

Bolton Council

**Employment Land
Study**

Report

FINAL

Bolton Council

**Employment Land
Study**

Report

September 2008

Ove Arup & Partners Ltd
St James's Buildings, Oxford Street, Manchester M1 6EL
Tel +44 (0)161 228 2331 Fax +44 (0)161 236 1057
www.arup.com

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Executive Summary

Introduction

In January 2008 Arup and Keppie Massie were commissioned to undertake an Employment Land Study (ELS) for Bolton Council in order to analyse the future demand and future provision for employment land in Bolton to 2021 in line with the Northwest Regional Spatial Strategy, and beyond the RSS to 2026.

This study will form part of the evidence base of Bolton Council's Local Development Framework (LDF).

Bolton Council is required to assess the future demand for employment land, and evaluate the quality of existing and potential employment land within the Borough in order to create an up to date and balanced portfolio of sites for employment uses to be held within the LDF.

Methodology

The study has involved a comprehensive assessment of the future demand for employment land using a range of quantitative and qualitative methods.

The study has also carried out detailed site assessments on 44 existing and potential sites for employment development. The study has also included a detailed document and policy review and regular meetings between the consultant team and a Bolton Council Steering Group overseeing the work.

Quantitative analysis

An assessment of the demand for employment land has been carried out based on four main techniques:

- Analysis of historic take up rates;
- Analysis of trends in Commercial and Industrial Floorspace in Bolton using Valuations Office Agency data;
- Analysis of data provided through the Greater Manchester Forecasting Model using sectoral employment projections to derive floorspace and land requirements; and
- Analysis of loss of employment land in Bolton, in recent years.

Analysis has used assumptions on employment densities and plot ratios and a range of other factors to produce eight different scenarios for the amount of employment land that may be required in Bolton from 2007 to 2021 and from 2007 to 2026.

Qualitative Analysis

The quantitative analysis was bolstered by a comprehensive process of stakeholder engagement which has included face to face meetings and telephone conversations with a range of stakeholders.

Consultees have included:

- Local commercial agents;
- Local businesses;
- Bolton Strategic Economic Partnership;
- Bolton Council Officers;
- Key individuals in other Northwest organisations including North West Regional Assembly and MIDAS.

Site Assessments

Site assessments have been carried out on 44 sites across Bolton.

Each site was assessed through a combination of site visits and desktop assessments (utilising GIS). Each site was assessed against a number of defined criteria within an assessment matrix under categories, and scored according to a scale of 1-5 based on the strength of its compliance with that criterion.

Demand for Employment Land

The quantitative analysis work concludes that Bolton has a gross requirement for employment land of between 120ha and 160ha from 2007 to 2021 and a further 40ha to 50ha from 2021 to 2026 to produce an overall requirement of between 160ha and 210ha between 2007 and 2026.

Consultation with stakeholders suggests the upper end of this scale is potentially too high as a major component of growth in demand for land is driven by a projected growth in office based employment that could be accommodated through Bolton's three major redevelopment sites at Loco Works, Church Wharf and Merchant's Quarter. However, the lower end of this scale was considered to present too negative a picture for the Borough and was unlikely to be an accurate reflection of Bolton's actual employment land requirements.

Information provided by Bolton Council regarding the demand from local businesses for additional land to expand or modernise provides further evidence that greater amounts of land may be required.

Overall then, and taking into account qualitative evidence provided by stakeholders and Bolton Council, the study concludes that demand for employment land in Bolton between 2007 and 2026 lies toward the middle of the range suggested by the quantitative demand work. Therefore we conclude that gross demand for employment land in Bolton between **2007 and 2021** is likely to be in the region of **130ha-150ha**. Demand between 2021 and 2026 would be around **45ha**.

Overall this results in a demand of between **175ha and 195ha between 2007 and 2026**, which is equates to **9.2ha to 10.3ha** of employment land take up per year.

Supply of Employment Land

In considering the supply of employment land required to meet the demand, the study carried out a detailed assessment of 44 potential employment sites across Bolton, comprising:

- 17 of the existing allocated employment sites from the Bolton UDP
- 17 sites identified by developers and landowners as potential locations for employment sites and;
- 10 sites identified by Bolton Council around Bolton Town Centre.

The 44 sites collectively add up to around 337 ha.

The site assessments indicate that while most of these sites are both attractive and deliverable from a commercial perspective, few could be considered to represent best practice in planning policy and sustainability terms.

The existing supply of employment land in Bolton as set out in the 2007 Employment Land Resource totalled some 62.37 hectares. However this figure includes:

- Four sites that are among the least commercially attractive in Bolton collectively adding up to around 13 hectares of land.

- Two sites that form part of larger proposals. Site 8E at Horwich Loco Works totals some 16.3 hectares and will form part of the wider development at this site. Site 38E at Cutacre is some 16.7 hectares and is part of the larger Suggested site S25.

Consequently, of the 62.37 hectares of land identified in the 2007 Annual Employment Land Resource, around 13 hectares is commercially unattractive.

A further 33 hectares, at Horwich Loco Works and Cutacre, form part of a larger set of proposals (and may therefore be unavailable while those larger proposals are debated and refined).

Assuming there is up to 49 hectares of commercially attractive employment land in Bolton, this demonstrates the importance of Horwich Loco Works and Cutacre in meeting Bolton's employment land requirements.

Matching Demand with Supply

The study concluded that Bolton Council should seek to ensure that between **175 ha** and **195 ha** of general employment land is provided for the period from 2007 to 2026.

The assessment of supply concluded that there is currently as little as **16** and at most **49** hectares of commercially attractive allocated employment land in the Borough in Bolton's current UDP.

This suggests there is a shortfall of between **126** to **179** hectares of allocated employment land over the period to 2026 that Bolton Council may wish to address.

Other Factors

A number of other factors may impact on the demand for employment land in Bolton. These have been discussed in detail in the report and include:

- nature and disaggregation of the Greater Manchester's sub regional land requirements;
- the capacity of other Greater Manchester districts in terms of employment land availability;
- impact of the Greater Manchester Congestion Charge;
- proportions of mixed use development on employment sites;
- the ongoing extent of 'pent up' demand from potential inward investors; and
- increased employment land losses to non employment uses.

Recommendations

The study makes a number of recommendations:

Retention /De-allocation of Sites

The study recommends that Bolton consider retaining the majority of their Existing Allocated Employment sites but especially sites 38E at Cutacre and site 8E at Horwich Loco Works. These are both large sites and score well against availability and deliverability criteria. Should neither of the wider redevelopment schemes at Cutacre and Horwich come forward, that these sites are part of, these specific sites remain good sites for employment development in the future in terms of the criteria against which they were assessed.

We recommend that Bolton consider two sites as appropriate for de-allocation, Site 36E Singing Clough and Site 31E Gower Street. However it is noted that in the case of Singing Clough there is ongoing work being undertaken on the economic viability of the site which will help inform whether de - allocation should be considered.

The 17 Suggested Sites are the only locations that could provide the size of sites to meet the identified needs of existing employers within Bolton who are seeking to modernise or

expand. In determining which, if any, of the Suggested Sites to allocate, Bolton Council will have to consider which of the planning policy and sustainability criteria to attach the most weight to. Therefore there will be merit in Bolton Council considering, as part of the issues and options stage of the Allocations DPD, presenting a series of options to stakeholders that could both look at Suggested Sites in isolation and/ or options presenting combinations of these sites.

The 10 Town Centre Sites all score well against both availability and deliverability criteria and planning policy and sustainability, as does Suggested Site S02 Church Wharf. Consequently the study recommends that Bolton Council consider allocating all of the Town Centre Sites for employment led mixed use.

Rolling Provision and Phased Release of Land

The study recommends that there be a rolling review of employment land availability to ensure that five years worth of high quality, unconstrained land is readily available for development at any one time. In accordance with the sequential hierarchy, it would be necessary to ensure that the release of any greenfield land allocated for employment use is phased in order to avoid less sustainable sites from comprising the bulk of development.

Review of Greenbelt and Protected Open Land Boundaries

The impact on Bolton's Green Belt and Protected Open Land from development will be a key issue for the LDF. The majority of the Suggested Sites put forward by developers in Bolton lie in the Green Belt or on Protected Open Land in the West of Bolton and score poorly in planning policy and sustainability terms.

The results of the Employment Land Study, coupled with the outcomes of other evidence base studies for other land uses, in particular the Strategic Housing Land Availability Assessment (SHLAA) and other studies such as the Greater Manchester Strategic Flood Risk Assessment (SFRA) will be key considerations in determining the policy approaches adopted in the LDF.

Mixed Use Development

The study concludes that the majority of the sites do not require mixed use development to make them commercially viable. We therefore recommend that Bolton Council give careful consideration to the need for mixed use schemes on the sites identified in this study, and where mixed use is identified to be the most appropriate form of development that in principle they are 'employment led' mixed use schemes.

However, the redevelopment of Horwich Loco Works is predicated upon the comprehensive regeneration of the site to create a mixed residential and employment scheme. If the Council wishes to see this scheme come forward as proposed, and if the parallel Strategic Housing Land Availability Assessment being carried out concludes the site is a good location for housing, the study recommends that Bolton Council consider re-allocating this existing employment site as a comprehensively developed mixed use site.

Meeting Local, Sub-Regional and Regional Employment Land Needs

The issue of sub regional and regional demand for employment land is a key issue for Bolton's LDF to address.

Bolton has commercially attractive potential employment sites in excess of the anticipated local demand for employment land. These sites could contribute towards the employment land requirements of neighbouring local authorities, should they have a shortage of land. In addition Bolton could provide, in Cutacre, a site of potentially sub-regional or regional significance.

Bolton Council should continue working with and developing relationships with neighbouring local authorities to understand the nature of sub-regional and regional employment land

requirements and how Cutacre compares to other potential sites of sub-regional or regional significance.

Local Employment Densities and Plot Ratios

As part of regular discussions with local employers, Bolton Council may wish to try and better understand local employment densities and plot ratios, to enable more accurate updates of this work in the future.

Approach to Monitoring

Monitoring is an integral part of plan production. Bolton Council already has good systems in place to monitor development of employment land, and the basis for a strong system to monitor loss of employment land to other uses. However, there are likely to be emerging areas that will identify the need for further development of the LDF monitoring framework in order to have a robust understanding of historic and future trends in the borough.

It is recommended that overall a wider view is taken to the monitoring of employment land and trends in Bolton, which provides a mix of additional contextual and output information to complement that required by CLG.

1 Introduction

In January 2008 Arup and Keppie Massie were commissioned to undertake an Employment Land Study (ELS) for Bolton Council in order to analyse the future demand and future provision of employment land in Bolton to 2021 in line with the Northwest Regional Spatial Strategy (RSS), and beyond the RSS to 2026.

This study will form part of the evidence base of Bolton Council's Local Development Framework (LDF). As part of the Planning and Compulsory Purchase Act 2004, each Local Planning Authority will be required to produce a suite of Local Development Documents, collectively called the LDF. In particular, the Bolton ELS will help provide evidence which can be used to inform employment issues in the LDF. Bolton Council is required to assess the future demand for employment land, and evaluate the quality of existing and potential employment land within the Borough in order to create an up to date and balanced portfolio of sites for employment uses to be held within the LDF.

1.1 Purpose of the Study

In planning for employment land, Local Authorities need to make provision for a supply of sites and premises of the right quantity, quality and location. This study therefore provides a comprehensive review of the demand for employment land within Bolton using a range of qualitative and quantitative techniques. The study also includes an assessment of the quantity and quality of supply of employment land. This study has looked at both the existing allocated employment sites in Bolton, as well as potential employment sites including Town Centre sites identified by Bolton Council and sites identified through a Site Suggestion consultation exercise.

Finally, in a parallel exercise, the study has also assessed a number of sites occupied by key employers located on land that has not been allocated for employment uses in the Bolton Unitary Development Plan (UDP). Details of this exercise, which sits outside the main ELS, are included in Appendix 1 of this report.

Together, the review of demand, and assessments of the quantity and quality of supply will be used to inform policy decisions regarding how much employment land to plan for in the Local Development Framework (LDF), as well as the right policies and actions to bring forward a suitable supply of sites and premises.

The study provides robust evidenced outputs and a series of recommendations that can be taken forward through the LDF processes and can form the basis of policy decisions on future employment allocations in Bolton.

1.2 Structure of the Report

This report is consequently structured as follows:

- **Section 2** provides an introduction to Bolton, the Bolton Economic Context and a summary of the relevant national, regional and local policy documents.
- **Section 3** summarises the ODPM guidance for carrying out employment land reviews and outlines the quantitative models and methodology we have used to assess the demand for employment land in Bolton. Section 3 also includes a summary of the assessment criteria we have used to evaluate the existing and suggested employment sites.
- **Section 4** presents the detailed findings from the quantitative demand modelling work.
- **Section 5** presents the findings from our detailed discussions with developers, commercial agents, local businesses, the Bolton Strategic Partnership and other key stakeholders, and refines the findings from the quantitative modelling.

- **Section 6** provides an overview of the sites that have been included in the detailed assessments.
- **Section 7** matches supply with demand and presents our recommendations on which sites Bolton should consider allocating for employment uses in the future.
- **Section 8** presents a set of key recommendations for Bolton in taking forward their employment land requirements in the future.

2 Contextual Overview

2.1 Bolton in Profile

Bolton is located to the northwest of the Greater Manchester conurbation, outside the M60 either side of the M61.

Bolton Borough has 262,400 residents who live mainly in the main urban area of Bolton, Farnworth, Kearsley and Turton, and the freestanding settlements of Little Lever, Horwich, Blackrod and Westhoughton. About half of the area is built up, but the remainder is countryside, mainly in agricultural use or open moorland. If present trends persist, Bolton's population is set to increase by around 7% in next twenty-five years, from 262,800 in 2004 to 282,100 in 2029¹.

Bolton's Annual Monitoring Report states that Bolton is more self-contained than other Greater Manchester districts in terms of employment and commuting patterns. The 2001 census showed that 67.5% of working residents work in the borough; 75.7% of employment in the borough was filled by Bolton residents. Manchester and Salford were the most significant destinations for out commuting of residents. Although Bolton shows a relatively high level of self-containment, long-term trends show that the level of both out commuting and in commuting is increasing.

The borough has good transport communications with adjoining areas and the rest of the country. The M61 motorway provides a link to the M6 to the north and the M60 to the south. There are eleven railway stations in the borough with lines to Manchester to the south, and Blackburn, Preston, and Wigan to the north and west. Bolton rail station is the busiest in Greater Manchester outside Manchester City Centre. There is an established bus network focused on the main radial routes into Bolton town centre. A strategic cycle route network has in part been implemented which will form part of Sustrans Regional Route 80 and National Route 50.

The highway network is not as congested as in the central areas of Manchester but there are some congestion problems, most acute on approaches to the town centre and around a number of the district centres, including Westhoughton and Farnworth. Congestion problems in Westhoughton are generated in part by traffic accessing the M61, particularly from Wigan.

Deprivation is concentrated in the inner areas of Bolton and Farnworth, and the more prosperous areas are located in the north and west of the borough. The outer areas of Bolton, together with the freestanding towns of Horwich, Westhoughton and Blackrod in the western part of the borough, tend to have a better physical environment, and fewer social and economic problems, though even in these areas, there are pockets of deprivation and dereliction.

2.2 Bolton Economic Context

With over 7600 VAT registered businesses² in the Borough, a wide variety of industries and employment sectors are represented.

In recent times, Bolton has been perceived as a place that has not realised its full economic potential. Although one of the largest employment centres in England's Northwest, Bolton's employment growth record was one of the region's weakest during the 1990s and early 2000s. However, over the last two years, and especially in the last year, Bolton has transformed its economic profile and relationships with private investors / developers and occupiers to such an extent that the Borough is now advancing developments and delivering outcomes of regional significance. Major redevelopment has taken place over the last 10

[1] Bolton Annual Monitoring Report 2006/7

[2] VAT Based local units March 2007 from www.statistics.gov.uk

years at Middlebrook, with new retail and office developments located alongside the Reebok Stadium and Bolton Arena. Middlebrook has safeguarded employment that would have otherwise have been lost to the borough (such as Axa) and has also been successful in attracting other major employers such as Royal Bank of Scotland and Eon. Other successful sites include the Wingates Industrial Estate off the A6 at Westhoughton (now almost fully occupied) and the Valley industrial area northeast of Bolton Town Centre.

Bolton has a large number of mills, providing more than 1.3m sq. m of floorspace across the Borough and although the buildings vary in size, quality and price, they form an important part of Bolton's employment premises. The mills have an important role in accommodating businesses in the borough and the role that Bolton's mills play has been considered in our analysis of demand and supply for employment land in the borough.

Bolton is one of the largest and fastest growing employment centres in the Manchester City Region, outside the Regional Centre, and is quickly re-establishing itself as one of the region's key business locations.

Bolton's Town Centre strategic frameworks are expected to secure over £1 billion in new private investment, over the next 10 years, with the potential to create 10,000 new jobs. Bolton Council hope that the Bolton Innovation Zone, a 67ha development, will help to create a critical mass of knowledge economy assets that have the potential to provide a complementary offer to the developments along the Oxford Road Corridor in Manchester and at Mediacity:uk in Salford Quays. Other key developments around the town centre at Church Wharf and Merchant's Place are seen as locations for new quality office developments.

Large private sector employers include Georgia Pacific, Axa, Royal Bank of Scotland, Keogh's Solicitors, EON, Warburtons, Vertex, Greenhalghs and others. A full list of Bolton's largest employers (>250 employees) is included with this report in Appendix C.

2.3 Policy Context

This section of the report provides an overview of current policy guidance relevant to spatial planning for economic development. There are a wide range of policy guidance/statements that provide this overall context.

2.4 National Planning Policy Context

2.4.1 Planning Policy Statement 1 – Delivering Sustainable Development

This PPS was published in February 2005 and outlines the overarching planning policies for the delivery of sustainable development through the planning system. Paragraph 23 provides detailed guidance of what is expected of Planning Authorities in relation to achieving sustainable economic development. The 10 objectives that are highlighted within the PPS provide a positive context for economic development.

2.4.2 Planning Policy Guidance 4 - Industrial and Commercial Development and Small Firms

This document was first published in 1992 and sets out the broad guidelines for the location of industrial and commercial land uses in development plans, and the approach to development control with respect to economic development. Paragraph 6 of PPG4 states that, in allocating land for industry and commerce, planning authorities should "aim to ensure that there is sufficient land available which is readily capable of development and well served by infrastructure. They should also ensure that there is a variety of sites available to meet differing needs." Locational policies in development plans can reduce the need to travel while the re-use of urban land is encouraged.

2.4.3 Proposed New Guidance

It should be noted that as part of the Planning White Paper: Planning for a Sustainable Future (May 2007) Central Government intends to publish a new Planning Policy Statement,

Planning for Sustainable Economic Development (PPS 4). This draft PPS 4 is currently out for consultation. It will further reinforce the Government's commitment set out in PPS1 to promote a strong, stable and productive economy with access for all to jobs, to regeneration and improved employment prospects.

2.4.4 Draft Planning Policy Statement 4: Planning for Sustainable Economic Development

The aim of PPS4 is to encourage local authorities to plan effectively and pro-actively for economic growth, job growth and investment whilst achieving a balance with environmental and social considerations. It encourages local planning authorities to make efficient and effective use of land by taking into account changing spatial working patterns and advances in information and communication technologies that would allow new ways of working such as live-work units and home-working.

The draft statement suggests that local planning authorities set criteria based policies, safeguarding, where necessary, land from other uses and identifying a broad range of sites able to facilitate a range of employment uses. In particular the draft statement promotes mixed use developments in appropriate locations.

It builds on the guidance on Employment Land Reviews (ELR) by specifying that planning authorities produce an ELR in order to understand both existing business needs and likely changes in the market sectors, to prepare spatial policies to support sustainable economic development and to encourage economic growth in their Local Development Frameworks (LDF).

The main implication of PPS4 is likely to be felt in the requirement for an enhanced evidence base relating to spatial economic policies. Key points of PPS4 include:

- Defining "Economic Development".
- Recommending that local planning authorities proactively encourage economic development in a sustainable way whilst being able to respond to economic change.
- Need to co-ordinate economic development with Infrastructure and housing provision.
- Requirement for local planning authorities to assess existing land supply for economic development.
- Ensure employment policies address economic development in rural areas.
- Local planning authorities should facilitate a supply of land to provide for needs of different employment sectors.
- Local planning authorities should take into account changing spatial working patterns and changing technologies, and if not included in the Development Plan, such proposals should be assessed using the best available evidence.
- Contains several recommendations for Development Control.

2.5 Regional Planning Policy Guidance

2.5.1 Regional Spatial Strategy for the North West (RSS)

The Regional Spatial Strategy for the North West was approved by the Secretary of State in 2003. In 2006 the North West Regional Assembly published the draft NWRSS review and in 2006/7 this was subject to an Examination in Public. Following the Examination in Public, the Panel prepared a report of findings and recommendations on how the draft Regional Spatial Strategy might be improved. This Report was published for information on 8 May 2007. The report stated that the RSS should aim to strengthen the regional economy and should provide a spatial framework for the programme set out in the Regional Economic Strategy (RES). Although the Panel Report suggested that the RSS should not list specific

sites it indicates that it should make provision for a supply of land to ensure that the sustainable development of the regional economy is not constrained.

In relation to the broad locations identified in draft RSS, the Panel Report indicates that it is unclear as to why some broad locations are overlooked. The report raised the issue that there are potential economic development sites in the northern part of Greater Manchester which, taken together, are of equivalent importance to those in South Manchester. The report states that, "if that is so, it is difficult to see why no locations in, say, Bury, Bolton or Wigan have been included." The Panel also recommends that an additional 774 hectares of employment land will be required in Greater Manchester before 2021, over and above that already identified. There is no recommendation about how this should be apportioned between districts.

As part of the next stage of the RSS process, the Secretary of State has considered the report and the Secretary of State's proposed changes to the Draft RSS, based on the Panel Report, has been released.

The report accepted the indication that the supply of employment land in 2005 was 1,368 hectares within Greater Manchester (GM). Therefore, in order to achieve the employment land requirement to 2021 within GM, which was indicated in the report at 2261 hectares, an additional supply of 893 hectares of employment land within GM would be required.

The report indicates that disaggregated employment land requirements for each Local Planning Authority (LPAs) cannot be provided in the RSS because the data is not currently available. The report recommends that Policy W3 should be amended to ensure that LPAs undertake a review of their own portfolios.

The report also encourages the de-allocation of sites which are poor quality, poorly located or unlikely to become available.

Following consideration of responses to the consultation on the Proposed Changes, the Secretary of State will publish the final North West Plan.

2.5.2 North West Regional Assembly (2005): North West Employment Land Study

This study was commissioned by the North West Regional Assembly and forms a key part of the evidence base of the Regional Spatial Strategy (RSS). The study aimed to provide an up-to-date, accurate and robust assessment of the quantity and quality of existing employment land in the North West, and the extent to which this land can meet projected future demand for the period to 2021.

Provision: In order to maintain consistency with the structure of the RSS, the report did not provide individual employment land requirements at District/Borough level, and Bolton was consequently included within the projections for the Greater Manchester sub-region. This sub-region was estimated to have around 1,330 hectares of B1, B2 and B8 employment land either allocated or committed. The study estimated that, at current rates of take up for the sub-region (112 hectares per annum); this would result in a forward land supply capable of accommodating development for the next 12 years. Consequently, the study concluded that additional land would be required to cover the full plan period (up to 2021), although it did not specify which Boroughs this should be located within.

2.6 Local Planning Policy Guidance

2.6.1 Unitary Development Plan (2005)

The Bolton Unitary Development Plan was formally adopted on 7th April 2005. This document is the Authority's principal tool for determining planning applications. The UDP provides a list of identified employment sites which have Council support.

Those policies of particular importance to this study relate to Chapter 12: - Employment and the Economy and have been highlighted below:

Policy E1: This policy identifies that the Bolton Council will permit office, industrial and warehouse (B1, B2, B8) development on allocated sites and land suitable within the urban area.

Policy E2: The policy deals with the Office, Warehouse and Industrial Allocations in the borough. The policy builds on Policy E1 and specifies that permissions for office, industrial and warehouse (B1, B2 and B8) development on allocated sites are shown in the Proposals Map and Town Centre Inset Map.

Policy E3: The policy addresses the siting of offices and industrial development on unallocated land. The policy states that Bolton Council will permit development for office and industrial uses on land within or adjoining Town and District centres and on other land not allocated in the plan provided the proposal meets a range of criteria including:

- It is located within the urban area;
- It is accessible by a choice of means of transport;
- It is well related to a significant local workforce; and
- The proposal would not adversely affect the amenities of any adjoining uses.

Policy E4: This policy deals with general industrial and warehousing development on unallocated sites. It states that Bolton Council will permit development on land not allocated in the plan provided the proposal meets the following criteria:

- It is located within the urban area;
- It is accessible by a choice of means of transport;
- It is well related to a significant local workforce; and
- The proposal would not adversely affect the amenities of any adjoining uses.

Policy E5: The policy addresses the protection and regeneration of existing employment uses. This focuses on permitting development proposals that safeguard the existing industrial areas shown on the Proposal Map for Office, Industrial and Warehouse uses. Development proposals for alternative development or non employment uses would be assessed against a range of criteria including:

- the existing access to the site is proved to be unsatisfactory in terms of maintaining the industrial use of the site and improvements cannot be undertaken which would improve the situation by meeting current industrial access standards;
- the development proposal would remove an existing land use conflict with neighbouring uses;
- the applicant has demonstrated that the site has been unsuccessfully marketed for re-use or redevelopment for industrial/business purposes;
- the proposal does not result in an overall shortage of B1, B2 and B8 land and premises.

Policy E6: The policy seeks to address the improvement of existing industrial areas and premises by permitting proposals that involve the modernisation or replacement of obsolete buildings for industrial and business uses which contribute to the improvement of industrial and business areas and premises, provided the proposal meets all of the following criteria:

- It is located within the urban area;
- It is accessible by a choice of means of transport;
- It is well related to a significant local workforce; and
- The proposal would not adversely affect the amenities of any adjoining uses.

Policy E7: The policy deals with working from home patterns and identifies that the Bolton Council will permit development in residential areas for dwellings used for business purposes, in whole or in part, provided they do not adversely affect the living conditions of nearby residents in terms of noise, smells, traffic and loss of off – street parking.

2.6.2 Implications of the Adopted Bolton Unitary Development Plan 2005:

Provision: The UDP states that there has been an annual take up of site identified in Policy E2 of the UDP of just over 7 ha. The land allocated on the plan will allow for development not only to continue at this rate but to expand and thus provides a wide choice of sites in a variety of locations. However due to particular constraints, not all sites will be immediately available thus ensuring that a phased approach to the release of land will occur.

Appendix 5 of the UDP identifies the 16 larger sites within Bolton that are allocated for B1, B2 and B8 uses (allocations and sites with planning permission are listed separately). Paragraph 12.05 of the UDP indicates that the allocations listed in Appendix 5 '*relate to generally larger areas than individual businesses*'. These sites equate to 47.88 hectares of allocated employment land.

Table 1: Bolton Unitary Development Plan Employment Allocations

Ref	Site Name	Area (ha)
4E	Great Bank Road	5.53
8E	Horwich Loco Works	16.30
9E	Lynstock Way	2.44
12E	Cranfield Road	0.82
16E	Watersmeeting Road (b)	2.96
18E	Crompton Way	2.69
24E	Mill St	0.53
25E	Mill St/Mule St	0.74
26E	Bury New Road	0.75
29E	Campbell Street	0.64
30E	Gower Street	0.44
31E	Gower Street	0.57
35E	Mabel's Brow	0.73
41E	British Aerospace	10.54
42E	Shiffnall Street	4.80
43E	Wood Street	2.20

A further 26 sites with planning permission are indicated within the UDP, totalling 63.64 hectares.

2.6.3 Bolton Local Development Framework

Bolton Council is in the process of preparing its Local Development Framework including work to prepare its evidence base that will underpin the preparation of Local Development Documents including Development Plan Documents (DPD) and future Supplementary Planning Documents (SPD).

The key document being prepared for the Bolton LDF is the Core Strategy, this will set out what Bolton will look like in the future by setting out the borough's spatial vision, the objectives needed to deliver that vision and the spatial policies to ensure development and growth is achieved sustainably. The Core Strategy will be based on achieving development until 2026.

It will reflect the spatial aspects of the work of Bolton Council and its partners and will form the basis of how planning application decisions are made. It will set out broad aims for delivering housing and other development needs such as employment, retail, leisure, community, essential public services and transport development.

The Bolton Core Strategy 'Issues and Options' report put forward planning options for the way Bolton will be shaped in the future. The report was drafted using a range of evidence including feedback from public consultation already carried out as part of the Core Strategy

process. It outlines the issues and options facing the borough. The Core Strategy issues and options report sets out the following broad strategic options for the borough.

2.6.3.1 Option 1: Dispersed urban development

Concentrates development and regeneration in the urban area and protects the currently protected open land and Green Belt from significant development.

2.6.3.2 Option 2: Concentrated urban development

This option concentrates development and facilities on key sites and areas such as town centres, Horwich Loco Works, neighbourhood renewal areas and along key transport corridors within the urban area. For office and manufacturing uses, transport corridors would also include the M61 corridor.

2.6.3.3 Option 3: Dispersed urban development combined with some peripheral development

Promoting a balance between development within the existing urban area and in peripheral areas just outside the existing urban area currently designated as protected open land.

2.6.3.4 Option 4: Dispersed urban development combined with some peripheral development including Green Belt Land

Promoting a balance between development within the existing urban area and in peripheral areas just outside the existing urban area currently designated as either protected open land or Green Belt.

2.7 Economic Policy Background

2.7.1 The Northern Way Growth Strategy (September 2004)

This document broke the North West, North East and Yorkshire and Humber into 8 city regions. The document brings together the three regions Economic Strategies and Regional Spatial Strategies to identify actions of an appropriate scale. The Northern Way is designed to address the prospect of continuing economic inequality amongst the regions. The Northern Way document investigates ways in which the economic disparity, which exists, between the North and the rest of the country (primarily the inequality between the north and the south east England) can be overcome through acceleration of its economic growth rate.

2.7.2 Greater Manchester City Region Development Programme and Action Plan

This document builds on the first Manchester City Region Development Programme submitted to Government in 2005 and sets out how the Manchester City Region (MCR) can make the most significant contribution to closing the North's productivity gap within the next ten to fifteen years.

The Vision:

The report indicates a vision for the city region stating that by 2025, the Manchester City Region will be:

- A world class City Region at the heart of a thriving North;
- One of Europe's premier City Regions, at the forefront of the knowledge economy and with outstanding commercial, cultural and creative activities;
- World class, successfully competing internationally for investment, jobs and visitors;
- An area where all people have the opportunity to participate in, and benefit from, the investment and development of their city;
- An area known for, and distinguished by, the quality of life enjoyed by its residents; and
- An area with GVA levels to match.

The document states that it is clear that the Manchester City Region economy has the scale, reach, structure and recent performance needed both to make the most significant contribution to accelerating economic growth across the North of the country and to delivering national policy objectives. The City Region has demonstrated its ability to begin the transformation to a modern, knowledge-based economy. Consequently, the Development Programme states that it is now essential that the priorities outlined are delivered in order that the Manchester City Region delivers its full potential as the leading Northern economy, and makes a net contribution to closing the productivity gap from 2012.

2.7.3 Regional Economic Strategy (March 2006)

The North West as a region is committed to building sustainable economic growth, a high quality workforce and developing a region where everyone has the opportunity to fulfil their potential.

The Regional Economic Strategy (RES), written by the North West Development Agency is a 20-year rolling strategy with the aim of reducing the regions £13 billion economic production output gap (compared with the average for England). This strategy intends to create and maintain conditions that would enable continuous sustainable growth and private sector investment.

The RES aims to deal with three big growth issues that will help to reduce the output gap with the average for England, with the intention to:

- Improve productivity and grow the market (which accounts for £10 billion of the output gap);
- Increase the size and capability of the workforce (£3 billion of the output gap is due to fewer people working); and
- Create and maintain the conditions for sustainable growth.

2.7.4 Sustainable Community Strategy: Bolton: Our vision 2007-2017

Bolton's Community Strategy sets out a vision for Bolton in 2017. It will be a place where everyone has an improved quality of life and confidence to achieve their ambitions. The two most relevant aims are to narrow the gap between the most and least well off and to ensure economic prosperity.

To support this, a key priority theme is 'Prosperous Bolton' and this includes targets to match jobs and investment with those most in need. Key to prosperity will be investment in Bolton Town Centre. The Strategy aims to build a transformed and vibrant town centre and raise and improve the profile of Bolton. In achieving this; the strategy sets out that:

- Bolton will be central to the city region's economy and achieve this by becoming the only place that can effectively complement the growth of Manchester.
- It will create over 2,500 new jobs by the end of 2008, increasing to 10,000 by 2017. Key to our prosperity will be investment in Bolton town centre.
- Top class developments at Wingates and Middlebrook in the west of the Borough will continue to grow and thrive, while new development sites such as Cutacre in the south of the Borough are central to the future success of Bolton's economy.
- That higher skill levels are developed in the boroughs workforces to meet the requirements of new jobs. 4,000 of them will need degree-level qualifications. A similar number will need A-levels or equivalent.
- Bolton will increase the number of people (including those who are economically inactive) in the borough's most deprived communities in employment.
- Bolton will increase the number of people employed in the Town Centre.
- Bolton will increase inward investment in the borough by raising its profile.

2.7.5 Manchester Enterprises (October 2006): Assessment of Employment Land in Greater Manchester

This report was supplemented by the report produced by Manchester Enterprises on Demand for Employment Land in Greater Manchester. This report highlighted a number of sites within Bolton which could potentially be used for employment.

Provision: The report identifies 9 sites / premises for potential growth in employment land within Bolton. The portfolio of sites / locations identified in this report includes extensive areas of Bolton town centre (on 5 sites), recognised / established employment areas (Middlebrook / Horwich) and emerging / future prospects. Consequently, there could be a provision for up to 140.63 ha if all these sites were suitable for employment uses.

3 Study Methodology

3.1 Introduction

This section outlines the methodologies used for the Employment Land Study. It was informed by the guidance outlined in the ODPM documents Employment Land Reviews: Guidance Note (December 2004), in addition to best practice examples from similar employment land studies undertaken elsewhere.

The ODPM guidance recommends a consistent and integrated approach for employment land reviews at regional, district and town levels, to assist local planning authorities in the identification of suitable sites for employment development, to safeguard the best sites in the face of competition from other higher value uses and to help identify those sites which are no longer suitable for employment development, and made available for other uses.

The specific objectives of the guide are to help planning authorities to:

- Assess the future demand for employment land (at the regional down to the local level);
- Assess the future supply of sites for employment (at the local up to the regional level);
- Assess the suitability of individual sites, whether existing, permitted or proposed for future employment uses;
- Identify sites which are clearly unlikely to be required by the market or are now unsustainable for employment development;
- Develop appropriate future policies and proposals in RSS, but more particularly, in local development frameworks (LDFs), both in development plan documents (DPDs) and supplementary planning documents (SPDs); and
- Improve systems for monitoring outcomes and reviewing employment policies and programmes.

The guide summarises the overall approach to reviewing the need for and allocation of employment land, and the role of employment land reviews within the context of emerging RSSs and LDFs. It presents a three stage approach to employment land reviews including:

Stage 1) Taking Stock of the Existing Situation

The first stage provides advice on the initial steps in the review of existing employment land portfolios. The main objective of Stage 1 is a simple assessment of the 'fitness for purpose' of the existing employment land portfolio, principally in order to identify the 'best' employment sites to be retained and protected in addition to identifying sites that should clearly be released for other uses.

The vast majority of this stage 1 work was undertaken 'in-house' by Bolton Council.

Stage 2) Creating a Picture of Future Requirements

Stage 2 looks at assessing future requirements for employment land through the compilation of a range of complementary techniques to provide a full picture at the regional, sub-regional and local scales. The main objective of the Stage 2 analysis is to quantify the amount of employment land required within the study area during the plan period.

Stage 3) Identifying a 'New' Portfolio of Sites

Having established the best available picture of future requirements, a detailed review of the existing portfolio of employment sites can be undertaken in Stage 3, comparing the available stock with the particular requirements of the area. In addition, the appraisal also includes assessment of a number of Town Centre sites identified by Bolton Council, sites identified through a Site Suggestion consultation exercise and the sites of key employers located on land that has not been allocated for employment uses in the Bolton UDP. In this

way, it is possible to arrive at a full appraisal of the 'gaps' in local employment land provision and set parameters for the identification of new sites.

Stage two and three were completed by Arup and Keppie Massie and this report provides the detailed report on Stages 2 and 3 of the study.

Detailed discussion of the ELS's quantitative methodology can be found in Section 4; the methodology for the ELS site assessment work can be found in Appendix B. An outline of the various methodologies is summarised in the sub-sections below.

3.2 Sources of Information

We have drawn on a number of different sources of information in carrying out this study including:

- Valuation Office Agency statistics on Commercial and Industrial Floorspace
- Greater Manchester Forecasting Model data
- Background documents and reports

In addition we have received a number of pieces of information from Bolton Council, that have included information on the past loss of employment land to other uses, planning application details and information regarding the needs and aspirations of businesses who wish to invest in Bolton, as well as information regarding existing local firms looking to expand / relocate within the Borough.

This information has been incorporated into the study and influenced the conclusions we have reached.

3.3 Quantitative Demand Projections Methodology

In considering the amount of employment land required in Bolton in the future, we have used a range of methods and data sources to undertake a quantitative land demand analysis. We have used three main methods to carry out the quantitative assessment:

- Assessment based on historic employment land take up rates;
- Assessment based on Commercial and Industrial Floorspace Statistics;
- Assessment based on the Greater Manchester Forecasting Model (GMFM) econometric model.

The approach used for each of these three quantitative methods is outlined below.

The three different quantitative methods approach the problem of assessing demand from different directions. Projecting forward historic Employment Land Take Up Rates provides a straightforward answer in terms of the amount of land that could potentially be required, but says nothing of the level of employment that might be provided by this approach.

Projecting forward Commercial and Industrial Floorspace Statistics takes the amount of commercial and industrial floorspace as a starting point, from which we can calculate the land requirement by applying a standard plot ratio.

Analysis based on the Greater Manchester Forecasting Model begins with projections of employment, and requires us to derive figures for floorspace and then land, using employment densities and plot ratios.

3.3.1 Historic Employment Land Take Up Rates

Records for average historic take up rates of employment land are included in Bolton's Annual Employment Land Resource covering the 22 year period from 1985 to end of March 2007.

These records provide a basis for estimating the total amount of employment land required in the future, based on an assumption that similar take up rates are likely continue in the future. This figure represents the 'gross' figure for employment land required, because it does not allow for a loss of employment land to other uses for the study period.

The findings from the analysis using this method are set out in Section 4.2.

3.3.2 Commercial and Industrial Floorspace Statistics (Valuation Office Agency)

The Valuation Office Agency (VOA) provides statistics showing the total stock of commercial and industrial floorspace within Bolton and is made available from the Office for National Statistics (ONS). Past trends were extrapolated forward to 2021 to provide an approximation for employment land demand in the future.

Unlike the previous methodology, the resulting figures relate to net employment land demand rather than gross; they represent the difference between the total amount of employment land in the Borough at two points in time.

The robustness of these statistics is compromised somewhat by the relatively short preceding time period upon which the trends are based (comparable data is only available for 1998 to 2007). The findings from the analysis using this method are set out in Section 4.3.

3.3.3 Greater Manchester Forecasting Model

The quantitative demand assessment provided a series of scenarios derived from employee numbers projected within the Greater Manchester Forecasting Model developed by Oxford Economic Forecasts.

The Forecast for Greater Manchester was developed by Oxford Economic Forecasts and Regional Forecasts Limited as part of the Manchester and Salford Pathfinder project in 2004 / 2005. It has been updated and developed to ensure timeliness and robustness. We have derived employment land requirements from the employee tables within the Forecasting Model using two different scenarios.

The general approach is recommended in the ODPM advice *Employment Land Review: Guidance Note* as providing the most robust basis for producing quantitative forecasts of employment land demand.

A series of assumptions, based on employment densities, plot ratios and vacancy rates, were applied to the employee projections in Bolton which translated employee numbers into employment land scenarios. The difference between the current and future employment land scenarios represents the 'net' amount of employment land that should be planned for over the plan period. It is standard practice to produce net employment land projections through the use of Econometric Modelling.

The two employee projection scenarios used to underpin *this* study are presented below:

- **The Greater Manchester Forecasting Model 2007 Update:** acknowledges the future growth potential within Greater Manchester and recognises many extant economic and regeneration strategies that are relevant to the conurbation. In itself, the Greater Manchester Forecasting Model 2007 Update suggests that Greater Manchester can attain high levels of employment growth over coming years.
- **The 2007 'Accelerated Growth Scenario (AGS)'**: has also been developed, whereby interplay of factors and influences bring about an overall improvement in performance that exceeds that anticipated under the Greater Manchester Forecasting Model 2007.

The findings from the analysis using the GMFM are set out in Section 4.4.

A further, more pessimistic scenario of the GMFM is currently being prepared. It will present a less optimistic forecast for the Greater Manchester economy and lower estimates of the

growth in employment across the region and thus in Bolton, however this has not been produced in time to be included in this analysis.

3.3.4 Loss of Employment Land to Other Uses

Importantly, we have tried to take into account losses of employment land to other uses, to adjust the figures from all three quantitative methods, enabling us to provide gross figures for the analysis based on the Commercial and Industrial Floorspace statistics and the Greater Manchester Forecasting Model net figures, and enabling us to derive comparative net figures for the projections based on historic take up rates. By drawing on information provided by Bolton we have been able to estimate the amount of existing employment land lost to other uses since 2001 (mainly lost to residential development). This is explored in Section 4.5.

Consequently we are able to present both gross and net land figures for each of the eight different demand scenarios we have looked at. This is set out in Section 4.6

3.3.5 Demand to 2026

Bolton have asked us to look at demand for employment land in Bolton beyond the period covered by the Northwest RSS and hence beyond 2021 to 2026.

We have been able to update some, but not all of the scenarios for this further period using the same methodologies explored in the sections above. However while the 2007 AGS provides projected employment figures to 2026, the GMFM 2007 Update only includes data to 2021, so we have not been able to update all of the quantitative models.

Conclusions from all of the quantitative demand models are set out in Section 4.8.

3.4 Qualitative Demand Assessment

It is important to recognise that it is not appropriate to rely on quantitative methods alone. There are limitations to the use and applicability of detailed projections of supply and demand partly due to unknown variables and a degree of questionable accuracy.

Consequently we have carried out a qualitative market assessment of the demand for employment land in Bolton, through discussions with local businesses, developers and commercial agents.

We also met with the Bolton Strategic Economic Partnership (BSEP), Bolton Councils Departmental Management Team (DMT) (consisting of senior officers) and held a number of formal and informal meetings / discussions with council officers and other key public sector stakeholders including MIDAS and NWRA.

This process has been led by commercial agents Keppie Massie and findings from the qualitative market assessment are included in Section 5.

3.5 Site Appraisal Methodology

The project involved the assessment of 44 sites including 17 existing allocated employment sites, a number of sites suggested by landowners and developers through the allocations DPD process, and town centre sites identified by Bolton Council. More detail on the sites is included in Section 6.

Each site was assessed through a combination of site visits and desktop assessments (utilising GIS). Each site was assessed against a number of defined criteria within an assessment matrix under categories, and scored according to a scale of 1-5 based on the strength of its compliance with that criterion. The scoring approach used is outlined in full in Appendix B.

Category	Criteria
1) Availability and Deliverability	<ul style="list-style-type: none"> • Market interest in the site • Ownership constraints
2) Local Market Conditions	<ul style="list-style-type: none"> • Supply of employment land • Vacant floorspace in local market • Local Rents
3) Quality of the site	<ul style="list-style-type: none"> • Contaminated land issues • Topographical constraints • Highways Infrastructure Constraints • Utilities
4) Planning Policy and Sustainability	<ul style="list-style-type: none"> • Quality of the wider environment • Adjacent 'neighbour' constraints • Facilities within locality
5) Strategic Access and Catchment	<ul style="list-style-type: none"> • Public transport accessibility • Road Access • Pedestrian / cycling accessibility • Proximity to areas of economic deprivation • Existing congestion
6) Environmental Sustainability	<ul style="list-style-type: none"> • Previously Developed Land • Location: Sequential Test • Flood Risk • Environmental Constraints
7) Other Policy Considerations	<ul style="list-style-type: none"> • UDP Status

Deriving a score for each of the individual criteria was generated using the main appraisal categories. It was possible to generate values for all sites against a number of the appraisal criteria using:

- Site visits to each of the 44 sites included in the assessment process;
- An automated Geographic Information System (GIS) based process;
- Policy review;
- Interrogation of the employment land monitoring database;
- Assessments on the provision of existing utility provision from United Utilities;
- Assessments of the Highways and Infrastructure constraints from the Highways Agency and from Local Authority transport officers.

3.6 Assumptions

When assessing the 44 sites, a number of key assumptions were made. The most significant of these were with regard to:

Ownership: Assessments on ownership were reached using information provided by Bolton Council, assessment of the employment land monitoring database and, on occasions, through discussions with known land owners. Site ownership details were also provided for each of the suggested sites that came forward through the allocations DPD process.

Contaminated Land Issues: Assessments were based on a number of GIS polygons supplied by Bolton Metropolitan Borough Council and from perceived potential contamination based on looking at the current use on the site. No ground assessments have taken place. The GIS data included in the assessment included polygons on hazardous areas, land fill sites and historic landfill sites.

Facilities: Assessments were based on the town and district centres as defined in the Bolton UDP.

Public Transport Accessibility: Assessments were based on the modified rail and bus GIS data supplied by Bolton Metropolitan Borough Council.

Proximity to areas of Economic Deprivation: Site assessments were based on proximity to the top 15% deprivation ranked areas in the IMD 2007 Lower Layer Super Output Area for England.

Flood Risk: An assessment of the sites was undertaken using GIS polygons from the Environment Agency. The proportion of each site within either Flood Risk Zone 3 or Flood Risk Zone 2 assessed and a score was allocated depending on the level of the overlap.

Environmental Constraints: Assessments used data defined in the Bolton UDP and data acquired from third party sources.

UDP Status: Assessments were based on the existing designations in the Bolton UDP.

Topography: The developability of a site, based on any topographical constraints, was assessed through a site visit.

Utilities: An assessment of the potential constraints to utility provision was provided by United Utilities from the Asset Protection Team. This provided an overview of the current Electricity, Water and Waste Water provision within the sites.

Highways Infrastructure Constraints: The Highways Agency and Bolton Council Transport Officers provided an assessment of the highways infrastructure constraints looking at congestion and potential future infrastructure constraints. This was combined with an observation of existing access roads at each site, describing if the site was already serviced or if new access roads would be required.

4 Quantitative Employment Land Demand Analysis

4.1 Introduction

As discussed in 3.3, we have used three main methods to carry out the quantitative demand assessment:

- Assessment based on historic employment land take up rates;
- Assessment based on Commercial and Industrial Floorspace Statistics;
- Assessment based on the Greater Manchester Forecasting Model (GMFM) econometric model

In addition, we have augmented the findings from the quantitative demand modelling with discussions with local businesses, commercial agents, developers, key stakeholders and Bolton Council. The findings from this qualitative work are included in Section 5.

4.2 Historic Take Up Rates for Employment Land

4.2.1 Introduction

This section discusses the projected demand for employment land based on historic take up of sites within Bolton over the last 22 years (the longest time period for which Bolton Council has accurate data available for). Bolton's April 2007 Annual Employment Land Resource provides the most recent report on industrial land take up.

4.2.2 Historic Trends Analysis

Using the employment land take up results from Bolton's April 2007 Annual Employment Land Resource, it is apparent that the annual take up rate for Industrial Development Completions in Bolton has varied enormously. Take up has been greater than 18ha in the year to March 2004 and year to March 2007. By contrast take up has been as little as 2.1ha in 1987 and 4ha in 1994.

The annual take up for each of the years back to 1985 is presented in Table 2 below.

Table 2: Industrial Development Completions in Bolton 1985 - End of March 2007 in Hectares

Year	Completions (ha)
1985	5.3
1986	3.2
1987	2.1
1988	3
1989	8.8
1990	14
1991	8.2
1992	4
1993	11.5
1994	6.7
1995	4
1996	5.8
1997	8.68
1998	5.23
1999	10.21
2000	9.86
2001	12.45
2002	8.4
Year to end March 2004	18.59*
Year to end March 2005	6.97
Year to end March 2006	10.1
Year to end March 2007	18.56
Total	185.65
Annual Average	8.44
Average 1997 – End of March 2007	10.9
Average 2002 – End of March 2007	12.52

* Please Note: the high figure for year to end March 2004 was, in part, due to this reporting year incorporating 15 months of monitoring as opposed to 12 months for other reporting years due to Bolton Council changing from a January – January monitoring framework to April – April monitoring per annum.

Average annual take up rates have risen since Bolton Council began their monitoring. In the late 1980's, from 1985-1990, the average rate of Industrial Land Completions was just 3.96 hectares per annum. Over the 22 years that the take up rates have been monitored the average rate of Industrial Land Completions has been 8.44 hectares per annum. Over the last ten and five years, Industrial Land Completions have averaged 10.9 and 12.52 hectares per annum respectively. These are presented on the Figure 1 below.

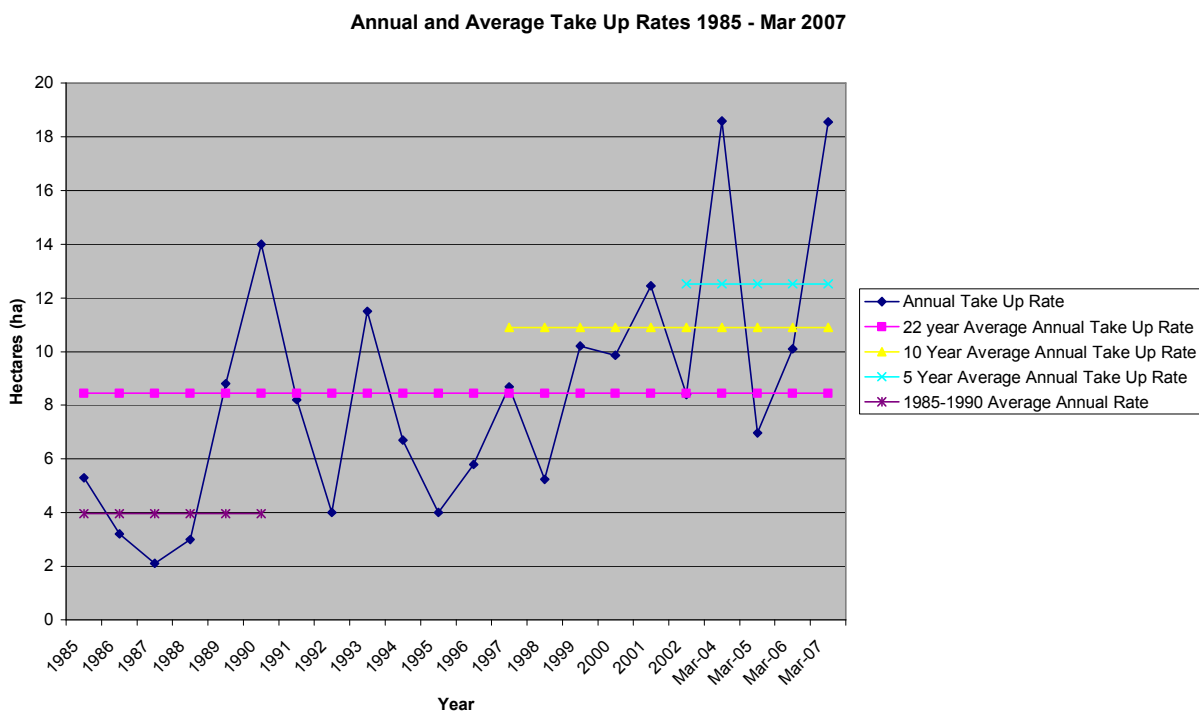


Figure 1: Annual and Average Industrial Land Take Up Rates in Bolton 1985 – March 2007

By projecting forward the average annual historic take up rates to the end of March 2022³ we can calculate the amount of employment land that could be required in Bolton. However, projections based on the average take up rate over the past five or ten years provide a different, higher figure than if based on the picture over the previous 22 years. Based on Average Industrial Land Completions from 1985 – March 2007 (8.44 hectares per year) Bolton could require as little as 126.6 hectares over the period to the end of March 2022. However projecting forward the take up rates from the last five years would suggest Bolton would require as much as 187.8 hectares over the same period.

The effect of projecting forward these different average historic take up rates on the total employment land requirements is shown on Table 3 below.

Table 3: Project Employment Land Requirements – based upon average Historic Take Up Rates

	Average Annual Employment Land Take (ha)	Total Land Required April 2007 – End of March 2022 (ha)
Based on last 22 years	8.44 ha	126.6 ha
Based on last 10 years	10.9 ha	163.5 ha
Based on last 5 years	12.52 ha	187.8 ha

³ We have projected to the end of March 2022 to ensure we include all of 2021 in our projections and part of 2022 in line with how this is recorded by Bolton Council.

4.2.3 Loss of Employment Land to Other Uses

Projecting forward historic employment land take up rates provides a gross figure of land required. However the Council's most recent Annual Monitoring Report indicates that Bolton has lost 5.5ha of employment land to other uses in the last two years. Consequently, in the last two years there has been a gross addition of 28.66 ha of employment land, but only a net addition of 23.16 ha. For more details on the loss of employment land to non employment uses see Section 4.5.

4.3 Commercial and Industrial Floorspace Statistics (VOA)

4.3.1 Introduction

Using data from the Valuations Office Agency (VOA) available through the National Statistics website (www.statistics.gov.uk) we can obtain Commercial and Industrial Floorspace Statistics. These show total amount of office, factory and warehouse floorspace (occupied and unoccupied) in Bolton Borough for each year between 1998 and 2007 (the 2007 statistics were published partly through this study). These are shown on Table 4 below:

Table 4: Commercial and Industrial Floorspace Statistics – Bolton 1998-2007

Year	000 sq. m									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Commercial and Industrial Floorspace	2849	2855	2893	2958	2996	2965	2959	2764	2770	2770

It should be noted that the area measurement conventions used by the Valuation Office Agency (VOA) and those used in the econometric models differ somewhat, thus requiring some data alignment affecting the statistics for office and warehouse floorspace, adjusting the figures accordingly results in the figures shown on Table 5 below:

Table 5: Adjusted Commercial and Industrial Floorspace Statistics - Bolton 1998-2007

Year	000 sq. m										Average Annual Change 1998-2007
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
Commercial and Industrial Floorspace	2917	2925	2969	3038	3081	3052	3046	2847	2857	2863	
Annual Change		8	44	69	43	-29	-6	-199	10	6	-6

The Commercial and Industrial Floorspace statistics for Bolton between 1998-2007 reveal a slight downward trend in the quantity of commercial and industrial floorspace with an average annual fall of around .6000 sq. m.

4.3.2 Estimates of Demand for Floorspace Growth to 2021

The average change in these floorspace figures over the nine years from 1998-2007 have been projected forward to 2021 to provide estimates on quantity of commercial and industrial floorspace at the end of 2021.

The changes in floorspace are summarised in **Table 6** below.

Table 6: Change in Commercial and Industrial Floorspace in Bolton (Based on VOA Floorspace Trends) 2007-2021

	Bolton Council – sq. m		
	2007	2021	Change
Commercial and Industrial Floorspace	2,863,000	2,779,000	-84,000 (-2.9%)

Table 6 shows that over the period to 2021, if present trends persist, Bolton will see a decrease of around 2.9% of its commercial and industrial floorspace, around 84,000 sq. m.

4.3.3 Floorspace Growth Translated to Employment Land

The floorspace results were translated into *employment land* projections by applying a plot ratio of 40%. This is presented in Table 7.

Table 7: VOA Commercial and Industrial Floorspace Projections - Translated into Land

	Bolton Council			
	2007	2021	+ / - Net Projection	% Change
Commercial and Industrial Floorspace (sq. m)	2,863,000	2,779,000	-84,000	-2.9%
Translated to Land via plot ration of 40% (sq. m)	7,157,500	6,947,500	-210,000	
Hectares	715.75	694.75	-21.4	

Therefore, based on trends in commercial and industrial floorspace statistics, the employment land requirements for Bolton between 2007 and 2021 are projected to decline slightly, by 21.4 hectares, a decline of around 2.9% of the existing stock of employment land.

In analysing the VOA data it was noticed that there was a significant decline in floorspace between 2004/5. This decline, is regarded to be an anomaly in the data and is likely to be the result of the revaluation exercise that took place by the VOA and came into effect at that time in 2005 – (please see www.voa.gov.uk for more details). Therefore the data indicates a decline in floorspace at a time when other data held by Bolton Council indicates a general increase in floorspace in the borough. For example, a recent Economic Development Zone (EDZ) evaluation that focused on sub areas of the borough and used VOA data shows significant growth from 1998 to present, which is therefore contrary to the decline indicated in the VOA data used for this report.

The Commercial and Industrial Floorspace based projections are based on VOA data from 1998-2007 which has then been projected forward to 2021 and beyond. However, the Commercial and Industrial Floorspace projections are based on a relatively limited amount of data (from 1998 to 2007) when compared to the data used for historic take – up rates (1985 – 2007) and is therefore less reliable when compared to this data. The data has also been projected forward using a simplistic straight line projection and the data from 1998 - 2007 is much more volatile and so the figures produced by this straight line projection should be used and compared with caution to the other projections, particularly when considering the issues discussed earlier in this section regarding the accuracy of the data.

4.4 Greater Manchester Forecasting Model

4.4.1 Introduction

This method calculates employment land projections on the basis that there is a clear link between forecast employment levels and subsequent floorspace requirements. The modelling in this section is based on Oxford Economic Forecasting employee projections produced for the Greater Manchester Authorities. As discussed in section 3.3.3, the employee projection forecasts for Bolton in this study are based on:

- The Greater Manchester Forecasting Model 2007 (GMFM 2007); and
- The Greater Manchester 2007 Accelerated Growth Scenario (AGS)

4.4.2 Notes on The Accelerated Growth Scenario (AGS)

As discussed in 3.3.3, the AGS has been developed by considering interplay of factors and influences that combine to bring about an overall improvement in performance that exceeds that anticipated under the Greater Manchester Forecasting Model 2007. The starting point for the AGS was a sift by the AGS sub-group of policies and development schemes that could be expected to have a significant impact on the economy of Greater Manchester. The final list of schemes focussed on employment sites that were likely to come forward (i.e. weren't overly "aspirational") that would be creating jobs in key growth sectors, and that were likely to create over 500 jobs. Just over 30 schemes of potential strategic significance at sub-regional level were included in the AGS analysis. Three of these schemes were in Bolton and they are presented in Table 8 below:

Table 8: Bolton Employment Schemes within the Accelerated Growth Scenario

Site name	Type of development	Date or time period	Jobs	Sectoral Impact
Bolton Innovation Zone	Mixed-use development	Underway & completed within 10 years	4,000FTE	Education & Advanced Manufacturing/Business Services & Financial Services/Health/Retail (25/65/5/5 split)
Church Wharf	Mixed-use development	Underway & completed within 3-5 years	2,000	Financial & Business Services/hotel, leisure, cafes and restaurants, retail, a multi storey car park and residential dwellings restaurants (70/30 split)
Horwich Loco Works	Major business park	Underway & completed within 3/7 years	Up to 4,700	Advanced Manufacturing/Business Services, Financial Services and Housing (50/50 split)

The AGS 2007 did not assume that all the jobs identified on strategically significant sites would be additional to what is expected in the baseline forecast. Consequently OEF scaled back the direct jobs estimates to take into account effects of displacement. OEF therefore scaled back the jobs in Bolton from 10,700 to 6,400. More details on the methodology underpinning the AGS are available within Oxford Economics technical paper "Greater Manchester Forecasting Model 2007-8 Accelerated Growth Scenario January 2008"

4.4.3 Employment Changes within the two scenarios

Table 9 presents the projected growth forecasts across the 30 employment sectors for the period 2007 - 2021 for the two scenarios.

Table 9: Change in Employees In Bolton by Sector 2007-2021

Employees In Bolton	Greater Manchester Forecasting Model 2007 (GMFM 2007)				The Greater Manchester Accelerated Growth Scenario 2007 (AGS 2007)			
	2007	2021	+/- 2007 / 2021	% Change	2007	2021	+/- 2007 / 2021	% Change
Food Products, Beverages and Tobacco	2,588	2,178	-410	-16%	2,588	2,178	-410	-16%
Textiles and Leather	1,646	532	-1,114	-68%	1,646	532	-1,114	-68%
Wood and Wood Products	154	77	-77	-50%	154	77	-77	-50%
Pulp Paper and Printing	1,576	964	-612	-39%	1,576	964	-612	-39%
Coke, Oil and Nuclear	0	0	0	0%	0	0	0	0%
Chemicals	765	530	-235	-31%	765	896	131	17%
Rubber and Plastics Products	1,336	988	-348	-26%	1,336	988	-348	-26%
Other Mineral Products	232	223	-9	-4%	232	223	-9	-4%
Metals	1,751	715	-1,037	-59%	1,751	715	-1,037	-59%
Machinery and Equipment NEC	1,526	829	-697	-46%	1,526	1,538	12	1%
Electrical and Optical	1,331	815	-516	-39%	1,331	1,449	118	9%
Transport Equipment	659	401	-257	-39%	659	714	56	8%
Manufacturing NEC	1,301	900	-401	-31%	1,301	900	-401	-31%
Electricity, Gas and Water	450	254	-196	-44%	450	254	-196	-44%
Construction	6,128	6,964	835	14%	6,128	7,315	1,187	19%
Distribution	22,573	23,042	469	2%	22,573	23,169	596	3%
Hotels and Catering	5,744	6,670	926	16%	5,744	6,975	1,231	21%
Transport and Communications	3,881	4,079	198	5%	3,881	4,190	309	8%
Financial Services	3,151	3,155	5	0%	3,151	3,719	568	18%
Business Services	16,993	22,345	5,353	31%	16,993	26,036	9,043	53%
Public Admin and Defence	12,282	12,307	25	0%	12,282	12,368	86	1%
Education	8,778	9,678	900	10%	8,778	10,218	1,440	16%
Health and Social Work	11,533	13,012	1,479	13%	11,533	13,235	1,702	15%
Other Personal Services	4,900	5,708	808	16%	4,900	5,903	1,003	20%
Manufacturing	14,865	9,153	-5,713	-38%	14,865	11,174	-3,691	-25%
Rest of Production	6,579	7,217	639	10%	6,579	7,569	991	15%
Services	89,834	99,997	10,163	11%	89,834	105,812	15,978	18%
Total	111,278	116,367	5,089	5%	111,278	124,555	13,278	12%

The table can be summarised as follows:

The GMFM 2007 Update Scenario:

- In this scenario, overall growth in Bolton is expected to be relatively limited over the period 2007 to 2021 at around 5,089 employees. This represents 111,278 employees in 2007 and 116,367 employees in 2021.
- This features a large decline in employment in the manufacturing sector countered by substantial increases in employment in business services.
- The GMFM 2007 Update shows a decline in employees in all thirteen manufacturing sectors within the 'manufacturing' industry. Employee totals in manufacturing decline from 14,865 to 9,153, representing a loss of 5,713 employees to 2021.
- In contrast, the business services sector is anticipated to grow from 16,993 employees to 22,345 employees, an increase of 5,353 employees (31%).

The 2007 Accelerated Growth Scenario (AGS)

- The AGS projects an overall increase of around 13,278 employees in Bolton over the period, with the number of employees rising from 111,278 in 2007 to 124,555 in 2021. This is more than twice the growth expected under the GMFM 2007 scenario.

- As with the GMFM 2007 Update, it is anticipated that there will be a decline in the manufacturing sector, with employee numbers set to decrease by 3,691. However manufacturing employment is forecast to decline by less in the 2007 AGS than in the GMFM 2007 Update.
- The business service sector is expected to see even greater growth, from 16,993 employees in 2007 to 26,036 employees in 2021. This is an increase of 9,043 jobs or 53%.

4.4.4 Translating Employees to Floorspace and Land

Employee projections for Bolton for period 2007 to 2021 were produced in the GMFM 2007 Update and the 2007 AGS and translated into first floorspace and then employment land requirements using a number of assumptions including:

- the relationship between types of employment and the different Use Classes, (i.e. most people working in the pulp, paper and printing sector are deemed to work in factory premises i.e. B2 premises)
- employment densities
- vacancy rates
- plot ratios

Employee change relating to sectors such as health and education, which are not traditionally classified as inhabiting 'B' Use Class land, have been excluded from this and subsequent parts of the analysis.

Floorspace Projections

The tables below summarise the employment floorspace projections for the period 2007 to 2021, based upon changes in employee numbers for each industrial sector. Employee numbers have been translated into floorspace using employment densities. Employment densities have been taken from English Partnerships guidance and relate to the three land use categories (office, industrial and warehousing). These suggested:

- General office buildings with 19sq. m per employee.
- General industrial buildings with 34sq. m per employee.
- General warehousing buildings with 50sq. m per employee.

The resulting figures in Table 10 below are net employment floorspace figures, i.e. they include the take up of floorspace to accommodate new employment, against the loss of existing employment floorspace to other land uses.

These should be used as an indicative measure of floorspace and should not be used to give definitive floorspace requirements for the Borough.

Table 10: Bolton GMFM 2007 Update and AGS 2007 Commercial Floorspace Projections

Scenario	Gross Internal Floorspace sq. m		Increase / decrease (sq. m)	%
	2007	2021		
GMFM 2007 Update Scenario	1,329,420	1,249,908	-79,512	-6%
2007 AGS	1,329,420	1,405,196	+75,776	+5.7%

In summary, the table above shows the change in gross internal floorspace for both scenarios derived from the employee figures from the GMFM 2007 Update and 2007 AGS. It indicates:

- A slight decrease in gross internal floorspace of around 5% under the GMFM 2007 Update, a projected decrease of around 79,500 sq. m.
- A slight increase in gross internal floorspace under the 2007 AGS projections of 5.7%, an increase of approximately 75,700 sq. m.

Employment land projections

Once the overall floorspace projections have been calculated, these can be translated into employment land. This is calculated using plot ratios, defined as the ratio between the total floorspace used for employment and the total site area of the employment land use. We have applied a standard plot ratio of 40%. This assumes that given employment buildings occupy, on average, 40% of the total site area with the rest given over to other ancillary uses such as parking and landscaping. The 40% figure is recommended in the guidance on employment land reviews and has been applied in relation to previous studies.

In addition, we incorporate an ideal vacancy rate to take into account vacant premises, turnover (industrial properties will rarely be fully let at any point in time).

We have applied differential vacancy rates for offices, factories and warehousing – which inflates the land requirements for each use class.

Table 11 shows the result of the calculations and the amount of employment land required under each scenario to 2021.

Table 11: Net Additional Land Projections from 2007-2021 (ha)

	All B Uses
GMFM 2007 Update	-21.4 ha
Accelerated Growth Scenario	+ 20.7 ha

Overall, the table above indicates that net demand for employment land in Bolton under the GMFM 2007 update could decrease by 21.4ha overall. Under the Accelerated Growth Scenario the total net demand for employment land in Bolton could increase by 20.7ha to 2021.

4.4.5 Capital Substitution for Labour and its Implications.

Under the methodology used to calculate floorspace and then land set out in 4.4.4 above, loss of employees in manufacturing results in a decline in the amount of land required for factory premises. However loss of *employment* in manufacturing *does not necessarily mean loss of employment land*. Experience in many manufacturing sectors is that workers are replaced by automation with car plants being the obvious example. GVA projections provided by Oxford Economics alongside the employee projections indicate that GVA in many of the manufacturing sectors in Bolton is projected to increase over the period to 2021.

Projected changes in GVA compared to projected changes in employment are shown in Table 12 below.

Table 12: GMFM 2007 Update - Project Changes in GVA Relative to Project Changes in Employment

Manufacturing Sector	GVA Projections (£000s)				Projected Change in Employment
	2007	2021	Change	%	
Food Products, Beverages and Tobacco	124.9	151.8	26.9	22%	-16%
Textiles and Leather	46.9	27.5	-19.4	-41%	-68%
Wood and Wood Products	4.0	2.8	-1.2	-30%	-50%
Pulp Paper and Printing	56.4	52.8	-3.6	-6%	-39%
Chemicals	63.1	82.2	19.1	10%	-31%
Rubber and Plastics Products	48.0	53.0	5.0	10%	-26%
Other Mineral Products	13.9	22.2	8.3	60%	-4%
Metals	62.3	49.6	-12.7	-20%	-59%
Machinery and Equipment NEC	65.1	62.4	-2.7	-4%	-46%
Electrical and Optical	54.0	74.5	20.5	38%	-39%
Transport Equipment	37.5	44.6	7.1	19%	-39%
Manufacturing NEC	40.9	35.3	-5.6	-14%	-31%

The table above shows that although large falls in employment are projected in a number of manufacturing sectors, GVA is only projected to fall in six of the twelve manufacturing sectors. GVA is projected to increase in the other six, and significant increases in GVA are identified in the “other mineral products” sector (where GVA is projected to increase by 60%) and the “electrical and optical” sector (38%).

The implication of the GVA statistics is that although employment may fall, industry will remain and remain in the area occupying land and buildings but with a higher ratio of capital to labour.

The implications for the quantitative analysis based on the Greater Manchester Forecasting Model are profound. The logical conclusion from the GVA figures is that a loss of employment may result in little or no loss of employment land.

Projecting floorspace and therefore land taking into account projected changes in GVA makes some potentially major changes to the numbers presented in Section 4.4.4 above.

If we were to assume manufacturing sectors that show an increase in GVA to 2021 experience no loss of land, but instead substitute capital for labour, and that industries whose GVA is declining reduce their land requirements at the same rate as the GVA decline we see a dramatic change in the land requirements.

This means that instead of the slight decline in floorspace and land suggested by the GMFM 2007 Update, the continuing presence of a healthy manufacturing sector in Bolton (albeit with fewer employees) will require significantly more land than the figure shown in Table 11.

Although we do not have the accompanying GVA tables to perform a similar analysis for the Accelerated Growth Scenario, assuming GVA projections for the 2007 AGS would show similar trends, then the reduction in manufacturing employment shown in the AGS would also translate into a smaller decline in the loss of manufacturing premises and land under the AGS and again, a requirement for more land than the figure shown in Table 11.

The effects of applying a capital substitution model to the land calculations derived from the econometric models are set out in Table 13 below.

Table 13: Net Additional Land Projections from 2007-2021 (ha)

Scenario	Standard Approach	Capital Substitution Model
GMFM 2007 Update	-21.4 ha	+30.6 ha
Accelerated Growth Scenario	+ 20.7 ha	+45.1 ha

In summary, Table 13 shows that applying a capital substitution model results in significant changes to the net land requirements derived from both the GMFM 2007 Update and the 2007 AGS:

- Land requirements under the GMFM 2007 update using the standard approach suggest a net fall of around 21.4 hectares of employment land in Bolton. The capital substitution model suggests there may actually be a net increase in demand for land of around 30 hectares.
- Under the 2007 AGS, the standard approach suggests a net increase of 20.7 hectares is required. The capital substitution model suggests increased land is required, to accommodate a continued presence of manufacturing, though as the decline in manufacturing employment is less under the AGS than under the GMFM update (see 4.4.3) the effects of applying a capital substitution model are less dramatic than the effects on the GMFM 2007 Update.

4.5 Loss of Employment Land to Other Uses

The three models we have used to arrive at different figures for the amount of employment land required. Historic Take Up Rates Analysis present a **gross** figure which includes an implicit assumption about land lost to other uses. This means it is not necessary to include the estimated amount of annual land lost to other uses as this would result in double counting. However the other two models arrive at **net** figures, and while these figures in themselves incorporate losses of employment land, they tell us nothing about the gross amount of land required.

This section summarises the actual and potential employment land losses in Bolton based on planning applications from 2001 to present. A loss of employment land is when a planning application for a non employment use (i.e. land uses that are not within the B Use Class Classification such as residential and retail) is approved on employment land that is either designated as an employment land allocation in the Bolton UDP (Policy E2 or E5) or on employment land that is not protected/ allocated under the Bolton UDP.

The information covers employment land where non-employment use development has been completed or is under construction; and potential schemes where planning permissions has been granted or is to be determined.

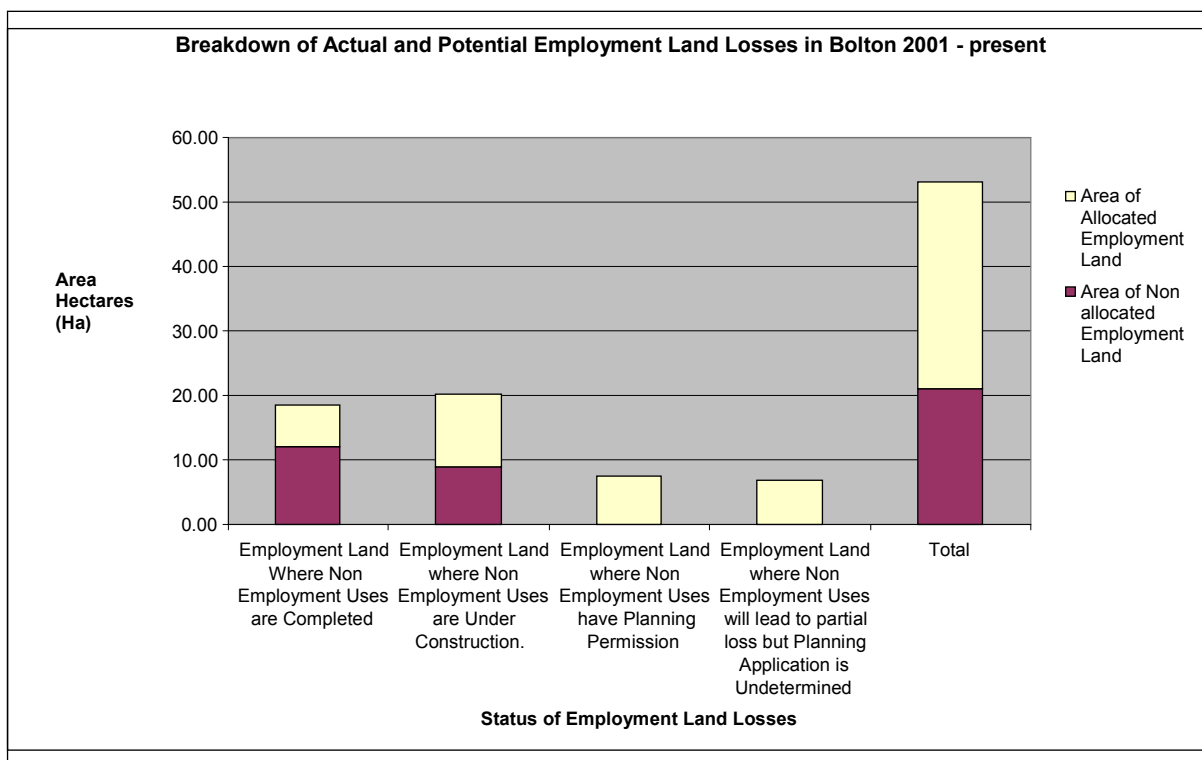


Figure 2: Actual and Potential Employment Land Losses in Bolton

In summary:

- **Employment Land with Completed Non Employment Use Schemes** - Since 2001 Bolton has lost a total of 18.48 ha of employment land to non employment uses.
- **Employment Land with Non Employment Uses under Construction** - In addition to the employment land losses through completed development of non employment uses, further losses can be expected over the next few years as further developments are completed. Former employment sites currently being redeveloped for non-employment uses (under construction) total around 20.14 ha.
- **Potential Employment Land Losses** - Finally there are a number of 'pipeline' developments, schemes with planning permission or seeking permission that could come forward leading to further losses of employment land. Based on information provided, a further 14.71 ha of employment land could potentially be lost to non employment uses.

Over recent years a total of 18.48 ha of employment land has been lost to non employment uses in Bolton, a further 20.14ha will be lost as sites under construction are completed, and a further 14.71 ha could be lost in the future if sites with planning permission are brought forward.

Confirmed losses since 2001 total some 38.48 hectares, or around 6.4 hectares per year. If this rate of loss were to continue, Bolton would lose 90 hectares of employment land to other uses over the period to 2021.

However, additional information supplied to us by Bolton towards the end of this study has provided further detail in relation to the loss of employment uses in mill buildings, either from demolition or conversion to other uses. This data shows that between 1998 and 2008 Bolton lost more than 189,000 sq. m of mill floorspace to residential or other uses that is not captured by the information in the figures above. Allowing for the land that these mills occupy, Bolton Council have suggested this may be a further 20 hectares of previous

employment land lost to other uses since 1998. These figures are included with this document as Appendix D.

Taking into account the data summarised in Figure 2 and the additional data on loss of mills, these figures suggest that Bolton has lost more like 48 hectares since 2001 or around 8 hectares of employment land per annum since 2001. If losses were to continue at this increased rate⁴, then, over the period to 2021, Bolton would lose 112 ha of employment land to other uses.

This information enables us to take the net figures produced by looking at Commercial and Industrial Floorspace Statistics and the econometric models, and taking into account losses of employment land to other uses, calculate the gross amounts of land for employment uses required for these scenarios.

4.6 Summary – Demand to 2021

Overall we have looked at 8 separate scenarios:

- 3 scenarios that project forward employment land requirements based on the Historic Employment Land Take Up Rates for Bolton. These produce a **gross** amount of land that does not take into account loss of employment land to other uses.
- 5 scenarios that produce **net** additional requirements based on Commercial and Industrial Floorspace Trends from 1998-2007, the Greater Manchester Forecasting Model 2007 Update, the Accelerated Growth Scenario Employee Tables and two further scenarios based on capital substitution interpretations of the GMFM 2007 Update and the 2007 AGS update (using the GVA projections in manufacturing). These figures produce net requirements, but don't indicate a gross amount of land required.

This study uses these different methodologies to produce a range of land requirements and a greater understanding of the likely land requirements.

The historic employment land take up figures provide potentially the most accurate forecasts of gross employment land requirements as records are made as gross. This is primarily because the forecasts use gross land figures as an input in order to produce gross land figure outputs. However, basing future employment land requirements solely on historic take up rates are no longer viewed as appropriate for estimating future employment land requirements.

The Commercial and Industrial Floorspace based projections are based on VOA data from 1998-2007 which has then been projected forward to 2021 and beyond. However the Commercial and Industrial Floorspace projections are based on a relatively limited amount of data (from 1998 to 2007). The data has also been projected forward using a fairly simplistic straight line projection – the data from 1998 -2007 is much more volatile and so the figures produced by this straight line should be compared with caution to the other projections.

Even the econometric projections pose challenging problems for calculating the amount of employment land required. It is apparent that the GMFM 2007 Update and Accelerated Growth Scenario present two significantly different employment and thus employment land scenarios. Employment figures translate into land through application of employment densities and plot ratios. In terms of manufacturing GVA figures suggest *capital substitution for labour* may instead be taking place, whereby a reduction of the number of employees doesn't necessarily mean a reduction in the amount of employment land required.

⁴ Loss of employment land to other uses needs to be carefully monitored. The rate of loss will be subject to outside factors and may not continue at recent rates or may increase. Factors that could slow the loss of employment land for residential development include the current problems in the housing market. In addition it might be argued that as sites are picked off and developed, the remaining supply of employment land may be less attractive or even unsuitable for redevelopment, or could contain profitable businesses that are unwilling to relocate.

In any case, the econometric projections provide net figures, which are difficult to compare with the gross projections as exemplified in the Historic Take Up Rate method, as the former represents the difference between employment land lost and land gained, whilst the latter indicates additional land to be allocated. Therefore whilst the quantitative projections provide data relating to the net demand for land, they offer little in the way of firm guidance as to the gross amount of land Bolton Council should be allocating as part of their emerging Local Development framework. These eight scenarios are summarised on Table 14 below:

Table 14: Scenario Summary Table – Demand for Employment Land to 2021

Scenario	Land Requirement (ha)	Net or Gross?
1. Historic Take Up Rates – 22 year average	126.6 ha	Gross
2. Historic Take Up Rates – 10 year average	163.5 ha	Gross
3. Historic Take Up Rates – 5 year average	187.8 ha	Gross
4. Commercial and Industrial Floorspace (VOA) Projections	-21.4 ha	Net
5. GMFM 2007 Update	-21.4 ha	Net
6. 2007 AGS	+20.7 ha	Net
7. GMFM 2007 Update – Capital Substitution Model	+30.6 ha	Net
8. 2007 AGS – Capital Substitution Model	+45.1 ha	Net

The eight scenarios show land requirements ranging from a *net decrease* of 21.4 hectares based on the GMFM 2007 Update to a large gross requirement of 187.8 hectares based on the Historic take up rates over the last 5 years.

4.6.1 Incorporating Loss of Employment Land to Other Uses

By taking into account losses of employment land to other uses, we can derive a set of *gross* figures for each of the 8 scenarios (please note that scenarios 1, 2 and 3 are already gross figures and therefore employment land losses are not applied), by taking into account the likely loss of around 112 hectares of employment land to other uses over the period to 2021. This is summarised on Table 15 below.

Table 15: Scenario Summary Table – Demand for Employment Land to 2021 including Net and Gross Demand Figures

Scenario	Land Requirement (ha)	
	Net	Gross
1. Historic Take Up Rates – 22 year average	N/a	126.6 ha
2. Historic Take Up Rates – 10 year average	N/a	163.5 ha
3. Historic Take Up Rates – 5 year average	N/a	187.8 ha
4. Commercial and Industrial Floorspace (VOA) Projections	-21.4 ha	90.6 ha*
5 GMFM 2007 Update	-21.4 ha	90.6 ha*
6. 2007 AGS	20.7 ha	132.7 ha*
7. GMFM 2007 Update – Capital Substitution Model	30.6 ha	142.6 ha*
8 2007 AGS – Capital Substitution Model	45.1 ha	157.1 ha*
* derived figures, using loss of employment land to non employment uses		

Table 15 shows a gross land requirement to 2021 of between 90.6ha and 187.8ha, with the four econometric model derived scenarios (preferred in the ODPM guidance) producing gross land requirements of between 90.6 – 157.1ha. These figures assume losses of employment land continue at the rate of around 8 ha per year.

Should losses of employment land to other uses decline (if Bolton were to actively seek to prevent the loss of employment land to other uses by turning down planning applications for residential conversions for example), then the gross figures shown for scenarios 4-8 would decline, however, were losses of employment land to accelerate, then this could mean a larger gross figure is required.

4.6.2 Incorporating 'Margin of Choice'

In reality, even if Bolton accepted the most pessimistic projections from the various scenarios, from the Commercial and Industrial Floorspace trends or the GMFM 2007 Update, these results do not imply that Bolton would only require around 60-70 hectares of employment land.

Instead, enough land must be provided to allow companies and employers a 'margin of choice'. It is, therefore, standard practice to allow for a degree of flexibility or 'margin of choice' by allocating more land than is required in the allocations by applying a stated factor into the demand calculations.

Determining a robust figure is not an exact science, and will (due to the lack of specific studies on the matter) always be subject to a certain degree of subjectivity. Past studies have used a range of figures to represent flexibility; for example, some studies state that to allow a margin for choice, variety and uncertainty, a crude margin could equate to as much as 50%, suggesting that for a 10-year planning period, there should be a 15 year supply of land.

For this study reference has been made to the North West Employment Land Study to ensure consistency with the regional levels and other ELSs produced by Arup in the North West region. The NW report stated that a figure of 20% be used for Boroughs within the Greater Manchester Sub-Region. We have adopted this figure for the Bolton ELS.

Table 16 shows the projected land required incorporating a margin of choice.

Table 16: Scenario Summary Table – Demand for Employment Land (ha) to 2021 – incorporating Margin of Choice

Scenario	Land Requirement (ha)	
	Gross Requirement	Incorporating 20% Margin of Choice
1. Historic Take Up Rates – 22 year average	126.6 ha	151.9 ha
2. Historic Take Up Rates – 10 year average	163.5 ha	196.2 ha
3. Historic Take Up Rates – 5 year average	187.8 ha	225.4 ha
4. Commercial and Industrial Floorspace (VOA) Projections	90.6 ha	108.7 ha
5. GMFM 2007 Update	90.6 ha	108.7 ha
6. 2007 AGS	132.7 ha	159.2 ha
7. GMFM 2007 Update – Capital Substitution Model	142.6 ha	171.1 ha
8. 2007 AGS – Capital Substitution Model	157.1 ha	188.5 ha

Applying a *margin of choice* to each of the scenarios results in gross land requirements to 2021 of between 108.7 and 225.4 ha. The four econometric model derived scenarios (scenarios 5-8) produce gross land requirements of between 108.7 – 188.5ha.

4.7 Demand to 2026

Bolton Council have asked this study to look at demand for employment land in Bolton beyond the period covered by the Northwest RSS and hence beyond 2021 to 2026.

It has been possible to update some, but not all of the scenarios for this further period using the same methodologies explored in the sections above, and incorporating a 20% margin of choice and increased loss of employment land to other uses (loss of employment land to other uses is projected to be around 8 hectares per year, this suggest Bolton will lose around 112 ha to 2021 and a further 40 hectares for the period 2021-2026 producing a total loss of 152 ha) to provide gross figures.

However while the 2007 AGS provides projected employment figures to 2026, the GMFM 2007 Update only includes data to 2021, so to has not been possible to update Scenarios 5 and 7.

4.7.1 Historic Take Up Rates

Estimating demand to 2026 based on historic take up rates has been achieved by continuing to project historic take up rates forward beyond 2021 based on the annual average rates for the last 5, the last 10 and the last 22 years. This produces gross requirements of 250.4 ha, 218 ha and 168.8 ha respectively.

By applying a 20% margin of choice we can produce a gross requirement to 2026 of between approximately 200 and 300 ha.

4.7.2 Commercial and Industrial Floorspace Projections

Commercial and Industrial Floorspace predictions to 2021 show a slight decrease in the amount of commercial and industrial floorspace, projecting this trend further into the future results in a further slight decrease in floorspace of around 30,000 sq. m and an overall net decrease in demand for employment land of 29 ha to 2026.

By factoring in loss of 152 ha employment land to other uses, and applying a 20% margin of choice we can produce a gross requirement to 2026 of 147.6 ha.

4.7.3 2007 AGS

The 2007 AGS suggests an increase of employment in Bolton of 13,278 to 2021. The increase to 2026 is projected to be 15,373. By applying employment densities, plot ratios and taking into account vacancy rates we are able to calculate a net employment land requirement of 16.7ha.

By factoring in the projected loss of 152 ha employment land to other uses, and applying a 20% margin of choice we can produce a gross requirement to 2026 of 202.5ha.

4.7.4 2007 AGS Capital Substitution Model

If we are to assume that capital substitution for labour is taking place in manufacturing, factor in loss of 152 ha employment land to other uses, and apply a 20% margin of choice we can produce a gross requirement to 2026 of 242.8 ha.

Table 17 below summarises the gross requirement for 6 of our 8 scenarios to 2026, and highlights the potential additional employment land requirements for the period from 2021-2026.

Table 17: Scenario Summary Table - Land (ha) to 2021 and 2026 – incorporating Margin of Choice

Scenario	Land Requirement (ha)		
	Gross Requirement to 2021 (including Margin of Choice)	Gross Requirement to 2026 (including Margin of Choice)	Additional Land Requirement 2021 - 2026
1. Historic Take Up Rates – 22 year average	151.9 ha	202.6 ha	50.6 ha
2. Historic Take Up Rates – 10 year average	196.2 ha	261.6 ha	65.4 ha
3. Historic Take Up Rates – 5 year average	225.4 ha	300.5 ha	75.1 ha
4. Commercial and Industrial Floorspace (VOA) Projections	108.7 ha	147.6 ha	38.9 ha
5. GMFM 2007 Update	108.7 ha		
6. 2007 AGS	159.2 ha	202.5 ha	43.3 ha
7. GMFM 2007 Update – Capital Substitution Model	171.1 ha		
8. 2007 AGS – Capital Substitution Model	188.5 ha	242.8 ha	54.3 ha

4.8 Conclusions⁵

This section concludes the quantitative demand chapter but does not represent an overall conclusion to the level of demand for employment land in Bolton. Discussions with a range of key stakeholders have been used to refine the figures captured by the quantitative modelling and this set of conclusions should be read in conjunction with the discussions and conclusions set out in section 5.

4.8.1 Demand to 2021

Overall, the quantitative demand scenarios we have looked at suggest a gross requirement of between 108.7 ha and 225.4 ha from 2007 to 2021. However, in estimating demand, the ODPM Guidance recommends the use of both historic take up rates and econometric models in deriving a preferred estimate of demand and therefore in accordance with the guidance the gross land requirements produced by the historic take up rates will not be solely relied upon, especially those derived from the take up rates over the last five years but will be moderated in line with the findings produced from the other scenarios.

The econometric model derived scenarios produce gross land requirements of between 108.7 – 188.5ha to 2021. The lowest of these figures is produced by the GMFM 2007 Update but is derived, in our view, from a simplistic approach to the relationship between loss of manufacturing employment and land requirements. The highest figure is produced by the Accelerated Growth Scenario Capital Substitution Model, which captures growth in employment derived from specific employment development (some of which includes the redevelopment of some of Bolton’s existing employment land) coupled with some assumptions based on GVA that combined probably present an overestimate of demand.

Consequently we think a range somewhere *between* these higher and lower figures represent the most reasonable estimate of demand, among the eight quantitative models, a

⁵ These conclusions all assume a continued loss of existing employment land to other uses, and take into account the detailed information Bolton has provided on loss of mills to uses other than employment over recent years.

gross rate similar to that produced by the historic take up rates over the last 20 years, but not as high as the very high rate of the last five years .

We therefore conclude that Bolton has a gross requirement of between **120 – 160 ha** of employment land to **2021**.

4.8.2 Demand from 2021 to 2026

In estimating demand beyond 2021 to 2026, we have not been able to update all eight of the scenarios, due to a lack of data for the GMFM 2007 Update. However, the other scenarios suggest a gross requirement of between 38.9 ha and 75.1 ha of employment land from 2021 to 2026.

We are unable to update two of the models, the GMFM 2007 update and the GVA based variation, but for similar reasons as outlined above we believe we need to discount the high gross figures produced by the scenarios derived from historic take up rates. We are also sceptical that the additional 54.3 ha derived from the AGS Capital Substitution Model represent a realistic requirement. The AGS uses specific developments on specific sites such as Horwich Loco Works and Church Wharf to generate extra employment that the modelling work then uses to produce the requirements for extra land. As some of the sites used are already in employment use it could be argued that additional land is not required to accommodate all of this increase in employment.

We do not consider that the very highest figures produced from the last 5 years historic take up rates are likely due to a range of factors (for example, the buoyant economic conditions of the last five years are unlikely to persist over the whole of the next 15 years and there is an increasing trend in more efficient use of land through higher densities of employment generating floorspace, especially offices). Consequently we suggest a range of 40-50 hectares would be most suitable, between 8 and 10 hectares per year.

4.8.3 Overall Demand to 2026

Our models therefore suggest an overall range of between 147.6 ha to 300.48 ha from 2007 to 2026. However, we have discounted the figures at the top end of this range that are derived by projecting forward the very high historic take up rates over the last five years. We have also discounted the lowest figures, as they fail to take account of capital substitution for labour in the manufacturing industry which is discussed in section 4.4.5.

Through a process of analysis we have therefore concluded that **gross demand for employment land to 2026** falls within a range of between **160 ha and 210 ha** or between 8.4 ha and 11 ha per year.

5 Qualitative Demand Assessment

5.1 Introduction

The qualitative commercial market assessment provides an overview of recent and future market trends. It is based on professional opinion, supported by information on property values, rental levels, recent transactions, the development pipeline, and background economic and employment data. It also draws on the findings of interviews with a range of stakeholders who also provided useful information, particularly on demand that is un-met or suppressed as a result of deficiencies in the supply of available employment land.

This qualitative demand assessment is a crucial part of understanding and refining the quantitative demand projections set out in the previous chapter.

5.2 Consultees

Arup and Keppie Massie have jointly contacted a number of key stakeholders, and held workshop sessions with both Bolton Council's Departmental Management Team and the Bolton Strategic Economic Partnership

We have written to more than 45 key local employers, local property agents and contacted land owners / developers active in the region. A second letter was sent at the end of February and a number phone calls have been made to try and encourage a greater response.

Interviews / discussions have been held with the following:

Local Agents	Lamb & Swift Surveyors PR Gibbs Surveyors Nolan Redshaw Surveyors
Local Businesses	Verna Group Holdings Ltd Watson Steel Structures First Packaging Ltd Lantor (UK) Ltd Holt Hoisery Co Ltd Frank Mercer & Sons Hitachi British Turntable Shakespeare Foundry
Developers	Orbit Developments Blue Mantle DTZ / UK Coal
Council Officers and other Public Sector Stakeholders	Midas NWRA Bolton Council Inward Investment Manager Bolton Council Chief Economic Strategy Officer Bolton Council Principal Project Officer Bolton Council Town Centre Developments Manager Bolton Council Departmental Management Team (DMT) Highways Agency Bolton Strategic Economic Partnership (BSEP)

5.3 Key Findings

There are a number of issues arising from our discussions with key stakeholders:

5.3.1 Mixed Uses

A common issue that is a nationwide problem in terms of new developments is the price of land. The cost per acre for construction opportunities has risen dramatically over recent years to the point at which developers have to seriously 'add value' by bringing a mixture of uses to most sites. Additional costs including Section 106 Agreements, Contributions to Public Art, Health & Safety etc all reduce profits and therefore higher returns are required to compensate for these factors.

In order to ensure some schemes are viable, increased densities of schemes and higher end use values are required. These would ordinarily result in taller buildings and the introduction of uses including residential and roadside such as licensed & leisure uses (hotels, public houses, retail and so on).

Developers and agents we spoke to in Bolton feel the natural progression from a good road frontage would now comprise a hotel, retail or leisure use, followed by pavilion style offices with large head quarter offices thereafter, smaller warehousing units and then large distribution centres to the rear. Clearly a large amount of land is required to permit all uses and where smaller sites are involved, the higher end uses to the front are required as this is where the cost of the land is naturally greater.

Without the higher values being achieved, some developers believe schemes will simply not 'stack up' and are therefore not worth progressing. This has been reflected in the site suggestions coming forward out of the DPD Allocations process (see 6.1.2). Only a few of the sites that have been put forward by developers have been suggested for purely employment uses, with the majority proposing mixed use schemes including residential and commercial uses. Based on discussions held by Keppie Massie with agents and developers and the results of the site assessments for Market Viability and Local Market Conditions, we believe mixed use development is not required for most of the suggested sites put forward by developers in Bolton to make sites viable, and that single use employment developments can be developed commercially in Bolton without mixed uses.

5.3.2 M61 Corridor

The M61 is recognised as an excellent piece of transport infrastructure, with a strong commercial appeal. Developers and agents feel that the motorway is still under utilised and that further development along this corridor could bring major benefits to Bolton. The majority of the sites identified by developers lie alongside this corridor.

However concern has been expressed that employment and development may become too focussed on the motorway corridor although clearly any schemes must be viable and attractive to occupiers. One stakeholder at the Bolton Strategic Economic Partnership expressed a concern that further development along the M61 could harm Bolton Town Centre, though this was not the general consensus. Bolton Council reported that agents and developers have challenged the assumption that if Bolton restricts development along the M61 it would instead locate in Bolton Town Centre. A number of agents have referred to the M66 where each junction has been developed, in some cases with two business parks. If businesses wish to be located in motorway locations, there are alternatives outside of Bolton where they can be accommodated. Discussions with the Highways Agency however indicate that there may be some concerns from them over further development around the southern end of the M61, given existing congestion problems southbound on this part of the Motorway and the heavy congestion on the M60 anti-clockwise during peak hours. However, when considering such concerns, it should also be recognised that strategic development would also provide mitigation measures so that other modes of transport are maximised to ensure congestion in such areas is limited.

A number of stakeholders also noted that residents of more deprived areas to the south and east of the Borough could struggle to access employment opportunities by public transport along the corridor unless improvements took place. Developers were keen to stress that consideration should be given to the needs and desires of businesses rather than developing an area for employment uses where demand does not exist.

5.3.3 Transport Infrastructure

As indicated above, the M61 provides an excellent communication link through the Borough and is a solid foundation when looking at the infrastructure across the region. However, there are serious concerns about the main and secondary road network, in particular in Horwich and around Bolton Town Centre.

Accessibility is a key issue for the location of developments and opinions have been raised that the Town Centre is not vehicle friendly with many of the main roads in the Borough being unable to cope with large volumes of traffic. This highlights the issues identified above that if Bolton prevents / restricts further development along the M61, poor transport links or perceptions of poor road links and congestion in Bolton Town Centre might drive potential employment to other locations outside of Bolton. For further details on the approach used for scoring sites in relation to highways and public transport please see Section 6.2.2.

5.3.4 Greater Manchester Congestion Charge

Greater Manchester has been achieving economic growth through attracting new businesses and developing new jobs. Whilst this has brought a range of benefits to the sub region, it has increased pressure on the area's highways and public transport systems.

Major improvements to public transport are being considered in Greater Manchester, but linked to a system of congestion charging based on a detailed peak hour charging system. The system is based on two charging rings, one of which is the M60. For Bolton the public transport improvements include:

- greater integrated transport resulting in better alignment between bus and train services;
- relocation of the Moor Lane bus station being brought forward and refurbishment of existing train stations such as Blackrod, Westhoughton, Bromley Cross and Daisy Hill.
- new rapid bus services, with services running between Bolton, Farnworth, Kearsley and Manchester City Centre every 8 minutes;
- new traffic control system to avoid congestion and speed up traffic. The TIF package is focused on tackling congestion at the times, places and directions that cause greatest harm to the Manchester economy.

Congestion charging will be a subject to a referendum and would not be introduced before 2013; by which time at least 80% of the transport improvements are in operation. However stakeholders have noted that the introduction of congestion charging could have an impact on the demand for employment land across the areas affected by the zone (and potentially a wider regional effect). At this stage it is difficult to determine the likely impact this could have on Bolton's economy and employment. There are a number of considerations:

- Congestion charging could result in the Bolton area becoming more attractive to businesses looking to relocate/ locate, given its location outside the congestion zone and hence result in increased demand for employment land. This might be at the expense of alternative locations inside the zone, such as Trafford Park (for factory / warehouse businesses) or Manchester City Centre / Salford Quays (for office employment).
- It is unlikely that Bolton would be the only beneficiary of this effect. Bolton is not the only district outside of the GM congestion zone and Wigan, Rochdale, Oldham, Tameside, parts of Salford, Bury and Trafford could also experience similar improvements in

commercial attractiveness, resulting in a more balanced geographical spread of employment land demand across the sub region.

- The charge could make Greater Manchester as a whole, less attractive than other regions that do not have a charge, reducing demand for employment land right across the area. Firms looking to locate in the Northwest might choose Cheshire and Warrington, Central Lancashire or Merseyside to avoid the charge altogether.
- We do not know how the congestion charge would affect different types of business. It is likely that workers in traditional 'nine to five' employment such as office based employment are most affected, which in turn could result in some relocation outside of the congestion zone. However, this is likely to have a limited impact on future land demand due to this sector usually requiring the least land take up. Factory and warehousing businesses, which often require larger amount of land, could be the sectors that best adapt to the impacts of the charge system through alterations to shift pattern working. Some office based employers may also enable their employees to sidestep the charge – call centres offering flexible working patterns or firms that can offer occasional home working may see little threat in the charge.
- Finally the congestion charge may have a neutral impact on the distribution and location of employment land in the GM sub region, as the road charges may be offset for businesses by less congested roads and better public transport – meaning little effect on demand for employment land.

5.3.5 Phasing of supply

There are a number of schemes under consideration, in planning or being constructed which will result in a large amount of accommodation being introduced to the market over the next few years. A number of stakeholders were concerned that supply could outweigh current levels of demand. Stakeholders worry that there could be too much accommodation brought into the market place in too short a space of time which may result in buildings lying vacant and effectively redundant.

Since commencing this Employment Land Study, changes in respect of empty business rates relief have meant that some developers are now adopting a more cautious approach when considering speculative development which may result in less concern in respect of this matter. During discussions with Bolton Council it has also been stressed that the phasing and distribution of development (by sector) will be carefully coordinated so that development in out of town locations such as Horwich Loco Works will be complimentary to development in the Town Centre sites and vice versa. This will also apply in relation to the proposed transport improvements for these sites to ensure there is maximum benefit across the borough in terms of access to sites and premises as well as the balance of development for different employment sectors.

5.3.6 Office Supply

Concerns about phasing and short term oversupply are most evident in the office market in Bolton. There is a general consensus among agents and businesses that there is a sufficient amount of Grade A office accommodation within the Borough and in the development pipeline for the next 3-5 years and, as such, caution should be applied when considering new applications for this sector.

Discussions with Bolton's Town Centre Development Manager and Principal Project Officer have also revealed a number of significant proposals for significant redevelopment and new office development.

Three major projects are:

- **Church Wharf** – mixed use development with planning permission, northeast of Bolton Town Centre.

- **Merchant's Quarter** – existing employment area to southeast of Bolton town centre, planned for redevelopment as new office quarter.
- **Horwich Loco Works** – existing employment land (E5) and allocated site to southwest of Horwich Town Centre with proposals for mixed use redevelopment including offices, factory units and housing.

These three redevelopment proposals have the potential to provide 31,500sq. m, up to 50,000sq. m and more than 80,000sq. m of office space (340,000, 530,000 and 890,000 sq. ft) respectively. Both Church Wharf and Merchant's Quarter are expected to be complete by 2021, and although Horwich Loco Works has a longer development period up to 2027, a significant proportion of the development is likely to be complete by 2021, and the vast majority by 2026.

Further discussion with the Council indicates that these three major developments do not represent the total amount of office development that could take place around the Town Centre in the Bolton Innovation Zone.

However stakeholders felt that there is one type of office accommodation that is generally lacking in the region. There is a demand for pavilion style two / three storey offices where companies can acquire the effective freehold interests in units ranging between say 2,000 – 10,000 sq ft (186-929 sq m). Town centre high density offices do not meet this demand. The office development proposed for Horwich Loco Works could conceivably address this gap.

5.3.7 Accommodating Heavy / 'Dirty' Uses

The issue of heavy or dirty industrial businesses was raised by several stakeholders. A number of operators are growing, but finding it hard to expand or relocate. For example one business that was contacted stated that without expansion, they believe that the business will not be able to compete and will fall behind on technology, resulting in closure.

Developers are reluctant to see heavy/dirty/undesirable uses such as scrap metal, recycling, steel works etc within their proposals (although it is widely recognised that these industries have an ongoing benefit to the Borough) as developers wish to capture higher end uses that would not wish to locate next to these types of business uses. Some Council officers noted that more modern recycling or scrap facilities may have no greater visual impact than other uses, but clearly the perception of these kinds of uses is important.

The proposed redevelopment of Horwich Loco Works, which currently houses a number of these low rent paying heavy / dirty uses, could exacerbate this issue. Redevelopment of what are currently lower grade areas such as Horwich Loco Works or the areas around the Merchant's Quarter, by eliminating areas that these industries can both operate in and afford, may result in the closure of businesses that are well established and of benefit to the local economy both in terms of employment and the promotion of Bolton. This leads to a further concern that has been regularly voiced in discussions with agents, developers and business operators, that while the hope for growth in jobs in the Borough is certainly achievable, there is a distinct possibility that there may be a number of job losses through the forced closure or squeezing out of some existing businesses.

A final aspect to consider is the actual costs associated to the relocation of these businesses. Many use heavy duty, specialist and expensive equipment that cannot be moved without incurring substantial costs.

5.3.8 Manufacturing Employment

Manufacturing is an important part of the Bolton economy. Although some of the modelling work in Section 4 indicates a fall in manufacturing employment in Bolton over the next 15-20 years, as discussed in 4.4.5, GVA figures for Bolton provided alongside the GMFM 2007 Update suggest several manufacturing sectors in Bolton may continue to grow. These figures imply that capital substitution for labour may take place, so that manufacturers will

remain, but with fewer employees. We explored this issue with Bolton Officers at the Departmental Management Team (DMT) and the consensus was that in some sectors (especially textiles), Bolton's remaining manufacturers are generally healthy, profitable firms doing specialised work, and are unlikely to be vulnerable to outsourcing or other similar manufacturing trends in the future. The general consensus shared at both the DMT, and the BSEP was that Bolton is likely to continue to have an extensive manufacturing sector which would therefore still be occupying significant land and premises across the Borough.

Therefore, despite the projected decline in manufacturing employment and thus demand for factory floorspace (and thus land for such uses) presented by the modelling work in 4.4.3, key stakeholders think that Bolton will still require significant amounts of land to accommodate the existing manufacturers in Bolton, and especially to accommodate the relocation and expansion ambitions of local manufacturing businesses in Bolton. This is explored in more detail in section 5.3.9 below.

Finally, it has also been suggested that Bolton may have a regional role to play in accommodating regional demand for warehousing or factory development, i.e. endogenous demand, meeting demand that cannot be accommodated in neighbouring boroughs.

5.3.9 'Pent up' restricted demand

Bolton Council believe that manufacturing growth has been constrained in Bolton over recent years by a lack of suitable land or premises to enable existing manufacturers to expand and upgrade. Substantiating evidence has been provided by the Council on this issue.

Bolton have provided two separate documents providing details of 36 local companies who have either sought or are seeking new premises or land in Bolton but have been unable to find anything that meets their requirements. 26 of the companies operate from mill premises and are seeking more modern premises to either expand, or to make their operations more efficient. A number of these firms shown in Table 18 below have subsequently located elsewhere, and the remainder are all continuing to consider their options.

Table 18: Bolton Firms that have Relocated Elsewhere

Name of Firm	Reason for relocation	Where did they relocate to?
Darcy Industries	Relocated because buildings no longer suitable and no land on site to redevelop.	Great Sankey
Ingersoll Rand	Moved to consolidate their operations due to the lack of available land for B2/B8 uses in Bolton	Wigan
Burberry	Premises in Bolton unsuitable, no alternatives available	Unknown
Burnden Group	One of the group's companies relocated in February March 2008 with other operations beginning to move through the summer of 2008. At the time of this report being written the relocation was not finalised.	Blackburn

Requirements for new premises vary from 30,000 sq ft (2700 sq. m) to 200,000 sq ft (18,580 sq. m); requirements for land are between 10 – 15 acres (4-6 hectares).

In addition, evidence has also been provided by Bolton Council based on the monitoring of employment land and premises demand during the period between June 2005 and June

2008 using Bolton Council's Enquiry Demand Analysis Report. This records enquiries made to the council for industrial and office uses. In total there have been 634 enquiries for industrial/ office space in Bolton amounting to more than 200 million sq. m of floorspace. Many of these enquiries were for premises of 100,000 sq. ft (around 9280 sq. m) or more. Enquiries for industrial land totalled more than 340 hectares. Whilst we suspect that this data probably includes a certain amount of double counting, repeat enquiries and enquiries from businesses who have also submitted enquiries for other nearby authorities as well, it does indicate that Bolton is considered as a potential location for investment by businesses that are requiring large premises and land in Greater Manchester and the northwest.

In considering this evidence, Bolton Council have stated that they regard all of these figures to be conservative estimates, as they think there is likely to be a significant number of other businesses that have not been in contact with the Council that may also be seeking to expand, invest or relocate.

There are limitations to this evidence, in that it is hard to quantify exactly how much demand for land all these potential relocations might generate. It is also difficult to state how firm the demand is and may also depend upon what happens to land a company vacates. For example, if Company A occupies a five acre site but wishes to expand onto a ten acre site, if it does relocate, does the old site provide relocation opportunities for other firms?

However, the evidence clearly demonstrates that there is indeed significant pent up demand from firms in Bolton who wish to expand, but are unable to do so due to a lack of suitable land and premises. A number of these firms require sizeable sites or premises with a number of firms seeking sites of more than four hectares. Lack of land or premises has meant several firms have relocated out of Bolton in recent years.

5.3.10 Scale of Development

Developers and agents are keen to see larger sites developed. A major concern expressed by those we spoke to was that smaller sites of a few hectares or less were commercially harder to deliver, and less attractive to the market. Consequently the developers and agents we spoke to were keen to see Bolton encourage larger development opportunities, rather than focussing on many smaller sites. Consideration of suitable larger sites will therefore need to be carefully considered when identifying future employment sites in the borough. In the context of Bolton a 'large' site is around 10 hectares or more, 12 sites put forward through the Site Suggestion Exercise are larger than 10 hectares, the largest of which being site S25 Cutacre, which is more than 100 hectares.

5.3.11 Location and Demand

Discussions with stakeholders suggest demand for employment land for Bolton is more flexible than the quantitative model suggests, and that location decisions will be made by many firms within a wider context. Businesses, agents and developers see the M61 as a good transport asset and see Bolton town centre and to an extent the east of the borough as a less well connected, more congested and thus less attractive area. This is reflected to some degree in the higher rents achievable at Middlebrook compared to Bolton Town Centre for office accommodation.

Demand is thus related to supply, and therefore it is not just important to consider how much land, but where that land should be located.

5.4 Conclusions and Implications for Demand

Our discussions with stakeholders have identified a number of key issues that have implications for the findings from the quantitative demand chapter.

Combined, these findings from our discussions with key stakeholders suggest the following conclusions:

- That the higher end of the range of gross land figures identified in the conclusions to section 4 may not be required as there is likely to be sufficient existing supply coming

forward in the short term, in the Bolton office market in particular. There was less concern about this issue with regard to Manufacturing and Warehousing.

- That the lowest gross figures derived in part from a decline in manufacturing employment leading to a decline in demand for manufacturing premises and land (for example from the Greater Manchester Forecasting Model 2007 update) present *too negative* a view, and therefore artificially deflate the gross land requirements.

The quantitative demand modelling work set out in Section 4 concludes that Bolton has a gross requirement for employment land of between 120ha and 160ha from 2007 to 2021 and a further 40ha to 50ha from 2021 to 2026 to produce an overall requirement of between 160ha and 210ha between 2007 and 2026.

Consultation with stakeholders suggests the upper end of this scale is still potentially too high as a major component of growth in demand for land is driven by a projected growth in office based employment. Much of this employment could be accommodated through the new office premises proposed for Bolton's three major redevelopment sites at Loco Works, Church Wharf and Merchant's Quarter. However, our consultation also suggests that the lower end of this scale, which is still, to some extent, based on declines in manufacturing employment and subsequent declines in factory premises and factory floorspace, overstates the likely decline in manufacturing and hence the lower end of the range still presents too negative a picture.

Information provided by Bolton Council regarding the demand from local businesses for additional land to expand or modernise (see Section 5.3.9) provides further evidence that greater amounts of land may be required.

Finally the potential sub regional employment land requirements in Greater Manchester (see Section 7.3), the capacity of neighbouring local authorities in providing additional employment land, the potential impacts of the congestion charge in causing shifts in business locations and the uncertainty regarding the degree to which the capacity of employment sites could be reduced through mixed use development etc. are all issues that should be considered in determining the range for future employment requirements.

Overall then, and taking into account this qualitative evidence provided by stakeholders and Bolton Council, we conclude that demand for employment land in Bolton between 2007 and 2026 lies toward the middle of the range suggested by the quantitative demand work. Therefore we conclude that gross demand for employment land in Bolton between **2007 and 2021** is likely to be in the region of **130ha-150ha**. Demand between 2021 and 2026 would be around **45ha**.

Overall this results in a demand of between **175ha and 195ha between 2007 and 2026**, which equates to **9.2ha to 10.3ha** of employment land take up per year. This range is a little lower than the historic take up rate for Bolton over the last 10 years, which has been around 10.9 hectares per year, but higher than Bolton's long term historic take up rate of 8.4 hectares per year.

6 Employment Land Detailed Site Assessments

6.1 Introduction

Within this employment land study, we have carried out a detailed assessment of the current and potential employment land sites within Bolton Council's area.

This was completed in terms of location, availability and deliverability. Those sites assessed within the site assessment stage of this commission included 44 sites in total, divided into three categories of potential employment sites.

- 17 Existing Allocated Sites in the Bolton UDP
- 17 Sites suggested by landowners and developers through the Allocations DPD 'call for sites'.
- 10 Town Centre Sites – identified by Bolton Council.

The sites are discussed below and the results of their assessment presented in Section 6.2.

6.1.1 Existing Allocated Sites

The detailed assessment looked at 17 sites allocated for employment uses in Bolton's existing UDP, one other allocated site (site 35E Mabel's Brow) was removed from this detailed assessment in earlier stages of work by Bolton Council and the following two allocated sites were treated slightly differently, in light of known proposals.

- Site 38E at Cutacre has been proposed for inclusion as a much larger development site (see Site S25 in Table 20 below).
- Site 8E at Horwich Loco Works could form part of a larger masterplan for the whole of the existing Horwich Loco Works sites, and so was assessed in conjunction with the adjacent existing employment land (designated E2 in the UDP). The site assessed is therefore designated 8Eplus.

These existing allocated sites vary considerably in size (from 0.39 – 19 ha) and location but they include two sites over 5 hectares: Horwich Loco Works (19ha) and Singing Clough (8.66ha).

Table 19: Existing Allocated Sites

Ref	Site name	Site size (ha)	Use
1E	Barrs Fold Close, Wingates	0.47	Over spill car parking
7E	Long Lane	0.39	Vacant
8E plus	Horwich Loco Works – 19 hectare site part of the Horwich Loco Works Masterplan area ⁶	19	Former railway sheds and sidings. The site currently operates as a site of heavy industry and low density employment storage areas.
18E	Crompton Way	1.21	Some housing plus level surface parking
19E	St Peter's Business Park A	1.24	Industrial units plus vacant land
22E	Watermead	3.9	Reservoir/ small industrial complex containing a mixture of B1/B2 uses
24E	Mill St	0.53	lorry yard
25E	Mill St/Mule St	0.74	Vacant
28E	Nelson Street	0.36	A modern industrial development is under construction on half of the site.
29E	Campbell Street	0.14	Vacant land
30E	Gower Street	0.44	Used as a scrap yard
31E	Gower Street	0.57	Reservoir
32E	Stone Hill Road	0.66	Vacant
33E	Express Industrial Estate C	0.19	Vacant
34E	Express Industrial Estate B	0.77	This site is being utilised by a Civil Engineering Company for storage and temporary office

⁶ Site 8Eplus includes the existing allocated site 8E at Horwich Loco Works, which has a capacity of 16.3 hectares.

Ref	Site name	Site size (ha)	Use
			accommodation.
36E	Bolton Road, Kearsley (Singing Clough)	8.66	Former landfill site
41E	British Aerospace, Lostock	9.95	
Total		49.22	

6.1.2 Allocations DPD - Suggested Sites

A number of sites have been suggested through Bolton Council's Allocations DPD process. Bolton Council invited developers, landowners and other stakeholders to submit potential sites for development or change of use during January 2008. A long list of sites were suggested for a range of uses, 17 of these included an element of employment uses and therefore have been included in the assessment.

Many of the Suggested Sites are located along the western boundary of Bolton, particularly along the M61 Corridor. Almost all of this part of Bolton is outside the existing urban area and lies in the green belt or is designated as protected open space. The majority of the Suggested Sites are medium (5-10 hectares) or large sites (i.e. greater than 10 hectares in size) and two are very large sites S25 Cutacre (144 ha) and S01 Lee Hall, Westhoughton (92.8ha). Many of the Suggested Sites have been suggested to come forward as part of mixed use schemes, rather than as pure employment schemes. For potential mixed use sites, (unless provided with details of the mix of uses) we have assumed that employment uses would occupy 50% of the site.

Table 20: Allocations DPD - Suggested Sites

Ref:	Site Name	Site Size (ha)	Site Capacity (ha)	Proposed Use	Current UDP Designation
S01	Lee Hall, Westhoughton	92.8	46.4	Residential and associated mixed uses	Protected Open Land
S02	Church Wharf	5.87	5.87	Mixed use in accordance with SPD (Offices, residential, leisure, retail, car parking and hotel)	Mixed Use
S03a	Gibb Farm North of M61 (near Horwich Loco works)	11.6	5.8	Residential / employment	Green belt
S03b	Gibb Farm South of M61 (near Horwich Loco works)	4.8	2.4	Residential / employment	Green belt
S04	Land Fronting A6	11	5.5	Residential / employment	Green belt
S05a	Land East of Chew Moor Lane, Lostock	24	12	Residential or commercial	Green belt
S05b	Land East of Chew Moor Lane, Lostock - Development site	10.7	5.35	Residential or commercial	Green belt
S06	Hollins, Plodder Lane, Farnworth (adjacent to hospital)	10.3	5.15	Residential / mixed use	Protected Open Land
S07	Land south of Bradshaw Builders	4	2	Housing, light industry, garden centre / café, playing fields, stables	Green belt
S08	Land west of Wingates	16	16	Commercial / employment	Green belt
S09	Former Greyhound Track, Westhoughton	2	2	Unspecified development site	Green belt
S10	Hunger Hill	10.3	5.15	Reallocation for housing or commercial use or MDS in green belt	Green belt
S11	Land at Snyderdale Gate	21.9	10.95	Deletion from green	Green belt

Ref:	Site Name	Site Size (ha)	Site Capacity (ha)	Proposed Use	Current UDP Designation
	Farm(adjacent to Westhoughton M61 junction)			belt and allocation for residential, B1, B2 and B8 uses, plus other leisure and retail uses	
S12	Land to South of Branker Street, south of Manchester Road	4.4	4.4	B uses	Green belt
S13	Land south of Snyderdale Way (J5 of M61)	15.4	7.7	B uses, C1 leisure and A3-5 uses	Green belt
S14	Land at Red Moss, Horwich	16.3	8.15	Rail Freight - potential for extraction of minerals with removal by rail	Green belt
S25	Cutacre (incorporates existing allocated site 38E)	144	117.3	Proposed mixed use site. Employment / Commercial with additional 187 ha provided by Country Park.	Green belt (majority) and existing allocated employment site 38E)
Total		405.1	262.12		

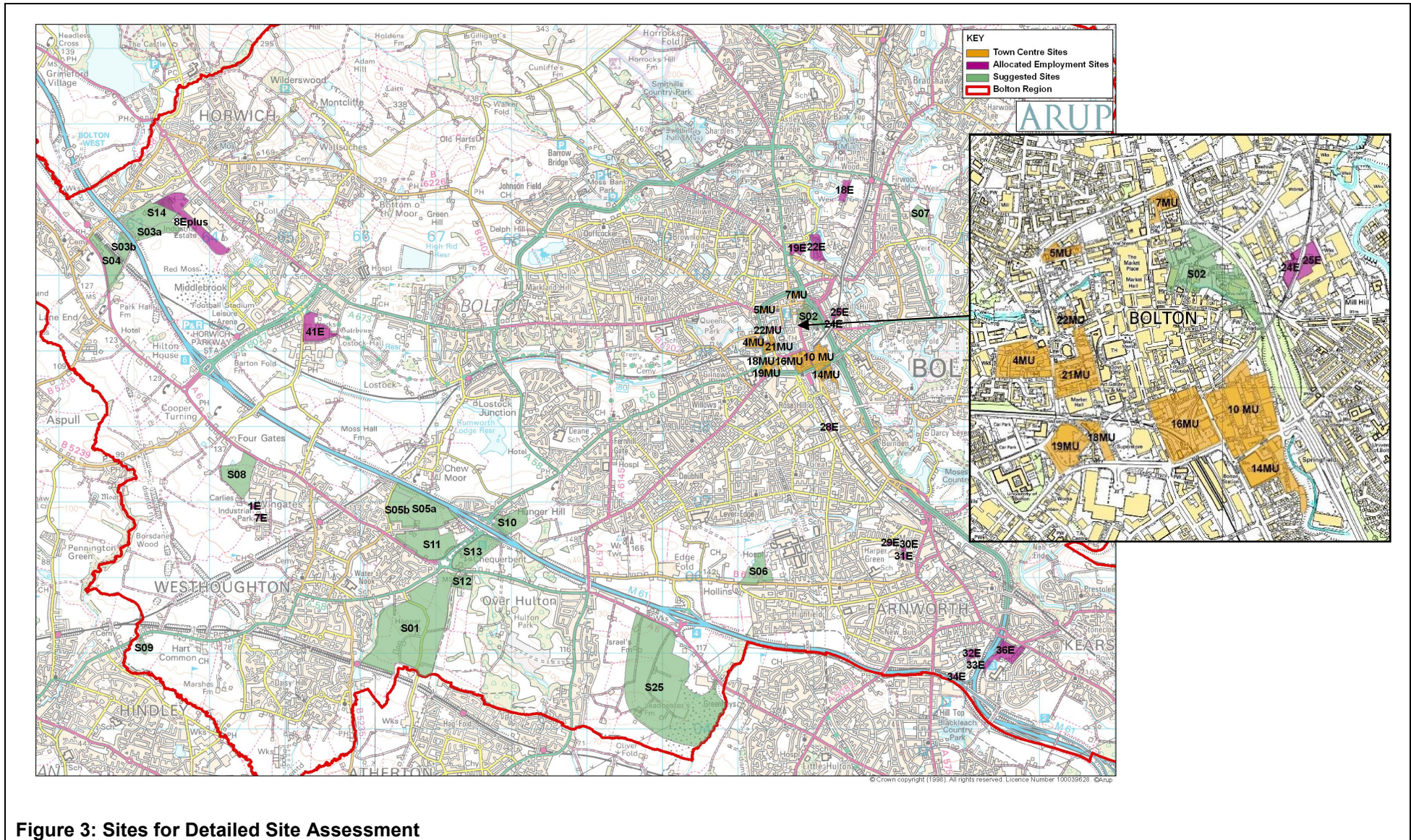
6.1.3 Town Centre Sites

A final set of 10 sites were identified by Bolton Council, as sites with potential for redevelopment around Bolton Town Centre. They vary in size but include two large sites, site 10MU Merchant's Quarter and site 16MU Trinity Gateway.

Table 21: Town Centre Sites

Site ref		Site size	Details
4MU	Westpoint	2.89	Westpoint - Planning Permission granted for 289 apartments and 60,000sq ft offices.
5MU	St Georges Gateway	0.77	Potential mixed use development office/hotel/residential
7MU	Clarence Street	0.84	Potential mixed use development office/hotel/residential.
10MU	Merchant's Quarter	6.84	Potential mixed use residential/office development. Part allocated Multi Storey Car Park, within Merchant's Quarter.
14MU	Westbrook	3.14	Bolton Innovation Zone -Potential mixed use office/residential.
16MU	Trinity Gateway	5.29	Bolton Innovation Zone - Potential mixed use transport/office/hotel/leisure
18MU	Blackhorse Street Car Park	0.75	Bolton Innovation Zone - Potential mixed use leisure/office/residential
19MU	Knowledge Campus	2.18	Bolton Innovation Zone - Potential mixed use office/education
21MU	Cultural Quarter	3.01	Bolton Innovation Zone - Potential mixed use retail/culture led with office
22MU	King Street	0.22	King Street/ Deansgate - Mixed use office with residential above and retail below
Total		25.93	

These 44 sites are shown in Figure 3 over the page.



6.2 Site Assessments

6.2.1 Introduction

Assessments were undertaken in order to assess the quality of the 44 sites for potential future employment uses. Sites were assessed against 21 different criteria. These criteria were grouped together into seven categories that looked at:

- Availability and Deliverability
- Local Market Conditions
- Quality of the site
- Planning Policy and Sustainability
- Strategic Access and Catchment
- Environmental Sustainability
- Other Policy Considerations

The scoring approach used is outlined in brief in Section 3.5 and in full in Appendix B.

A summary of the assessment for each site is provided in Table 22, highlighting the scores for each site based on the seven categories above.

In addition we have ranked the sites based on aggregate scores under two broader headings:

- Availability and deliverability shown in Section 6.2.3
- Planning Policy and Sustainability shown in Section 6.2.4

The ODPM guidance for employment land reviews recommends against weighting the scores for sites or collating into one overall score, however these two separate scores provide a good guide for deciding which sites should be considered.

Table 22: Detailed Site Assessments - Sites Scores By Category

ELS Site Reference	Name	1) Commercial Viability	2) Local Market conditions	3) Quality of Site	4) Quality of the Wider Environment	5) Strategic access & catchment	6) Environmental sustainability	7) Other Policy considerations
Maximum Possible Score		10	15	20	10	25	20	5
1E	Barrs Fold Close, Wingates	9	12	17	8	10.5	16	5
7E	Long Lane	9	12	18	8	13.5	18	5
8Eplus	Horwich Loco Works	7	14	15	7	15	18	5
18E	Crompton Way	8	11	17	8	19	19	5
19E	St Peter's Business Park A	7	11	19	8	17.5	15	5
22E	Watermead	8	10	12	8	13.5	12	5
24E	Mill St	9	11	15	10	15.5	20	5
25E	Mill St/Mule St	9	11	13	10	15.5	19	5
28E	Nelson Street	8	11	18	7	18.5	16	5
29E	Campbell Street	8	10	14	6	15.5	18	5
30E	Gower Street	6	10	14	9	15.5	19	5
31E	Gower Street	4	10	10	7	15.5	15	5
32E	Stone Hill Road	9	10	19	9	13.5	18	5
33E	Express Industrial Estate C	7	10	17	9	12.5	17	5
34E	Express Industrial Estate B	7	10	15	8	13.5	18	5
36E	Bolton Road, Kearsley (Singing Clough)	6	9	11	7	16.5	14	5
41E	British Aerospace	9	11	16	6	10	18	5
S01	Lee Hall, Westhoughton	9	12	16	8	11	10	2
S02	Church Wharf	9	12	15	9	22	19	5

ELS Site Reference	Name	1) Commercial Viability	2) Local Market conditions	3) Quality of Site	4) Quality of the Wider Environment	5) Strategic access & catchment	6) Environmental sustainability	7) Other Policy considerations
Maximum Possible Score		10	15	20	10	25	20	5
S03a	Gibb Farm North of M61 (near Horwich Loco works)	4	12	14	7	10.5	10	2
S03b	Gibb Farm South of M61 (near Horwich Loco works)	4	12	14	6	10.5	13	2
S04	Land Fronting A6	9	12	13	6	11.5	13	1
S05a	Land East of Chew Moor Lane, Lostock	9	12	14	5	8	13	1
S05b	Land East of Chew Moor Lane, Lostock - Development site	9	12	13	6	11	13	1
S06	Hollins, Plodder Lane, Farnworth (adjacent to hospital)	9	12	16	4	14.5	11	2
S07	Land south of Bradshaw Builders	8	11	16	7	14.5	11	1
S08	Land west of Wingates	10	12	9	6	10.5	13	1
S09	Former Greyhound Track, Westhoughton	8	13	17	5	15.5	16	1
S10	Hunger Hill	9	12	14	6	15	13	1
S11	Land at Snyderdale Gate Farm (adjacent to Westhoughton M61 junction)	9	12	15	6	14	14	1
S12	Land to South of Branker Street, south of Manchester Road	9	12	13	5	12	13	1
S13	Land south of Snyderdale Way (J5 of M61)	9	12	12	4	14	14	1
S14	Land at Red Moss, Horwich	8	12	13	9	8.5	6	2

ELS Site Reference	Name	1) Commercial Viability	2) Local Market conditions	3) Quality of Site	4) Quality of the Wider Environment	5) Strategic access & catchment	6) Environmental sustainability	7) Other Policy considerations
Maximum Possible Score		10	15	20	10	25	20	5
S25	Cutacre	9	14	15	6	15	10	1
4 MU	Westpoint	9	12	18	9	22	20	5
5 MU	St Georges Gateway	6	12	19	9	19.5	20	5
7 MU	Clarence Street	7	12	18	9	19	20	5
10 MU	Merchant's Quarter	6	12	19	9	20.5	20	5
14 MU	Westbrook	7	12	19	9	22	20	5
16 MU	Trinity Gateway	6	12	18	9	21.5	20	5
18 MU	Blackhorse Street Car Park	7	12	19	9	21.5	19	5
19 MU	Knowledge Campus	5	12	19	9	20.5	20	5
21 MU	Cultural Quarter	7	12	19	9	22	20	5
22MU	King Street	5	12	18	9	21	20	5

6.2.2 Summary of Site Assessments by Category

Commercial Viability

Many of the sites score well against the commercial viability criteria, particularly the Suggested Sites, many of which have been proposed by developers and have willing owners. The best performing site is Site S08, the land west of Wingates which scores maximum points. 26 of the 44 sites score eight out of ten or more.

Just five sites score five or less points reflecting their lower commercial appeal or significant ownership constraints. These include one of the Existing Allocated Sites 31E in Gower Street, two of the Suggested Sites (sites S03a and S03b at Gibb Farm), and two of the Town Centre Sites (19MU (Knowledge Campus) and 22MU (King Street)).

In general, the Town Centre Sites score more poorly than the more commercially attractive sites suggested by developers off the M61 corridor, due to lower commercial appeal and some ownership constraints.

Local Market Conditions

In terms of local market conditions, a large proportion of sites score well, scoring 12 or more out of a possible 15. Sites S25 Cutacre and 8Eplus Horwich Loco Works are the best performing sites against this criteria, both scoring 14 out of 15. No sites score particularly poorly with all but one site (Site 36E Singing Clough) scoring 10 out of 15 or more.

Sites all score well for three reasons. Firstly there is a relatively low supply of competing employment land of similar quality and type around Bolton. Secondly there is not a great deal of vacant floorspace available in Bolton. Finally, and as a consequence of a lack of supply and lack of vacant premises, local rents are relatively high. Although the worst scoring site is the Existing Allocated Site 36E at Singing Clough, this site still scores nine out of fifteen.

Quality of Site

The quality of the sites has been judged through criteria that consider contamination, topography, highways and utilities. The Town Centre Sites all score relatively well in this category, with each scoring 18 or 19 out of 20. This reflects the few topographical, perceived potential contamination, utilities and highways infrastructure constraints. The Suggested Sites generally score more poorly but most still score between 12 and 16 out of 20. The lowest scoring site is site S08, the land west of Wingates, which scores just nine out of a possible 20.

The Highways Agency provided a commentary on strategic highways infrastructure constraints. The Highways Agency score a number of the sites quite poorly, suggesting high or very high highways infrastructure constraints. They have admitted to taking a cautious approach to scoring, presenting the worst case scenario, given the limited information concerning the anticipated land use on each of the identified sites. It was suggested that with further information, a more considered response could be provided which will also take account of traffic generation and likely impact assessment.

Consequently, the Highways Agency thinks that some of the Town Centre Sites have high highways infrastructure constraints, as have the majority of the Allocated Employment Sites.

With respect to the cautious approach adopted by the Highways Agency it was agreed that a more balanced approach be used for the scoring of transport criteria for certain sites to reflect the likely future performance of these sites once development has commenced. The criteria used in determining if a site should receive an improved score was based on whether the site was subject to master planning and included proposals for transport improvements. Sites S25 at Cutacre and 8Eplus Horwich Loco Works both propose public transport and highways improvements and so benefited from an improved score, as did the Town Centre sites where improvements to the road infrastructure are proposed (though most of these sites already score well on access to public transport).

A number of the sites score poorly (score 1) against the contaminated land criteria. Nine sites score just one out of five and have therefore been judged to have severe land contamination issues. These sites are shown on Table 23 below. Seven of these severely contaminated sites are Existing Allocated Sites, with two sites identified through the Site Suggestion exercise.

Table 23: Sites with severe land contamination issues

ELS Site Reference	Name
22E	Watermead
24E	Mill St
25E	Mill St/Mule St
29E	Campbell Street
30E	Gower Street
31E	Gower Street
36E	Singing Clough
S08	Land west of Wingates
S14	Land at Red Moss, Horwich

Quality of the Wider Environment

The quality of the wider environment was judged through two criteria looking at the effect on adjacent occupiers and by the proximity to local facilities. Town Centre Sites and Suggested Site S02 Church Wharf score well in this category, with all of the Town Centre Sites and Church Wharf scoring nine out of 10. Some of the Existing Allocated Sites also score well with two sites (24E Mill St, 25E Mill St/ Mule St) scoring full marks and a further three sites scoring nine out of 10. The lowest scoring sites are generally the Suggested Sites, reflecting the relative distance of these sites from local facilities. Sites S06 (Hollins, Plodder Lane, Farnworth (adjacent to hospital)) and S13 (Land south of Snydale Way (J5 of M61)) recorded the lowest scores, both of which scored just four out of a possible 10.

Strategic Access and Catchment

The strategic access and catchment category included criteria looking at road, pedestrian and cycle access, public transport and proximity to areas of deprivation. Congestion was assessed for both the local and strategic road network to arrive at a combined score for existing congestion drawing on inputs from both the Highways Agency and the local highways officers at Bolton Council respectively.

Overall, scores for this category vary considerably, but the Town Centre Sites, given their proximity to Bolton's main bus and train station and distance from the congested motorway network, achieve the highest scores. The Town Centre Sites (and Church Wharf) almost all score 20 or more out of 25. Several of the Suggested Sites score very poorly, including Site S05a east of Chew Moor Lane, and site S14 at Red Moss, both of which score less than 10 out of a possible 25.

Further comment on the existing congestion scores is outlined below and highlight some of the Highways Agency's key concerns that they feel need to be addressed in bringing certain sites forward for future employment:

- Existing Congestion on Strategic Network:** The Highways Agency was mainly concerned with the southern end of the M61. The Highways Agency note that the M61 is characterised during the peak hours by slow moving traffic on the approach to the M60, leading to delays for southbound traffic between Junction 4 of the M61 and

Junction 15 of the M60. They feel that the primary junctions which the proposed development sites may impact upon are Junctions 6, 5, 4 and 3 but the mainline flow is also an important consideration alongside any implications for traffic joining or leaving the M60. Consequently, in broad terms the closer the site to the congested M60 the poorer score. By contrast, as far as the strategic road network is concerned, they are far less concerned by congestion in Bolton Town Centre, which they consider to be moderate. It should be noted that when considering the views on congestion in Bolton there is already significant funding available for improvements such as a £77 million planned investment for Town Centre infrastructure improvements. However, at present no sites score higher than 4 out of 5 and no sites anywhere in Bolton are deemed by the Highways Agency to have very low congestion.

- Existing Congestion on the Local Network:** Congestion on the local road network was assessed by local highways officers at Bolton Council. They suggest that around half of the Town Centre Sites are constrained by high local congestion. Although around a third of the Existing Allocated Sites score well, with low local congestion identified at 18E (Crompton Way), 24E (Mill St), 25E (Mill St/ Mule St), 34E (Express Industrial Estate C) and 36E (Bolton Road, Kearsley (Singing Clough), some Existing Allocated Sites scored poorly including 19E (St Peters Business Park) 22E (Watermead) and Express Industrial Estate (33E). Although the Highways Agency generally scored the Suggested Sites poorly, many score well for congestion on the *local* highways network. Bolton's highways officers consider that there are low levels of congestion on local roads at more than half of the Suggested Sites including Gibb Farm (S03a/b) Chew Moor Land (S05a/b) and Hunger Hill (S10). However, three of the Suggested Sites were adjudged to have very high local congestion included Lee Hall, Westhoughton (S01), The Hollins (S06) and Land South of Branker Street (S12).
- Further Observations:** The Highways Agency offered some further observations on the sites put forward and noted that the several small infill sites were unlikely to be significant traffic generators but noted that this can only be confirmed following the provision of site specific detail. They suggested that large scale development in green belt locations adjacent to the M61 corridor are likely to be more problematic and would require significant assessment to identify the scale of impact and mitigation required. The Highways Agency suggested that the potential dependence of these sites on car borne trips and low accessibility combine to make several of the Suggested Sites unsustainable and may as such be contrary to Government Policy. However, taking these issues into consideration there will be a number of mitigation measures implemented through improvement of public transport and development and implementation of travel plans that should reduce such impacts. In addition, the emergence of the Congestion Charge could be another factor that may reduce such constraints, however it is also recognised that it is premature to identify impacts accurately.

Environmental sustainability

The environmental sustainability category included flood risk, previous developed land, environmental constraints and sequential test criteria. The Town Centre Sites and Church Wharf all score well in this category and all score either 19 or 20 out of a maximum of 20.

Only one site scores below 10 out of 20. This was site S14 Land at Red Moss which scores just six out of a possible 20. However several of the Suggested Sites including Cutacre (S25), Gibb Farm (SO3a) and Lee Hall (Westhoughton) could only score 10 out of 20.

The Existing Allocated Sites all score highly, apart from site 22E Watermead (which scores just 12), reflecting generally low flood risk and environmental constraints and good scores on the sequential test criteria.

Most of the Suggested Sites are in the greenbelt or on protected open land, and 10 of 17 sites are therefore 100% greenfield sites, and therefore score just one out of five possible

points on the previously developed land criteria. However seven sites have had at least some previous development. See Table 24 below.

Table 24: Suggested Sites - Sites with Previous Development

ELS Site Reference	Name	Score for Previously Developed in Whole or Part Criteria
S01	Lee Hall, Westhoughton	2 – Site predominately greenfield (more than 70%)
S02	Church Wharf	5 – 100% previously developed land
S03a	Gibb Farm North of M61 (near Horwich Loco works)	2 – Site predominately greenfield (more than 70%)
S09	Former Greyhound Track, Westhoughton	4 – Site predominately brownfield (more than 70%)
S11	Land at Snyderdale Gate Farm (adjacent to Westhoughton M61 junction)	2 – Site predominately greenfield (more than 70%)
S13	Land south of Snyderdale Way (J5 of M61)	2 – Site predominately greenfield (more than 70%)
S25	Cutacre	2 – Site predominately greenfield (more than 70%)

Two of the Suggested Sites have significant industrial uses at present.

- Site S13 Land south of Snyderdale Way currently houses a pair of businesses including a scrap yard.
- Site S25 Cutacre includes an existing allocated site (totalling 16.7ha). The majority of the site is an open cast mining site which is currently subject to intensive mineral extraction.

Other Policy considerations

Finally, we assessed each site against their current UDP status. The Existing Allocated Sites and Town Centre Sites all score well but most of the Suggested Sites score poorly. The Suggested Sites put forward by developers are almost all located on land designated as greenbelt or protected open space.

6.2.3 Summary of Overall Availability and Deliverability

The seven categories we have used to assess sites can be grouped together into two broader categories:

- **Availability and Deliverability** – this brings together the scores from the commercial viability, local market conditions and quality of site criteria to indicate how deliverable a site is from a commercial perspective
- **Planning Policy and Sustainability** – this brings together the scores from the quality of wider environment, strategic access and catchment, environmental sustainability and other policy considerations criteria to provide a guide to how acceptable a site is based on wider planning and sustainability grounds.

Table 25 presents the sites scores ranked by availability and deliverability, while **Table 26** presents the sites scores ranked against planning policy and sustainability.

Table 25: Ranked Site Scores – Availability and Deliverability

ELS Site Reference	Name	Availability And Deliverability	Size (ha)
Maximum Possible Score		45	
7E	Long Lane	39	0.39
4 MU	Westpoint	39	2.89
1E	Barrs Fold Close, Wingates	38	0.47
18 MU	Blackhorse Street Car Park	38	0.75
21 MU	Cultural Quarter	38	3.01
S25	Cutacre	38	117.3
S09	Former Greyhound Track, Westhoughton	38	2
32E	Stone Hill Road	38	0.66
14 MU	Westbrook	38	3.14
7 MU	Clarence Street	37	0.84
S06	Hollins, Plodder Lane, Farnworth (adjacent to hospital)	37	5.15
S01	Lee Hall, Westhoughton	37	46.4
10 MU	Merchant's Quarter	37	6.84
28E	Nelson Street	37	0.36
5 MU	St Georges Gateway	37	0.77
19E	St Peter's Business Park A	37	1.24
41E	British Aerospace	36	10.54
S02	Church Wharf	36	5.87
18E	Crompton Way	36	1.21
8Eplus	Horwich Loco Works	36	19
19 MU	Knowledge Campus	36	2.18
S11	Land at Snyderdale Gate Farm(adjacent to Westhoughton M61 junction)	36	10.95
16 MU	Trinity Gateway	36	5.29
S10	Hunger Hill	35	5.15
22MU	King Street	35	0.22
S05a	Land East of Chew Moor Lane, Lostock	35	12
S07	Land south of Bradshaw Builders	35	2
24E	Mill St	35	0.53
33E	Express Industrial Estate C	34	0.19
S05b	Land East of Chew Moor Lane, Lostock - Development site	34	5.35

ELS Site Reference	Name	Availability And Deliverability	Size (ha)
Maximum Possible Score		45	
S04	Land Fronting A6	34	5.5
S12	Land to South of Branker Street, south of Manchester Road	34	4.4
S14	Land at Red Moss, Horwich	33	8.15
S13	Land south of Snyderdale Way (J5 of M61)	33	7.7
25E	Mill St/Mule St	33	0.74
29E	Campbell Street	32	0.14
34E	Express Industrial Estate B	32	0.77
S08	Land west of Wingates	31	16
S03a	Gibb Farm North of M61 (near Horwich Loco works)	30	5.8
S03b	Gibb Farm South of M61 (near Horwich Loco works)	30	2.4
30E	Gower Street	30	0.44
22E	Watermead	30	3.90
36E	Bolton Road, Kearsley (Singing Clough)	26	8.66
31E	Gower Street	24	0.57
Total			337.27

In our view, the majority of the sites in Bolton that have been identified are both attractive and deliverable. 24 of the 44 sites we looked at, accounting for 247.3 hectares, gathered 80% or more of the available points and score at least 36 points out of 45 or more and all but two sites score 30 or more out of 45. The two poorest sites are two of the Existing Allocated Sites 36E Singing Clough and 31E Gower Street. They score 26 and 24 points respectively.

The top scoring of the Suggested Sites are site S25 Cutacre and S09 the former Greyhound Track at Westhoughton, which both score 38 out of 45.

6.2.4 Summary of Overall Planning Policy and Sustainability Performance

Judged against availability and deliverability, the majority of the 44 sites assessed score very well. This is not the case when judged against planning policy and sustainability criteria. **Table 26** presents the site scores ranked against planning policy and sustainability performance.

Table 26: Ranked Site Scores - Planning Policy and Sustainability

ELS Site Reference	Name	Planning Policy And Sustainability	Size (ha)
Maximum Possible Score		60	
21 MU	Cultural Quarter	56	3.01
14 MU	Westbrook	56	3.14
4 MU	Westpoint	56	2.89
16 MU	Trinity Gateway	55.5	5.29
S02	Church Wharf	55	5.87
22MU	King Street	55	0.22
18 MU	Blackhorse Street Car Park	54.5	0.75
19 MU	Knowledge Campus	54.5	2.18
10 MU	Merchant's Quarter	54.5	6.84
5 MU	St Georges Gateway	53.5	0.77
7 MU	Clarence Street	53	0.84
18E	Crompton Way	51	1.21
24E	Mill St	50.5	0.53
25E	Mill St/Mule St	49.5	0.74
30E	Gower Street	48.5	0.44
28E	Nelson Street	46.5	0.36
19E	St Peter's Business Park A	45.5	1.24
32E	Stone Hill Road	45.5	0.66
8Eplus	Horwich Loco Works	45	19
29E	Campbell Street	44.5	0.14
34E	Express Industrial Estate B	44.5	0.77
7E	Long Lane	44.5	0.39
33E	Express Industrial Estate C	43.5	0.19
36E	Bolton Road, Kearsley (Singing Clough)	42.5	8.66
31E	Gower Street	42.5	0.57
1E	Barrs Fold Close, Wingates	39.5	0.47
41E	British Aerospace	39	10.54
22E	Watermead	38.5	3.90
S09	Former Greyhound Track, Westhoughton	37.5	2
S10	Hunger Hill	35	5.15
S11	Land at Snyderdale Gate Farm(adjacent to Westhoughton M61 junction	35	10.95

ELS Site Reference	Name	Planning Policy And Sustainability	Size (ha)
Maximum Possible Score		60	
S07	Land south of Bradshaw Builders	33.5	2
S13	Land south of Snyderdale Way (J5 of M61)	33	7.7
S25	Cutacre	32	117.3
S03b	Gibb Farm South of M61 (near Horwich Loco works)	31.5	2.4
S06	Hollins, Plodder Lane, Farnworth (adjacent to hospital)	31.5	5.15
S04	Land Fronting A6	31.5	5.5
S05b	Land East of Chew Moor Lane, Lostock - Development site	31	5.35
S12	Land to South of Branker Street, south of Manchester Road	31	4.4
S01	Lee Hall, Westhoughton	31	46.4
S08	Land west of Wingates	30.5	16
S03a	Gibb Farm North of M61 (near Horwich Loco works)	29.5	5.8
S05a	Land East of Chew Moor Lane, Lostock	27	12
S14	Land at Red Moss, Horwich	25.5	8.15
Total			337.27

Only 15 of the 44 sites achieved 80% or more of the available marks when judged against planning policy and sustainability criteria, scoring more than 48 out of 60.

These 15 sites accounted for just 34.7 hectares of land. The 10 Town Centre Sites all feature at the top of this table, as do Church Wharf and a number of the Existing Allocated Sites. None of the Suggested Sites score more than 37.5 out of 60 with the exception of Church Wharf which scored 55.

The Suggested Sites, reflecting their location in the green belt, away from existing local facilities, away from public transport and close to the congested parts of the M61 all feature at the bottom of this table.

Cutacre, the largest of the sites suggested by developers, scores 32 points of 60 on the planning policy and sustainability criteria. Three of the Suggested Sites, So3a (Gibb Farm North, S05a (Land east of Chew Moor Lane) and S14 (Red Moss) scored less than half of the marks available.

6.3 Conclusions

The site assessments have indicated that Bolton has a wide choice of sites that are both attractive and deliverable from a commercial perspective, but has also indicated a much more limited range of sites that could be considered to represent best practice in planning policy and sustainability terms.

- Only 1 of the Existing Allocated Sites, site 18E Crompton Way score 80% of the available points in both the availability and deliverability category and the planning

policy and sustainability category. Several of the Existing Allocated Sites score well on availability and deliverability including sites 1E (Barrs Fold Close), 7E (Long Lane), 8Eplus (Horwich Loco Works), 19E (St Peter's Business Park A), 32E (Stone Hill Road), 41E (British Aerospace) and 28E (Nelson Street). Three sites score well in the planning policy and sustainability category sites 24E (Mill St), 25E (Mill ST/ Mule St) and 30E (Gower St). Four of the Existing Allocated Sites prop up the availability and deliverability rankings including sites 22E (Watermead), 30E (Gower Street), 31E (Gower Street) and 36E (Bolton Road, Kearsley (Singing Clough).

- Only one of the Suggested Sites, S02 (Church Wharf), achieves 80% or more of the available points in both the availability and deliverability category and the planning policy and sustainability category. Many of the Suggested Sites score very well with regard to availability and deliverability, but none of the Suggested Sites except Church Wharf achieve more than 38 points out of the available 60 in the planning policy and sustainability category.
- Nine of the 10 Town Centre Sites score 80% of available points in both the availability and deliverability category and the planning policy and sustainability category. Site 22MU (King Street) is the exception; it scores slightly lower on availability and deliverability.

In general, the Existing Allocated Sites are of varying range and quality. Some are relatively attractive but not especially sustainable in planning policy terms. Some are relatively sustainable but not especially attractive and four Existing Allocated Sites are particularly unattractive to the market.

The Suggested Sites are all generally attractive and deliverable, but few can be considered to meet planning policy and sustainability criteria, with the exception of site S02 Church Wharf.

The Town Centre Sites almost all score well for both the availability and deliverability categories and the planning policy and sustainability categories.

7 Matching Demand with Supply

7.1 Introduction

This section highlights the results and key messages that have developed from bringing together the demand and supply analysis of this study and begins to help inform the key issues Bolton Council will need to consider and consult upon in preparing the LDF.

This study has examined both the projected demand for future employment land in Bolton to 2021 and beyond to 2026 and the suitability of the existing and potential supply of employment land to meet this demand. Specifically, the demand assessment has included a review of eight different demand scenarios including models based on historic take up rates, floorspace trends and projected employment trends incorporating the OEF Greater Manchester Forecasting Model employee projections. In addition we have also used a qualitative market overview of employment demand to be used against the scenarios to identify a total land demand requirement for the borough.

Ultimately it will be the LDF preparation process (informed by the LDF evidence base of which this study is part) that should be used to determine the extent of the land requirements for the borough. This will also be informed by a range of issues that are yet to be fully understood and determined. These issues include:

- the nature and disaggregation of the Greater Manchester's sub regional land requirements;
- the capacity of other Greater Manchester districts in terms of employment land availability;
- the ongoing extent of 'pent up' demand from potential inward investors; and
- the needs of existing businesses to relocate into more suitable premises to meet modern business needs etc.

It is recommended that these issues should be considered as part of the LDF preparation in determining how much land should be allocated and should also be considered along with other evidence such as studies that address housing, open space needs, flood risk and retail capacity etc.

In addition this section sets out the findings from the supply assessments, which featured a detailed appraisal of 44 sites including 17 Existing Allocated Employment Sites identified in Bolton's UDP, 17 sites suggested by the private sector (developers and landowners) and a further 10 sites in Bolton Town Centre identified by Bolton Council.

7.2 Estimating the Gross Employment Land Requirements for Bolton Council

Section 4 set out eight different scenarios to identify the gross employment land requirement for Bolton to 2021 and six of these were updated to project beyond 2021 to 2026. This section also explored the difficulties involved in translating net employment land projections into a form suitable for translating into gross land requirements, and the difficulties in arriving at a single figure that could inform Bolton Council's allocations for their LDF process.

Section 5 concluded that there will be gross demand for employment land in Bolton between 2007 and 2021 in the region of **130 ha to 150 ha**; we concluded that demand for employment land between 2021 and 2026 would be around **45 hectares**.

Overall this results in a demand for employment land of between **175 -195 hectares** between 2007 and 2026, or between **9.2 ha** and **10.3 ha** per year.

7.3 Meeting Sub-Regional and Regional Employment Land Needs

Bolton has a number of potential sites that score well against availability and deliverability criteria but that collectively are in excess of the anticipated demand for employment land. Due to the land available and location of these sites Bolton has an opportunity to contribute towards the employment land requirements of the Greater Manchester Sub Region (i.e. The RSS identifies the need for an additional 893 ha in Greater Manchester) and in neighbouring local authorities, should they have a shortage of land.

In addition, Bolton has the opportunity to provide a site of sub regional or potentially regional significance at Cutacre, should there be identified sub-regional or regional demand.

In demonstrating demand for employment land the Greater Manchester Forecasting Model's Accelerated Growth Scenario identifies that between 2007 and 2026 over 240,000 jobs are forecasted to be generated in Greater Manchester. Bolton is forecasted to generate over 15,000 extra jobs over this same period. In addition Bolton is also forecasted to be the fourth largest Local Authority in terms of jobs growth over this period behind Manchester, Salford and Trafford therefore suggesting that Bolton is a key component of a growing Greater Manchester economy and that the borough could be required to meet sub-regional demands.

Evidence provided by Bolton Council and discussed in more detail in Section 5.3.9 has identified that there is also potential for additional demand for land through a combination of 'pent up' demand and businesses looking to locate/ relocate within the borough. Bolton Council have also presented evidence that some businesses have been lost (or could be lost in the future) due to a shortfall in available land. When developing the LDF it will therefore be important for Bolton Council to have regard to the potential for increased land demand due to endogenous demand and inward investment as well as the needs of existing businesses to relocate within the borough.

7.4 Phasing of supply

The issue of phasing was discussed in 5.3.5, particularly in relation to ensuring that the development of out of town sites such as Horwich Loco Works are developed in a way that complements Town Centre development rather than constrain it. In respect to the supply of current and potential employment sites Cutacre in particular is seen by Bolton Council as having significant potential to meet local and sub regional/ regional employment land requirements and the expansion / relocation needs of local manufacturers.

However, in meeting these requirements Cutacre will need to be regarded as a medium – long term solution (subject to it being identified for employment use through the LDF preparation process). Cutacre is unlikely to be available until 2011 at the earliest. Cutacre is therefore unlikely to be a solution for firms looking to locate in to Bolton in the next three years. Therefore consideration should be given to short, medium and long term options through the LDF preparation process. Bolton Council need to give consideration as to how short term demand for employment land can be met as well as medium and long term demand, both within and beyond the plan period.

Therefore, when considering the opportunities and potential for Bolton meeting sub regional and regional needs, the LDF preparation process will need to give consideration to the ability of potential employment sites to meet employment land requirements in a timely way.

7.5 Supply of Current and Potential Employment Sites

In considering the potential supply of employment land to meet demand, we have carried out a detailed assessment of 44 potential sites across Bolton, comprising:

- 17 of the existing allocated employment sites from the Bolton UDP;
- 17 sites identified by developers and landowners as potential locations for employment sites and;

- 10 sites identified by Bolton Council around Bolton Town Centre.

The sites have been assessed against a range of criteria and the results of the assessment are summarised in Section 6. The 44 sites collectively add up to around 337 ha.

The site assessments summarised in Section 6 indicate that while most of these sites are both attractive and deliverable from a commercial perspective, few could be considered to represent best practice in planning policy and sustainability terms.

Bolton will need to make policy decisions to select which sites to allow to be allocated for employment uses.

The existing supply of employment land in Bolton as set out in the 2007 Employment Land Resource totalled some 62.37 hectares. However this figure includes:

- Four sites that are among the least commercially attractive in Bolton. Sites 30E, 22E, 36E and 31E (Gower Street, Watermead, Singing Clough and Gower Street) add up to around 13 hectares of land.
- Two sites that form part of larger proposals. Site 8E at Horwich Loco Works totals some 16.3 hectares and will form part of the wider development at this site (Site 8E Plus). Site 38E at Cutacre is some 16.7 hectares and is part of the larger Suggested Site S25.
- 35E Mabel's Brow which amounts to around 10 hectares with 0.73 hectares of land remaining for development and was omitted in the first stage of the study.

Consequently, of the 62.37 hectares of land identified in the 2007 Annual Employment Land Resource, around 13 hectares is commercially unattractive.

A further 33 hectares at Horwich Loco Works and Cutacre form part of a larger set of proposals (and may therefore be unavailable while those larger proposals are debated and refined).

Assuming there is up to 49 hectares of commercially attractive employment land in Bolton, this demonstrates the importance of Horwich Loco Works and Cutacre in meeting Bolton's employment land requirements.

7.5.1 Sites for Office Development

Bolton Council has identified a number of sites where major regeneration and redevelopment is likely to take place in the future including three major redevelopments at Church Wharf, Horwich Loco Works and the Merchant's Quarter.

Discussions with the Council and a review of the plans for these projects indicate that these three developments could provide more than 160,000sq. m of office premises and the majority of this is expected to come forward by 2026.

Even if the development at Horwich Loco Works, Church Wharf and Merchant's Quarter come forward, we think there is still a requirement for additional land to accommodate further office development, and provide for a margin of choice.

7.5.2 Sites for Factory and Warehouse Development

Although a decline in manufacturing employment could imply loss of manufacturing businesses, discussions with stakeholders suggest that for Bolton, while manufacturing employment may decline, this may not necessarily lead to a decline in the amount of manufacturing business in the borough. Many of the existing manufacturers are perceived to be in good health, and GVA projections provided alongside within the Greater Manchester Forecasting Model suggest some manufacturing sectors will see increased GVA in the future. Section 4.4.5 discussed the possibility that Bolton's manufacturing sector may see increased automation and capital substitution for labour and concluded that loss of employment in manufacturing may not lead to loss of manufacturing land.

The qualitative demand assessment, summarised in Section 5, has concluded that there is a need for land both to accommodate uses such as scrap and recycling businesses that

could be displaced at Horwich Loco Works, and a need for significant pieces of land to accommodate the expansion and relocation ambitions of some of Bolton's existing manufacturers. Bolton Council has provided evidence that a number of local firms require land or premises to expand or modernise including some larger requirements of 5 hectares or more.

In conclusion the evidence provided by Bolton Council on pent up demand, firms seeking to relocate, the needs of existing mill occupants and information from the Enquiry Demand Analysis Report, discussed in Section 5.3.9, suggests that there could be a need for additional land to meet the specific requirements of the manufacturing and warehousing sectors in Bolton.

7.6 Other Factors

Finally there are a number of factors that are yet to be fully determined such as the nature and disaggregation of Greater Manchester's sub regional land requirements, the capacity of other Greater Manchester districts in terms of employment land availability, the ongoing extent of 'pent up' demand from potential inward investors and the needs of existing businesses to relocate into more suitable premises to meet modern business needs and any domino effects of businesses relocating (freeing up existing sites for other firms to occupy).

It is also unclear whether Bolton will continue to lose existing employment land to other uses at the same rate in the future as it has in the recent past. Should the rate of loss fall, Bolton would arguably require less land, conversely, if the rate were to rise, Bolton would require even more land to accommodate employment in the Borough.

It is recommended that these issues should be considered as part of the LDF preparation in determining how much and which land should be allocated for employment uses.

8 Recommendations

8.1 Introduction

Taking into account the various issues and considerations raised in this Employment Land Study, we have prepared a series of recommendations.

These recommendations are not exhaustive and should be considered together with other evidence (i.e. Strategic Housing Land Availability Assessments (SHLAA) Open Needs Assessment, Strategic Flood Risk Assessment (SFRA) and Retail Capacity Studies) in order to identify the spatial implications facing the borough through the preparation of the LDF.

This section provides summaries of the key issues and messages that will need to be considered and used to inform the preparation of the LDF. These issues include:

- the total employment land requirements for the borough during the plan period;
- location issues for employment uses;
- the retention and de allocation of sites following the site assessments;
- rolling provision and phasing of land to meet employment needs;
- a review Green Belt and Protected Land Boundaries;
- the need for Mixed Use Development;
- local, sub regional and regional employment land requirements;
- local employment densities and plot ratios; and
- future monitoring requirements.

In considering these issues in the LDF, it will be important to explore interrelationships and develop options that are flexible enough to adapt to change.

8.2 Total Supply over the plan period

This section summarises the findings from Sections 4, 5 and 7 and provides the recommended employment land requirement for the LDF plan period. Bolton Council should use the findings of the report to inform consultations on the preparation of the Core Strategy and Allocations DPD. It is recognised that in determining the amount of land required in the borough a number of emerging issues will need to be taken into consideration and which could affect the amount of land required for employment uses in Bolton. The issues include:

- nature and disaggregation of the Greater Manchester's sub regional land requirements;
- the capacity of other Greater Manchester districts in terms of employment land availability;
- impact of the Greater Manchester Congestion Charge;
- proportions of mixed use development on employment sites;
- the ongoing extent of 'pent up' demand from potential inward investors; and
- increased employment land losses to non employment uses.

Taking account of the quantitative demand scenarios set out in Section 4, and taking into account our qualitative discussions with key stakeholders discussed in Section 5, we concluded that Bolton Council should seek to ensure that between **175 ha** and **195 ha** of general employment land is provided for the period from 2007 to 2026.

We concluded in section 7.5 that there is currently as little as **16** and a maximum of **49** hectares of commercially attractive allocated employment land in the Borough (with the two Existing Allocated Sites 8E and 38E that are contained within the larger proposals for Horwich Loco Works and Cutacre respectively providing some uncertainty) in Bolton's current UDP.

This suggests there is a shortfall of between **126** to **179** hectares of allocated employment land over the period to 2026 that Bolton Council may wish to address.

8.3 Retention /De-allocation of Sites

This section presents the findings of the site appraisal process undertaken to determine the suitability of existing and potential sites for employment uses. These findings will be useful in determining which sites should be considered for retention for employment uses and which should continue to have or receive increased protection in the development plan. It also identifies which sites should be considered for release from employment use for alternative uses and which sites should be considered to meet the borough's additional employment land requirements for the plan period and beyond.

8.3.1 Allocations to be Retained

We recommend that Bolton consider retaining the majority of their Existing Allocated Employment sites but especially sites 38E at Cutacre and site 8E at Horwich Loco Works. These are both large sites and form almost half of the current supply of allocated employment land and score well against availability and deliverability criteria. Should neither of the wider redevelopment schemes at Cutacre and Horwich come forward, of which these sites are part of, these specific sites remain good sites for employment development in the future in terms of the criteria against which they were assessed.

8.3.2 De-allocations

We recommend that Bolton consider two sites as appropriate for de-allocation. Site 36E Singing Clough and Site 31E Gower Street (currently a reservoir) both score very poorly for availability and deliverability and Singing Clough is one of the worst scoring of the Existing Allocated Sites for planning policy and sustainability. It is noted that in the case of Singing Clough there is ongoing work being undertaken on the economic viability of the site which will help inform whether de-allocation should be considered. Bolton may also see merit in considering de-allocation of 30E Gower Street, which scores relatively poorly for availability and deliverability.

8.3.3 New Allocations

None of the Suggested Sites score well, except Church Wharf, against planning policy and sustainability criteria, particularly compared to the Town Centre Sites and some of the Existing Allocated Sites. However the Suggested Sites are the only locations that could provide the size of sites to meet the identified needs of existing employers within Bolton who are seeking to modernise or expand and are looking for medium to larger sites. In determining which, if any, of the Suggested Sites to allocate, Bolton Council will have to consider which of the planning policy and sustainability criteria to attach the most weight to. Therefore there will be merit in Bolton Council considering, as part of the issues and options stage of the Allocations DPD, the presentation of a series of options to stakeholders that could both look at Suggested Sites in isolation and/ or options presenting combinations of these sites.

8.3.4 Town Centre Sites

The 10 Town Centre Sites all score well against both availability and deliverability criteria and planning policy and sustainability criteria, as does Suggested Site S02 Church Wharf. Consequently we recommend that Bolton Council consider allocating all of the Town Centre Sites, as well as Church Wharf, for employment led mixed use.

8.4 Rolling Provision and Phased Release of Land

This section outlines the key issues for considering timely land availability and phasing of land in order to meet the short, medium and long term business needs of the borough.

A key test for the robustness of the LDF is deliverability and therefore it is important for Bolton Council to ensure it has an adequate supply of land immediately available for development, as well as ensuring enough land is allocated for the whole plan period. In particular, there will be a need to explore options that address the short, medium and long term employment land demands and whether Bolton has the sites to meet these needs in a timely way.

Consequently, we recommend that there be a rolling review of employment land availability to ensure that five years worth of high quality, unconstrained land is readily available for development at any one time. In accordance with the sequential hierarchy, it would be necessary to ensure that the release of any greenfield land allocated for employment use is phased in order to avoid less sustainable sites from comprising the bulk of development.

8.5 Review of Greenbelt and Protected Open Land Boundaries

The impact on Bolton's Green Belt and Protected Open Land from development will be a key issue for the LDF. This section sets out some of the key issues and potential options that could be considered during the preparation process.

The majority of the Suggested Sites put forward by developers in Bolton lie in the Green Belt or on Protected Open Land in the West of Bolton and score poorly in planning policy and sustainability terms.

One of the key issues for Bolton Council to consider as part of the LDF preparation process will be the strategic policy approach regarding the level of protection afforded to Bolton's existing employment land allocations. In particular with regards to the implications this may have on increasing development pressure on Green Belt and areas of Protected Open Land.

Consequently, It is recommended that options are considered by Bolton Council through the LDF preparation process regarding this issue. These options are not exhaustive, but could include:

- Development of LDF policies that will fully protect existing employment land allocations from non employment uses. This is likely to result in a reduction in development pressure on Greenbelt and Protected Open Land for employment uses.
- Removal of planning policies in the LDF that would protect existing employment land allocations. This is likely to result in an increase in development pressure on Green Belt and Protected Open Land for employment uses.
- Consideration of protection of existing employment sites in the LDF, however with policies that recognise that non employment uses may be suitable in certain circumstances and on certain parts of an employment site. This could help limit the amount of development pressure on Greenbelt and Protected Open Land for employment uses.

It is noted that with regard to this issue the protection of employment land allocation would not, in isolation, necessarily result in a reduction in development pressure on Green Belt and areas of Protected Open Land. Therefore the outcomes of other evidence base studies for other land uses, in particular the Strategic Housing Land Availability Assessment (SHLAA) and other studies such as the Greater Manchester Strategic Flood Risk Assessment (SFRA) will be key considerations in determining the policy approaches adopted in the LDF.

8.6 Mixed Use Development

As discussed in Section 2, Draft PPS 4 places particular emphasis on mixed use development to achieve sustainable economic growth. This section outlines the main issues emerging from consultation with stakeholders for this study and how the LDF will need to consider other forms of development when allocating future employment land.

As discussed in Section 5.3.1, in broad terms, it is not considered that the majority of the sites require mixed use development to make them commercially viable. ARUP therefore recommended that Bolton Council give careful consideration to the need for mixed use schemes on the sites identified in this study, and where mixed use is identified to be the most appropriate form of development that in principle they are 'employment led' mixed use schemes.

However, the redevelopment of Horwich Loco Works is predicated upon the comprehensive regeneration of the site to create a mixed residential and employment scheme. If the Council wishes to see this scheme come forward as proposed, and if the parallel Strategic Housing Land Availability Assessment being carried out concludes the site is a good location for housing, we recommend that Bolton Council consider re-allocating this existing employment site as a comprehensively developed mixed use site.

8.7 Meeting Local, Sub-Regional and Regional Employment Land Needs

The issue of sub regional and regional demand for employment land is a key issue for Bolton's LDF to address. To date issues regarding the nature of the demand and how the employment land requirement (as set out in the RSS) for Greater Manchester is disaggregated between the 10 Greater Manchester districts is still to be determined and agreed. This section summarises the key issues for consideration.

Bolton has commercially attractive potential employment sites in excess of the anticipated local demand for employment land. These sites could contribute towards the employment land requirements of neighbouring local authorities, should they have a shortage of land. In addition Bolton could provide, in Cutacre, a site of potentially sub-regional or regional significance.

Bolton Council should continue working with and developing relationships with neighbouring local authorities to understand the extent of local demand, and how Cutacre and the other Suggested Sites in Bolton could contribute towards meeting these local needs. The Council should also consider working with Association of Greater Manchester Authorities (AGMA) and with the Northwest Development Agency (NWDA) to understand the nature of sub-regional and regional employment land requirements and how Cutacre compares to other potential sites of sub-regional or regional significance.

8.8 Local Employment Densities and Plot Ratios

As part of regular discussions with local employers, Bolton Council may wish to try and better understand local employment densities and plot ratios, to enable more accurate updates of this work in the future. It has been suggested in this report that manufacturers in Bolton may be substituting capital for labour, if this is the case the employment density may be rising.

By contrast, converting floorspace requirements for office developments into gross land requirements through standard plot ratios may underestimate the increased density of office development at locations like Middlebrook and Bolton Town Centre (where at least 3 storey buildings, with higher plot ratios are the norm).

8.9 Approach to Monitoring

Monitoring is an integral part of plan production and Local Authorities are being encouraged to move away from traditional perceptions of monitoring as a distinct and separate task and view it more holistically. Bolton Council already has good systems in place to monitor development of employment land, and the basis for a strong system to monitor loss of employment land to other uses. However, there are likely to be emerging areas that will identify the need for further development of the LDF monitoring framework in order to have a robust understanding of historic and future trends in the borough. An example of this is the need for the Council to formalise the monitoring of the loss of employment land to other uses. In order to receive accurate data as a sound basis for monitoring there is also a need to align data inputted from planning applications into the Council's planning databases. It is recommended that overall a wider view is taken to the monitoring of employment land and trends in Bolton, which provides a mix of additional contextual and output information to complement that required by CLG. For example it is recommended that more formalised monitoring of existing business expansion and relocation requirements is developed as well as continued monitoring of business enquiries from potential inward investors including details of their specific land and premises requirements. This could take the format of an expanded AMR that reviews and provides an update on the key variables discussed in this report, particularly matters such as losses to alternative uses and more detail on the nature of new developments.

Appendix A

**Key Employers on
Unprotected Land**

A1 Key Employers on Unprotected Land

A1.1 Introduction

In parallel with the main part of the study, we were asked to carry out a simultaneous assessment of a number of sites occupied by key local employers on sites unprotected by planning policy.

Although there are no immediate concerns that these employers may be planning to relocate, Bolton were aware that if they were to choose to relocate, there is currently no planning policy for the sites.

Therefore Bolton Council asked us to evaluate the sites against the same criteria as the sites in the Employment Land Study (ELS) to provide some guidance on whether sites should be protected for employment uses in the future.

A1.2 The Employers

Bolton Council identified sites occupied by 13 key local employers that they wished us to evaluate, as well as the site of a planned office development at Middlebrook (KE14). Employers included Warburtons, Royal Bank of Scotland, Hitachi and others shown on Table 27 below.

Table 27: Key Employers Not on Protected Land

Ref.	Business	Address
KE1	Warburtons Ltd	Hereford Street
KE2	Royal Bank of Scotland,	Calvin Street, The Valley
KE3	Greenhalgh's Craft Bakery,	Bee Hive Industrial Estate, Crescent Road
KE4	Georgia Pacific Gb Ltd,	Stadium House, 2 Estate Approach
KE5	Home Network Delivery Ltd,	Crescent Road
KE6	Pennine Industries Ltd,	Bradley Mill, Lever Street
KE7	Scan Computers International Ltd	27-28 Enterprise Park
KE8	M & A Pharmachem Ltd,	Allenby Laboratories, Wigan Road
KE9	Hitachi Automotive Products Europe Ltd	Middlebrook Business Park
KE10	Silcoms Ltd	Victoria Mill, Piggott Street
KE11	Ascribe S C Computer Software	Branker Buildings, Manchester Road
KE12	Shakespeare Foundry,	Shropshire Street
KE13	James Booth Ltd,	Manchester Road
KE14	Planned Office Development	Linkway / Aspinall Way

The 14 sites are shown on the plan over the page.

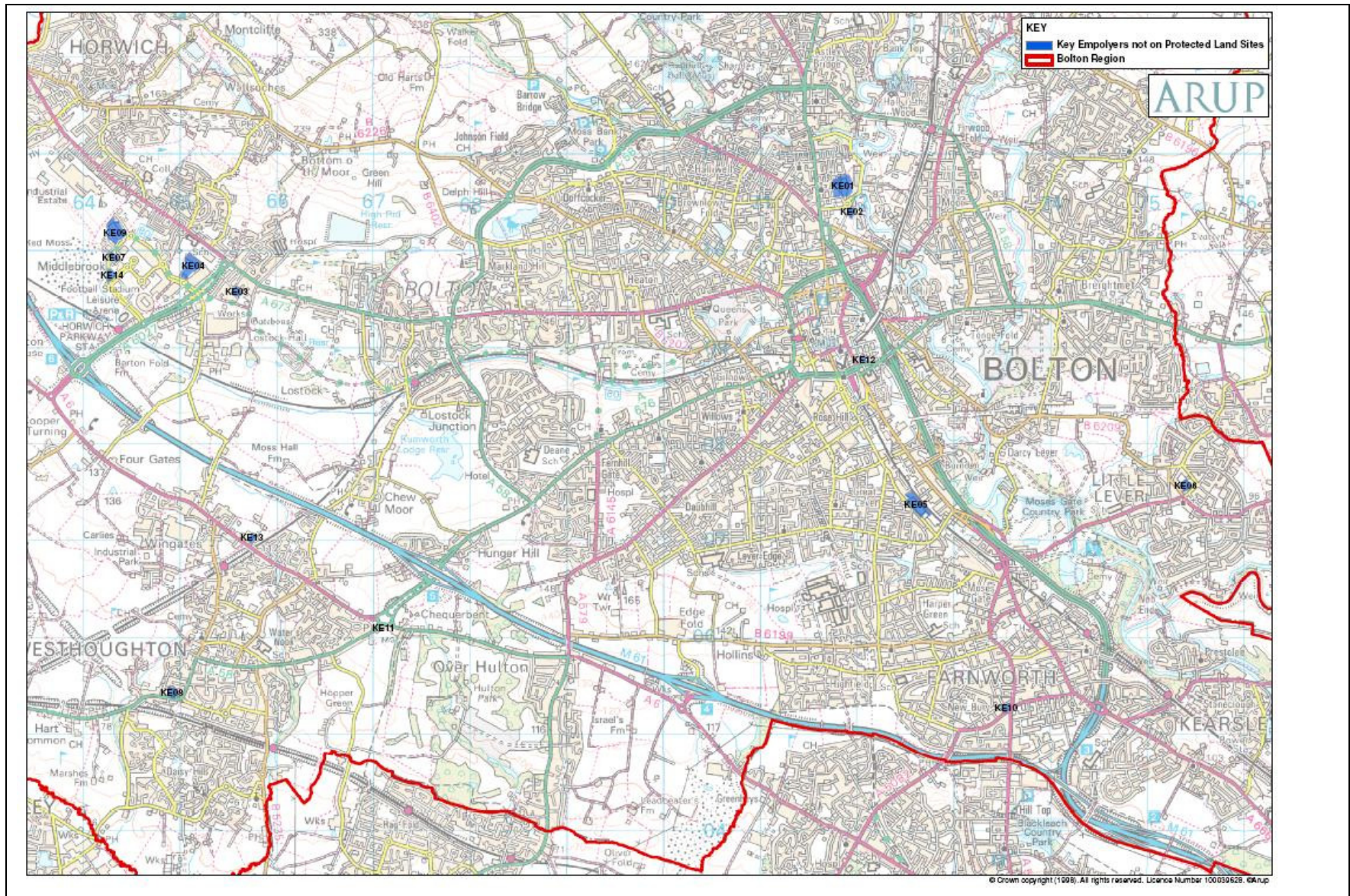


Figure 4: Key Employers on Unprotected Land

A1.3 Site Assessments

As with the sites examined in the main employment land study, we assessed the sites against a number of different criteria grouped into seven broad categories. The scores for these are shown below, for comparison we have included the average scores of the sites in the main ELS.

Table 28: Detailed Site Assessment of Key Employers on Unprotected Land – Site Scores by Category

Site Reference	Name	1) Commercial Viability	2) Local Market conditions	3) Quality of Site	4) Quality of the Wider Environment	5) Strategic access & catchment	6) Environmental sustainability	7) Other Policy considerations
Maximum Possible Score		10	15	20	10	25	20	5
KE01	Warburtons	9	12	15	8	16.5	20	5
KE02	RBS	9	12	19	8	16.5	16	5
KE03	Greenhalgh's Craft Bakery	7	11	13	3	12	18	5
KE04	Georgia Pacific GB	9	12	16	4	13	18	5
KE05	Home Delivery Network LTD	7	10	19	5	17	19	5
KE06	Pennine Industries Ltd	7	11	19	8	13.5	18	5
KE07	Scan Computers International	9	11	19	7	13	18	5
KE08	M&A Pharmachem	7	11	18	7	17.5	18	5
KE09	Hitachi Automotive Product	9	11	15	7	11	18	5
KE10	Silcoms Ltd	7	11	15	8	15.5	18	5
KE11	Ascribe SC Computer Software	7	11	19	7	14	18	5
KE12	Shakespeare Foundry	7	9	15	10	18	20	5
KE13	James Booth Ltd	7	11	17	6	12	18	5
KE14	The Linkway	9	10	18	7	12	15	5
Average score ELS sites		8	11.2	17.13	7	15.1	18.13	5

A1.3.1 Summary of Site Assessments by Category

The 14 existing employment sites score well against each of the seven categories and certainly score well compared to the sites assessed for the employment land study.

- **Commercial Viability:** All of these sites have been judged to be reasonably commercially viable for employment in their own right and every site scores at least 7 out of 10 for commercial viability. By contrast, some sites in the main ELS scored just 4 out of 10.
- **Local Market Conditions:** The sites all score relatively well against the local market conditions criteria. Just one site, the Shakespeare Foundry scores relatively poorly. With most sites scoring 11 or more this compares well with the average score of 11.66 for the sites in the ELS.
- **Quality of site:** Given their status as existing developed sites, many of the sites score better than those sites in the ELS against quality of site criteria but not all. As existing developed sites they mainly have negligible issues of contamination, topography, highways or infrastructure, suggesting that if they were to become available, they would be ideal for redevelopment for employment uses. However site KE03 Greenhalghs scored just 13 points in this category, lower than every other site, due to its location on the Thirlmere Aqueduct (a major utility constraint), some topographical constraints and the need for some land remediation. Three sites do however score poorly for contamination. Sites KE01 (Warburtons), KE10 (Silcoms Ltd) and KE12 (Shakespeare Foundry) each have severe land contamination issues that would affect their deliverability.
- **Quality of the Wider Environment:** This is the only category that shows major variation. While some of the sites have no amenity issues and are well located for local facilities several of these existing employment sites are close to existing residential areas and so, were they an empty site, would be significantly constrained by amenity considerations – especially site KE03 Greenhalghs and KE04 Georgia Pacific.
- **Strategic Access and Catchment:** As with the sites in the main ELS, there is a wide range of scores against this criterion. Several sites score well for strategic access and catchment such as KE05 (Home Delivery Network), KE08 (M&A PharmaceM) and KE12 (Shakespeare Foundry) but several sites score relatively poorly including Greenhalghs, James Booth Ltd and The Linkway (KE03 (Greenhalgh's Craft Bakery), KE13 (James Booth Ltd) and KE14 (The Linkway)).

Most of the sites score well against the environmental sustainability category, and as all (except KE14 Linkway) are existing developed sites all score maximum points against our UDP criteria.

A1.3.2 Ranked Site Scores

As with the main ELS, we have grouped the seven categories of criteria into two broader categories covering availability and delivery, and planning policy and sustainability. These are shown on Table 29 and Table 30 below.

Table 29: Ranked Site Scores – Availability and Deliverability

Site Reference	Name	Availability and Delivery Score
KE02	RBS	40
KE07	Scan Computers International	39
KE04	Georgia Pacific GB	37
KE06	Pennine Industries Ltd	37
KE11	Ascribe SC Computer Software	37
KE14	The Linkway	37
KE01	Warburtons	36
KE05	Home Delivery Network LTD	36
KE08	M&A Pharmachem	36
KE09	Hitachi Automotive Products	35
KE13	James Booth Ltd	35
KE10	Silcoms Ltd	33
KE03	Greenhalgh's Craft Bakery	31
KE12	Shakespeare Foundry	31
Average Score - ELS Sites		36

The 14 existing employment sites are generally just as attractive as the sites we have looked at in the Employment Land Study. The top scoring site KE07 (RBS) is the top scoring site that we have looked and scores 40 out of 45. More than half of these key employers score 80% or more of the available points for availability and deliverability. No site scores less than 30 and the lowest scoring sites score more than the lowest scoring sites in the main ELS.

The two poorest scoring sites are KE03 and KE12 (Greenhalghs and the Shakespeare Foundry)

Table 30: Ranked Site Scores – Planning Policy and Sustainability

Site Reference	Name	Planning Policy and Sustainability Score
KE12	Shakespeare Foundry	53
KE01	Warburtons	49.5
KE08	M&A Pharmachem	47.5
KE10	Silcoms Ltd	46.5
KE05	Home Delivery Network LTD	46
KE02	RBS	45.5
KE06	Pennine Industries Ltd	44.5
KE11	Ascribe SC Computer Software	44
KE07	Scan Computers International	43
KE09	Hitachi Automotive Products	41
KE13	James Booth Ltd	41
KE04	Georgia Pacific GB	40
KE14	The Linkway	39
KE03	Greenhalgh's Craft Bakery	38
Average Score – ELS Sites		44

Despite many advantages in some of the scoring categories (such as occupying previously developed land) only two of the key employers on existing sites achieved 80% of the points available for the planning policy and sustainability criteria.

Five of the existing employment sites score less than the average score of the sites examined in the ELS. The poorest scoring site is KE03 Greenhalgh's.

A1.4 Policy Implications and Recommendations

Of the existing key employers on unprotected sites, only one site scores poorly as an employment site on both availability and deliverability and planning policy and sustainability criteria. Site KE03 is currently occupied by Greenhalgh's bakers, but were they to relocate, this site would score lower points than almost all of the sites examined in the main ELS in terms of commercial attractiveness, availability and deliverability. It would also score worse than 60% of the sites we looked at in the ELS in terms on planning policy and sustainability (though by virtue of being an already developed site it would still be a more sustainable location than most of the sites put forward by developers and landowners).

In our view however the other sites occupied by key employers would be commercially attractive if they were to come forward as development opportunities and all score higher than the sites identified by developers and land owners in planning policy and sustainability terms.

We therefore recommend that Bolton consider designating all of these sites as Protected Employment Land within the LDF, with the exception of Greenhalgh's which we recommend Bolton Council consider leaving unprotected.

Appendix B

**Site Assessment
Criteria**

B1 Site Assessment Criteria

B1.1 Introduction

The full site assessment criteria that have been used for this study, plus a brief explanation of how each site was scored, and by whom, is set out below.

B1.2 Commercial Viability

Criteria	Score				
	1	2	3	4	5
1. Market interest in the site for the proposed use and financial viability	Very Low	Low	Moderate	High	Very High
2. Ownership Constraints	Complex site in multiple ownership - probable ransom strips	Several private owners but solvable issues	Some ownership issues but generally not prohibitive	Single owner with no ownership problems	Publicly/ Privately owned site with a willing developer pushing regeneration

Methodology used for Assessment: Keppie Massie (Commercial Agents)

The commercial agents (Keppie Massie) undertook site visits and desktop work in order to inform these assessment criteria. This involved multiple meetings and telephone conversations with key employers within Bolton and discussions with officers within the Bolton Regeneration and Economic Development Division.

- An overall score was applied for the market interest in the site, based on developer enquiries, desk based work and interviews with key employers and officers at Bolton Council.
- Ownership constraints were assessed based on planning permission data obtained from Bolton Council planning officers (for Allocated Sites); interviews with key employers (for key employers not on protected land) and details provided through the site suggestion forms (for suggested sites).

B1.3 Local Market Conditions

Criteria	Score				
	1	2	3	4	5
3. Supply of employment land	Very High supply of sites of a similar quality and type in the locality	High supply of sites of a similar quality and type in the locality	Moderate supply of sites of a similar quality and type in the locality	Low supply of sites of a similar quality and type in the locality	Would represent the only site of its type in the locality
4. Vacant floorspace in local market	Very High	High	Moderate	Low	Very Low
5. Local rents	Very Low	Low	Moderate	High	Very High
<p>Methodology used for Assessment: Keppie Massie (Commercial Agents)</p> <p>The commercial Agents (Keppie Massie) undertook site visits and desktop work in order to inform these assessment criteria. This involved multiple meetings and telephone conversations with key employers within Bolton and discussions with officers within the Bolton Regeneration and Economic Development Division.</p> <ul style="list-style-type: none"> Scores for the supply of employment land, vacant floorspace and local rents were provided by assessments undertaken by the commercial agent (Keppie Massie). 					

B1.4 Quality of Site

Criteria	Score				
	1	2	3	4	5
6. Contaminated Land issues	Severe land contamination issues	Problematic land contamination issues	Some land remediation required	Slight land remediation required	No land remediation required
7. Topographical constraints	Critical topographical constraints	Difficult topographical constraints	Moderate topographical constraints	Slight topographical constraints	No topographical constraints
8. Highways Infrastructure Constraints (i.e. road junction improvements required)	Very High	High	Moderate	Low	Very Low
9. Utilities: Combined Utility Provision Score	Unserviced site with major capacity constraints/ cost issues	Unserviced site with moderate capacity/cost constraints	Part serviced site with moderate capacity/cost constraints	Fully serviced site with minor capacity/cost constraints	Fully serviced site with no capacity constraints

Methodology used for Assessment: Arup; United Utilities; Highways Agency

The quality of the site was assessed using the criteria above. A number of inputs were required from various sources, including United Utilities and the Highways Agency.

- Site visits were undertaken and each site was assessed against each criteria and related definitions
- Photographic evidence was provided of each site.
- Additional desk based GIS assessments ensured that contaminated land was assessed against Bolton Council's contaminated land and GIS layers. These included GIS polygons on **hazardous areas, land fill sites and historic landfill sites**.
- In addition the perceived potential contamination based on looking at the current use on the site was provided. No ground assessments were undertaken.

A database containing site information and plans of each of the sites was provided to United Utilities Asset Protection Team who provided a combined utility provision constraints score with comments on significant utility constraints on any sites (such as the Thirlmere Aqueduct)

B1.5 Quality of the Wider Environment

Criteria	Score				
	1	2	3	4	5
10. Extent to which the development of the site is constrained by the amenity considerations of adjacent occupiers	Unacceptably high adverse affects for adjacent occupiers	Significant adverse affects for adjacent occupiers	Moderate adverse affects for adjacent occupiers	Slight adverse affects for adjacent occupiers	Amenity of adjacent occupiers unaffected / improved
11. Facilities (retail, services etc) within the locality	Town Centre within 20+ minute walk	Town Centre within 20 minute walk	Town Centre within 15 minute walk	Town Centre within 10 minute walk	Town Centre within 5 minute walk

Methodology used for Assessment: Arup

The quality of the wider environment was assessed using the criteria above.

- Site visits were undertaken and each site was assessed against each criteria and related definitions

Additional desk based GIS assessments ensured that proximity to facilities were assessed against Bolton Council's GIS polygons. Assessments were based on GIS files showing **town and district centers** as defined in the Bolton UDP.

B1.6 Strategic Access and Catchment

Criteria	Score				
	1	2	3	4	5
12. Public transport accessibility, both existing and proposed (train, tram, bus)	No railway station within 800 meters (10 minute walk) or bus stop within 400meters (5 minute walk).		800 meters, or less than, from a railway station or; 250 meters, or less than, from a low frequency bus stop or; 400 meters, or less than, from a high frequency bus stop (one every 10 minutes or better).		800 meters, or less than, from a Category A Interchange (Bolton Interchange).
13. Road Access	Immediately adjacent with direct access to a Rural Unclassified Road	Immediately adjacent with direct access to a B road	Immediately adjacent with direct access to an A road	Immediately adjacent with direct access to a Trunk Road	Immediately adjacent with direct access to the motorway
14. Pedestrian / Cycling accessibility to site, both existing and proposed	No Pedestrian / Cycle routes nearby	A few uncoordinated routes that may be unsafe, poorly designed or that do not conveniently link with the main residential areas nearby	Moderate number of basic pedestrian / cycle routes linking site to centers of residence	Good number of co-ordinated routes that link to most of the residential areas nearby and are well designed and safe to use.	Excellent variety and number of routes linking the site to all residential areas in the vicinity, are safe to use, direct and are well designed / maintained
15. Proximity to areas of economic deprivation / high unemployment	Within 20+ minute walk of bottom 15% deprived LSOA IMD 2007	Within 20 minute walk of bottom 15% deprived LSOA IMD 2007	Within 15 minute walk of bottom 15% deprived LSOA IMD 2007	Within 10 minute walk of bottom 15% deprived LSOA IMD 2007	Within 5 minute walk of bottom 15% deprived LSOA IMD 2007
16a. Existing congestion on surrounding Strategic road network	Very High	High	Moderate	Low	Very Low
16b. Existing congestion on surrounding local road network	Very High	High	Moderate	Low	Very Low

Methodology used for Assessment: Arup; Highways Agency; Bolton Council (Highways Officers)

The quality of the strategic access and catchment was assessed using the criteria above.

- Site visits were undertaken and each site was assessed against each criteria and related definitions.
- Additional desk based GIS assessment was undertaken to assess the proximity of public transport provision against the criteria above. The GIS Analysis included GIS layers provided by Bolton Council including: **Bus stops, Railway Stations and the bus route frequency polygons.**
- GIS layers based on the **Index of Multiple Deprivation 2007** were provided and an assessment of the site's proximity to the 15% most deprived LSOAs was provided.

- A database containing site information and plans of each of the sites was provided to the highways Agency and to Highways Officers at Bolton Council. The Highways agency provided: a scored assessment matrix for this criterion and a technical report providing justification and highlighting key issues for existing congestion on the strategic road network.
- Highways Officers at Bolton Council provided a scored assessment matrix providing an assessment of existing congestion on the local Road network.

B1.7 Environmental Sustainability

Criteria	Score				
	1	2	3	4	5
17. Previously developed in whole or part	100% Greenfield Site	Site predominantly greenfield (more than 70%)	Greenfield/Brownfield roughly 50/50	Site predominantly brownfield (more than 70%)	100% Previously Developed Land
18. Location: Sequential Test	Rural	Suburban Fringe/Semi Rural	Suburban	Edge of Town Centre	Town/City Centre
19. Flood Risk	EA Maps suggest > 1/2 site at risk from flooding (1 in 100 or greater)	EA Maps suggest < 1/2 site at risk from flooding (1 in 100 or greater)	EA Maps suggest >1/2 site at remote risk from extreme flooding (1 in 1000)	EA Maps suggest <1/2 site at remote risk from extreme flooding (1 in 1000)	EA Maps suggest area at no risk from flooding
20. Environmental constraints	National Park, AONB, SSSI, Listed Building Designation on the site. Site of Biological Interest or Conservation area Designation on the site, Green Corridor or Local Nature Reserve				No environmental constraints or designations

Methodology used for Assessment: Arup

The quality of environmental sustainability was assessed using the criteria above.

- Site visits were undertaken and each site was assessed against each criteria and related definitions.
- Additional desk based GIS assessments was undertaken to assess flood risk. The assessment of flood risk included GIS analysis using Environment Agency's **Flood Risk Zone 3** and **Flood Risk Zone 2** GIS layers were used to assess each site.

B1.8 Other Policy Considerations

Criteria	Score				
	1	2	3	4	5
21. UDP Status	Greenbelt	Protected Open Land or Recreational Open Space	Green belt village infill limit or major developed site in the greenbelt		Urban Area
Methodology used for Assessment: Arup					
The location of sites was compared to the current designation in Bolton's UDP Adopted April 2005					

Appendix C

**Major Private Sector
Investors in Bolton**

C1 Major Private Sector Investors in Bolton

Table 31 below is drawn from Bolton's Employment Land Study: Stage 1 produced by Bolton Council's Regeneration and Economic Development Division in January 2008 and provides the details of the major private sector investors in the Borough. The table below shows the key employers in the Borough in terms of the number of employees. The table shows the employers with more than 250 employees and these have been ranked with the highest number of employees first. Retail organisations and public sector organisations have been removed from the table. The source for this data is Focus Information Ltd (2007). Bolton Council contacted the top twenty companies in terms of number of employees at the end of July last year to provide with an update of their employment figures.

Table 31: Major Private Sector Investors in Bolton

Business	Address	Locality	Post Code	Activity	Employees at location
Warburtons Ltd	Eatmore Bakeries, Hereford Street		BL1 8JB	Bakers - Mfrg & Wh'sale	2200
Vertex Data Science	Manchester Road		BL3 2QN	Secretarial Services	1500
Royal Bank of Scotland	Calvin Street, The Valley		BL1 8PB	Financial Services	1020
Greenhalgh's Craft Bakery Ltd	Bee Hive Industrial Estate, Crescent Road	Lostock	BL6 4BU	Bakers & Confectioners-Retail	1000
EON	Manchester Road		BL3 2QN	Utilities	650
Axa	4 The Parklands	Lostock	BL6 4SD	Insurance - Other	500
Bernstein Group Holdings Ltd	Silburn House, Great Bank Road, Wingates Industrial Estate	Westhoughton	BL5 3XU	Kitchen Planning & Installation	500
Cmp Batteries Ltd	Po Box 1		BL5 1DD	Battery Mfrs & Suppliers	500
Delphi Research Ltd	3-3a Crown Street		BL1 2RU	Market Research & Analysis	500
Duval Security Ltd	3rd Floor, Capitol House, Churchgate		BL1 1LY	Security Services & Eqpt	500
Georgia Pacific Gb Ltd	Stadium House, 2 Eastgate Approach	Horwich	BL6 6SY	Disposable Product Mfrs	500
Home Delivery Network Ltd	Lorne Street	Farnworth	BL4 7LF	Home Shopping	450
Cruttenden And Sons	45 Melrose Avenue		BL1 5NA	Property Overseas	400
Keoghs	2 The Parklands	Lostock	BL6 4SE	Solicitors	400

Business	Address	Locality	Post Code	Activity	Employees at location
M B D A Uk Ltd	Lostock Lane	Lostock	BL6 4BR	Engineers-Industrial	400
Park Cake	Bakewell Works, Duckworth Street		BL3 4DY	Bakers - Mfrg & Wh'sale	400
Statesides Foods Ltd	31-32 Great Bank Road	Wingates Ind Est Westhoughton	BL5 3XU	Food Mfrs & Suppliers	400
Reality Group	Crescent Road		BL3 2JT	Catalogue Shopping & Mail Order	380
The Verna Group Ltd	Folds Road		BL1 2TX	Medical Eqpt & Machinery Mfrs	370
Gresham Office Furniture Ltd	Lynstock Way	Lostock	BL6 4SA	Office Furniture	350
Hamson & Co	42 Devonshire Road, Heaton		BL1 4PQ	Lighting Consultants	350
Watson Steel Structures Ltd	Lostock Lane	Lostock	BL6 4BL	Steel Fabrications	350
Debt matters Plc	Mansell House, Aspinall Close	Horwich	BL6 6QQ	Debt Advice & Counselling	300
Torex Retail	Unit 19, 21, Barrs Fold Road	Westhoughton	BL5 3XP	Cash Register & Till Suppliers	300
First Packaging Ltd	Unit 6, Wadsworth Industrial Park, High Street		BL3 6SR	Paper & Board	280
Peter Hunts Bakery Foods	Unit 14, Lyon Road Industrial Estate	Kearsley	BL4 8NB	Caterers	280
Edbro Plc	Nelson Street		BL3 2JJ	Commercial Vehicle Accessories & Components	260
Bolton Plastic Components Ltd	Lever Street		BL3 6NZ	Plastics-Moulders	250
Leigh's Paints	Tower Works, Kestor Street		BL2 2AL	Paint, Varnish & Lacquer	250

Appendix D

**Mills Demolished or
Converted to Non-
Employment Uses
1998-2008**

D1 Mills Demolished or Converted to Non Employment Use 1998-2008

Table 32: Mills Demolished or Converted to Non-Employment Use 1998-2008

Mill	Year	Floorspace lost (sq. m)	Use
New Stone Mill North	1998	714	Part of Car showroom site
Eagley Mill No.1	1999	6,230	Residential Conversion
Eagley Mill No.3	1999	8,540	Residential Conversion
Eagley Mill No.3	1999	17,562	Residential
Eagley Mill No.4	1999	6,793	Residential
Eagley Mill No.5	1999	938	Residential
Eagley Mill No.6	1999	834	Residential Conversion
Gibraltar Mill	1999	8,661	Primary school
Albert Mill	2000	6,632	Residential
Hill Fold Mill	2000	12,805	Residential
Hope Mill (Farnworth)	2000	1,793	Residential
Irwell Bank Paper Mill	2001	18,935	Residential
Wallsuches *	2001	10,722	Residential Conversion
Kershaw Mill	2004	17,427	Supermarket
Causeway Mill	2005	13,475	Residential
Hope Mill (Tonge Fold)	2005	462	Part of Car showroom site
Phoenix Mill	2005	2,092	Residential
Russell Mill	2005	3,675	Residential
Hill Mill *	2006	5,706	Residential
St John Holdens Mill	2006	42,804	Residential Conversion
Creams Paper Mill	2007	6,983	Vacant
Orient Mill	2007	3,928	Residential
Green Vale Works	2008	8,198	Residential
Total		205,909	
Total excluding Wallsuches and Hill Mill		189,481	

* Both Wallsuches and Hill Mill were taken into account in the data presented in Figure 2