tonnes of trade waste from a variety of commercial and industrial premises.

To handle all the waste collected by the above, the Council operates a number of facilities and functions. Within the District there are a number of waste management facilities, including:

- Landfill sites;
- Civic amenity / household waste recycling centres;
- Waste transfer sites;
- Metal recycling sites;
- Storage sites; and
- Treatment sites.

In total there were 61 such facilities across the District in 2007. These are broken down by site category in the table below.

**Table 9f: Number of Operational Waste Management Facilities in Bradford (2007)**

<b>Type of Waste Management Facility</b>	<b>Number of Facilities</b>
Landfill	2
MRS	21
Treatment	4
Transfer	34
TOTAL	61 facilities

Source: Waste Date Interrogator, 2007, Environment Agency

TableX provides an outline capacity for each of the facility types across the District in tonnes. This data is taken from the previous RATS Data set (2005), prepared by the Environment Agency, which represents the best available data currently in record and will be subject to further update and analysis during the net review of the baseline analysis report.

**Table 9g : Capacity of Operational Waste Management Facilities in Bradford (2005)**

<b>Type of Waste Management Facility</b>	<b>Capacity of Facilities (tonnes)</b>
<b>Landfill</b>	

Inert	944,260
Non Hazardous	1,089,356
Restricted	165,000
<b>Transfer</b>	
Civic Amenity/Household Waste Recycling Sites	81,997
Waste Transfer	1,005,678
<b>Metal Recycling Sites</b>	
Car Breaker	102,149
Metal Recycling	1,161,800
<b>Storage</b>	
In-House Storage	2,500
Pet Crematorium	75
<b>Treatment</b>	
Chemical Treatment	250
Physical-Chemical Treatment	80,914
<b>TOTAL (including Waste Transfer)</b>	<b>4,633,979</b>
<b>TOTAL (excluding Waste Transfer)</b>	<b>1,347,688</b>

Source: RATS Data set, 2005, Environment Agency

To deal with MSW specifically the following treatment and disposal services are currently being used in the district.

**Table 9h: Municipal Waste Treatment and Disposal Services in the District**

**Transfer Stations**

There are 2 transfer stations:

- Royd Way, Keighley - handles approximately 70,000 t/pa
- Bowling Back Lane, Bradford - handles approximately 180,000 t/pa These sites are purpose built facilities, providing weighing in and out of all loads, and categorising waste into type, source and destination. The sites utilise large items of plant and 44 tonne road going haulage and are open 362 days per year.

Currently Bradford transfer station hauls to Welbeck landfill near Wakefield, operated by WRG (contracted minimum of 160,000 t/pa): Keighley transfer station hauls to Skibedon Landfill near Skipton, operated by Yorwaste (contracted minimum of 60,000 t/pa). Landfill contracts end in 2010 but it is likely that CBMDC will need to procure further landfill contracts to 2015. There are no suitable landfills in the Bradford area.

The transfer sites also receive waste directly from traders and commercial waste collections for which a charge is levied. They also offer a public weighbridge facility for which a charge is levied. A household waste recycling centre is also provided at each transfer station.

**Materials Reclamation Facility (MRF)**

A small MRF is located at Bowling Back Lane and processes waste for recycling. Dry recyclables are received from Household Waste Recycling Centres, bring sites and wheeled

bin recycling schemes. The facility incorporates a sorting and picking station, magnetic separations, and metal, aluminium, card, paper, textile and plastic baling equipment. Once recycling waste is received, the waste is cleaned up and sorted into various types and grades and put into a suitable form for onward transportation to specialist recycling merchants. Any reject or non suitable materials are deposited as a waste into the adjoining transfer station.

### **Household Waste Recycling Centres**

There are 7 sites located throughout the District, (formerly known as Civic Amenity Sites). The sites are open for the public to use to dispose of bulky or excess waste and to deposit materials for recycling (these sites are not available for traders to use).

These sites are open 7 days per week, 362 days per year, and are serviced by a fleet of 4 x 32 tonne container handling vehicles. The quality of the site infrastructures varies from well planned sites such as Sugden End, to ones with little space or facilities (e.g. Golden Butts, Ilkley). Significant infrastructure improvements have taken place recently, with further action planned for 2006.

### **Chemical Advisory Service (CAS)**

A chemical advisory service is offered to inspect, investigate, consign, transport and correctly dispose of small quantities or unwanted chemicals.

- Lab chemicals e.g., from schools, colleges etc.
- Pharmaceuticals.
- Herbicides.
- Poisons.
- Chemical reagents.
- Unidentified powders and liquids.

The service is offered at no charge to Bradford householders. An inspection, collection and disposal charge is made to outside companies and organisations.

### **Contract Management**

Disposal contracts for deposit of waste to landfill are managed including:

- two major contracts for landfill (described below);
- the disposal of difficult or special wastes to landfill e.g., tyres, asbestos;
- incineration of various chemicals from CAS or analysis of chemicals;
- incineration of clinical wastes;
- recycling contracts for various types of products with recycling/reclamation merchants;
- composting of green wastes;
- other minor contracts associated with operations.

### **Landfill Aftercare**

The service is also responsible for looking after the legacy of previous landfilling of municipal wastes within the District, including site restoration and maintenance, and environmental

control measures for areas such as landfill gas and leachates. This aftercare will continue for many years into the future and includes environmental monitoring, which involves the collection of field data via monitoring equipment, its subsequent collation and interpretation, culminating in a quarterly report to the Environment Agency. This service is also provided to some outside agencies for which a fee is levied.

Currently a landfill gas flaring system is operating at the Sugden End landfill, along with leachate pumping. Progressive capping and restoration continues at this site, other sites are now restored but still require monitoring and land management.

Management of non-municipal waste sources is listed below-

### **Commercial and Industrial**

There are approximately 10 sites in the District managing general commercial and industrial (C & I) waste. 8 of the sites are located to the south of the district, in or around the City Centre area (particularly the Bowling area), with 2 sites to the north of the District (in the Keighley/Eldwick area). Most of the 10 sites are waste transfer stations, which sort the waste, recycle what is possible and dispose of that material which cannot be recycled to landfill

There are 4 specialist sites which specialise in managing animal wastes, 2 of the specialist sites are located in the city centre area and 2 to the east of the district in the Thorton/Harecroft area. These sites undertake processes such as rendering and incineration.

### **Construction and Demolition Waste**

Currently there are approximately 8 sites managing construction and demolition (C&D) waste. 7 of the sites are located to the south of the district (near or within the city centre) and 1 site is to the north (in the Keighley area). Most of the sites are waste transfer stations which recycle the material to produce a secondary aggregate and divert the unrecyclable C & D to landfill. 3 of the sites also manage the C & I waste detailed above.

### **Hazardous Waste**

There is currently one major facility managing hazardous waste which is situated in the south of the district (in the Bowling Back Lane area).

### **Agricultural Waste**

There is no facility managing this type of waste in the Bradford District. The farmers currently manage this waste individually on their agricultural holding.

## **9.6 Waste Composition**

In 2002 MEL Research (MEL) was commissioned to undertake an analysis of kerbside collected domestic wastes in Bradford. MEL found that the average Asian household size was 4.58 people, while average for non-Asian was 2.40 people, and also the Asian households had a younger age profile.

In terms of overall weight of waste put out for disposal, Asian households produced 18.36kg / week, while non-Asian households 14.52kg / week. When household size is taken into account, residual weight per capita for Asian household was 4.01kg / week, as against 6.05kg / week for non-Asian households.

Observation as to difference in waste composition showed there to be more kitchen waste and disposable nappies in Asian households, and conversely more glass in non-Asian households.

The survey found surprisingly similar levels of awareness of recycling facilities at household waste sites and drop-off recycling sites, but interestingly Asian households tended to donate higher levels of clothing and textiles to charitable/fund raising collections. Despite higher levels of kitchen waste, Asian households tended not to compost their waste, even where they had a garden.

The survey showed 37% of Asians and 48% of non-Asian households putting garden waste directly into the residual waste stream. The report found that enthusiasm for recycling is probably determined more by levels of deprivation than by ethnicity.

The overall waste composition for waste collected at the kerbside for Bradford is detailed in the table below.

<b>Table 9i : Summary MEL Kerbside Waste Composition Analysis (Bradford)</b>		
<b>Waste Stream</b>	<b>Kg per household/week</b>	<b>% by weight</b>
Putrescibles	57.0	38.6
Paper and card	33.9	23.5
Misc. combustible	10.6	7.4
Glass	9.8	6.9
Dense plastic	9.3	6.5
Plastic film	7.2	5.0
Textiles	5.0	3.5
Ferrous metal	4.6	3.2
Misc. non-combustible	2.8	2.0
Non-ferrous metal	2.3	1.6
WEEE	0.7	1.5
Fines	0.4	0.3
<b>TOTAL</b>	<b>143.6</b>	<b>100</b>

### **Household Waste Recycling Centres**

Some 51,000 tonnes of waste (23% of the District's domestic waste) arises from Bradford's 7 Household Waste Recycling Centres (HWRC). MEL undertook a survey of HWRC waste use and waste types in July 2002.

Survey data, plus data held by the department indicates that:

- 50% of all HWRC inputs by weight arises on weekends.
- around 60% of all inputs are delivered in summer months (April to September).
- the heaviest fractions from the sample representing 75% of total weight are:
  - electrical and electronic equipment 15.6%
  - green waste 14.8%
  - mixed household (bin waste) 14.3%
  - hardcore/rubble 11.3%
  - textiles 10.3%
  - wood 9.1%

The biodegradable content of the HWRC waste surveyed is reproduced in the table below.

<b>Table 9j: Biodegradable material, HWRC July 2002</b>			
Primary Category	Sub Category	Friday	Saturday
		%	%
Paper and card	Recyclable paper	1.4	0.9
	Recyclable card	0.0	0.0
	Cardboard	4.5	2.7
	Non-recyclable paper	2.8	0.9
Textiles	Man made and natural fibres	4.1	6.6
Misc. combustible	Shoes	0.1	0.0
	Wood	8.9	9.2
	Other combustible	1.4	0.3
Misc. non-combustible	Soil	0.0	0.0
	Other non-combustible	0.8	0.1
Putrescible	Soft compostable garden waste	9.1	22.6
	Other putrescibles	1.6	0.0
Fines	Particles >10mm	0.4	0.0
Mixed Household	Normally material for the wheeled bin	7.8	10.6
<b>TOTAL</b>		<b>42.9</b>	<b>53.9</b>

### 9.7 Recycling and Composting in Bradford

Bradford MDC achieved a recycling / composting rate for domestic waste of 23.8% for 2007/8 against a local service agreement target of 24%. Recently published research suggests 30% is the maximum recycling level likely to be achieved in large metropolitan areas such as Bradford.

Approximately 55% of waste in 2004/05 was sourced from refuse collection, approximately 17.5% of waste was collected from household waste and recycling centres and a further 7%

was collected in trade waste containers including commercial and industrial waste handled by the Council.

The Government has set (and will continue to revise and review) performance standards relating to such areas as recycling and composting, along with specific guidance as to how definitions these indicators are to be calculated e.g., what materials count and how measured. The current statutory recycling target (2005/06) BV82 (a) + (b) for Bradford is 24%. Clearly the achievement of BVPI targets will be a very important feature of any long term strategy for Bradford's waste.

**Table 9k: Recycling and composing trend data based on BVPIs**

BV Ref Indicator and Description	04/05	04/05	05/06	05/06	06/07	06/07	07/08	07/08
	Target	Actual	Target	Actual	Target	Actual	Target	Actual
82a: Recycled (%)	13.5	10.4	18	10.49	12	12.52	14	12.19
82b: Composted (%)	5.5	6.3	7.2	8.06	9	12.18	10	11.61
82c: Energy recovery (%)	-	0	-	0	-	0	-	0
82d: Landfilled (%)	81	83.3	74.8	81.4	78.96	77.2	76	76.19
84a: Household waste collected per person (kg)	470	468.8	480	446.5	459	467.6	468	444
87: Cost of waste disposal per tonne (£)	36.6	37.77	40.2	44.68	50.89	45.69	60.97	55.56
91a: Residents which have kerbside collection of 1 recyclable	90	80.46	95	100	100	100	100	100
91b: Residents which have kerbside collection of 2 recyclable	-	-	56.78	52	93	89.29	90	95.6

Source: Bradford Waste DPD Sustainability Appraisal Scoping Report Revision (Environ, 2008)

To achieve the 16.7% recycling target in 2004/5, the Council employed a number of initiatives:

- a diversion rate of nearly 50% is achieved at HWRC;
- a kerbside recycling scheme based on paper is provided to 60% of all domestic properties on an opt out basis;
- a kerbside recycling scheme based on glass/cans is provided to 10% of all domestic properties on an opt in basis;
- drop off banks are provided across the District; and
- green waste kerbside collection.

## 9.8 The Future Waste Position in Bradford to 2021

Bradford is subject to a number of waste targets derived from the national, regional and local levels.

At the national level, the following targets apply:

- Landfill: By 2010 reduce the amount of biodegradable municipal waste sent to landfill to 75% of the total generated in 1995; 50% by 2013 and 35% by 2020 (Landfill Directive).

- Recycling and composting of household waste: At least 40% by 2010; 45% by 2015 and 50% by 2020 (Waste Strategy 2007).
- Recovery of municipal waste: 53% by 2010; 67% by 2015 and 75% by 2020 (Waste Strategy 2007).
- Commercial and industrial waste: Reduce amount going to landfill by 20% in 2010 compared to 2004 (Waste Strategy 2007).

At the regional level the following targets apply:

- Waste production: Reduce the annual increase in waste growth to 2% (from 3%) by 2008/09 (Yorkshire and Humber Regional Waste Strategy).
- 100% of waste developments should be in compliance with the Regional Plan's locational criteria in Policy ENV14. 100% of local authorities have allocated sufficient sites in line with Policy ENV14.

Local targets are shown in the BVPI table above.

**Table 9l : Municipal solid waste forecasts for Bradford**

Municipal Solid Waste Forecasts (Thousand Tonnes Per Year)				
Year	Tonnes to be managed	Maximum landfill capacity required	Minimum treatment capacity required	Minimum tonnage to be recycled
By 2005	265	194 (73%)	72 (27%)	72 (27%)
By 2010	279	131 (47%)	148 (53%)	112 (40%)
By 2015	296	98 (33%)	198 (67%)	133 (45%)
By 2020	318	79 (25%)	238 (75%)	159 (Min 55%)

**Table 9m : Commercial and industrial waste forecasts for Bradford**

Commercial and Industrial Waste Forecasts (Thousand Tonnes Per Year) (excluding closed gate)			
Year	Tonnes to be managed	Landfill capacity required	Treatment capacity required
By 2005	625	206 (33%)	418 (67%)
By 2010	628	207 (33%)	420 (67%)
By 2015	638	210 (33%)	427 (67%)
By 2020	649	214 (33%)	435 (67%)

Source: Regional Spatial Strategy (2008)

Predictions have been made at Regional level (through the RSS) on the likely waste to be managed up to 2021. Predictions have also been made on the landfill capacity, treatment and recycling required for municipal waste and commercial and Industrial waste (in order to meet targets) and these are illustrated below.

Recycling and composting trend data based on BVPIs indicate that by 2008/2009, the target rate should be 26% of all wastes are recycled or composted. Performance targets and predictions for household waste for 2020 estimate 33% of waste will be recycled or composted.

Bradford's Municipal Waste Management Strategy outlines the current management of the waste stream and details the challenging targets set by Government through policy and other legislative drivers such as the Landfill Allowance Trading Scheme. The Strategy analyses how these drivers seek to divert municipal waste from landfill, increase recycling and move the management of waste up the waste hierarchy. The strategy acknowledges the need for a step change to the management of municipal waste, up the waste hierarchy and away from landfilling.

### **9.9 Key Facts**

- The predominant mineral extracted within the Bradford District is sandstone. Crushed sandstone aggregate production also takes place but no large scale primary aggregate quarries operate in the District. Although resources exist, there are no active fireclay, coal or sand and gravel extraction sites located within the District.
- A large proportion of building stone and flag produced in Bradford is exported to other regions, London and overseas markets. York Stone is a widely marketable product and sales are not limited to specific areas. This product however is now facing increasing challenges from cheaper sandstones imported from overseas.
- The exploitation of certain sandstone resource areas, such as resources to the north of the district, and the production of certain types of natural stone materials, such as riven flags and stone slate roofing has declined substantially.
- Many of the active building stone quarries are thought to be approaching the exhaustion of their permitted reserves and several have closed within recent years. However further survey work is to be undertaken to gather data on currently permitted reserves and output within the district.
- Exporting waste arisings to landfill outside of the District remains the primary waste management method utilised by CBMDC for Municipal Solid Waste, a situation which needs to be reversed. The main destinations of exported municipal solid waste at the current time is Wakefield and Skipton.
- There has been a continued improvement in the amount of municipal waste that is being recycled across Bradford District in recent years. However this amount constitutes a small fraction of the waste arisings and is below the council's current local service agreement target for recycling.

- There are currently eight Household Waste Recycling Centres (HWRC) across Bradford District, which handle just under a quarter of municipal waste arising. Better accessibility to these centres is still an issue in encouraging more local participation and this is being considered through a review of the current waste infrastructure.
- Given the current trend within Bradford to export the majority of waste arisings outside of the District, coupled with new challenges for recycling, composting, and recovery of energy from waste there is currently a need for new waste infrastructure within Bradford.
- There is a shortage of waste management facilities in the District at the current time. Both extant planning permissions for new waste facilities and future applications will result in improvements to this waste management infrastructure across the District.

## **10. Conclusions**

The key issues identified within this report will be addressed through the approach being undertaken to prepare the Core Strategy for Bradford District. This combines a collaborative consultation process and evaluation to prepare the emerging development options. The baseline analysis and the evaluation of key issues will help determine development priorities for the district and influence spatial distribution of the planned growth proposed by the Core Strategy.

As part of the ongoing consultation which is being undertaken, this report will be made publicly available for comment and review. Any additional information, factual corrections or further thoughts will be welcomed by the Bradford Metropolitan District Council.

At the present time, this report has been deliberately left in 'Draft' and will be supplemented with additional information during the course of the preparation of the Core Strategy submission report. This report and its findings will be the subject of further extensive public consultation and engagement.